Comparative Policy Analysis of Trends in Higher Education Aspirations, Access and Attainment Among Low-Socioeconomic Students Using Longitudinal Data Sets

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COMPARATIVE POLICY ANALYSIS OF TRENDS IN HIGHER EDUCATION
ASPIRATIONS, ACCESS AND ATTAINMENT AMONG LOW-SOCIOECONOMIC
STUDENTS USING LONGITUDINAL DATA SETS

BY

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Requirements for the Degree of Doctor of Philosophy
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ABSTRACT

Participation in higher education is often viewed as abstract numbers, comparing a single element of participation (rate of progression from secondary to higher/tertiary levels, percentage of total population, etc.). However, participation is made up of several interrelated variables, among them academic preparation, financial support, parental involvement and information – especially information and perception of the price of higher education to the student and his or her family. Those variables affect different cohorts of students in different ways. The purpose of this proposal for study is to determine how public policy for financial support affects the access to higher education and attainment of degrees for low-income/low-SES students in Australia, the Netherlands and the United States.
Dissertations are not solitary activities but the collaborative effort of a student and a cast of characters with whom she/he manages a process that results in a manuscript. To that end, I have been most fortunate to have an exceptional cast in my personal and professional life. To the faculty of the Education Leadership, Management and Policy program at Seton Hall University, my many thanks for helping me to see higher education and my potential role in it very differently. Special appreciation is felt for Dr. Joseph Stetar for setting the bar high and demanding my best work, while providing wise counsel and strong support every step of the way. To Dr. Martin Finkelstein, many thanks for your insights into faculty and curriculum, and for sharing your special talents in making the obscure concrete and always reminding me that “so what?” is one of the most important questions a researcher can ask of his or another’s work. I felt indeed lucky to be in the presence and under the tutelage of these two great scholars and gifted teachers. To Dr. John Collins, thank you for your immeasurable patience and enthusiasm for teaching statistical methods; this study would not have been possible without your guidance.

To Dr. Mary Meehan, President of Alverno College, and Rev. Paul Holmes, Vice President of Seton Hall University, for your friendship and inspiration to start and finish my doctoral degree. You provided me the greatest examples of ethical leadership, scholarship combined with practice, and tireless work ethic that I could ever have imagined. I was truly lucky to share time with you and work for you at Seton Hall.

To the international research community that helped me obtain and understand data on students from Australia and the Netherlands, I am indebted to you for your
patience in my numerous questions and requests for information. Specifically, Dr. Uulf de Jong and Dr. Japp Roceleved at the University of Amsterdam. Ms. Tea Jonkman at the Informatic Beheer Groep, Dr. Ian Dobsen, Director of the Educational Policy Institute in Australia, and Ms. Sharon Turner, Research Officer at the Australia National University, were instrumental in my access to data sets and information to help me understand them.

To my parents, Warner and Marilyn Green, goes my love and gratitude. There were many times during this research when I realized how lucky I was to be raised in a family where higher education was an assumption, not an option, and where academic excellence and achievement was prized as highly as any trait or possession.

26 February 2006
DEDICATION

This dissertation is dedicated to my wife, Angie, whose sacrifices to help my follow my dreams are too numerous to ever mention in a single work. Thank you for showing me that social justice requires assertive action, and for believing in me. Beside every good man is a great partner, reminding him he is not alone.
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CHAPTER I

INTRODUCTION

Increasing access to higher education among students who may not otherwise participate is a frequent topic of public education policy in the United States. From presidential commissions after World War II (Kerr, 1989), through Lyndon Johnson's Great Society programs and legislation of the 1960s (namely, the Civil Rights Act of 1964 and the Higher Education Act of 1965) and beyond, public policies have aimed to provide open doors and financial support to low-income and underrepresented students.

This study is set into the context of comparative higher education studies, generally, and policy studies on the funding of higher education. Broadly, it can be set into the work of Burton Clark, in looking at case studies of international universities and their attempts to adapt to changing environments and pressures, using case study approaches to do so (Clark 2001, 2003). Philip Altbach also uses international universities to explore how the issues abroad may be impacted by dominant educational forces (American or European) and the centrality and periphery of international education issues, especially those works that relate to the development of educational systems and institutions (Altbach, 1998; Altbach & Davis, 1999).

Altbach is also one of at least two persons to head university research centers that focus on the study of comparative international education with specific themes of international finance. The Boston College Center for International Higher Education, of which Altbach is the director, covers a broad array of comparative issues. Among them are marketization and economic themes. In its journal, *International Higher Education*, a
section is devoted to this theme. Its Winter 2006 issue devotes four articles to this theme, including one specifically on loans and their growing role in funding higher education (Tilak, 2006). Bruce Johnstone heads another center at the State University of New York at Buffalo which focuses on comparative finance and affordability issues (SUNY-Buffalo, 2006). In addition to Johnstone’s own work in understanding the comparative nature of funding in higher education (Johnstone, 1986), the center provides open access to information on country profiles (important for understanding the context of funding within a country), as well as articles and resources on comparative finance.

This study sits more specifically within other studies on national and comparative finance and pressures of affordability and access. Starting with Alex Usher’s work to compare countries across some basic measures (Usher 2005a, 2005b; Usher & Cervenak, 2005), this work starts to establish specific areas of comparison, such as loan debt, cost and access rates for students. Within countries, policy studies that examine longitudinal impacts of policy change examine changes in student access and potential links to issues of financing (Coates & Krause, 2005; Ficklen & Stone, 2002; Gladieux, 1996; Vossensteyn, 2004). This study seeks to understand changing patterns of student access and attainment within three countries and to look for similarities and differences between those case studies to determine how changes in student finance policies corresponded with similar or different patterns of student access and attainment.

Since grant, work-study, and loan programs were legislated in the 1960s, and funding was provided for all programs in 1972, questions of who should receive assistance through federal programs have been posed. In 1978, the Middle Income Student Assistance Act expanded federal benefits to those above the low-income targets
of the original legislation. Since that time, the ratio between grant and loan funding has changed and the value of a federal grant against the cost of college has decreased (St. John, 2003).

Access to higher education is made up of several interrelated variables, including academic preparation, financial support, parental involvement, and information (St. John, 2003). Access to higher education is just the first step toward baccalaureate degree attainment, where financial support, academic integration, social integration, support of family and friends, and goal clarity are significant factors (Tinto, 1987). Financial support becomes a common element between the significant factors that contribute to both access and attainment issues. Not surprisingly, college completion rates for low-income students in the United States are not as high as other they are for college students in higher income groups.

The United States is not the only country asking hard questions about who should benefit from programs aimed at increased access and attainment, nor is it alone in making public policy choices about who will receive federal support and what types of aid will be provided. Two other countries, Australia and the Netherlands, have made different choices about how they support students and institutions in an environment of constrained resources. Like the United States, they provide loan and grant programs to students. Unlike the United States, they provide federal support directly to institutions, lowering the portion of educational costs borne by students and parents. American states provide support to public and, in some cases, private institutions (in very limited amounts) in the United States, but this varies state by state and eliminates any notion of a national system of higher education.
Australia regulates the costs paid by all students in national universities in a hierarchical structure. In 1974, higher education was made free to all qualified students. Then, in 1988, a new system was put in place called the Higher Education Contribution Scheme (HECS), under which students were required to pay tuition that was set at 20% of the cost of education. Student loans were incorporated into this system; the collection of these loans was assigned to the Australian income tax system, such that repayment could be directly tied to minimum income levels. In 1997, this single tuition rate was replaced with a new hierarchical structure, where degree programs likely to provide higher incomes after graduation were priced at a higher rate and programs of national priority for increasing the labor force or those with projected lower rates of income were priced at a lower rate (Jackson, 2001). Grants were made available for low-income students and the tuition costs for all students may be amortized through income-contingent loans collected after studies through the national tax collection system. In 2000, the loan repayment scheme was altered to reflect more closely the subsidized Stafford loan program in the United States. Interest on these loans was deferred during enrollment periods for all students. However, different than in the United States scheme, low-income students were eligible for a lower interest rate on these loans and the rate was frozen for repayment, while students in higher income brackets repay their loans at a variable interest rate tied to inflation (Bar, 2001).

The Netherlands regulates tuition rates for low-income students at national universities and provides grants to all college students. The grants are issued initially as loans and are based on satisfactory academic performance and timely degree completion. If the recipient maintains academic progress toward a degree and completes a bachelor’s
degree within 10 years, the loans are forgiven (converted to grants). Otherwise, they become loans that must be repaid to the federal government. Students are eligible for loans to pay any remaining costs, the repayment of which is deferred until leaving higher education.

The United States has a complex system of aid to students that combines state and federal sources of support. There is no national support to institutions to offset the education costs and no federal regulation of prices, although some states set tuition rates for their public institutions. These public institutions may be supported by their states in small or large ways. For example, states provide public education at low cost through community colleges and at reduced rates through state-controlled universities. Some states provide limited support to independent institutions, as well. Federal support for educational costs is made directly to students through grant, work-study, and loan programs.

As higher education prices vary greatly in America, the proportion of educational costs covered by these programs also varies widely. Additional loan programs are available to parents of dependent undergraduates and private loans are also available. These additional loan programs are based on credit worthiness of the borrower and are not guaranteed to parents or students.

The complexity of price and support may be the greatest difference in access and attainment for low-income/low-SES students in the United States and other countries. In Australia and the Netherlands, for example, students are able to determine the costs they will have to pay for a baccalaureate degree from a university with great transparency. In the United States, however, where prices are not centrally controlled at the national level
and only somewhat controlled within state public systems (and completely unregulated for the roughly 20% of students who seek degrees in private institutions), it is incumbent on the individual student and parent to determine the price of higher education. As low-income students in the United States are more likely to come from homes where one or both parents do not hold college degrees (U.S. Census Bureau, 2001), they are less likely to have parental influences and assistance to navigate the cost/aid nexus in determining the net price for enrollment.

Australia, the Netherlands and the United States have approached the issues of price and support in three different ways. Each has also made policy decision about price and support in an environment of rising costs and constrained resources. This study proposes to examine the public policies for higher education financing made by these three countries and the corresponding rates of participation of low-income/low-SES students. Through this, possible best practices may be gleaned that could inform public policy choices for Australia, the Netherlands, the United States, and other countries.

Rationale for Country Choice

The United States serves as the basis of comparison for this study, due to the author’s career-long exposure to, familiarity with, and study of student financial aid programs and low-income students. Literature review revealed the other two choices. Australia appeared prominently as a country where a unique approach to higher education funding had been implemented. It also revealed several studies utilizing longitudinal data sets similar to longitudinal studies in the United States. These are discussed further in the
literature review and in the following problem statement. While it appeared possible to conceive of a study that would compare these two countries, another question arose: How would low-income students react to policy changes in an environment where education had traditionally been and in many cases remains free?

The continental European model of free education and limited places appeared a reasonable place to start this investigation. At the same time this question was being posed, a new study ranking the access and affordability of various developed nations was released (Usher & Cervenak, 2005). Here, the Netherlands appeared as the most accessible country and third most affordable country for higher education. Only Finland held a combined ranking (second in both categories) as high as the Netherlands. Here, however, the financing scheme has included loans since 1960 as part of student assistance. Financial aid is needs-tested, meaning that the amount of support and the related net costs are unknown to students prior to their application for it (Finland Ministry of Finance, 2005). The Netherlands had not utilized loans as part of the basic scheme of student support until more recently. Either country could have been considered for study. However, the Netherlands model contained a historically “free” educational model, modified in 1996-97 from constraints in funding. For this reason, it was chosen as the third country for this study.

Access to Higher Education for Low-income Students

The reasons to pursue higher education vary and are dominated by two theories: the development of human capital and its associated economic returns (Blondal, Field, &
Girouard, 2002). Generally, the attainment of a tertiary/baccalaureate degree expands an individual’s employment opportunities and is associated with a higher level of income in every developed member nation of the OECD (Organization for Economic Cooperation and Development, 2004a). If human capital can be developed by participation in higher education, then the expansion of access should translate into a higher standard of living for the general population. The theory of human capital development includes an inherent assumption that the improvement of the standard of living is a positive outcome and worthy of pursuit. The economic theories that support higher education include an inherent assumption that the returns to society (less reliance on social services, contribution to the tax base, increased participation in the market economy of expansion of resources and consumption) are also worthy pursuits. For the purposes of this research, those assumptions will be accepted and the foundation of the view that increased access to and attainment of a baccalaureate education is a worthy goal, supported by evidence of outcomes of attainment in literature that supports these assumptions.

Expanding access to the general population would imply that all people from all economic groups would enjoy greater access to higher education. However, we can slice this further to examine a theory of the special nature of access for students from low-income backgrounds. In his “Theory of Justice,” Rawls states this as moving upward from original position to an educated one, where reliance on social welfare decreases and the contribution to society increases (Rawls, 1971). Here, the resources from higher income groups are used to provide social benefits (education among them) to the lowest income groups. Following this theory, expanding access would be focused on low-
income groups, such that their human capital development would have the greatest impact on society at large.

Expanding access to higher education and providing mechanisms to move low-income or low-socioeconomic (SES) students is not without conflict. Few higher education institutions in the United States have the resources to meet full financial need and attract high-achieving students through merit aid (McPherson & Shapiro, 1998). Conflict between the benefits of higher education and the payment for those benefits arises when resources are scarce, resulting in hard choices on the types and levels of funding available to students. When the level of benefits to poorer persons is perceived by the taxpaying public to be excessive, "social envy" erupts and resentment of those benefits ensues (Alexander, 1974; Boudon, 1976). This conflict forms the backdrop to the issues of access for low-income students in the arena of public policy, where choices about support for higher education institutions and students are made in an environment of constrained resources.

Transparency of access to higher education is an area where clear differences exist between the United States and other countries. To understand these differences, it is important to examine the clarity of price in both up-front and net costs to students and their parents, as well as academic preparation issues (qualification to enroll in higher education). For comparison, two other countries, Australia and the Netherlands, have been chosen.

Both countries have a much clearer and simpler system of support for students and higher education institutions. Australia chose a fixed-price and loan system known as the Higher Education Contribution Scheme (HECS). The Netherlands maintains a
continental European model of free higher education and limited places. Faced with students taking many years to exit the higher education system, their policy choices involved the mechanism for providing a grant for baccalaureate study, such that academic progress was required to prevent the grant from becoming a student loan. Here, all three countries use loans as a means to assist students in financing some part of their educational expenses. As we shall see, loans are perceived differently and more negatively by low-income students and thus may serve as a barrier to higher education for them. However, the Netherlands has maintained a general reputation for access and affordability that exceeds the United States and Australia (Usher & Cervenak, 2005).

Entry into higher education, that results in a baccalaureate degree can be initiated in different ways, depending on the system or options for higher education in each country. One helpful framework for viewing entry into and completion of a baccalaureate degree in the United States can be found in Tinto’s work on degree attainment (Tinto, 1987). Here, Tinto shows that some students enter directly into baccalaureate-granting institutions and others begin in community colleges, transferring to baccalaureate-granting institutions later (as well as between baccalaureate institutions). There are also multiple paths to the baccalaureate degree found in the Netherlands, where students may enter directly into universities or into professional schools. These professional schools (known as HBO) offer an optional track to transfer to the university, based on performance levels early in these studies. Australia offers a single track to the degree, but students may enter universities as returning adults or directly from secondary institutions.
In Australia, preparation is certified through examinations administered by each state in the country. These examinations form the basis for rankings associated with each state’s test. Higher education providers in Australia (44 universities) provide their historical cutoff points of these rankings as a guide to assist students in choosing a national university\(^1\). The University of Notre Dame Australia is the lone provider which states that they also consider other characteristics of a student’s background in admission and that the tests are just one portion of the entrance evaluation. All others simply provide their historical cutoff levels.

Dutch secondary students must complete a pre-university course of study (known as VWO), one of four possible secondary school tracks\(^2\). Any student who completes this course is eligible for entrance into one of the country’s 13 research or agricultural universities. Students who complete the first year of other higher education (HBO), a designation for institutions that specialize in professional programs, are also eligible for admission. No further examinations or reviews are required for general entrance but many specific academic programs require examinations. The roster of potential examinations are similar in scope and name to many of the College Board’s SAT II examinations and AP examinations available to students seeking entrance into American universities (College Board, 2005a, 2005b; Informatie Behoort Groep, 2005). Medicine and dentistry programs among just a few that are limited in the number of places available for pre-university or HBO-qualified students. The HBO track to the university baccalaureate degree may have resemblance to the community college function in the United States, in that students may start on that track with the intention of transferring to a university. However, there is no literature or research to test Burton Clark’s cooling out
effect here. We do not know the number or types of students who may have that intention here, where there have been several studies since Clark which ask students entering American community college: their intentions and ultimate goals.

American students have no standardized national system of entrance and the potential number of baccalaureate institutions far outnumbers those in the Netherlands and Australia. Rather, institutions are able to select their students in a somewhat autonomous fashion, save for the mandates or controls imposed by states or local governing boards of public institutions. Many institutions will require a standardized examination of college entrance capabilities, using the College Board’s SAT Test of Reasoning or the ACT assessment. However, the scores required for admission are highly varied and are not the sole determinants for acceptance to either individual institutions or academic programs within them. Given the variety of institutions and lack of clarity regarding test scores or secondary marks required for entrance, Asia’s framework for selectivity (open admission through highly selective in five grades) has been widely adopted in college guidebooks and in research reports completed by the National Center for Educational Statistics (Azizi & Herzon, 1977). This framework allows students, their parents, and high school guidance personnel one way to assess the likelihood of admission to an institution. Broadly, however, it is also helpful to consider Adelman’s index of college qualifications from a research standpoint (Adelman, 1999). Using this index, we can assess the qualifications of students as being generally qualified or not qualified for admission to college in the United States. Given the complexity of the system and lack of national standards, this framework will become important in the
comparison of student access between countries, as qualifications for higher education are clearer in Australia and the Netherlands.

While the process or indication of access potential and general systems of student finance has been examined to this point, the specific issues for low-income students and connection between finance and qualifications for entry can be conceived well through St. John’s balanced access model (St. John, 2003). This model proposes that there are five key linkages in student and parent perceptions of college affordability and, as a result, students act prepare for and attend college based upon the combined perceptions of themselves and their parents that college is affordable or not affordable. If they perceive that college is not affordable, they are less likely to take the steps necessary to attend college, such as filing applications for admission or pursuing a college-preparatory curriculum in high school.

There is evidence that low-income students, generally, are more sensitive to price and more receptive to gift aid over self-help forms, especially loans (Manki & Wise, 1983; McPherson & Shapiro, 1991; Terenzini, Cabrera, & Bernal, 2001; Tierney, 1980). The proximity to a place of employment can also influence access, as low-income students are more likely to rely upon earnings to pay some educational costs, further limiting institutional choice options (St. John & Paasen, 2002). One result of this is, in the American higher education system, was initially a higher propensity for enrollment in public institutions (Tierney, 1980) and is now the higher enrollment of low-income students in 2-year colleges, public and private (Heller, 2004). Generally, low-income American students are less likely to enroll in any college after completion of high school (Wirt et al., 2005).
Table 1

<table>
<thead>
<tr>
<th>Family Income Level</th>
<th>Total persons</th>
<th>Total enrolled</th>
<th>2-year higher education</th>
<th>4-year higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>In October 1999</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $25000</td>
<td>2601</td>
<td>714</td>
<td>27.5%</td>
<td>283</td>
</tr>
<tr>
<td>$25000 to $74999</td>
<td>6319</td>
<td>2819</td>
<td>44.6%</td>
<td>845</td>
</tr>
<tr>
<td>At least $75000</td>
<td>3665</td>
<td>2243</td>
<td>61.2%</td>
<td>441</td>
</tr>
<tr>
<td>Unreported</td>
<td>1401</td>
<td>761</td>
<td>54.3%</td>
<td>185</td>
</tr>
</tbody>
</table>

*Note: Data for this table come from Current Population Survey 1999 (U.S. Census Bureau, 2001). Numbers are x 1000.*

As St. John focuses on the perception (accurate or inaccurate) of unmet need in his model, it is important to evaluate the actual levels of unmet need in today’s higher education landscape. Mortenson provides analysis of unmet need by income levels in the
United States, as well as the actual costs of attendance as a percentage of parental income.

From these data, we can see that the model suggested by St. John would imply that low-income students may accurately perceive that their unmet need is higher than average (Figure 1) and that the costs of higher education attendance are more acute as a percent of their household income (Figure 2).

Australia has also seen effects of low-income or socioeconomic status and college access. Large in geographic size, like the United States, proximity to a university was a factor limiting access. Most students of low-income lived at home and have lower access to national universities, if coming from rural areas (Ramsay, Tranter, Charlton, & Sumner, 1998). While lower income was also found to have a significant effect on access, the expectations and occupations of parents were found to have a slightly greater effect on student behavior (Marks, Fleming, Long, & McMillan, 2000). This provides support for St. John's balanced access model as moving beyond application to American students.
Figure 1. Unmet financial need by parental income and sector 2003-04. This table is taken from Pre-secondary Education Opportunity (Mortenson, 2005), and is reprinted with permission of the author.
Figure 2. Net price to family as a percent of parents’ income by parental income and sector 2003-04. This table is taken from Postsecondary Education Opportunity (Mortenson, 2003) and is reprinted with permission of the authors.
In looking at issues of participation in the Netherlands, it is necessary to look at the opportunities for low-income student funding to reveal information on enrollment trends of this group. To receive the supplemental grant, students must be enrolled in full-time studies and be means-tested to qualify as needing additional financial support, a proxy for low-income status (Vossesteijn, 2004). Figure 3 shows overall enrollment trends and the number of students qualifying for the supplemental grant.

From this chart, we see that the total enrollment of students has increased steadily since 1999, yet the number of students who are likely low-income has decreased. The Ministry of Education, Culture and Training explains this decrease as "demographic trends," without further definition of these trends. Two possible explanations arise: (a) The general wealth of Dutch citizens has risen, or (b) The distribution of wealth in Dutch society has become more even.
Figure 3. Full-time baccalaureate enrollment and supplemental grant recipients in the Netherlands, 1999-2003. Data for chart is taken from Key Figures 1999-2003 (Ministry of Education, 2004).
The Eurostudent 2006 survey queried students in several countries and included questions on income (expressed in ranges, not fixed amounts) to determine the proportion of students coming from the lowest quarter of the population (Schnitzer & Zempel-Gino, 2000). See Figure 4.

From this chart, we can observe that no country in this study has representation of students in the lowest income quartile equal to their proportion of the general population (≥ 25%). Students from the Netherlands (NET) can be assumed to be largely from families in the top three income quartiles, given the low percentage from the bottom quartile, even though their overall access and affordability is strong (Usher & Cervenak, 2005).

Given this survey estimate of students from the lowest income quartile, it is important to compare that with overall participation of students in higher education in the Netherlands. OECD statistics inform us that between the ages of 18 and 19, when students would transition from upper secondary to tertiary education, the rate of participation is between 18 and 27% (Organization for Economic Cooperation and Development, 2004a). The 9% estimate above reflects a lower representation of low-income students, even accounting for some attrition in the tertiary system.
Figure 4. Percent of selected EU country higher education students from the lowest income quartile. Data for this chart are taken from *National Profiles, Euro Student 2000* (Schutze & Zempel-Gino, 2000).
Recently, the Netherlands was ranked as the third most affordable and the most accessible country in the developed world for higher education (Usher & Cervenà, 2005). However, as the issue of tracking participation by income hindered this study, a proxy was used by using the average attainment level of persons between ages 25 and 35 with Tertiary Type A (level 5) education under the ISCED system of internationally equivalent educational levels (Organization for Economic Cooperation and Development, 2004b; UNESCO, 1997). The education attainment level of the father was found to be a statistically significant predictor of dependent participation in Usher and Cervenà’s study and was therefore factored into the equation of accessibility, among other factors that contribute to socioeconomic status. The lack of income trend data may mask the effects of access and affordability (transparency of price) for low-income students in the Netherlands.

According to Dr. Uulkie de Jong, Professor of Social and Behavioural Sciences at the University of Amsterdam, additional literature on access, income and socioeconomic status has been written, as it is a topic of interest among Dutch researchers and the government. However, according to de Jong, the Ministry of Education, which funds a good deal of the research conducted in this area, requires that reports and papers be written in Dutch. For this reason, their availability is limited to Dutch speakers/readers and this creates a limitation in this study.
The early work of Vincent Tinto on college departure (Tinto, 1987) suggests that college departure's main effects are preparation and income. At the time of his study, preparation was the dominant variable in predicting college success, when issues of race and income (which he labeled as socioeconomic status or class) were compared to preparation. His analysis was taken from data on the National Longitudinal Study of the High School Class of 1972 (NLS-72). However, in his more recent writings, the influence of income has a dominant effect on the inception or starting place of higher education (low-income students are more likely to begin in 2-year institutions) and on student rates of completion (Tinto, 2004).

Similar evidence is found in the Netherlands, where two changes in student support in 1996 resulted in a lower probability that students would begin their studies in a university. First, the *performance grant* was altered, such that students who did not meet its criteria for course completion would have this grant converted to a loan (Blot, Canton, & Webber, 2003). Second, the time allotment for receipt of the loan was shortened from 5 to 4 years. Students became more likely to begin their studies in the higher professional education institutions, where the duration of studies more closely conformed to the maximum time allowed for financial support under the changed support system. When the change was rescinded in 2002-2003, the result was an increase in student retention of 2%, even though student hours outside the classroom and part-time work increased (Blot, Canton, & Webber, 2004). This study, however, did not examine the effects of the change as they applied to students at varying income levels.
Table 2

**Student Attainment Rates, by Income Level, 1995-96, U.S.**

<table>
<thead>
<tr>
<th>Family income in 1994</th>
<th>≤4 years</th>
<th>&gt;4 years</th>
<th>6-year</th>
<th>≤4 years</th>
<th>&gt;4 years</th>
<th>6-year</th>
<th>total</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$25,000</td>
<td>23.5%</td>
<td>23.3%</td>
<td>46.8%</td>
<td>25.8%</td>
<td>28.1%</td>
<td>53.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$25,000 - 49,999</td>
<td>32.1%</td>
<td>20.2%</td>
<td>52.3%</td>
<td>33.8%</td>
<td>25.4%</td>
<td>59.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$50,000 - 69,999</td>
<td>36.8%</td>
<td>23.0%</td>
<td>59.7%</td>
<td>38.8%</td>
<td>28.8%</td>
<td>67.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ $70,000</td>
<td>45.9%</td>
<td>21.5%</td>
<td>67.5%</td>
<td>49.7%</td>
<td>27.0%</td>
<td>76.6%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Source: Descriptive Summary of 1995-96 Beginning Postsecondary Students: Six Years Later (Berkner, He, Cialdè, & Knepper, 2002)

Australian students in lower socioeconomic groups also complete their education at lower rates than their counterparts in higher SES groups, generally. Students in the 1992 entering cohort demonstrate a clear pattern of increasing degree (course) completion as the SES status rises (Figure 5).
Figure 5. Australian academic outcomes of entering 1992 undergraduates by socioeconomic status. This table is taken from *Completeons: Academic Outcomes of 1992 Commencing Students* (Urban et al., 1999).
A Matter of Importance for the United States: Demographic Trend Projections for the Near Future

Why are issues of low-income access important to policy makers in the United States? According to projections of population growth over the next several years, the number of students graduating from high school will increase sharply, as seen in Figure 6.

Figure 6 not only reveals a growth in low-income (here, less than $20,000) and lower middle-income students (here, between $20,001 and $50,000) but also a sharp rise in the number of middle- and high-income students. Not only will pressure increase to fund the entitlements of federal Pell grants, but student loans, used predominately by middle-income students, are also likely to rise. This will place pressure on the balance of gift and self-help aid, as federal policy-makers attempt to ration scarce resources. The debate over the benefit to society and development of human capital will beg the question: to whom should access be maintained or expanded in an environment of constrained resources?

What can American policy-makers learn from the practices and outcomes of higher education funding in Australia and the Netherlands? Several questions arise in attempting to study this issue.
Figure 6. Actual change (1996-97 to 2000-01) and projected change (2001-02 to 2012-13) of public high school graduates by median family income. This chart is taken from *Knocking at the College Door* (*Western Interstate Commission for Higher Education*, 2003).
Research Question

When national policies regarding price and support for student finance change from more grant-based programs to more loan-based programs, are there observable trends among low-income students who are more sensitive to price and loans?

Subsidiary Questions

1. What are the characteristics of low-income students and what are their rates of participation in and completion of higher education in each country?
2. When specific significant changes in national higher education funding policies (price structures and student financial aid) occur, what are the effects of these policies on participation of low-income students?
3. What are the significant trends in the funding of education costs in higher education and how have these trends affected the participation of low-income students?
4. Does the ratio of gift aid to cost have any relationship to the participation and completion rates of low-income students in these three countries?
5. If one or more national policies appears to be associated with higher levels of access and/or attainment of low-income students, what are the opportunities or limitations of application to other countries in this study?
Definition of Terms

Low-income: The lowest quartile of income for the population of a given country, as measured by census data.

Low-SES: Having a combination of risk factors, including but not limited to low-income, parental attainment of higher education degrees, rural or isolated residence, and underrepresented status by racial/ethnic group in higher education.

Access: The ability or rate of students commencing into a higher education system where a path to a baccalaureate degree exists, either by entry into a higher education institution that offers a baccalaureate degree or an institution where articulation to such an institution exists.

Attainment: The receipt of a baccalaureate degree

National higher education funding policies: The aggregate set of policies that determine the percentage of educational expenses paid by public sources and the remaining amounts to be paid by students and their families. Depending on the structure of higher education in a given country, this may include state aid.
CHAPTER II

LITERATURE REVIEW

The value of higher education to societal improvement is the theoretical basis for this study. In that regard, the evidence of differences between those who achieve a baccalaureate degree and those who do not is important. Perhaps the most compelling evidence of these differences comes from a follow-up report completed as part of the High School and Beyond study of high school sophomores in 1980 (Tuma, Geis, & Carroll, 1995).

In their follow-up study to panel research on high school sophomores in 1980, Tuma et al. (1995) discovered significant differences in certain social outcomes between those who achieved a baccalaureate degree and those who did not, regardless of when they began or completed that degree. Among their findings, degree recipients were more likely to be registered to vote and participate in both presidential and non-presidential elections than those without a baccalaureate degree. They were also more likely to be employed and had higher average earnings than their less-than-baccalaureate counterparts.

The study also provides some important support for the balanced access model of St. John (2003). Here, students whose parents did not have college degrees were much less likely to have aspirations for college as high school sophomores and much less likely to ever earn a baccalaureate degree through 1992.
Access to Higher Education

There are several models of college selection that attempt to explain the various influences shaping student access and choice. Hossler cites four major combined models of college choice (Hossler, Schmit, & Vesper, 1999):

1. The Jackson combined model: Three stages are present. In predisposition, economic theory prevails, where background characteristics and social context influence academic achievement. In exclusion, decisions are made to “rule out” potential institutions, sometimes irrationally or through lack of information, departing from economic theory. The final stage, evaluation, is where decisions are made regarding the remaining potential choices.

2. The Chapman model: Five stages (preschool, search, application, choice, and enrollment) are present. Both student and institutional characteristics, as well as the influence of others, shape the student’s expectations for college life (pp. 146-147).

3. The Hanson and Littman model: This is a complex model that attempts to show the multitude of variables present in the choice process and their role in the decision line from student aspirations to enrollment.

4. The Hossler and Gallagher model: Three stages are present here, similar to the Jackson model. The first stage is also called predisposition, although it uses social attainment models in synthesis to describe the economic tensions of college aspiration (earn versus learn, costs, characteristics, etc.). The search phase departs from Jackson and views this process not as one of excluding possibilities but of gathering information. The final stage, choice, is where the costs and benefits are weighed in light of the
information gathered. Notably, the decisions are assumed to be rational and consistent with the information gathered.

All four models suggest a time line of events, shaped by a combination of internal or inherent characteristics of a student's environment, such as parental income, parental attainment, academic achievement in secondary school, and demographic attributes. There is wide variety between them on the process used to gather, filter, and make decisions based upon the information gathered, as tempered by people of influence in their lives. However, the roster of influential persons is highly consistent and includes parents, close friends, and high school personnel (faculty and guidance).

The persons of influence can be described as a student's social capital in the context of college choice (Hossler et al., 1999). The level of education, for example, can influence student aspirations. The expertise of school guidance personnel can limit or expand the range of choice for students and broadens the concept of social capital outside the family unit. Social capital forms the basis of a fifth model, the information-processing model.

The roles of perception and influence are also present in a more contemporary (sixth) model of college choice, St. John's balanced access model (St. John, 2003). While drawing from many of the same constructs as noted in the previous models (time scale progression, influence of social capital, characteristics), St. John focuses on the perception of available financial aid and cost to drive decision-making in the family unit. Here, student and parent awareness of financial aid resources and costs form perceptions of unmet need that may or may not be accurate. However, these perceptions affect college-bound behavior. This model suggests that students behave in a manner consistent
with their perceptions of college affordability. They track either toward college in their secondary work and take steps to seek out and apply to colleges, or they drop off the college preparatory track and do not take college entrance tests, complete college preparatory courses or apply to colleges.

The effect of federal grants on low-income students has at least two interesting aspects. First, low-income students are more likely to attend college if receiving a federal grant than their higher income counterparts. However, and as a secondary result of this, recipients are more likely to attend 2-year colleges than 4-year universities. The receipt of federal grants encourages college attendance but does not necessarily increase baccalaureate attainment in the United States (Manski & Wise, 1983), once the “cooling out” effect mitigates transfer to a baccalaureate institution (discussed in greater detail in the following “Degree Attainment” section).

Australian researchers are also interested in the issues surrounding access for low-income students, as well as rural and indigenous students, compiled into a grouping called “equity” students and often referred to as “low-SES” or having low amounts of cultural capital. A longitudinal study of Australian youth was commenced in 1998 with 14,117 students in Grade 9 (Hilfman & Rothman, 2003). While some good data was gathered at the inception of the study, it neglected to collect family income data. A proxy for that is the educational level of fathers and mothers, where the father’s educational level was found to be statistically significant in predicting college participation (Marks et al., 2000). Follow-up studies were conducted on the cohort to determine outcomes. In 2002, there were several important findings:
1. The aspirations of students in their final year of secondary study did not align with the participation in university studies the following year, where 68% of students aspired to attend a university or vocational (TAFE) institution and 55% actually enrolled (only 4% enrolled in a TAFE institution).

2. The education level of the father was associated with postsecondary studies, where roughly 52% of the cohort had a father who completed secondary studies; yet the cohort who entered postsecondary education had fathers who completed this level at a slightly higher rate (54%). However, it is now known whether this level is statistically significant. This leaves in question the parental education level as a proxy for income.

A qualitative survey of at-risk students was conducted in 1992 to determine the potential impact of HECS on low-income, rural, non-native speaking, single-parent and foreign-born students (National Board of Employment, 1992). The sample was comprised of 3,463 students in Grade 12 and an additional 3,880 adult learners. Generally, the imposition of fees or debt for study was not found to be a significant factor for any groups in the study. Specifically, for those students who did not pursue further study, HECS ranked no higher than 11th out of 17 factors. For those who did enroll in higher education, it ranked no higher than eighth and only then for students from rural and low-income backgrounds or students from single parent families.

Another 2002 study assessed the impact of HECS and the three-tier system on low-income students (Aungles, Buchanan, Karmel, & McLachlan, 2002). This study supports other findings that HECS did not overall have a negative impact on low-income student access. However, the 1997 changes to HECS that introduced the more expensive
bands of study did have a negative effect on low-income male students, where there participation in law and medical fields fell by 22% between 1997 and 2001.

The collection of and proxy for family income of students in Australia is a persistent issue in various studies (Andrews, 1999). Household possessions at age 14, father’s educational status and parental occupations are some of the means used. Another method has been the use of postal code to approximate income by geographic location, based on indices developed by the Australian Bureau of Statistics and using Australian census data (Andrews, 1999).

All these methods have a significant flaw, however, as they assume that all students with these general attributes have the same income range. The postal code proxy was proven inaccurate in further studies completed in 1998, where surveys of family income were compared to postal codes to reveal the high rate of variation within them, especially in rural areas, where postal codes were developed in correspondence with the ease of delivering mail, as opposed to tight geographical groupings (Western, McMillan, & Durrington, 1998). It is important to note, however, that not other researchers support the use of postal codes as an income proxy, since Australia has census districts (a subset within postal codes) that provide a more accurate pinpoint for income clusters, geographically.

Further, the 1998 study demonstrated the statistical significance of various measures of socioeconomic status of 3,000 students, such that the occupation, skill level, and education level of the father, the occupation and education level of the mother, and the type of schooling (public, Catholic, or other independent) were appropriate proxies for socioeconomic status. More loosely correlated but significant indicators were income
and the status of holding a public health care card. When significant factors were modeled in a multivariate model, the highest level of education held by either parent, the father's occupation level and the secondary school type accounted for the greatest level of variance for dependent students (under age 25). For those over age 25, these were less predictive of higher education participation. Here, the student's own education level and occupation or those of a partner were more predictive, yet problematic. This failed to capture the student in career transition. The parental occupation and education were found to be "good enough" for use in further studies.

Although Chapman and Ryan claim improvement in their methodology on this subject, their report (Chapman & Ryan, 2002) contains a writing error. It refers to income quartile methodology in "footnote 6," yet the paper contains only five footnotes, all of which pertain to their respective places in the paper. This study may have utilized the improvements noted by Western, McMillan and Darrington above, but that is unknown. A later study by the same authors rejected some measures of Western but did incorporate the parental occupation and education variables (Chapman & Ryan, 2003). These results show that, over time, there is a consistent relationship between wealth and participation in higher education, although the rate of participation for low-SES students has risen slightly between 1988 and 1999.

The main purpose of the Australian studies was to assess any negative impacts of the imposition of tuition charges and income-contingent loans (student debt). Consistent findings in all studies show that HECS in its initial or revised (post-1997) state do not have negative impacts on low-SES students.
Access in the Netherlands has been studied with contrasting results and differences of opinion on the role of income as a variable in predicting student enrollment (Canton & de Jong, 2002). According to Canton and de Jong, one possible reason for this is incomplete variables in earlier studies that sought to associate socioeconomic status with participation in higher education. The studies which found conflicting evidence of income’s impact on enrollment all used longitudinal analyses as their basis. In their own evaluation of the impact of income on participation, Canton and de Jong found that it was mildly significant only for female students. They attribute the lack of significance in men and generally for all students to the relatively modest investment in cost for higher education in the Netherlands, when considering the substantial increases in salary represented by earning a baccalaureate degree. Financial aid to students had a positive impact on participation, although there was no segregation of data between gift and self-help aid.

In a 1995 study of cohorts of students in their last years of secondary studies in 1982 and 1991, income was not found to be a significant predictor of participation. Rather, the socioeconomic factor of parental level of education was found to be significant, especially the level of education for a father, as well as the prospect of future earnings (Oosterbeek & Webbink, 1995). This study also asked specific information about parental income, finding that there is a slightly lower expected rate of participation for students in the lowest income group. However, the differential between the lowest and highest income groups was 2.2%.
Baccalaureate Degree Attainment

There are many reasons for a student to leave the pursuit of a baccalaureate degree short of completion. Two predominant theories involve occupational attainment and status attainment (Pascarella & Terenzini, 1991). In the synthesis of major retention/attrition models by Pascarella and Terenzini, higher education becomes central to the opportunity for upward social mobility. The combination of parental and student characteristics, the student’s educational and occupational aspirations, fueled by the level of support and encouragement of teacher and parents, tempered by the plans of close friends, drive educational attainment and the resulting occupational status and income. Stated succinctly, it is the result of inputs (characteristics), environment (programs, policies, peers, parents, teachers, etc.), and outputs (results of exposure to college or attainment) that the student brings to and is influenced by in the college selection and participation process (Astin, 1993).

An alternative view of student attainment and departure can be found in economic models, where students weight the costs and benefits of college participation in an environment of scarce resources (Manski & Wise, 1983). Here, students must balance college participation against the ability to work and earn, as well as institutional quality, financial aid and the costs associated with attendance. In his 1987 survey of previous theories of departure, Tinto found that “all such theories emphasize the importance of finances and financial aid upon student retention” (Tinto, 1987).
The role of institutional transfer is another important aspect of degree attainment. In higher education environments or systems, the path to a baccalaureate degree may be direct (when a student begins and completes a degree in the same institution) or indirect (when a student starts at one institution and transfers to at least one more before completing the degree). The “cooling out” function cited in 1960 found that although nearly two thirds of 2-year college students aspired to attainment of a baccalaureate degree, only one third of them transferred to an institution offering one (Clark, 1960).

More recently, a longitudinal study of 2-year college students commencing studies in 1995 found that although 25% of these students specifically declared an interest in attaining a bachelor’s degree, only 13% attained one (Berkner et al., 2002). If the 2-year institution is viewed as the portal of entry for large numbers of students into the higher education system (Clark, 1960), the success rate of these students is very low. Even transfer between 4-year institutions was found to have a significantly negative effect on degree attainment (Pascarella & Terenzini, 1991).

Recent analysis of students from 1992 and their long-term outcomes suggests that one of the major determinants of degree attainment is the intensity of their high school curricula (Adelman, 2006). In this study, longitudinal data sets and transcript analysis was used to follow course-taking and degree attainment patterns of students and is a follow-up to the highly regarded study by Adelman in 1999, “Answers in the Toolbox” (Adelman, 1999).

The receipt of financial aid in college was found to have a small positive impact on low-socioeconomic status students persistence at Washington State University in the 1970s (Jensen, 1981). Parental education and occupation were added to income in order
to form a stratification of student groups between high and low SES. It also assigned mean score values to 15% of the sample for whom data was missing.

A broader study of persistence was conducted using the National Postsecondary Study Aid Survey in 1986-87, where follow-up surveys were conducted with students in the following term to determine their within-year persistence (St. John & Starkey, 1993). Low-income students were found to have slightly larger grant awards than other students, slightly lower loan amounts, and, as a result, lower net costs of tuition and overall attendance. Here, low-income students fared better when attending private colleges or universities. At that time, St. John and Starkey point out, the majority of aid used by private institutions was to meet financial need. Low-income students also were more sensitive to changes in tuition price and more likely to drop out when tuition increased, even when receiving grants. The authors postulate that this is attributable to the gap between the rise in tuition and the amount of grant aid, which was not rising as quickly.

A more recent study of college students in independent institutions found different results, however (St. John, Chung, & Musoba, 2004). Here, students from low-income backgrounds who received grant aid did not persist to the second semester of studies at the same rate as their classmates of higher income groups. Given their data, the authors raised concerns that the level of grant aid to low-income students was inadequate to provide the financial means to persist in college.

A study of financial aid, income and persistence in American public institutions found different results, in terms of grant aid (Dowd, 2004). Here, state grant aid had a positive effect in one model of persistence. However, in all models, higher income was positively associated and tuition costs were negatively associated with student persistence.
and attainment. Federal grants were not found to be statistically significant in persistence for any income group; federal loans and work-study programs were found to have a positive impact on persistence and attainment. Attendance at a doctoral institution was positively associated with persistence and attainment, providing further evidence of the “cooling out” function of starting a degree in other than a baccalaureate institution.

In the Netherlands, the availability of student support for degree completion was reduced in 1996. Students lost one year of total support time, meaning that they had less overall time to complete baccalaureate degrees. A study of the effects of this reduction in support were conducted using cohorts of students who started the year prior to the reform (1995) and 1 year after the reform (1997) (Belot et al., 2004). The results of this study show that students became more efficient in their time to degree, completing degrees at higher ratios. A corresponding effect was a slight shift from the WO to HBO institutions, as the professional degree could be more easily obtained within the years of support allowed under the reform. The overall impact was a positive one, spurring students to complete degrees in less time and entering the workforce earlier.

Higher Education Policy Analysis

Much of the concern expressed by higher education researchers over access and attainment of low-income students is aimed at informing or confronting higher education policy makers. One early example of this can be found in American higher education after World War II, where multiple and successive presidential commissions recommended opening access to underrepresented students and providing funding to poor
students. The results of these common themes were their appearance in the Higher Education Act of 1965 with enforcement linked to the Civil Rights Act of 1964 through the receipt of federal funds (Kerr, 1989).

The United States Department of Education conducts regular studies on pertinent issues in American higher education and pays specific attention to the enrollment of students from various income levels. In 2004, a special report was compiled by the National Center for Educational Statistics (Choy, 2004). Important in its findings were, although grant aid rose for every income quartile between years 1990 and 2000, the net price of education rose for all students enrolled in 4-year institutions. Specifically, it assessed the changes in light of the reauthorization of the Higher Education Act in 1992, where grant aid was increased, as were loan limits for student loans. This reauthorization also introduced unsubsidized student loans, allowing federal loans to students regardless of financial need, and tax credits for higher education.

The U.S. Government Accounting Office has also researched and commented on financial aid policy as it relates to low-income students and attrition (Government Accounting Office, 1995). Their report supported previous research that grant aid had a more beneficial effect on student persistence and that moving additional funding toward gift aid would increase student attainment.

Perhaps the most influential government reports come from the National Advisory Committee on Student Financial Assistance. The Committee researches and reports on higher education financial aid policy as an independent body appointed by the U.S. Congress and Secretary of Education, yet its existence is supported by federal regulations passed in the 1988 reauthorization of the Higher Education Act¹. In 2002, the
Committee's study on access for low-income students revealed that financial aid policies and college costs presented barriers to low-income students, such that 48% of college-qualified students did not enter higher education within 2 years of graduation (Ficklen & Stone, 2002). These percentages were based on estimates, however, that have not been replicated or tested in broader surveys or studies.

Shifts in student financial aid have been present since its introduction. However, one of the major policy shifts was the passage of the Middle Income Student Assistance Act of 1978. Many researchers cite the change in emphasis from grants to loans, or from gift aid to self-help aid (Gladieux 1996; Gladieux & King 1999; St. John, 2003; St. John & Paulsen 2002). In the period from 1975 to 1995, the role of grants and loans in federal financial aid nearly reversed, where grants represented nearly 80% of all aid in 1975 and represented just over 20% in 1995 (Gladieux & King, 1999).

A second major shift in policy occurred in the 1992 reauthorization of the Higher Education Act. Here, the formula for determining the expected family contribution (EFC) and the resulting eligibility for need-based federal financial aid were altered. Of students who applied for federal financial aid both the year before (1992-93) and after (1993-1994) these changes were implemented, 72% of applicants experienced changes in the EFC, where the EFC increased for 48% and decreased for 32% (Goldenberg, 1997). These changes mean that when the EFC rises, eligibility decreases and the opposite is also true. While Goldenberg observed that this did not appear to affect enrollment of dependent low-income students, the changes were greater for independent low-income students. There was no analysis of degree attainment in the study.
Nonprofit organizations such as the College Board annually track the state of financial aid, as well as issue special policy reports through its subsidiary organization, the College Scholarship Service (CSS). Both express concerns over the level of merit and self-help aid in American higher education and their detrimental impacts on student access and attainment (College Board, 2004c; CSS Council, 2003).

State financial aid policy has also received scrutiny from researchers. In 2000, the Harvard Civil Rights Project convened a number of policy analysts to assess the effects of state merit scholarships on access for low-income students (Cornwell & Mustard, 2002; Dynarski, 2002; Heller, 2002; Heller & Rasmussen, 2002). The results of this analysis revealed that the recipients of state awards were middle-income students, who were likely to attend college without such aid. The goal of these programs, to encourage enrollment within the state of residence, were funded through some new sources of aid, such as tobacco settlement or state lotteries, and existing sources of aid (general state revenues) that were redirected from need-based programs to merit programs. In Georgia, where the HOPE scholarship program served as the model for other states' merit programs, those most likely to play the lottery were those from low-income households. The net effect of this merit program was to redistribute capital from low-income to higher-income students.

The willingness of taxpayers and legislators to provide funds to higher education in states is in decline, according to research on the percentage of revenues directed toward higher education (Mortenson, 2002). Among the important findings in this study were the differences between those states that are "high aid," meaning that they provide significant amounts of mainly need-based grant funding, and "low aid," meaning that
they provide low amounts of need-based aid. Further, decreases in appropriations were associated with public institution increases, offsetting the loss of revenue at these institutions. Finally, the impact of tuition increases has been greatest on low-income families, where the percentage of their income devoted to public university tuition rose by 8.5%, more than double the impact of any other income group and ten times the impact of the highest income group. A reversal of funding is evident at the state level, similar to the switch between grants and loans at the federal level. In 1993, state appropriations, historically the largest source of aid to public institutions, were replaced by student tuition revenues (Callan, 2001).

Institutional aid has been studied, as well. A significant shift in institutional aid policy has occurred over the last 25 years. To attract more qualified students, institutions have used their aid as a “competitive weapon” through the use of “gapping,” or meeting a greater amount of demonstrated need to students based on their academic preparation levels, as opposed to awarding it solely based on need (McPherson & Shaprio, 1998). This was also observed in a separate study, where data from the 1989 and 1995 National Postsecondary Student Aid Study (NPSAS) revealed that GPA was positively associated with the likelihood of receiving a need-based grant in all institutions (Heller, 2000).

In Australia, policy analysis is also conducted by the federal government. In 2002, a report was issued by the Minister of Education, Science and Training that evaluated the state of higher education and developed 196 topical issues. While issues of finance appeared in several of these points, seven of them identified pressures associated with equity funding, including demographic pressures of an increasing diverse and poorer student population, the access of non-traditional students and the need to provide
flexibility to local institutions to meet the needs of their students in the context of a national aid program (Australian Government, 2002).

This report drove the higher education agenda at the federal level in a report the following year titled “Our Universities:Backing Australia’s Future” (Nelson, 2003). Among other reforms, it extended the income-contingent loan program to students who have no financial need, targeting older learners who may not qualify for these programs as working adults, as well as assistance to graduate students in the same manner. Commonwealth Learning Scholarships were introduced as pools of federal aid at local universities, distributed flexibly by them to meet the needs of their low-income, rural and indigenous students. This program bears a strong resemblance to the Supplemental Education Opportunity Grant program in the United States. This further stimulated action by the Australian Vice-Minister’s Council, the university presidents, to establish guidelines for how their universities would implement these funds to assure equity among entering students (Australian Vice-Chancellor’s Council, 2004).

A broad analysis of Australia’s equity policies was conducted in 2005 and looked back at the period between 1991 to 2002 (Coates & Krause, 2005). Here, the authors examined the six equity areas identified by the 1990 discussion paper A Fair Chance for All (Australian Government, 1990). The choices made in 1990 were not questioned but examined to determine their level of detail, including looking at the subgroups within the original six areas. They discovered that the subgroups performed unevenly and that these irregularities were being masked by both inclusion in the larger grouping (i.e., certain health professions lacked representation from low-SES groups while others had thrived), as well as limitations of the data collected (the authors reinforced the limitations of using
postal codes as proxies for income, as noted earlier in this review. While the authors initially challenged the notion of just six categories, they fell short of providing any recommendations for new groups. Rather, their main claim that the larger groupings needed more refined analysis was relevant and well-supported through their data analysis.

Other countries have looked at HECS as a potential model in whole or in part for their student finance programs. In 1997, consideration was given to such a scheme in the United Kingdom as it considered tuition charges for the first time (Chapman, 1997). Here, the concerns were mainly with the difference between ability and willingness to pay (would those shown able to afford tuition pay it?) and potential risk of loan defaults. The study also addressed concerns over access for low-income students, reviewing the longitudinal and qualitative surveys in Australia, mentioned previously (Hillman & Rothman, 2003; National Board of Employment, 1992).

Canadian officials considered the use of income-contingent loan programs, assessing the model used in Australia (Usher, 2005a). However, this report misused the findings of the Australian studies in one key aspect. It stated that the Australian studies showed that income-contingent loans did not promote access for low-income students. This is taken out of context in the Canadian environment. The purpose of the Australian studies on HECS and low-SES students, as noted previously, was to assess any negative effects that the imposition of fees and student debt may have on a system that had previously been tuition-free. Canada already has tuition charges and student loans, so the measurement of low-income student access was inappropriate for this policy analysis.
Of the studies conducted on access and attainment in the Netherlands, the study by Bérot et al. in 2004 mentioned previously is especially relevant to policy analysis. By using the small sample data sets both before and after the implementation of a national policy that affected student support, they analyzed the change in student behavior resulting from that implementation. In 1996–1997, the Dutch government altered the system of support to shorten the years of support from five to four, driving students to enroll at institutions where a degree could be attained in that time frame. It also changed the nature of the performance grant to a potential loan. If students did not maintain progress toward a degree in the first year and also subsequent years, the grant became an interest-bearing loan.

However, two factors cloud its effect on low-income students. The first factor is the simultaneous imposition of the shorter duration of support (from 5 to 4 years) that affected institutional choice. The second is the lack of analysis of students of different income and/or socioeconomic groups. Rather, the study looked at all students as reacting equally to the policy change. It is a worthy study but could have benefited from splitting the policy into its two component parts (time to degree affecting institutional choice and grant versus loan) to see if any differences emerged according to student characteristics, such as preparation levels for institutional choice and income levels for grant versus loan.

France also considered both Australia and the Netherlands as potential models for reforms in that country (Canton, 2002). In addressing issues for low-income students, Canton noted that the rate of participation for low-income students remained stable at about 20%, even though the student population in Australia grew by over 200,000 students (49%) over that period. France's educational system features public tuition rates
(90% of higher education students attend public institutions) so low that they are almost negligible and similar to the situation faced in Australia prior to HECS. The system of centrally administered tuition rates, supplements to low-income students and interest-bearing loans resembles the higher education finance landscape in the Netherlands. Drawing on assessments of both countries, Cantor concluded that the imposition of tuition and income-contingent loans in France was worthy of further consideration.

A very recent study of global debt patterns in eight countries holds some important relevance to this paper (Usher, 2005a). Particularly useful are Usher's descriptions of the loan and repayment systems in each of the eight countries, including the three countries undertaken in this study. However, there are some serious omissions and flaws in the report. First, Usher states loan interest in the United States is deductible. This is accurate only for those loans taken out under the auspices (guarantee) of the federal Stafford and Perkins programs. It does not include the over $19 billion in private loans now taken through alternative lenders (College Board, 2004c). Second, the rates of borrowing stated in the report come from different years. Some data come from national reports in 2004, while the 50% rate for the United States comes from a report in 2000. During these 4 years, student borrowing through the federal Stafford Loan program increased by 35%.

Usher's earlier report on income-contingent loans (2005b) also accounted only for facets of the programs available to borrowers through the Ford Direct Loan Program. In this most recent study, he again ignores the majority of student borrowers taking their loans through the Federal Family Educational Loan Program (FFELP). In 2004, just 23% of all Stafford loans came through the direct loan program, and income-contingent
repayment is just one option within that program for repayment (U.S. Department of Education, 2005). Similarly, Usher refers only to the loan consolidation programs available from the direct loan program (there is no comparative information on the percentage of these in the total loan consolidation program available).

Perhaps the most difficult aspect of Usher's comparisons is the issue of loan caps in the United States. All federal loan programs for students cap the amount of loan available per year. In Australia, the entire cost of attendance may be borrowed under HECS. In the Netherlands, the entire cost is also available. However, these are performance grants and only become loans when students fail to meet degree progress standards, explaining the very low rate and answering Usher's questions about it in his report.
CHAPTER III
RESEARCH METHOD

A study of the access and attainment of low-income students in three countries and the related policies that may promote or inhibit access and attainment has three components:

1. Study of longitudinal data sets: These show the patterns of entrance and completion for cohorts of students and are on a national level where possible. However, smaller samples may be sufficient and in the case of the Netherlands, this was the only option. Data sets before and after a significant change in national student finance policy were assessed to determine any changes in the access and attainment of low-income students.

2. Review of policy documents: The determination of what documents constitute higher education funding policies differs between countries. In some cases, they are bills passed through legislation. In other instances, they are policy papers issues through government agencies or policy review documents, also from government sources.

3. Comparison of national policies: As data between countries cannot be compared at the student level, these country studies are viewed as three case studies. Comparisons between the countries were achieved, however, by observing any trends and changes in student behavior surrounding specific policy implementations.
Study of Longitudinal Data Sets

In the United States, several longitudinal data sets have been collected over the years at the national level. This data has been collected for students entering college in 1972, 1980, 1988, and 2002 (National Center for Educational Statistics, 2005). Generally, these data sets include the results of a first follow-up survey 2 years after the normal time for high school graduation, indicating the current status of subjects (employed, college or other postsecondary attendance, military, unemployed, etc.). Data collected include income, race/ethnicity, parental level of education and other demographic data, such as place of residence, to allow analysis on variables that may affect educational outcomes.

The time-line of these data sets is shown in Figure 7. From this chart, the patterns of initial and follow-up studies can be seen. Data from initial surveys demonstrate the socioeconomic status of survey subjects at that time. Data from follow-up surveys demonstrate outcomes of educational experiences, including access to and attainment of baccalaureate degrees. These outcomes can be associated to the socioeconomic data from the original survey, in those instances where data is available from either the original and subsequent surveys or transcript analyses.
Figure 7. Longitudinal Panel Study - Research Design. This chart is taken from ELS 2002 Overview: Historical Background (National Center for Educational Statistics, 2005).
Studies conducted in 1980 and beyond included questions about student aspirations for postsecondary participation, such that comparisons between aspirations and outcomes could be addressed. Items in the initial and follow-up survey were intended to address the following questions (National Center for Educational Statistics, 2005):

1. How, when, and why do students enroll in postsecondary education institutions?

2. Did those who expected (while in high school) to complete the baccalaureate degrees actually do so?

3. What are the effects of student financial aid on postsecondary access, persistence, and attainment?

The third purpose listed here ties most closely to the purpose of this study, as any ability to segregate students into low-income/low-SES groups would allow analysis of the patterns of participation and attainment of these students. It is too soon to know the outcomes of the ELS 2002 study, as these students would not yet have attained baccalaureate degrees. However, the patterns of access can be analyzed to determine any trends from previous studies.

The National Educational Longitudinal Study of 1988 (NELS:88) data set is available on-line, and variables were selected for download into SPSS format from the U.S. Department of Education web site. Access to this data was permitted with a simple acknowledgement completed on-line. Students in the NELS:88 study were mostly eligible for entry into higher education in 1991, one year prior to implementation of the
changes to the federal needs analysis mandated by the 1992 reauthorization of the Higher Education Act. By comparing the patterns of low-income students in the 1980 High School and Beyond data set with this group, it may be possible to observe any effects of these changes on low-income student access and attainment.

The High School and Beyond 1980 (HS&B, 1980) data set was not available online and instead was restricted to those with a license to access and analyze such data. The required license was applied for and received, followed by several national data sets being sent on CD. Security protocols for use of this data set were mandated by the license agreement and these protocols were implemented under the auspices of Seton Hall University. Namely, the protocol involved assurance that the data would not be shared on a network drive and that a password-protected screen saving program would be invoked.

As state aid plays an important role in the total aid package received by a college student, assessment of the differences between students in various states might reveal underlying patterns of difference by state. The most significant change in state aid was the introduction of merit aid (“Hope” scholarships) in Georgia in 1993. Although most students in these studies would have entered college by that time, those still enrolled may have benefited from these programs. However, state of residence is not available in these data sets, as that information is masked. The only known variables are in-state or out-of-state attendance in college.

Australia also compiles information in longitudinal studies, the Longitudinal Study of Australian Youth (LSAY) (Pennman, 2004). This study tracks students in the ninth grade, through secondary school completion and beyond to higher education,
employment, and unemployment outcomes. Samples were drawn in 1995, 1998, and 2003. The samples are national in scope; sample sizes are between 11,000 and 13,000 students. Additional samples of students were studied between 1980 and 1994, where studies were completed on students at age 15 to determine their current status (education, training, employment) and associate that status with variables of race/ethnicity, rural origins, secondary school type, parental education levels, wealth, and gender. The main difference between the two study types is that those after 1994 captured aspiration data at Grade 9, allowing comparisons between a student’s plans and outcomes.

Like the HS&B 1980 data set, the LSAY sets are restricted, and a license for approved study was required and obtained. Initially, the only method of access was to receive the specific data sets on CD from Australia. However, during this study, the Australian National University’s Social Science Research Archive placed these data sets into a new on-line web site. Using a password and log-in provided by the Archive, access to the data was obtained on-line and the entire data sets were downloaded into SPSS format.

Using the 1995 and 1998 longitudinal data sets for Australia will not allow for direct observation of the effects of the funding changes implemented in 1997, as both sets include only students who would start their studies after this change. However, it may have affected the perception of college as affordable more greatly for students in the later data set, since their secondary school years would have been dominated by a multi-tier and more expensive structure for higher education. As this was a major policy shift, as noted in the literature review, studying access and degree attainment of low-SES students may reveal differences in their college attendance patterns. The two data sets listed here
do surround the change in student loan programs, including the move to make loans for low-income students at a lower and fixed interest rate in 2000 (Barr, 2001). This shift created greater transparency in total costs and repayment for these students and may have made college expenses more predictable for them. A natural policy shift for study would be the imposition of the HECS system in 1988. However, data sets prior to this implementation do not contain the variables necessary to study aspiration, access and attainment.

Data sets in the Netherlands are not available on a large national scale. Rather, there are micro sets that were assembled by researchers at Amsterdam University in the 1990s. Starting in 1991, studies were conducted on secondary and higher education students and repeated for higher education students in 1997-1998 (Canton & de Jong, 2002). The specific purpose of these studies was to assess any impact on student enrolment in higher education surrounding the 1996-1997 changes to the basic grant, making it a performance-based grant and a loan if performance criteria were not met. Canton and de Jong note that their data set included information on family income and that a second data set compiled from institutional surveys also apparently contains information on family income (Oosterbeek & Webink, 1995). The data set from Canton was received and contains only aggregate data. While somewhat helpful in demonstrating overall trends in low-income student participation, it does not contain unit record data that could be used in a statistical analysis to determine any significant differences between low-income/low-SES students and others.
The 1991 data set is restricted and a license for its use and analysis was required and received. This data was downloaded from the Amsterdam University Social Science Research center via ftp. It contained three SPSS-formatted data sets in their entirety and the three corresponding questionnaires used for studentcohorts between 1991 and 1995. The 1997 and 1998 data sets were not available, but primary researcher Japp Roeseveld released a set of this data and the corresponding questionnaires for study. All data and questionnaires are in their original Dutch language and required translation.

Given the limitation in data sets in the Netherlands, additional data were obtained from government agencies in that country. The qualifications for income-based financial aid in given years surrounding the 1996-97 policy changes were obtained, as were data on the number of recipients of that aid in those years. Census data were also obtained from Dutch government sources, specifically, the number of households in given years in low-income bands. Patterns of increase and decrease in income-based aid and low-income households were assembled and assessed.

Review of Policy Documents

In each of the three countries in this study, national legislation has been enacted to support low-income students. These laws have also been amended over time. It is important to understand both the initial legislation and the changes to it over time. To understand these amendments, direct observation was made whenever possible. There are also secondary documents, such as policy analyses, that have been produced by
government agencies. They were read, and the most salient of those included as appendices to this study.

Two important questions were asked when analyzing policy documents: 1.) What are the goals of the policy in regards to low-income/low-SES students, and 2.) What are the mechanics of financial aid awards (how are awards made and what is available to students and their parents)? The first step was to analyze government documents where they were available. In the Netherlands, Wet Studentfinanciering (2000) was available but only in Dutch. This document was translated using available on-line software and is included as Appendix 1. In the United States, the original Higher Education Act of 1965 was reviewed to understand the intent behind the establishment of financial aid in at the federal level. Australian laws were reviewed by reading the Dawkins Report, also known as “A Fair Chance for All” (Australian Government, 1990).

These documents fell short of explaining how laws translated into the application of financial aid to students and their parents. To accomplish this, country web sites in Australia (Australian Government, 2005) and the Netherlands (Ministry of Education, 2005; Ministry of OCW, 2005) were also used to understand the practical application of laws and policies in student financial aid. The combination of policy documents (Australian Government 1996, 2006; Choy, 2004) and web sites was analyzed to understand these often complex systems and goals. In the United States, professional practice in administering financial aid programs at institutions over 19 years, and the annual updating of financial aid policies and practices assisted the author in understanding the role financial aid plays in American higher education.
In the United States, the original Higher Education Act has been reauthorized numerous times since its passage. Annual appropriations to fund the programs started by the HEA have also impacted financial aid programs. It was important to understand the environment for and impacts of those policies from a federal perspective. The National Center for Educational Statistics provided that perspective in its review of the 1990-2000 decade of student financing (Choy, 2004). This document focused on undergraduate education and combined the changes in federal policy in the 1992 reauthorization of the HEA with the context of price changes and appropriations, focusing on undergraduate education.

Other researchers have analyzed public policy on higher education financing. In some instances, this work highlighted the key policy changes that have become the focal points for this study. Particularly, the work in Australia (Andrews 1999; Aangles et al., 2002; Coates & Krause, 2005) and the Netherlands (Belot et al., 2003, 2004) that assessed long-term implications of policy changes was important and provided some key information on the nature of policy changes that was not available from official government sources.

Statistical Analysis

Within the data set utilized for each country, students were coded into an income or SES quartile (SES will be used based on prevailing factors shown to be significant by previous researchers on that data set, if income is not available). A correlation matrix was developed to demonstrate the level of significance of the income (or SES) quartile to
the status of the student as ever having enrolled or not ever having enrolled in higher education.

For those students who did enroll in higher education at any time, a second correlation matrix was developed. This demonstrates the level of significance of the income quartile to baccalaureate attainment. The variables of interest are participation in higher education, aspirations for higher education beyond secondary education, attainment of degrees (where data exists for this analysis), family income, parental educational level, and parental occupation (where known). These variables mirror those chosen by researchers studying the longitudinal data sets in the United States and Australia (Turner et al., 1995; Western et al., 1998). Where baccalaureate attainment is not known, persistence beyond the first year of studies was assessed as an indicator of the likelihood of attainment at some time in the future.

After confirmation of the dates of major changes to funding policies (cost or aid) that could impact low-income students through the review of public policy documents, these correlation matrices were repeated before and after the dates of policy change, whenever possible, within each country. For example, the data from the High School and Beyond study of 1980 was compared to data from NELS:88 to show the similarities and differences in low-income student access and attainment surrounding the 1992 reauthorization of the Higher Education Act in the United States. In Australia, the change from one tuition rate to several tuition rates in 1997 was used as a perceptual change and the restructuring of student loans for low-income students (and the deferral of interest during enrollment periods for all students) in 2000 as the policy shifts. In the Netherlands, the changes enacted in 1996-97 are those in question, and data sets prior to
and after this year were used in the analysis. This provides a comparison of any changes for low-income (or low-SES) students. Students prior to the change serve as a control group and students after the change become the treatment group. The results for pre- and post-policy implementation are compared in a narrative fashion, as it is not possible to compare the results statistically between data sets.

**Study Limitations**

The following issues encountered in the research or outside the scope of this study form limitations to it:

1. In the United States data sets, the state of residence is not available for analysis. While this helps to mask the identity of survey participants, it also prevents any assessment of the variances in student participation as they may relate to the quantity and type of financial aid offered to residents of particular states.

2. In both the Australian and Netherlands data sets, measurement of SES is a limitation. Unlike the United States data sets, there is no consolidated variable for socioeconomic status. In Australia, income was not requested of survey respondents, although it was received from respondents in the Netherlands. Parental education levels were present in both data sets. In the Australian data sets, occupational status was assessed in both, although it was only
compiled in the 1995 study as a unique variable for analysis. In the Netherlands, occupational status was not assessed for parents. Household possessions were assessed in the LSAY 1995 data set but not in the 1998 LSAY surveys. These differences require that portions of the SES equation (income, education level, occupational status, household possessions) be assessed in each country where they are available. The lack of consistent SES data between studies and between countries limits the comparison of the relationship of these data to student educational outcomes.

3. Data and information from the Netherlands is not always in English. Dutch data and documents limit their study to those who can readily read and understand this language. While much of the information was translated after receipt, there is likely more data or research available in Dutch that could be studied and may improve the research on the issues of low-income/low-SES students.

4. The lack of continuity within the Dutch data, specifically, limits the ability of this study to link aspirations, access, and attainment of these students. Initial studies of students entering secondary school were not linked to their higher education results. Rather, each of three groups was considered on its own. While each set provides some longitudinal information, it is significantly less than the information available for the other two countries.
5. The manner in which data was collected differed between administrations of surveys in all three countries. Sometimes, data was collected in one study and not in another. While some compilation of data addressed this limitation, the complete absence of some data created limitations to the comparison of outcomes and SES between data sets within countries. The coding of responses also varied, such that possible levels of education are not consistently provided between data sets. While these were evident in all three countries, they were less present in the United States and most severe in the Netherlands.

6. This study does not assess academic preparation as a variable that affects college participation. Typical measurements of preparation usually include some standardized testing and performance in secondary education. In using St. John’s (2003) balanced access model, however, preparation may be affected by the student’s and his or her parent’s perceptions of the accessibility and affordability of college. While deserving of further study, preparation is outside the scope of this study.
CHAPTER IV
PUBLIC POLICY FOR HIGHER EDUCATION FINANCIAL SUPPORT IN
AUSTRALIA, THE NETHERLANDS, AND THE UNITED STATES

Three countries have chosen different paths for higher education funding. The first two, Australia and the Netherlands, grew out of a shared heritage – continental European models – where tuition was free and spaces were limited. The third, the United States, has perhaps the most unique and complex system of costs, support, and financial aid in the world. Given these differences, it is important to have a steady framework in which to view the countries in a broader context.

Higher education professor and researcher D. Bruce Johnstone presents a conceptual framework for evaluating the financing of higher education across different countries. He states that the mix of funding paid by students and parents, institutions and government reveal the funding priorities of that country, in regard to higher or tertiary education (Johnstone, 1986).

Generally, funding sources can be split into four categories and three streams of funding. The first two categories, funding directly related to student education, are comprised of government support for these costs and the costs borne by students and parents. These two are referred to as “educational support.” The third category and second funding stream is government support for research performed by higher education/tertiary institutions. The final category and funding stream is outside support for research performed by higher education/tertiary institutions.
### Table 3

**Funding Streams in Australia, the Netherlands and the United States**

<table>
<thead>
<tr>
<th></th>
<th>First Stream:</th>
<th>First Stream:</th>
<th>Second Stream:</th>
<th>Third Stream:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government</strong></td>
<td>Education Costs Paid</td>
<td>Stream:</td>
<td>Industry-funded</td>
<td>Stream:</td>
</tr>
<tr>
<td><strong>Education Support for</strong></td>
<td>by Students/Parents</td>
<td>funded</td>
<td>funded</td>
<td></td>
</tr>
<tr>
<td><strong>Costs</strong></td>
<td>Research</td>
<td>Research</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Australia (1997)</strong></td>
<td>48.20%</td>
<td>14.70%</td>
<td>5.60%</td>
<td>31.50%</td>
</tr>
<tr>
<td><strong>The Netherlands (1997):</strong></td>
<td>72.10%</td>
<td>5.50%</td>
<td>3.40%</td>
<td>19.00%</td>
</tr>
<tr>
<td><strong>University (WO)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>The Netherlands (1997) Higher Professional (HBO)</strong></td>
<td>69.10%</td>
<td>17.10%</td>
<td>0.00%</td>
<td>13.80%</td>
</tr>
<tr>
<td><strong>U. S. (1995-96)</strong></td>
<td>35.00%</td>
<td>18.30%</td>
<td>12.30%</td>
<td>34.50%</td>
</tr>
<tr>
<td><strong>Public</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>U. S. (1995-96):</strong></td>
<td>2.50%</td>
<td>41.40%</td>
<td>14.20%</td>
<td>41.80%</td>
</tr>
</tbody>
</table>

*Note:* This table is adapted from data in *The Dutch Higher Education System* (Canton & Jongbloed, 2000)

From this chart (Table 3), we can observe that the proportion of costs borne by parents and students is relatively even in Australia, the Netherlands’ professional education (non-baccalaureate) programs and in the United States’ public institutions.
However, the baccalaureate programs in the Netherlands (WO) and private higher education in the United States sit on opposite ends of this spectrum.

Government support for institutions varies widely between the three countries. The Netherlands provides the greatest share of institutional resources from its government funds. Australia is second, and the United States, especially private education, is the third. In the United States, 36% of baccalaureate and just 23% of all students in degree-granting enroll in privately controlled colleges and universities. These institutions award 35% of all bachelor's degrees conferred (National Center for Educational Statistics, 2003).

Also contributing to institutional resources are government and industry research funding. This affects students in both opportunities to participate in research conducted in university laboratories and funding for student employment included in research grants to institutions. Here, the United States government funds a significantly larger share of research than the governments of Australia and the Netherlands. Private research funding is lowest in the Netherlands, similar between Australia and U.S. public institutions and highest in American private institutions.

However, as the country expanded access to higher education, it was no longer able to support higher education for all students without some restrictions. This resulted in a system of tuition costs and student support different from the choices made when Australia split from the continental European model it had employed since 1974 (Johnstone & Associates, 2005). The United States has perhaps the most unusual model in the world. There is a tremendous variety of institutions available to students, and the costs have never been free. Rather, market forces drive costs and aid policies. Further,
there is no central control of higher education prices and a complex system of financial aid partners, forming a network or web of support from multiple sources.

Australia, the Netherlands and the United States have each made policy decisions about the mix of gift and self-help aid that will be used to assist students in higher education. While control of costs is not centralized in the United States federally (costs at state public institutions are controlled differently in each state by local or state legislative groups), there is significant national control of educational costs in Australia and Netherlands.

Australia has inspired a great deal of interest in its funding and cost system (HECS) since it was introduced in 1988. This was the second major policy shift in that country in less than 20 years. In 1974, the roughly 25% of fees paid by individuals for tuition and fees was abolished, and the federal government took control of financing for higher education from the states (Wilson, 1992). Since the inception of HECS, it has inspired a great deal of interest in its funding and cost system (Canton, 2002).

There are two notable features of HECS. First, fees are graduated based on their association with an academic program, or “funding cluster” or “band” (2003). Those programs after which a student would expect a higher wage, such as law, would receive lower subsidies from the Australian government, resulting in higher fees paid by the student. Lower wage fields, such as social sciences and education, receive higher subsidies and result in lower fees charged to students. Institutions have some latitude in setting their fees (new in 2005), but must stay within limits set by the Minister for Education, Science and Training (2003). The balance of the costs of higher education is provided to the universities by the federal government.
Students may pay their fees up-front and receive a discount. Fees may also be deferred until after graduation, at which time they are interest-free loans paid back as a tax on income. Below a certain income level (A$35,000 starting in 2005), no tax is paid until the income threshold is reached. Until 2005, there was no limit on the amount of tuition that could be deferred by a student under HECS. However, a lifetime limit of A$50,000 has been set for students beginning or continuing to incur debt as of January 1, 2005 (Australian Government, 2005). The loan does not carry interest, but the size of the principal grows with the annual rate of inflation (Usher, 2005a). Low-income students are eligible to have their loans frozen at a lower interest rate and there is no inflation of the principal during enrollment periods following changes to the loan scheme in 2000 (Bar 2001).

Table 4

Higher Education Contribution Scheme (HECS), Student Fees, 2005, Australia

<table>
<thead>
<tr>
<th>HECS Funding Cluster or Band</th>
<th>Student Tuition Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 3</td>
<td>$0 – $8,018</td>
</tr>
<tr>
<td>(law, dentistry, medicine, veterinary science)</td>
<td></td>
</tr>
<tr>
<td>Band 2</td>
<td>$0 – $6,849</td>
</tr>
<tr>
<td>(accounting, commerce, administration, economics, maths, statistics, computing, built environment, health, engineering, science, surveying, agriculture)</td>
<td></td>
</tr>
</tbody>
</table>
Table 4 (continued)

<table>
<thead>
<tr>
<th>HECS Funding Cluster or Base</th>
<th>Student Tuition Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base 1</td>
<td>$0 - $4,808</td>
</tr>
</tbody>
</table>

(humanities, arts, behavioural science, social studies, foreign languages, visual and performing arts)

National Priorities            $0 - $3,847
(education, nursing)

Note: This table was taken from information at www.goingtouni.gov.au

Australia developed a detailed framework for educational access outlined in the 1990 discussion paper *A Fair Chance for All* (Australian Government, 1990), which is attached as Appendix A. In it, six distinct groups were identified as being underrepresented in higher education: low-SES, rural/isolated areas, disabled, non-native speakers of English, women in certain professional areas, and Indigenous groups. Performance metrics were established to track the progress of these groups over time in an effort to measure the success of various initiatives targeted toward the six identified groups (Coates & Krause, 2005).

One of the initiatives undertaken was to provide individual institutions funds that could be used to target aid toward students from five of the six groups (Indigenous students receive funding through a separate mechanism). This funding scheme is known as the Higher Education Equity Programme (HEEP) and allows the individual institutions to award funds to students from the groups in the manner it determines will best assist
them. In 2004, institutions began targeted scholarships to low-SES students (low-income and first-generation in college). Students must meet academic merit criteria, as specified by the institution they seek to attend. Universities and other higher education providers participating in the program are allowed to set the academic merit guidelines for receipt of the awards and receive a pool of funding from the SHEEP for this purpose (Australian Government, 2005).

Australian students must complete higher secondary education in order to qualify for entrance into universities. In the chart below, higher education is clearly labeled and shows the progression of students from secondary to tertiary (higher) education. In this scheme, the box labeled “higher education” shows those programs that lead to advanced study and can be categorized in the ISCED system as levels 5 and 6 (UNESCO, 1997). The basic structure of education in Australia offers another postsecondary option, vocational training. This does not lead to advanced study and can be classified in the ISCED system as level 4.
Figure 8. The Australian qualifications framework. This diagram is taken from *Education at the Crossroads* (Australian Government, 2002)
Students undertaking higher education in the Netherlands can enter a baccalaureate degree program on one of two paths: higher professional education (HBO) or university-level studies (WO). The role of HBO education in the context of baccalaureate attainment is its place as a professional training ground for business, teaching, agriculture, and other occupations that are often contained within universities in the United States or other countries. A baccalaureate degree is given at these institutions, and although progression to advanced studies requires a degree from a university, they provide a potential pathway to university studies, as students can enter universities after one year of studies at an HBO institution. Given this, they become important elements of the baccalaureate landscape in their impact on access and attainment. Both HBO and WO institutions in the Netherlands can be classified in the ISCED system as level five, with WO institutions also being classified as level 6, offering advanced degrees.
Figure 9. Netherlands education framework. This diagram is taken from the web site Education – Facts and Figures (Ministry of OCW, 2005)
In Figure 9, primary education (ages 4-12) is represented by BAO and SBAO/SO (special education). At age 12, students enter secondary education, which is general to any education track later studied. Guidance for the appropriate track may be gained from examination results, which are taken by about 70% of primary-age children. However, this is not a requirement and selection of the appropriate track is a parental decision.

These 2 years of study at the lower secondary level may be used as the basis for preparation for entry into higher education or vocational training/education. Following these 2 years, some students will choose one of two higher-education preparation tracks, VWO (university academic preparation) and HAVO (professional preparation). Other students may elect to take vocational preparation or training courses (VMBO or LWOO).

Again, special education is offered at the secondary level (VSO), as needed. Only students entering the VWO and HAVO tracks are eligible to attain baccalaureate degrees, although vocationally-trained students may enter HBO institutions as returning adults and, then, obtain a baccalaureate degree through a 16% quota reserved for them (Boezerooy, 2003).

A hybrid system of government support and control of higher education is used to establish the levels of funding for each of the country's 13 universities (WO) and 44 higher professional schools (HBO). The federal government sets limits on tuition for low-income students. These rates apply to all institutions listed as higher education providers by the Ministry of Education, Culture and Science (Ministry of Education, 2005). Individual institutions list those in their student charters as the "low rate," students who do not qualify for the government price control rate pay the "high rate," set
independently by the institution and listed in the student charter for all others (Maastricht
University Executive Council, 2001; Wageningen University Executive Council, 2004).
Thus, low-income students can be assured the same rate of tuition at any university in the
country at which they may obtain a seat. Students are means tested against the tax
information supplied to the federal government by their parents. Those meeting the
income threshold (indexed against 2001 €12,937.76 for a two-parent family) qualify for
the subsidized “low rate” of tuition (2000); there is a separate income threshold for
independent students. Student earnings are also considered if they exceed €8,900
(indexed to 2000).

The Dutch government provides all baccalaureate university students a
“performance based grant,” a travel expenses grant, and student health insurance through
the Wet studiefinanciering 2000 or “Student Finance Act 2000,” known commonly as
WSF-2000 (2000). Performance-based grants are initiated as loans to students. If the
student successfully completes at least 50% of the course work attempted in the first year
of study, the grant/loan continues for up to 1 year beyond the normal duration of study.
If the student completes the degree within 10 years of inception, the loan becomes a grant
and is not repaid. Otherwise, the amount provided as tuition, fees, and travel expenses
becomes an interest-bearing loan that must be repaid (2000).

Dutch students may also borrow loans for educational expenses through a federal
educational loan system. The loan amount may cover up to the difference between the
costs of education and the amounts received through the basic grant. The repayment
period is no longer than 15 years (Ministry of Education, 2005). These loans do not carry
interest; however, the government charges a fee equal to their cost of borrowing the funds on behalf of the student (Usher, 2005z).

Like the Australian federal support directly to universities, the 13 Dutch universities receive support towards the costs of student education from the central government. However, unlike Australia, this is not the difference between what students pay and the costs of educating them. It is a combination of general funds (37%) and performance-based funds, split between funding based on the number of new entrants (13%) and the number of master's degrees awarded (50%). Universities compete within the group of 13 institutions for these three pools of funds (Johnstone & Maziole, 2001).

The American higher education system is the most diverse and complex of the three systems in this study. Within the category of postsecondary institutions, there are vocational and proprietary training institutions that offer less than a baccalaureate degree, often resulting in a diploma or certificate. In the ISCED system, these would be classified as level 4. Community or junior colleges may also offer some of these programs, as well as associate's degrees and pathways toward bachelor's degree programs at other institutions. In this sense, they are level 4 institutions with some aspects of a level 5, if one sees their place within a scheme of higher education as the entry point leading toward a baccalaureate degree. Planned articulation of these 2-year programs with 4-year programs has been in place for some time within state systems such as California, where Clark Kerr's master plan for higher education called for them to serve this purpose (Knoll & Medsker, 1965). However, there is no national system or plan for such articulation and the relationship between public 2-year and many public and private baccalaureate institutions is haphazard, with some strong systems, such as New
Jersey’s NJ Transfer program (www.njtransfer.org), and others where no transfer of other college credits is allowed (i.e., Drew, Northwestern, and Princeton universities). Given this variation, the classification of 2-year institutions as level 5 is liberal, at best, and may only be considered such when tight articulations programs with baccalaureate institutions are overt. Associate’s level institutions represent about 41.5% of all postsecondary institutions and about 55.2% of all undergraduate enrollments in the United States (Carnegie Foundation for the Advancement of Teaching, 2005).

Baccalaureate institutions in the United States also have variations. All would be categorized in the ISCED system as level 5, by the nature of their definition as baccalaureate institutions. If viewing them through the Carnegie Classification system, these would be those institutions that are beyond the associate’s degree level, yet have no coexistence with graduate education, regardless of the arts or professional focus (Carnegie Foundation for the Advancement of Teaching, 2005). These represent only 4.8% of all postsecondary institutions, yet they enroll 14.3% of all undergraduate students. The largest group of institutions in the United States are those undergraduate institutions that also offer advanced study (ISCED level 6), representing about 53.7% of all postsecondary institutions. However, they represent only 31.5% of all undergraduate enrollments.

American universities do not receive funding toward the cost of educating students directly from the federal government. However, the federal government provides support to students, instead. American students have several financial aid resources available to them. As the American higher education system not federally centralized, these resources come from both federal and state sources, as well as
institutional aid. Federal grants are targeted to students who are need tested, using a complex formula that considers parental and student income and assets, family size, number in college, age of the older parent and location (U.S. Department of Education, 2004a). State programs use the results of this formula or the data from the need test to determine eligibility for state need-based grant programs. These programs stem from a federal incentive program started in 1972, the State Student Incentive Grant program, which provided matching grants to states that started need-based grant programs. This is the same year that the federal Education Opportunity Grant program (now known as the Federal Pell Grant) was funded, forming a federal and state grant network or resources for low-income students (Gladieux, 1996).

American higher education students are also able to secure low-interest loans to finance educational expenses. Those students demonstrating financial need are able to borrow subsidized loans, in which the interest is paid by the federal government while the student is enrolled at least half-time at a participating institution. Since the passage of the Middle Income Student Assistance Act in 1978, students who do not demonstrate financial need are able to borrow these same low-interest loans but the interest is not paid while the student is enrolled in a qualifying institution (Gladieux & King, 1999). Student loans have annual limits based on the student's year in college or, in the case of the Federal Perkins loan, the limit is constant throughout the academic career. Parents of dependent students are also able to borrow federal (and some state loans) for remaining educational expenses (U.S. Department of Education, 2004a).
In 1990, the state of Georgia created the first state-wide merit scholarship program in the United States, the HOPE Scholarship program. Since then, 13 additional states have formed scholarship programs based on academic merit instead of financial need. While some of these programs are funded through new sources of state revenue, such as lotteries or tobacco settlements, most are funded through general revenues, reducing the amount of state resources potentially available for need-based aid (Heller, 2002; Tennessee Student Assistance Corporation, 2004).

Institutional aid in the American higher education environment cannot be easily identified as meeting either merit or need, as often it meets both. Few institutions have the resources to bridge the gap between costs and resources for all students. For most colleges and universities, priorities must be set for the expenditure of scarce resources, and the growing trend is toward merit aid or need-based aid targeted to students that improve the academic quality of the student body (Heller, 2000).

The rates paid for higher education in America are best considered in averages, where the costs charged are represented for each sector of institutional control:
### Table 5

*Average Costs for Higher Education, 2003-04, U.S.*

<table>
<thead>
<tr>
<th>Sector</th>
<th>2-Year</th>
<th>4-Year</th>
<th>4-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td>Public</td>
<td>Private</td>
</tr>
<tr>
<td><strong>Tuition and Fees</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004-05</td>
<td>$2,676</td>
<td>$5,132</td>
<td>$20,082</td>
</tr>
<tr>
<td>2003-04</td>
<td>$1,909</td>
<td>$4,645</td>
<td>$18,950</td>
</tr>
<tr>
<td>$ Change</td>
<td>$167</td>
<td>$487</td>
<td>$1,132</td>
</tr>
<tr>
<td>% Change</td>
<td>8.7%</td>
<td>10.5%</td>
<td>6.0%</td>
</tr>
<tr>
<td>2004-05</td>
<td>N/A</td>
<td>$6,222</td>
<td>$7,434</td>
</tr>
<tr>
<td>2003-04</td>
<td>N/A</td>
<td>$5,885</td>
<td>$7,107</td>
</tr>
<tr>
<td>$ Change</td>
<td>N/A</td>
<td>$337</td>
<td>$327</td>
</tr>
<tr>
<td>% Change</td>
<td>N/A</td>
<td>5.70%</td>
<td>4.60%</td>
</tr>
<tr>
<td>2004-05</td>
<td>N/A</td>
<td>$11,354</td>
<td>$27,516</td>
</tr>
<tr>
<td>2003-04</td>
<td>N/A</td>
<td>$10,350</td>
<td>$26,057</td>
</tr>
<tr>
<td>$ Change</td>
<td>N/A</td>
<td>$834</td>
<td>$1,459</td>
</tr>
<tr>
<td>% Change</td>
<td>N/A</td>
<td>7.80%</td>
<td>5.60%</td>
</tr>
</tbody>
</table>

**Note:** Information in this table is adapted from *Average Published Charges for Undergraduates, 2004-05 (Enrollment-Weighted)* (College Board, 2004)

Given the variation among American institutions, we must separately consider institutional types when assessing issues of costs and aid. This study is primarily interested in baccalaureate institutions, where the difference in price between private and
public institutions is significant. However, given the large share of students enrolled in 2-year (associate’s level) institutions in the United States and the potential (yet small) role they play as a pathway toward the baccalaureate degree, the patterns of enrollment and attainment at these American institutions must also be considered when assessing the access and attainment of low-income/low-SES students.
CHAPTER V

CASE STUDY ONE: AUSTRALIA

Public policy in Australia has undergone major changes over the past 30 years. It has varied from students paying all costs to students paying no costs, to the latest iteration, the Higher Education Contribution Scheme (HECS), in which students pay costs according to various tiers. This plan is also referred to as the “Dawkins Plan,” after the man who crafted the major policy statement that created HECS, J.S. Dawkins, then Minister for Education, Science and Training. This policy was summarized in his 1990 discussion paper, “A Fair Chance for All” (Appendix A), where its goals of providing greater equity in access to Australian higher education are outlined. As a new system, a certain amount of experimentation and change can be expected in response to actual results and pressures at the system level. Certainly, Australia has made some significant changes over a relatively short period of time in an attempt to provide higher education opportunities to qualified students at a level the government can afford (Australian Vice-Chancellor’s Council, 2004).

Costs in Australian Higher Education

In 1974, the Commonwealth made higher education free to all qualified students. Then, in 1988, they broke from the continental European tradition of free higher education and returned to charging tuition. Students enrolling in any national university or “other provider” (private baccalaureate colleges) pay a single known rate. This lasted
until 1997, when the single rate was broken into three tiers (Aungles et al., 2002). In 2005, an additional band was added to lower the costs for national priority degrees, nursing and education (Australian Government, 2005).

While other countries have national control over price, the repayment system in Australia is truly unique. Students can choose to pay tuition fees up front and receive a 25% discount (lowered to 20% for 2005) that year, or choose to “borrow” the fees from the federal government. This income-contingent loan program is known as the Higher Education Loan Program (HELP). If choosing the latter option, there is no interest, per se, although the principal of the fees is indexed to the rate of inflation and grows over time. The amount a student pays back each year is also contingent on his/her income, meaning that as income grows, the rate of salary proportioned to repayment increases. There is a minimum annual income level, under which no repayments are due. If and when the student earns more than the minimum threshold, repayments begin.

Costs for Technical and Further Education institutes (TAFE), a similar institutional level to American community colleges (offering a combination of associate’s degrees that prepare students for further study, terminal associate’s degrees, and technical training) vary widely. For some entry level certificate programs, the current rate for a year of study is A$370. For a graduate diploma (associate’s degree level), the current annual rate is A$1,736. Like HECS, the rates are banded by level of credential, as opposed to area of study, although the areas of study often correspond to available credentials. The annual cost of TAFE study is less than the annual cost for university study, and financial assistance is available for these less-than-baccalaureate programs
through the national government, with exemptions of course fees for some 17 different student backgrounds and financial situations (TAFE NSW, 2006).

Table 6

<table>
<thead>
<tr>
<th>Income Contingent Deferred Fee Repayment Schedule for Australian Students (HELP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>For 2005-06 HELP</td>
</tr>
<tr>
<td>repayment income in the range:</td>
</tr>
<tr>
<td>Below $36,183</td>
</tr>
<tr>
<td>$36,185-$40,306</td>
</tr>
<tr>
<td>$40,307-$44,427</td>
</tr>
<tr>
<td>$44,428-$46,762</td>
</tr>
<tr>
<td>$46,763-$50,266</td>
</tr>
<tr>
<td>$50,267-$54,439</td>
</tr>
<tr>
<td>$54,440-$57,304</td>
</tr>
<tr>
<td>$57,305-$63,062</td>
</tr>
<tr>
<td>$63,063-$67,199</td>
</tr>
<tr>
<td>$67,200 and above</td>
</tr>
</tbody>
</table>

Note. This table is taken from the web site of the Australian Department of Education, Science and Technology (Australian Government, 2005).

In 1997, changes were made to HECS. A multi-tier system was put into place, categorizing academic programs into bands. The higher potential salary earned in a field,
the higher the tuition level set for it. All students entering higher education in 1997 and beyond paid tuition according to this system. The single rate was maintained until 2004, when students who entered prior to 1997 were no longer eligible to be charged the single rate.

The next major change came in 2000, when low-interest loans at a fixed rate were made available to low-income students. Other students would continue to repay their loans with “interest” that was actually growth in the principal of the loan amount, indexed to annual inflation. This system made the actual repayments for most students unpredictable and assumed that their incomes would increase with the rate of inflation or greater.

The minimum annual income threshold for repayment of loans has varied widely over the history of HECS, where periods of stable increases have been mixed with wide swings, up and down. During the 1997 reforms, the minimum income threshold was lowered by 27%. This provided some offset to the sharp increases when the former single tuition rate expanded to the new three-tier band system. In 2004, the minimum income repayment threshold increased by 38% but was not offset by any cost decreases. Rather, individual institutions were provided discretionary aid to assist targeted groups of students who might not otherwise enroll. This decreased the transparency of costs for low-income/low-SES students.
Figure 10. Minimum income repayment threshold, 1989 – 2005. This table was compiled from information found in HECS and Opportunities in Education (Aungles et al., 2002), and the Australian government HECS information web site (Australian Government, 2005).
The history of HECS costs and the changes to it are shown in Table 8. As new iterations of the structure are implemented, an additional line has been added to the table. Starting in 1989, a single rate was established for any university degree program chosen by the student. Moving forward, the rate increased by a wide range of percentages, from a low of 0% between 1995 and 1996 to a high of 11.9% between 1992 and 1993. This suggests that the government was experiencing some early challenges in predicting the rate needed to support higher education costs for the coming year or that university financial needs were in flux. Then, in 1997, multiple rate-tier bands were established. The effect of this was a sharp increase between the rates charged for higher education in 1996 to students and the rates that new students had to pay in 1997. In 1996, the single rate for any baccalaureate program was A$2442. The next year, a program could cost new students between A$3,300 and A$5,500, a price increase of 35-125%. The single rate that continued after 1996 was provided only to continuing students who commenced studies prior to 1997. From that point forward, price increases returned to a small and steady percentage rate until 2005. Another sharp increase occurred in that year (27.6%) with a new band established for “national priority programs.” These two programs were carved out of the prior year’s Band 1 and given a nominal increase of $79 (2.1%).
### Higher Education Contribution Scheme (HECS) Rates, 1989 – 2005, Australia

<table>
<thead>
<tr>
<th>HECS Band</th>
<th>1989</th>
<th>1990</th>
<th>A$ increase</th>
<th>% increase</th>
<th>1995</th>
<th>A$ increase</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single rate</td>
<td>$1,800</td>
<td>$1,882</td>
<td>$82</td>
<td>4.6%</td>
<td>$1,993</td>
<td>$111</td>
<td>5.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HECS Band</th>
<th>1992</th>
<th>A$ increase</th>
<th>% increase</th>
<th>1993</th>
<th>A$ increase</th>
<th>% increase</th>
<th>1995</th>
<th>A$ increase</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single rate</td>
<td>$2,230</td>
<td>$237</td>
<td>11.9%</td>
<td>$2,328</td>
<td>$98</td>
<td>4.4%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HECS Band</th>
<th>1994</th>
<th>A$ increase</th>
<th>% increase</th>
<th>1995</th>
<th>A$ increase</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single rate</td>
<td>$2,355</td>
<td>$27</td>
<td>1.2%</td>
<td>$2,355</td>
<td>$0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HECS Band</th>
<th>1996</th>
<th>A$ increase</th>
<th>% increase</th>
<th>1997</th>
<th>A$ increase</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single rate</td>
<td>$2,442</td>
<td>$87</td>
<td>3.7%</td>
<td>$2,479</td>
<td>$36</td>
<td>1.5%</td>
</tr>
<tr>
<td>Band 1</td>
<td>$3,300</td>
<td>$858</td>
<td>35.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Band 2</td>
<td>$4,700</td>
<td>$2,258</td>
<td>92.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Band 3</td>
<td>$5,500</td>
<td>$3,958</td>
<td>125.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HECS Band</th>
<th>1998</th>
<th>A$ increase</th>
<th>% increase</th>
<th>1999</th>
<th>A$ increase</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single rate</td>
<td>2520</td>
<td>42</td>
<td>1.7%</td>
<td>$2,566</td>
<td>$40</td>
<td>1.4%</td>
</tr>
<tr>
<td>Band 1</td>
<td>3356</td>
<td>56</td>
<td>1.7%</td>
<td>$3,409</td>
<td>$53</td>
<td>1.6%</td>
</tr>
</tbody>
</table>
Table 7 (continued)

<table>
<thead>
<tr>
<th>HECS Band</th>
<th>2000 A$</th>
<th>%</th>
<th>2001 A$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>increase</td>
<td>increase</td>
<td>increase</td>
<td>increase</td>
</tr>
<tr>
<td>Single rate</td>
<td>$2,600</td>
<td>$40</td>
<td>1.6%</td>
<td>$2,600</td>
</tr>
<tr>
<td>Band 1</td>
<td>$3,463</td>
<td>$54</td>
<td>1.6%</td>
<td>$3,521</td>
</tr>
<tr>
<td>Band 2</td>
<td>$4,932</td>
<td>$77</td>
<td>1.6%</td>
<td>$5,015</td>
</tr>
<tr>
<td>Band 3</td>
<td>$5,772</td>
<td>$90</td>
<td>1.6%</td>
<td>$5,870</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HECS Band</th>
<th>2002 A$</th>
<th>%</th>
<th>2003 A$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>increase</td>
<td>increase</td>
<td>increase</td>
<td>increase</td>
</tr>
<tr>
<td>Single rate</td>
<td>$2,702</td>
<td>$102</td>
<td>3.9%</td>
<td>$2,764</td>
</tr>
<tr>
<td>Band 1</td>
<td>$3,598</td>
<td>$77</td>
<td>2.2%</td>
<td>$3,680</td>
</tr>
<tr>
<td>Band 2</td>
<td>$5,125</td>
<td>$110</td>
<td>2.2%</td>
<td>$5,242</td>
</tr>
<tr>
<td>Band 3</td>
<td>$5,999</td>
<td>$129</td>
<td>2.2%</td>
<td>$6,136</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HECS Band</th>
<th>2004 A$</th>
<th>%</th>
<th>2005 A$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Priorities</td>
<td>increase</td>
<td>increase</td>
<td>increase</td>
<td>increase</td>
</tr>
<tr>
<td>Band 1</td>
<td>$3,768</td>
<td>$88</td>
<td>2.4%</td>
<td>$4,808</td>
</tr>
<tr>
<td>Band 2</td>
<td>$5,367</td>
<td>$125</td>
<td>2.4%</td>
<td>$6,849</td>
</tr>
<tr>
<td>Band 3</td>
<td>$6,283</td>
<td>$147</td>
<td>2.4%</td>
<td>$8,618</td>
</tr>
</tbody>
</table>

2. Band 1: Arts, Humanities, Legal Studies and Justice, Social Studies/Behavioural Sciences, Visual/Performing Arts, Education, and Nursing, Justice and Legal Studies

3. Band 2: Mathematics, Computing, Other Health Sciences, Agriculture, Renewable Resources, Built Environment/Architecture, Sciences, Engineering, Processing and Administration, Business and Economics

4. Band 3: Law, Medicine, Medical Science, Dentistry, Dental Services and Veterinary Science

5. For 1997 and beyond, the single rate applies to only those students enrolled prior to 1997.

6. Information for this table was taken from HECS and Opportunities in Education (Aungles et al., 2002), and the Australian government HECS information web site (Australian Government, 2005)

These shifts in aid and costs may have had effects on the access of low-income/low-SES students. The increase in tuition through a system of tiers in 1997 might have decreased the perception of and actual affordability, as low-income students have been shown to be more sensitive to price increases (Colan, 2002). While lower and fixed interest rates may appear to provide greater affordability to low-income students, American students were shown to be more adverse to loans as a form of aid over grants (Dowd, 2004; Gladieux 1996; Government Accounting Office 1995). Finally, the unpredictable level of minimum repayment of loans could negatively affect the perception of affordability or low-income students at the time they and their parents are forming and acting upon ideas of college-going in the future, vis-à-vis St. John’s
balanced access model (St. John, 2003). An analysis of student enrollment trends through this period as they relate to socioeconomic factors could reveal evidence to support or refute these potential effects on low-income/low-SES students.

Longitudinal Study of Australian Youth (LSAY) 1995 and 1998

In assessing the college-going and attainment patterns of Australian students, the information available to do so is found in longitudinal data sets collected over several years. Two of these longitudinal data sets were used to assess low-income/low-SES student access to and degree attainment from higher education institutions in Australia. These are the Longitudinal Study of Australian Youth in 1995 and the same study from 1998. In each, an initial panel was surveyed in secondary school classrooms during year 9 of study. Follow-up studies were conducted on each panel to assess a wide variety of factors, some of which relate to higher education and post-secondary training, generally. Other factors assessed the transition from school to work, life styles, and overall satisfaction with life (Hillman, 2004).

One of the most striking differences between these data sets and those completed in American education research is the lack of direct data available on student and family income. Rather than asking for family income during studies, proxies are used. These proxies are determined from the postal codes of respondents, which lack precision and assume that all persons in the same postal code (or subdivision thereof) have the same approximate income status. This lack of income data creates a limitation of the study of student access and attainment when SES is a variable. Given the magnitude of this
assumptions and cited limitations of this factor in previous studies that utilize postal codes as a proxy for income, no use of postal code was made in this study. Rather, other SES variables are selected for use in the analysis.

The LSA data sets are also less thorough in their follow-up than their American counterparts. As the follow-up studies were conducted with the original panel, the number of cases is reduced sharply through sampling, rather than attempting to contact the full original panel. There was no enrichment of the data set, as was done in the National Educational Longitudinal Study of 1988 (NELS:88) set, nor was there any transcript analysis performed that could have enriched the data on college access and attainment.

Another significant limitation of the Australian data is the lack of any definitive measure of degree attainment. When asking students of their actual results of study, the survey questionnaires combined completion and dropout into the same response. This was confirmed with Archive Research Officer Stephen Gray of the Australian Social Science Data Archive at Australian National University via e-mail correspondence on January 17, 2006. However, persistence is generally measured (not specifically tied to type of study), and it will be possible to examine persistence toward degree against socioeconomic variables.

Socioeconomic status is not consolidated into a single variable in these data sets. Rather, there are several potential factors that may be considered. The only compiled SES variables known were used to study secondary school achievement and school leaving rates in the 11th grade as the primary consideration (Marks, 1999). The correlation table from that assessment is shown below.
Table 8

<table>
<thead>
<tr>
<th>SES measure</th>
<th>Valid cases</th>
<th>Achievement</th>
<th>Leaving school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father’s occupation (ANU3)</td>
<td>11,291</td>
<td>0.26</td>
<td>-0.05</td>
</tr>
<tr>
<td>Mother’s occupation (ANU3)</td>
<td>8,454</td>
<td>0.23</td>
<td>-0.09</td>
</tr>
<tr>
<td>Parents’ occupation (ANU3)</td>
<td>11,931</td>
<td>0.23</td>
<td>-0.08</td>
</tr>
<tr>
<td>Father’s education (years)</td>
<td>9,162</td>
<td>0.24</td>
<td>-0.12</td>
</tr>
<tr>
<td>Mother’s education (years)</td>
<td>9,361</td>
<td>0.22</td>
<td>-0.08</td>
</tr>
<tr>
<td>Education (years)</td>
<td>10,075</td>
<td>0.21</td>
<td>-0.09</td>
</tr>
<tr>
<td>Wealth (Items in Home)</td>
<td>9,837</td>
<td>0.19</td>
<td>-0.08</td>
</tr>
<tr>
<td>SES composite (Occ + Ed + Wealth)</td>
<td>7,173</td>
<td>0.30</td>
<td>-0.12</td>
</tr>
<tr>
<td>SEIFA - Disadvantaged</td>
<td>13,413</td>
<td>0.20</td>
<td>-0.08</td>
</tr>
<tr>
<td>SEIFA – Education and Occupation</td>
<td>13,413</td>
<td>0.24</td>
<td>-0.11</td>
</tr>
</tbody>
</table>

Note. Data for this table were taken from LSAY Technical Paper 14 (Marks, 1999).

From this chart, it is evident that the greatest single variable correlated to achievement is the occupation of the father (0.26). The composite variable for SES using occupation, education and wealth (a selection of various material possessions in the home) created the strongest correlation among all variables. However, the weighting of the individual variables used to create this is unknown. Further, it is not known how this SES variable relates to student access to higher education or baccalaureate degree attainment.
The acronym SEIFA (Socioeconomic Indicators for Areas) in Table 8 refers to a mapping of addresses to an index of geographic regions as a proxy for income. While this index may have been helpful to the analysis of access and attainment, this variable is not available in either data set studied.

There are numerous differences between the two data sets (1995 and 1998). Parental occupational SES has not been compiled in 1998, nor are there any variables present for household possessions. There is a scoring variable created for the father’s and mother’s job verbatim job description, which could serve as a method for creating quartiles of occupational SES, similar to those already provided in LSAY 1995. This scoring variable is based upon the ANU3 scale. The ANU3 scale has been used since 1965 to rate the socioeconomic status of individuals, according to their job title and description (McMillan & Jones, 2000).

Each of the two data sets has been laid against the educational framework of Australian education (Figure 11) to show how the original and follow-up studies as they occurred during the student’s educational progression. In each panel’s time-line, the assumption shown is the progression from one level of education to another in the most common time frame (i.e., most students would not repeat grades or move early from one level to another, a university degree takes 4 years, etc.). While there are exceptions included in the study, they are nominal and did not affect the assessment of access and attainment. The important policy shifts shown included in this figure demonstrate their potential impact on each LSAY cohort and are detailed following the chart. For example, the introduction of multi-tier pricing in 1997 came as the 1995 cohort was entering senior secondary school and/or TAFE and apprenticeship programs. For the 1998 cohort, this
same shift came when they were entering year eight, 2 full years before the same choices of educational pathways would be presented to them. The 2000 lower and fixed interest rate program for low-income students came after the 1995 cohort would have already made initial choices about educational paths in secondary school and were possibly 3 years along those paths at that time. For the 1998 cohort, the change came as they were making the choices about pursuing senior secondary and/or TAFE and apprenticeship programs. Wave 1 represents the initial survey, administered in classrooms across Australia. Each subsequent wave is a sample survey follow-up.
LSAY 1995 and 1998 Time Line with Significant Policy Shifts

**LSAY 1995**

<table>
<thead>
<tr>
<th>Year</th>
<th>Wave 1</th>
<th>Wave 2</th>
<th>Wave 3</th>
<th>Wave 4</th>
<th>Wave 5</th>
<th>Wave 6</th>
<th>Wave 7</th>
<th>Wave 8</th>
<th>Wave 9</th>
<th>Wave 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 8</td>
<td>Year 9</td>
<td>Year 10</td>
<td>Year 11</td>
<td>Year 12</td>
<td>Year 13</td>
<td>Year 14</td>
<td>Year 15</td>
<td>Year 16</td>
<td>Year 17</td>
<td>Year 18</td>
</tr>
</tbody>
</table>

- Secondary
- UACE
- University Advanced Degrees

**LSAY 1998**

<table>
<thead>
<tr>
<th>Year</th>
<th>Wave 1</th>
<th>Wave 2</th>
<th>Wave 3</th>
<th>Wave 4</th>
<th>Wave 5</th>
<th>Wave 6</th>
<th>Wave 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td>Year 6</td>
<td>Year 7</td>
<td>Year 8</td>
<td>Year 9</td>
<td>Year 10</td>
<td>Year 11</td>
<td>Year 12</td>
</tr>
</tbody>
</table>

- Initial
- UACE
- Advanced

Multi-lingual language introduced to RECS
Low-socioeconomic students
Lifetime borrowing limits of $500,000 imposed, ex: income replacement increased by 30%

**Figure 11.** LSAY datasets, student level and financing policy shifts in Australian higher education, 1994-2006. Information for this chart was assembled from policy documents, Australian qualifications framework, and the LSAY 1995 and 1998 Code Books.
Analysis of the LSAY 1995 Data Set

The 1995 Longitudinal Study of Australian Youth (LSAY) began with in-class surveys of roughly 13,000 students in the 9th year of study (secondary school). By surveying students at this time, the cohort had not yet entered into any postsecondary study, which is available to students as early as year 11 (somewhat similar to American students taking courses or vocational training at the local community college while still in high school). Like the NELS:88 and High School and Beyond surveys, students and parents alike were surveyed. Factors associated with their current socioeconomic status, as well as their aspirations for life after secondary school, were measured.

This earlier data set contains two compiled variables for occupational socioeconomic status, based on the ANU3 scale. However, it does not contain a variable beyond this, which might also incorporate factors that Marks (1999) suggests are significant on school leavers in his 1999 study mentioned previously. Therefore, the first task was to test those variables Marks listed against higher education access and attainment to determine any level of significance they may hold. Spearman’s rho was used to determine any levels of significance among the variables, as most are ranked (i.e., SES quartile, yes as opposed to no) in some way.

The following variables were extracted as coded below:

Mother’s Occupational Status (MOCC) in quartiles:

1 = High: Upper Professionals & Management
2 = Lower Professionals & Managers, Paraprofessionals, Technicians
3 = Trades, Clerks, Sales Reps & Farmers
4 = Low: Sales Assistants, Plant Operators, Labourers

Father’s Occupational Status (FOCC) in quartiles:
1 = High: Upper Professionals & Management
2 = Lower Professionals & Managers, Para-professionals, Technicians
3 = Trades, Clerks, Sales Reps & Farmers
4 = Low: Sales Assistants, Plant Operators, Labourers

Mother’s Educational Level:
1 = No Secondary School
2 = Some Secondary Schooling
3 = Completed Secondary School
4 = Trade or Technical Qualification
5 = Degree or Diploma

Father’s Educational Level:
1 = No Secondary School
2 = Some Secondary Schooling
3 = Completed Secondary School
4 = Trade or Technical Qualification
5 = Degree or Diploma
In 1995, does the student plan to study after secondary school?

1 = Yes
2 = No
8 = Double response (only 8 cases in the data set and negligible for results)

In 1995, what type of postsecondary education is planned?

1 = University Course
2 = Other TAFE Course
3 = Apprenticeship

In this last variable, three responses were eliminated and the remaining values and responses recoded into a new variable. Some students (2,145) skipped the question and had been assigned a value of 3. Others (199) provided a double response and had been assigned a value of 8. Some students (851) provided a response of “other;” however, the code book for those responses does not indicate what “other” might mean. Its value, 4, was omitted to prevent any clouding of the responses and allowed the remaining values (3736 cases) to hold a ranked value and potential for analysis using Spearman’s rho. This new variable was titled “95 Post-School Study Type valid cases.”
Assessment of Significance of SES Variables to Postsecondary Planning, Access and Achievement Variables

To assess the significance of these variables of interest, a correlation matrix was assembled and is shown in Table 9:

Table 9

<table>
<thead>
<tr>
<th></th>
<th>95 Post-school study type</th>
<th>95 Post School Study?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>valid cases</td>
<td></td>
</tr>
<tr>
<td>MOCC SES (1-4)</td>
<td>p</td>
<td>.143(** )</td>
</tr>
<tr>
<td>BASED ON V79A</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>7456</td>
</tr>
<tr>
<td>YOCC SES (1-4)</td>
<td>p</td>
<td>.179(*** )</td>
</tr>
<tr>
<td>4)(BASED ON V78A)</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>9197</td>
</tr>
<tr>
<td>95 Father’s level of</td>
<td>p</td>
<td>-.051(*** )</td>
</tr>
<tr>
<td>education</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>10093</td>
</tr>
<tr>
<td>95 Mother’s level of</td>
<td>p</td>
<td>-.037(*** )</td>
</tr>
<tr>
<td>education</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>10140</td>
</tr>
</tbody>
</table>

Note. ** p < .01 level, two - tailed.
From this analysis, we can see that, of the variables of interest, the type of study a student plans after secondary school is significantly associated with all four parental SES variables. In its association with parental occupational SES quartile, the level of significance (Spearman’s rho) for mother’s occupational SES is .143, and the father’s is .179 with a critical level $p < .01$. The positive direction of this relationship indicates that, as parent’s level of occupational SES quartile rises, so does the likelihood that a student will plan to study in a university, generally. In relationship to parental level of education, the level of significance is slightly lower (Spearman’s $p = .051$ for father and -.037 for mother, $p < .01$) and negative, reflecting the coding structure of these variables. Here, the level of education rises with the values of the education level variable, yet the type of study variable is coded 1 for university through 3 for apprenticeship. Given this negative direction, this analysis suggests that, as the level of parental education increases, the likelihood that a student will plan to study in a university after secondary school also rises, generally.

The plan to study or not after secondary school is significantly related only to the parent’s occupational SES quartile. The level of significance (Spearman’s rho) is lower than those for type of study, where the relationship to mother’s education level is .109 and the father’s is .133, $p < .01$. The positive direction of this relationship indicates that, as the parental education level rises, so does the likelihood that the student will plan to study after secondary school, generally.

In Marks’ study of SES in the 1995 LSAY data set, household possessions were found to be related to student leaving. They are indicated in the data set with a long list of items inventoried through the 1996 follow-up study (wave 2). Students were asked to
indicate if any of the following items were present in their households: washing machine, dishwasher, color television, microwave oven, mobile phone, CD player, video camera, computer, piano, and swimming pool. If the student responded “yes,” the response was coded 1; a “no” response was coded 2. The Spearman’s rho correlation between plans to study and the type of study after secondary school are shown in Table 10.

**Table 10**

*Household Possessions and Student Plans for Postsecondary Study, 1996, Australia*

<table>
<thead>
<tr>
<th></th>
<th>95 Post-school study type</th>
<th>95 POST SCHOOL STUDY?</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 Post-school study type</td>
<td>ρ</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.064</td>
</tr>
<tr>
<td>N</td>
<td>10618</td>
<td>10303</td>
</tr>
<tr>
<td>95 POST SCHOOL STUDY?</td>
<td>ρ</td>
<td>.029(∗∗)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.004</td>
</tr>
<tr>
<td>N</td>
<td>12819</td>
<td>12819</td>
</tr>
<tr>
<td>96 Washing machine</td>
<td>ρ</td>
<td>-.002</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.036</td>
</tr>
<tr>
<td>N</td>
<td>9365</td>
<td>9365</td>
</tr>
<tr>
<td>96 Dishwasher</td>
<td>ρ</td>
<td>.107(∗∗)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.009</td>
</tr>
<tr>
<td>N</td>
<td>9268</td>
<td>9268</td>
</tr>
<tr>
<td>Item</td>
<td>$\rho$</td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------</td>
<td>-----------------</td>
</tr>
<tr>
<td>96 Color TV</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(.006)</td>
</tr>
<tr>
<td>Microwave oven</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.020</td>
<td></td>
</tr>
<tr>
<td>Mobile phone</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.027(*)</td>
<td></td>
</tr>
<tr>
<td>CD player</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video camera</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.13(**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 10 (continued)

<table>
<thead>
<tr>
<th></th>
<th>95 Post-school study type</th>
<th>95 POST SCHOOL STUDY?</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Piano</td>
<td>p</td>
<td>.130(**)</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>7776</td>
</tr>
<tr>
<td>96 Swimming pool</td>
<td>p</td>
<td>.030(**)</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>7794</td>
</tr>
</tbody>
</table>

Note. * p < .05, two-tailed. ** p < .01, two-tailed.

From this list of household possessions, it is apparent that only some variables of interest have a significant relationship to a student’s postsecondary study plans and the type of study she/he plans to undertake. The highest magnitude of Spearman’s rho is seen in the relationship of student’s plans to the possession of a home computer (ρ = .151, for type of study and .113 for any study, p < .01). Also higher in magnitude was a piano in the home, and it is also significantly related to both variables at the critical level p < .01. Only a dishwasher also held this level of significance in relationship to both variables. Some possessions were related at the critical level p < .05 or had a relationship to only one of the variables. Given the variation in the level and significance of possessions to the variables of interest, further testing may help clarify their relationship to college access and attainment.
To assess the relationship between the SES variables to the actual access of students in the LSAY 1995 cohort, two additional variables were selected. In 2001, students were asked if they ever started a post-secondary course and, if so, what type of study they began (Hillman & McMillan, 2003). The first is labeled "Course I: Ever Commenced a Course?" and is coded 1 = yes and 2 = no. To obtain the other, it was necessary to aggregate and recode two other variables which ask the level of study started. One variable (vc1d05) asked if the level was TAFE or university studies. The other asked the level of apprenticeship certificate. These were assembled into one variable, "Course I Level of Qualification" and coded as follows:

0 = Apprenticeship (any type)
1 = TAFE course or certificate (any type)
2 = University diplomas or advanced diploma
3 = Bachelor or graduate degree program

This compilation allowed 5,427 cases to be analyzed. Those responses that were not known or categorized as "other" where other was not defined were omitted. These cases total less than 10% from all variables used.
### Table 11

*Parental SES Variables and Student Actual Access, 2001, Australia*

<table>
<thead>
<tr>
<th></th>
<th>COURSE 1 level of qualification</th>
<th>COURSE COMMENCED</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOCC SES (1-4)</td>
<td></td>
<td>0.117**</td>
<td>-0.206**</td>
</tr>
<tr>
<td>Based on V78A</td>
<td></td>
<td>0.006</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>6969</td>
<td>4802</td>
</tr>
<tr>
<td>MOCC SES (1-4)</td>
<td></td>
<td>0.108**</td>
<td>-0.171**</td>
</tr>
<tr>
<td>Based on V79A</td>
<td></td>
<td>0.000</td>
<td>0.005</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>4955</td>
<td>3984</td>
</tr>
<tr>
<td>95 Father’s education</td>
<td></td>
<td>-0.044**</td>
<td>0.059**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>6475</td>
<td>5140</td>
</tr>
<tr>
<td>95 Mother’s education</td>
<td></td>
<td>-0.040**</td>
<td>0.030*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>0.001</td>
<td>0.032</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>6514</td>
<td>5175</td>
</tr>
</tbody>
</table>

*Note: *p < .05, two-tailed. **p < .01, two-tailed.*

From this analysis, the relationship between the variables of interest is significant in seven of the eight results at the critical level \( p > .01 \) with one result significant at a lower critical level \( p < .05 \), the mother’s level of education in 1995 and the course level of qualification pursued by the student by 2001. The magnitude of the Spearman’s rho is consistently higher in the relationships between parental occupational SES quartile and
the student's access to higher education and level of study pursued than in the relationship between the access variables and parental level of education. Also, the father's level of education and occupational SES quartile is consistently higher in the magnitude of the Spearman's rho than the mother's. These results suggest that, as parental occupational SES rises, so does the likelihood that a student will access postsecondary education and that the initial course of study will be a baccalaureate degree at a university.

Once again, household possessions are analyzed, this time against actual access results from the data set, using these same two variables (ever accessed a course of study and type of course started). The correlation matrix is shown below:

<table>
<thead>
<tr>
<th>Household Possessions and Actual Student Access, 2001, Australia</th>
<th>Course 1 Level of qualification</th>
<th>COURSE1 Commenced</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 Washing machine</td>
<td>( p )</td>
<td>.012</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.402</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>4786</td>
</tr>
<tr>
<td>96 Dishwasher</td>
<td>( p )</td>
<td>-.135(**)</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>4771</td>
</tr>
<tr>
<td>96 Color TV</td>
<td>( \rho )</td>
<td>-.025</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.881</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>4784</td>
</tr>
<tr>
<td>96 Microwave oven</td>
<td>( \rho )</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.701</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>4780</td>
</tr>
<tr>
<td>96 Mobile phone</td>
<td>( \rho )</td>
<td>-.003</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.817</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>4754</td>
</tr>
<tr>
<td>96 CD player</td>
<td>( \rho )</td>
<td>-.029(*)</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.645</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>4776</td>
</tr>
<tr>
<td>Course 1 Level of qualification</td>
<td>COURSE1 Commenced</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td><strong>96 Video careers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$p$</td>
<td>-.027</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.668</td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>4733</td>
<td></td>
</tr>
<tr>
<td><strong>96 Piano</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$p$</td>
<td>-.162(**)</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>4724</td>
<td></td>
</tr>
<tr>
<td><strong>96 Swimming pool</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$p$</td>
<td>-.024</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.093</td>
<td></td>
</tr>
<tr>
<td>$N$</td>
<td>4733</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* $^*$ $p < .05$, two-tailed, $^{**} p < .01$, two-tailed.

In the correlation table (Table 12), there is consistency in the significance of some relationships between possessions and access from the correlation table that assessed their relationship to college access plans. The relationships of the greatest magnitude were a computer, a dishwasher and a piano, where the Spearman’s rho values were highest and the critical level of significance $p < .01$. The presence of a swimming pool is
related only any access (or plan for access) but not to level of study planned or started. This is inconsistent with the student’s stated plans in 1995, where the critical level of significance was $p < .01$ for type of study planned and less ($p < .05$) for any plans for study. However, there is consistency in the magnitude of these relationships in their weakness to the variables of interest. In both analyses, the level of Spearman’s rho was less than .054, indicating little or no relationship to the variables of interest. Given the coding for possessions (1 = yes and 2 = no) and the coding for level of study (value rises as it approaches baccalaureate study), there is a general tendency for the presence of a computer, dishwasher, and piano to indicate a greater likelihood that a student will both plan to and actually access higher education and that the type of study planned and actually undertaken is most likely to be at the university (baccalaureate) level, generally.

Given these analyses, the most consistent relationships between a student’s plan for higher education, actual access and study level, and socioeconomic factors indicated as significant by Marks (1999) are the father’s and mother’s occupational SES quartile and three household possessions. While the father’s level of education was significantly related to actual access, it was not consistent with the student’s plans for access. The mother’s level of education was significantly related only to type of study actually undertaken at a critical level of $p > .01$ and less strong in actual access ($p < .05$). In its relationship to a student’s plans in 1995, it was only significantly related to the type (level) of study planned and not to general plans for access. Given these inconsistencies, only the most consistent variables of interest will be used in the next step of analysis, chi squares. These variables are mother’s and father’s occupational SES quartile, father’s
level of education and the presence of a computer, dishwasher or piano in the home in 1996.

Chi-square Analysis of Significant SES Variables against College Planning and Actual Access and Attainment Variables

The first variables of interest are household possessions, as listed in the 1996 follow-up survey (Wave 3). Rather than provide an analysis of each, the chi-square analyses have been presented one following the other. The order of presentation is their relationship to planned access in 1995, actual access in 2001, planned level of study in 1995, and actual level of study in 2001. Given the length of this presentation of variables, the statistical tables have been compiled in Appendix B.

In these analyses, there are some basic common statistics that are important to report. First, each case presented a significant Pearson chi-square value for the test at the critical level $p < .001$. By grouping them into lowest, middle, and highest groups, we get a sense of the power of the relationships. In the lowest group are the relationships between the dishwasher and both access variables (planned and actual), where the Pearson chi-square values are 57.804 ($df = 2$) and 67.267 ($df = 1$), respectively, as well as the relationship between piano and actual access (Pearson $\chi^2 = 61.486$; $df = 1$). The middle group starts with the remaining relationships between the dishwasher in the household in 1996 and the student's planned and actual level of study after secondary school (Pearson's $\chi^2 = 108.569$ and 90.228, respectively, with $df = 3$ for both). The relationship between a home computer, planned access, actual access, and actual level of
study also fall into the middle group, with Pearson chi-square levels of 119.941 \((df = 2)\), 108.118 \((df = 1)\) and 122.506 \((df = 3)\), respectively. The last two variables to occupy the middle group came from the piano’s relationship to the student’s planned access and actual level of study. Here, Pearson chi-square values are 118.720 \((df = 2)\) for planned access in 1995 and 125.067 \((df = 3)\) for actual level of study in 2001. The highest group is comprised of the remaining two relationships, piano to planned level of study (Pearson \(\chi^2 = 174.426 \text{ (df = 3)}\)) and home computer to planned level of study (Pearson \(\chi^2 = 206.571, \text{ (df = 3)}\)).

There are also noteworthy observations within the standardized residuals of some relationships, either for their level of significance (Haberman, 1973) or lack thereof. The lack of a home computer skewed the actual distribution of cases away from bachelor’s degree planning or access and toward apprenticeship training, if any at all, while the presence of a home computer merely resulted in an expected distribution among those who planned or achieved access to a baccalaureate program. It was not the presence of the computer creating the significance but the lack of one that characterized the relationship. A similar effect at lower levels of standardized residuals can be seen in the presence of a dishwasher in the home. The lack of this appliance was associated with a skewed distribution away from access and baccalaureate level studies. However, having a dishwasher usually resulted in an expected distribution (not significant) in these regards. The presence of a piano in the home in 1996 skewed the actual responses of students away from the expected levels, specifically when asked about post-secondary plans in 1995. Students who reported having a piano were more highly associated with planning for university studies and away from TAFE or apprenticeship training at levels
of 6.0 – 6.1. Students answering "no" similarly were skewed away from university studies and toward TAFE or apprenticeships at levels of 4.5 to 4.6.

Could these household possessions be a side-effect of affluence? To test this, Spearman's rho was used to assess the level of correlation between these possessions and the other SES variables of interest, as shown in Table 13.
Table 13

*Household Possessions and Parental SES Variables, 1996, Australia*

<table>
<thead>
<tr>
<th></th>
<th>M OCC. SES (1-4)</th>
<th>Father’s occupation</th>
<th>35 Father’s education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BASED ON V79A</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>96 Dishwasher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\rho$</td>
<td>.165(**)</td>
<td>.180(**)</td>
<td>-.037(***</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>$N$</td>
<td>6835</td>
<td>8748</td>
<td>9172</td>
</tr>
<tr>
<td>96 Computer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\rho$</td>
<td>.157(**)</td>
<td>.159(**)</td>
<td>-.047(***</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>$N$</td>
<td>6831</td>
<td>8744</td>
<td>9167</td>
</tr>
<tr>
<td>96 Piano</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\rho$</td>
<td>.204(**)</td>
<td>.175(**)</td>
<td>-.060(***</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>$N$</td>
<td>6760</td>
<td>8653</td>
<td>9073</td>
</tr>
<tr>
<td>96 Swimming pool</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\rho$</td>
<td>.054(***</td>
<td>.104(**)</td>
<td>-.022(*)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.036</td>
</tr>
<tr>
<td>$N$</td>
<td>6782</td>
<td>8684</td>
<td>9102</td>
</tr>
</tbody>
</table>

*Note. * $p < .05$, two-tailed. ** $p < .01$, two-tailed.*

While parental occupational SES shows significant correlation to household possession of these items, the father’s educational level is weakly (yet significantly) correlated to them. This analysis suggests that, as the occupational SES quartile of a parent rises, so does the likelihood that one of the possessions will be in the home, generally. However, the magnitude of these correlations is low and this level reflects
little or no relationship, so it is not safe to assume that occupational SES alone could explain this (Hinkle, Wiersma, & Jurs, 2003).

As income data are not available, exploring the relationships between student plans and outcomes for postsecondary education, occupational SES, and father's level of education could reveal more about this. Again, the high number of tests required in comparing these variables using chi-square tests (due to the lack of consolidated SES variables) resulted in a long string of statistical tables. These are represented in Appendix C, and a few representative tables have been shown when the results are the most significant. As with the prior chi-square analysis, all Pearson chi-square values are significant at the critical level $p < .001$.

Comparing the magnitude of the Pearson's chi-square for these tests in small groups reveals the strongest and weakest relationships. The relationship between occupational SES quartile in 1995 and actual access in 2001 form a clear lowest group. For both mother and father, the chi-square levels (57.972 and 83.604, respectively, $df = 3$ for both) reflect actual distributions of cases close to the actual levels for the middle two occupational quartiles, except for the second quartile for mothers, where the standardized residual for students not accessing higher education was -3.7. In the outer quartiles, the distributions are skewed more significantly regarding the father's occupational SES, where levels of standardized residual for "no" responses to the access question were -5.5 for the highest SES quartile and 5.7 for the lowest quartile. This means that, generally, students from the highest father's occupational SES quartile were disproportionately low in the "no access" response and that the converse was true for students in the lowest quartile, they are overrepresented in the "no access" response.
The middle quartile is comprised of two test results, both related to the mother’s occupational SES quartile, planned access in 1995, and actual level of study in 2001. The Pearson chi-square value for the test of SES and planned access is 111.088 (df = 6), and the value for SES and actual level of study in 2001 is 132.088 (df = 9). In this test, the standardized residuals for students from the lowest SES quartile were the farthest away from expected levels in the distribution. Study at the baccalaureate level has a standardized residual of -5.0, countered by levels of 3.9 for apprenticeships and 5.0 for TAFE. Otherwise, many of the cells were close to or just slightly higher than the critical 2.0 significance level. In the test for planned access, there is little significant in the distribution of those who responded that they planned to study after secondary school. For those who answered no, however, there is over-representation in the lowest quartile (std. residual = 6.4) and under-representation in the first and second quartiles (std. residual = -4.4 and -5.6, respectively).

The highest group of results contains four results with Pearson chi-square levels over 200: mother’s occupational SES and planned level of study, father’s occupational SES and planned access, as well as planned and actual levels of study. Those associated with the father’s occupational SES show the greatest differences between expected and actual results in the top (highest quartile).
### Table 14

**Father’s Occupational SES Quartile and Student's Planned Access, 1995, Australia**

<table>
<thead>
<tr>
<th>FOCC SES (1-4) (Based on V78A)</th>
<th>95 Post School Study?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1 High/Upper professional &amp; management</td>
<td>Count</td>
<td>1105</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>1265.0</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>12.9%</td>
</tr>
<tr>
<td></td>
<td>Std. residual</td>
<td>3.9</td>
</tr>
</tbody>
</table>

### Table 15

**Father’s Occupational SES; Quartile and Student's Planned Level of Study, 1995, Australia**

<table>
<thead>
<tr>
<th>FOCC SES (1-4) (Based on V78A)</th>
<th>95 Post-School Study Type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2 Other</td>
</tr>
<tr>
<td></td>
<td>University</td>
<td>TAFE course</td>
</tr>
<tr>
<td>1 High/Upper professional &amp; management</td>
<td>Count</td>
<td>1116</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>859.0</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>12.1%</td>
</tr>
<tr>
<td></td>
<td>Std. residual</td>
<td>4.8</td>
</tr>
</tbody>
</table>
Table 16

*Father's Occupational SES Quartile and Student's Actual Level of Study, 2001, Australia*

<table>
<thead>
<tr>
<th>FOCC SES (1-4) Based On</th>
<th>Course 1 Level of Qualification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Apprenticeship</td>
<td>TAFE diploma</td>
</tr>
<tr>
<td>V/8A)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1 High:Upper professional &amp; management</td>
<td>62</td>
<td>125</td>
</tr>
<tr>
<td>Expected count</td>
<td>145.9</td>
<td>193.5</td>
</tr>
<tr>
<td>% of total</td>
<td>1.3%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>-6.9</td>
<td>-4.9</td>
</tr>
</tbody>
</table>

In each case, the skew is toward access and study at the baccalaureate level. The levels of standardized residuals (both negative and positive values) are highest for this quartile overall all others. In other tests, a skewed distribution in one quartile is countered by a similar skew in the opposite direction in another quartile. In these cases, the lack of that corresponding level suggests that the association with the highest quartile of father's occupational SES makes it more likely that students will plan or actually attain access to university (baccalaureate) study. In all studies in this group, students in the lowest quartile fared the worst in terms of planning for and accessing higher education, as well as planning for and attaining study at the baccalaureate level.

These strong levels are also seen in the chi-square tests between the father's educational level in 1995 and all four variables of interest (planned and actual access,
planned and actual level of study. All tests returned results significant at the $p < .001$ level with Pearson chi-square values exceeding 190. It is important to note that the lowest level of educational attainment by the father, no secondary school, represents just 3.0 – 3.6% of the total cases. For that reason, little attention has been given to analysis of those results. The four other levels of attainment have close to or well over 1000 cases in each row and provide a more robust basis for analysis.

The lowest magnitude of the Pearson chi square was seen in the relationship between father’s educational level and actual access (Pearson $\chi^2 = 122.652, df = 4$). Fathers who had some secondary school without completion had students who were over-represented in their actual access to higher education (std. residual = 5.7). Where fathers had a university degree or diploma, their students were under-represented in the no access category with a standardized residual of -7.8, a greater magnitude than the over-representation of the prior row mentioned above.

The highest magnitude of Pearson chi square is found in the relationship between the father’s educational level and student aspirations for type of postsecondary study to be pursued, where the level is 490.288 ($df = 12$). The results are the strongest seen in the data set thus far and are shown in Table 17 below.
Table 17  
Father’s Education Level and Student’s Planned Level of Study, 1995, Australia

<table>
<thead>
<tr>
<th>Education Level of Father's or Student's</th>
<th>Post-school Study Type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>1 University Course</td>
<td>2 TAFE Course</td>
</tr>
<tr>
<td>1 No secondary school count</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>Expected count</td>
<td>155.2</td>
<td>29.1</td>
</tr>
<tr>
<td>% of total</td>
<td>1.3%</td>
<td>.5%</td>
</tr>
<tr>
<td>std. residual</td>
<td>-.43</td>
<td>.72</td>
</tr>
<tr>
<td>2 Some secondary school count</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>Expected count</td>
<td>1302.3</td>
<td>244.4</td>
</tr>
<tr>
<td>% of total</td>
<td>14.4%</td>
<td>3.3%</td>
</tr>
<tr>
<td>std. residual</td>
<td>-.59</td>
<td>.34</td>
</tr>
<tr>
<td>3 All years of education</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>Expected count</td>
<td>796.2</td>
<td>149.3</td>
</tr>
<tr>
<td>% of total</td>
<td>10.3%</td>
<td>2.3%</td>
</tr>
<tr>
<td>std. residual</td>
<td>-.5</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Table 17 (continued)

<table>
<thead>
<tr>
<th>4 Trade or technical qualification</th>
<th>1 University course</th>
<th>2 Other TAFE course</th>
<th>3 Apprenticeship</th>
<th>4 Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>996</td>
<td>271</td>
<td>337</td>
<td>137</td>
<td>1741</td>
</tr>
<tr>
<td>Expected</td>
<td>1102.8</td>
<td>206.9</td>
<td>302.2</td>
<td>129.1</td>
<td>1741.6</td>
</tr>
<tr>
<td>% of total</td>
<td>13.1%</td>
<td>3.0%</td>
<td>4.4%</td>
<td>1.8%</td>
<td>23.0%</td>
</tr>
<tr>
<td>std. residual</td>
<td>-3.2</td>
<td>4.5</td>
<td>2.0</td>
<td>.7</td>
<td></td>
</tr>
<tr>
<td>5 University degree or diploma</td>
<td>Count</td>
<td>1853</td>
<td>128</td>
<td>189</td>
<td>132</td>
</tr>
<tr>
<td>Expected</td>
<td>1445.5</td>
<td>271.2</td>
<td>396.1</td>
<td>169.2</td>
<td>2282.0</td>
</tr>
<tr>
<td>% of total</td>
<td>24.2%</td>
<td>1.7%</td>
<td>2.5%</td>
<td>1.3%</td>
<td>30.1%</td>
</tr>
<tr>
<td>std. residual</td>
<td>10.2</td>
<td>-8.7</td>
<td>-10.4</td>
<td>-2.9</td>
<td></td>
</tr>
<tr>
<td>Total count</td>
<td>4802</td>
<td>901</td>
<td>1316</td>
<td>562</td>
<td>7581</td>
</tr>
<tr>
<td>Expected</td>
<td>4802.0</td>
<td>901.0</td>
<td>1316.0</td>
<td>562.9</td>
<td>7581.0</td>
</tr>
<tr>
<td>% of total</td>
<td>63.3%</td>
<td>11.9%</td>
<td>17.4%</td>
<td>7.5%</td>
<td>100.9%</td>
</tr>
</tbody>
</table>

The level of standardized residuals in the fifth level of father's education, university degree or diploma, reveal the strong skew toward baccalaureate expectations and away from other levels of higher education. This generational educational access replication can be seen in the TAFE level, as well, where the father's completion of trade
or technical qualifications is associated with an overrepresentation of students in that category (std. residual = 4.5) and away from university-level studies (std. residual = -3.2).

What might be most interesting in this analysis is the distribution of students whose fathers completed no more than secondary schooling. They distributed into all categories within expectation, including the university category. One possible explanation could be the ability of some men to move into higher SES occupations without a university degree. The correlation of these two variables is shown below, using Spearman’s rho.

Table 18
Father’s Occupational SES Quartile and Education Level, 1995, Australia

<table>
<thead>
<tr>
<th>FOCC: SES (1-4) (BASED ON V78A)</th>
<th>1995 Father’s level of education</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>11358</td>
</tr>
</tbody>
</table>

1995 Father’s level of education valid cases
| p | -.443(**) | 1.000 |
| Sig. (2-tailed) | .000 | . |
| N | 8453 | 9162 |

Note. ** p < .01, two-tailed.

Since the values for father’s education level rise with a higher level of attainment and the coding for occupational SES reflects lower values for higher level positions, the
negative direction of this relationship only partially supports some level of the hypothesis above. While the relationship is significant at the critical level $p < .01$, the magnitude of the relationship (-.443) shows that there are factors beyond educational level that account for occupational SES. However, this is a moderately strong relationship, where educational attainment accounts for a large share of occupational SES.

Assessment of SES Significant Variables Against Attainment/Persistence Variables

Attainment variables are not available in this data set and the limitation presented by this in this study has been noted earlier. However, two persistence variables are available for those students who started studies at the TAFE or university level. During the 2001 follow-up survey (wave 7), a sample of students from the original 1995 panel were asked about their continuation of their original studies at that time. As most students (78.7% of the sample) entered higher education in 1999, the expected year for their transition from senior secondary school, this represents a status check 2 years later. The correlation of that variable (Course 1 (TAFE/UNI). Still a Student?) with our SES variables used for access is shown below, where responses to the persistence variable are coded 1 = yes, still a student, and 2 = no longer a student.
Table 19

Parented SES Variables and Student’s Level of Study, 2001, Australia

<table>
<thead>
<tr>
<th>COURSE1 (TAFE/UNI):</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENT STUDENT?</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1995 Father’s level of education valid cases</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

| MOCC SES (1-4) BASED | \( p \) | \( .086^{**} \) |
|                     | Sig. (2-tailed) | \( .000 \) |
|                     | \( N \) | 3362 |

| FOCC SES (1-4) (BASED) | \( p \) | \( .084^{**} \) |
|                       | Sig. (2-tailed) | \( .000 \) |
|                       | \( N \) | 3995 |

| 96: Dishwasher | \( p \) | \( .043^{**} \) |
|               | Sig. (2-tailed) | \( .006 \) |
|               | \( N \) | 3995 |

| 96: Computer | \( p \) | \( .075^{**} \) |
|             | Sig. (2-tailed) | \( .000 \) |
|             | \( N \) | 3998 |

| 96 Piano | \( p \) | \( .371^{**} \) |
|          | Sig. (2-tailed) | \( .900 \) |
|          | \( N \) | 3966 |

Note: ** \( p < .01 \), two-tailed.
While each of the variables of interest has a significant relationship to the persistence variable at the critical level $p < .01$, the magnitude of the relationships is small. Given the coding of the variables, the direction of these relationships indicates that persistence in the original course of study has little, if any, relationship to SES. For those who do not persist, however, is there a significant relationship? To analyze this, an additional variable was created from the responses of students in the 2001 (wave 7) follow-up who were no longer students. One possibility was completion (coded as 1), another was transfer to another course of study (coded as 2 and another form of persistence) and, finally, withdrawal or deferral of studies. There were 60 cases of missing values that were not included in the analysis. The correlation matrix of the SES variables of interest is shown below.

Table 20
*Parental SES Variables, Household Possessions, and Student’s Level of Study, 2001, Australia*

<table>
<thead>
<tr>
<th>Course 1 completion results</th>
<th>1995 Father’s level of education valid cases</th>
<th>Sig. (2-tailed)</th>
<th>$\rho$</th>
<th>N</th>
<th>MOCC SES (1-4) BASED</th>
<th>$\rho$</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>ON V79A</th>
<th>$\rho$</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\rho$</td>
<td>.087(**)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td></td>
<td>1526</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\rho$</td>
<td>-.046</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.067</td>
<td></td>
<td>1557</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 20 (continued)

<table>
<thead>
<tr>
<th>Course 1 completion results</th>
<th>FOCC SES (1-4) (BASED)</th>
<th>p</th>
<th>.055(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON V78A)</td>
<td>Sig. (2-tailed)</td>
<td>.017</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>1864</td>
<td></td>
</tr>
<tr>
<td>66 Dishwasher</td>
<td>p</td>
<td>-.044</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.057</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>1833</td>
<td></td>
</tr>
<tr>
<td>96 Computer</td>
<td>p</td>
<td>-.033</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.156</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>1836</td>
<td></td>
</tr>
<tr>
<td>96 Piano</td>
<td>p</td>
<td>-.062(**)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>1820</td>
<td></td>
</tr>
</tbody>
</table>

Note. * p < .05, two-tailed. ** p < .01, two-tailed.

In this analysis, there is little if any correlation between completion or withdrawal from studies and SES variables. While father's level of education and the presence of a piano show significant relationships at the critical level p < .01 and father's occupational status shows a significant relationship at the critical level p < .05, the magnitude of the correlation coefficients is too low to draw any meaningful relationships from these results. Although roughly 47% of the students who left at that point did so because they
completed studies, there appears to be no relationship between persistence and SES in Australian higher education.

Table 21

| Course (TAFE/University): Reason Stopped (Course Outcome) Frequencies, 2001, Australia |
|-------------------------------|--------|--------|--------|
|                               | Frequency | %     | Valid % | Cumulative % |
| Valid                         |          |       |        |              |
| 1. Completed                  | 1015     | 7.5   | 46.9   | 46.9          |
| 2. Changed course             | 286      | 2.1   | 13.2   | 60.1          |
| 3. Withdrew                   | 520      | 3.8   | 24.0   | 84.1          |
| 3. Deferred                   | 283      | 2.1   | 13.1   | 97.2          |
| 9. Missing                    | 60       | 0.4   | 2.8    | 100.0         |
| Total                         | 2164     | 15.9  |        | 100.0         |
| Missing System                | 11445    | 84.1  |        |               |
| Total                         | 13613    | 100.0 |        |               |

Assessment of Student/Parent Expectation Variables Against actual Outcomes

It is also possible to examine the relationships between student and parents expectations for postsecondary education and actual outcomes. This examines the relationship of these factors in St. John's balanced access model (St. John, 2003). For this, the correlation between the student's college plans in 1995 are set against the outcomes for starting any course; in 2001, as shown in the correlation matrix below.
Table 22

*Planned Study and Actual Study (yes/no), 2001, Australia*

<table>
<thead>
<tr>
<th></th>
<th>95 POST SCHOOL</th>
<th>COURSE1: EVER</th>
<th>COMMENCED A COURSE?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study?</td>
<td>p</td>
<td>1.000</td>
<td>.169 (**)</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>12819</td>
<td>6539</td>
</tr>
<tr>
<td>Course1: Ever</td>
<td>p</td>
<td>.169 (**)</td>
<td>1.000</td>
</tr>
<tr>
<td>Commenced a Course?</td>
<td>Sig. (2-tailed)</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>6539</td>
<td>6876</td>
</tr>
</tbody>
</table>

Note. ** p < .01 , two-tailed.

This analysis reveals a significant relationship between the two variables of interest (Spearman’s ρ = .169, p < .01). Given the coding of the variables (1 = yes, 2 = no), the positive direction of the relationship suggests that, as a student plans to study in 1995 was negative, the likelihood of actual study decreased, generally. However, the magnitude of the Spearman’s rho suggests that the relationship is not a strong one.
### Table 23

**Planned Study and Actual Study – Type/Level of Study, 2001, Australia**

<table>
<thead>
<tr>
<th>95 Post-school study type valid cases</th>
<th>Course I level of qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000</td>
<td>-.393(**).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>p</th>
<th></th>
<th>.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>10618</td>
<td>4630</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>-.393(**)</th>
<th>1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>4630</td>
</tr>
</tbody>
</table>

**Note.** **p < .01, two-tailed.**

The type of study planned in 1995 related to the actual study undertaken reveals a stronger significant relationship (Spearman’s ρ = -.393, p < .01). The coding of these variables is opposite (1 = university study, 4 = other in 1995 planning, and 3 = university, 0 = apprenticeship in actual study undertaken by 2001). Given this, the negative direction of the relationship suggests that, when a student planned university study in 1995, the likelihood of that level of study in 2001 increased, generally. The magnitude of this correlation suggests a moderate level to the relationship and is the second strongest of the relationships of this data set (behind father’s occupational SES quintile and actual level of study).

To assess the relationship between parental expectations and student outcomes, four individual survey questions regarding the 1995 parents’ plans for the student after
completion of secondary school (study full-time or part-time, work full-time or part-time) were compiled. In cases where a parent answered "yes" to one of the four individual questions, those responses were compiled into two responses (1 = work, 2 = study) in one variable, "1995 Parent’s Plans for Student (work/study)." The correlations between this variable and the actual access of students is shown below, as is its relationship to the plans of students in 1995.

Table 24

| Parental Aspirations for Student and Student Actual Access, 2001, Australia |
|--------------------------------------------|------------|----------------
| 1995 Parent's plans for student (work/study) | COURSE1: EVER | COMMENCED A COURSE? |
|                                           |            |                  |
| 1995 Parent’s plans for student (work/study) | p | 1.000 | -222(∗∗) |
|                                           | Sig. (2-tailed) | . | .000 |
|                                           | N | 7535 | 3755 |
| COURSE1: EVER | p | -222(∗∗) | 1.000 |
| COMMENCED A COURSE? | Sig. (2-tailed) | .000 | . |
|                   | N | 3755 | 6876 |

Note: ** p < .01, two-tailed.
Table 25

<table>
<thead>
<tr>
<th>Parent and Student Plans for Postsecondary Study, 1995, Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995 Parent’s plans for student (work/study)</td>
</tr>
<tr>
<td>1995 Parent’s plans for student (work/study)</td>
</tr>
<tr>
<td>student (work/study)</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>95 POST SCHOOL STUDY?</td>
</tr>
<tr>
<td>STUDY?</td>
</tr>
<tr>
<td>N</td>
</tr>
</tbody>
</table>

Note. ** p < .01, two-tailed.

These analyses reveal that the relationship between parental expectations and student outcomes are less strong than student expectations (Spearman’s ρ = -222, p < .01) yet significant. The coding of these variables and the negative direction of the relationship suggest that, as parental expectations for students to work increase, the likelihood of college access decreases, generally. The second table reveals that, while there is a significant and moderate relationship between parental and student expectations in 1995, they are not identical, and there is some difference between student and parent expectations that may account for some of the difference in magnitude between actual access in 2001 and the expectations of students and their parents in 1995.

One additional test of correlation was performed to determine the extent to which student aspirations for life after secondary school are related to socioeconomic variables.
Here, Spearman’s rho was used to compare the variable for student plans to study (coded 1) or work (coded 2). Out of 12,519 responses to this question in 1995, there were 18 exact responses that are not defined but coded as 3. These do not affect the overall statistical significance of the correlation test.

The correlation matrix is shown in the table below. It reveals that there are significant relationships between all three parental SES variables of significance from earlier tests and the student’s plan to work or study after secondary school at the critical level \( p < .01 \). The direction of the relationship between parental occupational SES and the student’s plans is a positive one, suggesting that, as the parent’s occupational SES rises, the likelihood that the student will plan to study after secondary school also rises, generally. The direction of the relationship between student plans and the father’s level of education is a negative one. Given the coding of the variables of interest (lowest education levels = 1 and highest levels = 5), this suggests that, as the father’s education level rises, the likelihood that the student will also plan to study after secondary school also rises, generally. This last relationship is the strongest found in this test, where the magnitude of the Spearman’s rho (-.177) is higher than those for parental occupational SES variables.
### Table 26

**Parental SES and Student Postsecondary Plans, 1995, Australia**

<table>
<thead>
<tr>
<th>MOCSES SES</th>
<th>FOCC SES</th>
<th>Father's level of SCHOOL</th>
<th>95 POST* (\text{valid cases})</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1-4)</td>
<td>(1-4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASED ON</td>
<td>BASED ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V79A</td>
<td>ON V78A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOCSES</th>
<th>(\rho)</th>
<th>(p = .000)</th>
<th>(p = .000)</th>
<th>(p = .000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1-4)</td>
<td>(\rho)</td>
<td>(p = .000)</td>
<td>(p = .000)</td>
<td>(p = .000)</td>
</tr>
<tr>
<td>BASED ON</td>
<td>(N)</td>
<td>(8491)</td>
<td>(8491)</td>
<td>(8491)</td>
</tr>
<tr>
<td>V79A</td>
<td>(N)</td>
<td>(8491)</td>
<td>(8491)</td>
<td>(8491)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FOCC SES</th>
<th>(\rho)</th>
<th>(1.000)</th>
<th>(1.000)</th>
<th>(1.000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1-4)</td>
<td>(\rho)</td>
<td>(1.000)</td>
<td>(1.000)</td>
<td>(1.000)</td>
</tr>
<tr>
<td>BASED ON</td>
<td>(N)</td>
<td>(6785)</td>
<td>(6785)</td>
<td>(6785)</td>
</tr>
<tr>
<td>V79A</td>
<td>(N)</td>
<td>(8805)</td>
<td>(8805)</td>
<td>(8805)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Father's level of education</th>
<th>(\rho)</th>
<th>(1.000)</th>
<th>(-1.77(\star\star))</th>
<th>(-1.77(\star\star))</th>
</tr>
</thead>
<tbody>
<tr>
<td>level of education</td>
<td>(\rho)</td>
<td>(1.000)</td>
<td>(-1.77(\star\star))</td>
<td>(-1.77(\star\star))</td>
</tr>
<tr>
<td>(N)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>95 POST</td>
<td>(\rho)</td>
<td>(1.000)</td>
<td>(-1.77(\star\star))</td>
<td>(-1.77(\star\star))</td>
</tr>
<tr>
<td>(N)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>(\rho)</th>
<th>(1.000)</th>
<th>(-1.77(\star\star))</th>
<th>(-1.77(\star\star))</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STUDY?</th>
<th>(\rho)</th>
<th>(1.000)</th>
<th>(-1.77(\star\star))</th>
<th>(-1.77(\star\star))</th>
</tr>
</thead>
<tbody>
<tr>
<td>(N)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** \(\star\star\) \(p < .01\), two-tailed.
Conclusions from the 1995 LSAY Data Set

Generally, access for Australian students in the LSAY 1995 data set can be measured in the context of Australian higher education through their parents’ occupational status and the educational level of their fathers. The analysis of these relationships reveals that the father’s occupational SES and educational attainment at the baccalaureate level are the strongest factors associated with aspirations for and access to higher education at the baccalaureate level, among those included in this study. A home computer was also significant in its relationship to students who did not possess one in 1996. These students had lower aspirations for and actual access to a university education, generally. Once in higher education at the TAFE or university level, there is little evidence to support a meaningful relationship between SES and persistence. Student expectations in 1995 about college access and type of study were stronger than parental expectations, when compared to actual 2001 access.

Analysis of the LSAY 1998 Data Set

The 1998 Longitudinal Study of Australian Youth (LSAY 1998) is very similar to the 1995 study in its design. An initial cohort of 14,118 ninth-year students (the first year of secondary school) were selected to form a representative sample of all Australian youth (Fleming, 1999). Each year after this, a follow-up study was conducted using mail or telephone to determine the path each student followed toward work or education. The
initial and follow-up studies are referred to as “waves” and were conducted annually (i.e., Wave 1 = initial 1998 survey, Wave 2 = 1999 follow-up, Wave 3 = 2000 follow-up, etc.). Some of the limitations of the 1995 study are present in the 1998 study, as well.

There is no consolidated variable for socioeconomic status. Further, no occupational status quartile, found to be significantly related to student access in the 1995 study, has been assembled here. To develop this, data present in the survey were used. First, an occupational status quartile was developed from the Australian National University 3 (ANU3) scale provided in the data set. Cases for all fathers and mothers present with these ratings were compiled into quartiles, using the highest ratings to populate the highest quartile, the next highest group into the next quartile, and so on. The spread and cases for each quartile are shown below:

Table 27

Father’s Occupational (FOCC) SES Quartile, 1988, Australia

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartile 1</td>
<td>2249</td>
<td>15.9</td>
<td>25.2</td>
<td>25.2</td>
</tr>
<tr>
<td>Quartile 2</td>
<td>2307</td>
<td>16.3</td>
<td>25.9</td>
<td>51.1</td>
</tr>
<tr>
<td>Quartile 3</td>
<td>2170</td>
<td>15.4</td>
<td>24.3</td>
<td>75.5</td>
</tr>
<tr>
<td>Quartile 4</td>
<td>2187</td>
<td>15.5</td>
<td>24.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total Valid</td>
<td>8913</td>
<td>63.1</td>
<td></td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>5205</td>
<td>36.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14118</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * is low, † is medium low, ‡ is medium high, ¶ is high.
Table 28

*Mother’s Occupational (MOCC) SES Quartiile, 1988, Australia*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartile 1&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1559</td>
<td>11.0</td>
<td>23.8</td>
<td>23.8</td>
</tr>
<tr>
<td>Quartile 2&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1997</td>
<td>14.1</td>
<td>30.4</td>
<td>54.2</td>
</tr>
<tr>
<td>Quartile 3&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1144</td>
<td>9.1</td>
<td>17.4</td>
<td>71.7</td>
</tr>
<tr>
<td>Quartile 4&lt;sup&gt;d&lt;/sup&gt;</td>
<td>1859</td>
<td>13.2</td>
<td>28.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6559</td>
<td>46.5</td>
<td>100.0</td>
<td></td>
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<tr>
<td>Missing</td>
<td>System</td>
<td>7559</td>
<td>53.5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: <sup>a</sup> is low, <sup>b</sup> is medium low, <sup>c</sup> is medium high, <sup>d</sup> is high.

It was also necessary to aggregate parental educational level from four other variables, where the parent was asked to tick “yes” or “no” to a question for each level of qualification: none, apprenticeship, TAFE, or university degree. There was also a box for “other” which was not defined in the code book for the survey. For this reason, it was excluded as an educational level, omitting 1765 records for fathers and 1835 records for mothers. The remaining educational levels were compiled into the following two variables:
## Table 29

**Father's Educational Level, 1988, Australia**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>No</td>
<td>2701</td>
<td>19.1</td>
<td>29.8</td>
</tr>
<tr>
<td></td>
<td>postsecondary credential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Apprenticeship</td>
<td>2753</td>
<td>19.5</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>TAFE</td>
<td>521</td>
<td>3.7</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>University</td>
<td>3074</td>
<td>21.8</td>
<td>34.0</td>
</tr>
<tr>
<td></td>
<td>degree/diploma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>9049</td>
<td>64.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>5069</td>
<td>35.9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>14118</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
### Table 30

**Mother’s Educational Level, 1988, Australia**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>3828</td>
<td>27.1</td>
<td>42.2</td>
<td>42.2</td>
</tr>
<tr>
<td>postsecondary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apprenticeship</td>
<td>713</td>
<td>5.1</td>
<td>7.9</td>
<td>50.0</td>
</tr>
<tr>
<td>TAFE</td>
<td>1642</td>
<td>11.6</td>
<td>18.1</td>
<td>68.1</td>
</tr>
<tr>
<td>University</td>
<td>2891</td>
<td>20.5</td>
<td>31.9</td>
<td>100.0</td>
</tr>
<tr>
<td>degree/ diploma</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9074</td>
<td>64.3</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>5044</td>
<td>35.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14118</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variables exist in the data set that allow for measurement of student aspirations. The first is a question of whether or not the student planned to study after secondary school at all, “98 Post Schl Study.” This contained a small number of cases outside the 1 = yes, 2 = no coding structure. These few (20) cases (2 coded 0 and 18 coded 8) contained no explanation for the coding and were deleted from the data when the variable was recoded as “98 Post-School Study? valid cases.”
The second aspiration variable measures the student’s planned level of study as of 1998. Titled “98 Post Schl Study Type,” it included an undefined response, “other” (coded 4), as well as a response for “no study” (coded 5). The 674 “other” responses were excluded, as there is no explanation for what “other” means and how these cases might affect the data analysis. Also excluded were 1960 responses for “no study,” so that a comparison could be made to the same responses for this question in the 1995 data set. The order of responses were also recoded into 1 = University study, 2 = TAFE, and 3 = Apprenticeship, to correspond with the coding for responses to this question in 1995. The recoded variable is titled “98 Post-School Study Type valid cases.”

**Assessment of Significance of SES Variables to Postsecondary Planning, Access and Attainment Variables**

To assess the relationship between socioeconomic status and the student’s plans for higher education, correlation matrices were developed. The first examines the relationship between the SES variables and whether or not in 1998 the student planned to study after secondary school. As the SES quartiles and occupational status are ranked responses and the response to study plans is also ranked (yes is assumed to be a more desired response than no), Spearman’s rho is used for the test.
### Table 31

**Parental SES Variables and Student Plans for Postsecondary Study (yes/no), 1998. Australia**

<table>
<thead>
<tr>
<th></th>
<th>98 Post School Study? valid cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOCC SES quartile</td>
<td></td>
</tr>
<tr>
<td>( \rho )</td>
<td>-.144(***).</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>( N )</td>
<td>8516</td>
</tr>
<tr>
<td>MOCC SES quartile</td>
<td></td>
</tr>
<tr>
<td>( \rho )</td>
<td>-.119(***).</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>( N )</td>
<td>6264</td>
</tr>
<tr>
<td>Father’s education level</td>
<td></td>
</tr>
<tr>
<td>( \rho )</td>
<td>-.189(***).</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>( N )</td>
<td>9305</td>
</tr>
<tr>
<td>Mother’s education level</td>
<td></td>
</tr>
<tr>
<td>( \rho )</td>
<td>-.175(***).</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>( N )</td>
<td>8679</td>
</tr>
</tbody>
</table>

**Note.** **\( p < .01 \)**, two-tailed.

From this analysis, there is evidence of a significant relationship between the variables of interest at the critical level \( p < .01 \). Given the coding of these variables and the negative direction of the relationship, the higher the quartile of parental occupational SES and the higher the level of parental education, the greater the likelihood that the student will plan for postsecondary study, generally. The highest magnitude of the
Spearman's rho occurs between these plans and the father's educational level, followed closely by the mother's. The levels of magnitude are slightly lower for father's and mother's occupational SES quartile, respectively.

These same parental variables were correlated to the student's 1998 plans for level of study, as shown in the table below:

Table 32

Parental SES Variables and Student Planned Level Study, 1998, Austria

<table>
<thead>
<tr>
<th>FOCC SES quartile</th>
<th>( \rho )</th>
<th>(-.223^{(**)})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.900</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>6862</td>
</tr>
<tr>
<td>MOCC SES quartile</td>
<td>( \rho )</td>
<td>(-.197^{(**)})</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>5171</td>
</tr>
<tr>
<td>Father's education level</td>
<td>( \rho )</td>
<td>(-.235^{(**)})</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>7579</td>
</tr>
<tr>
<td>Mother's education level</td>
<td>( \rho )</td>
<td>(-.213^{(**)})</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
<td>7098</td>
</tr>
</tbody>
</table>

Note. ** \( \rho < .01 \) two-tailed.
As this analysis reveals, there is a significant relationship between the parental SES variables of interest and the student’s planned level of study at the critical level $p < .01$. The coding of the variables and the direction of the relationship suggests that, the higher the level of parental occupational SES or education, the greater the likelihood that the student will plan for university study. The level of magnitude of the Spearman’s rho for all variables is similar, ranging from the highest level (strongest relationship) between father’s education level and student’s planned level of study and the lowest between it and the mother’s level of education.

To assess the significance of SES variables against actual college access, a variable contained in the 2002 (Wave 5) follow-up study, “B1: Main Activity Since Leaving School,” was used. This survey attempted to contact a sample of the original 1998 cohort via telephone. This is the first year that most students would have been eligible to begin university-level studies. The possible responses were $1 =$ Studying, $2 = $ Working, $3 = $ Looking for Work, and $4 = $ Other. These responses were recoded into a new variable, “Studying since Leaving School?” with responses collapsed into $1 = $ Yes, studying and $2 = $ No, Working or other.
Table 33

Parental SES Variables and Student Actual Access, 2002, Australia

<table>
<thead>
<tr>
<th></th>
<th>Studying since leaving school?</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOCC SES quartile</td>
<td>( \rho )</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
</tr>
<tr>
<td>MOCC SES quartile</td>
<td>( \rho )</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
</tr>
<tr>
<td>Father’s education level</td>
<td>( \rho )</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
</tr>
<tr>
<td>Mother’s education level</td>
<td>( \rho )</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>( N )</td>
</tr>
</tbody>
</table>

\( \rho \) values are significant at the .01 level (two-tailed).

Note. ** \( p < .01 \), two-tailed.

This analysis reveals significant relationships between all four parental SES variables and actual access at the critical level \( p < .01 \). The magnitude of the Spearman’s \( \rho \) is similar in all relationships, with the strongest level/relationship between actual access and father’s educational level (\.181) and the lowest/weakest between actual access and mother’s occupational SES quartile (\.154). Parental educational level relationships were slightly stronger than parental occupational SES quartile relationship.
to actual student access. The negative direction of these relationships and the coding of
the variables suggests that, as parental SES status increases, the likelihood of actual
student access to higher education also rises, generally.

In this same follow-up survey, students were asked what level of study they had
attempted after secondary school completion. There were 18 possible levels of study
offered as responses to question “CA4: Type of Qual Working Towards.” These 18
responses were collapsed into three areas, according to their general level: TAFE and
University. The 4665 responses were coded 2 and 3, respectively, in a consolidated
variable, “2002 Actual Level of Study.” An additional 1178 responses were gathered
when asking specifically about apprenticeship and traineeship. These responses were
consolidated into the “2002 Actual Level of Study” variable, coded as 1 for
“apprenticeship.”
Table 34

**Parental SES Variables and Student Actual Level of Study, 2002, Australia**

<table>
<thead>
<tr>
<th>FOCC SES quartile</th>
<th>2002 Actual level of study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ρ</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOCC SES quartile</th>
<th>2002 Actual level of study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ρ</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Father’s education level</th>
<th>2002 Actual level of study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ρ</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mother’s education level</th>
<th>2002 Actual level of study</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ρ</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

**Note.** **p < .01, two-tailed.**

This table reveals significant relationships between actual level of study in 2002 and parental SES variables in 1998 at the critical level of p < .01. Like the relationships in the previous test, the magnitude of the Spearman’s rho in these relationships is within a small range of values. Generally, the variables associated with the father (.254 for educational level and .261 for occupational SES quartile) have slightly higher levels of Spearman’s rho, stronger relationships than those of the mother (.239 and .232).
respectively). The positive direction of the relationships and the coding of these variables suggest that the higher the level of parental SES (education or occupation), the greater the likelihood that students will study at the university level (and the less likely that they will study at the apprenticeship or TAFE level), generally.

Given the educational patterns of Australian higher education and the timing of the 1998 LSAY, it is too soon to assess the actual attainment of baccalaureate degrees. Students in Grade 9 in 1998 would likely be no further than their fourth year of university study at this time and would have been in their second year of study during the latest survey results available, 2004’s Wave 7 follow-up survey. Rather, the most recent variables available on student persistence are examined to determine if there are any significant relationships between them and parental SES variables.

In the 2003 (Wave 6) follow-up study, 7656 students who were part of the 2002 (Wave 5) follow-up study were again contacted by telephone. Using a sample question from the 2004 follow-up survey (Wave 7) that asked to confirm the study status of students in 2003 and combining results from Waves 5 and 6 that recorded completions of courses of study, it was possible to consolidate data into a single variable, “2003 Study Status.” The 5979 cases present in that variable are shown Table 35.
Table 35

Student Study Status, 2003, Australia

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 University or TAFE study</td>
<td>3157</td>
<td>22.4</td>
<td>52.8</td>
<td>52.8</td>
</tr>
<tr>
<td>2 Completion in 2002</td>
<td>210</td>
<td>1.5</td>
<td>3.5</td>
<td>56.3</td>
</tr>
<tr>
<td>3 Completion in 2003</td>
<td>213</td>
<td>1.5</td>
<td>3.6</td>
<td>59.9</td>
</tr>
<tr>
<td>4 Apprenticeship</td>
<td>574</td>
<td>4.1</td>
<td>9.6</td>
<td>69.5</td>
</tr>
<tr>
<td>5 Deferred study</td>
<td>147</td>
<td>1.0</td>
<td>2.5</td>
<td>71.9</td>
</tr>
<tr>
<td>6 No study</td>
<td>1678</td>
<td>11.9</td>
<td>28.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>5979</td>
<td>42.4</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>8139</td>
<td>57.6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>14118</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The researchers of the LSAY combined university and TAFE levels into one persistence question, as well as combined any type of completion into the 2002 and 2003 responses. While this limits the clarity of the results when assessing progress toward a baccalaureate degree, it can provide some assessment of general completion and
persistence against parental SES variables. The responses have been assembled into a
ranked order above, under the basis of university degree persistence or TAFE persistence
being the most desirable possible outcome (coded 1). These are followed closely by
completion of shorter courses, coded 2 and 3, respectively, for completion in 2002 or
2003. Unless students were able to accelerate studies earn baccalaureate degrees by
2003, these completions likely represent associate’s degrees and TAFE certificates.
Apprenticeships (coded 4) are next, as they represent vocational training. Deferred study
(coded 5) means that a student in this year was not actively studying; this could be a short
"stop out" of higher education or a plan to start postsecondary education at some time in
the future. Finally, the last ranking (6) is for those students who never started
postsecondary studies and have not planned to do so at the time of the 2003 survey.

Table 36
Parental SES Variables and Student Study Status, 2003, Australia

<table>
<thead>
<tr>
<th></th>
<th>Study status</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOCC SES quartile</td>
<td>( \rho ) = .204((*))</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>4003</td>
</tr>
<tr>
<td>MOCC SES quartile</td>
<td>( \rho ) = .186((*))</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>3076</td>
</tr>
</tbody>
</table>
Table 36 (continued)

<table>
<thead>
<tr>
<th>Study status</th>
<th>Father’s education level</th>
<th>Mother’s education level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\rho$</td>
<td>$\rho$</td>
</tr>
<tr>
<td></td>
<td>-.205(***$\text{)}$</td>
<td>-.181(***$\text{)}$</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.900</td>
<td>.000</td>
</tr>
<tr>
<td>$N$</td>
<td>4378</td>
<td>4057</td>
</tr>
</tbody>
</table>

Note. ***$\text{ } p < .01$, two-tailed.

This analysis provides evidence of a significant relationship between student persistence/attainment and all four parental SES variables at the critical level $p < .01$. As was seen in the relationship between these SES variables and actual level of study in 2002, the stronger relationship/level of magnitude of Spearman’s $\rho$ was associated with the father’s SES variables, occupational SES quartile (-.204), and educational level (-.205). The relationship of 2003 study status to the mother’s SES variables, occupational SES quartile (-.186), and educational level (-.181) were close to but slightly lower in their strength/level of Spearman’s $\rho$. 
Chi-square Analysis of Significant SES Variables against College Planning and Actual Access and Attainment Variables

As all parental SES variables selected were found to be significant in their relationship to student planning and actual outcomes, chi-square analyses were conducted on these relationships. The tables that resulted from these tests are found in Appendices E, F, G, and H.

The analysis of student plans for postsecondary access and parental SES variables can be found in Appendix E. In these, the student’s response to whether or not she/he will pursue education after secondary school are placed against the four significant SES variables for parents (father’s and mother’s occupational SES quartile, father’s and mother’s educational level). The results of the chi-square tests demonstrate significant relationships in each of the four analyses at the critical level p < .001. The levels of Pearson’s chi square vary between the tests, however, and these variations are noteworthy, as are some of the individual row results of the difference between expected and actual distributions.

First, the relationship between a student’s plan for postsecondary education and parental educational levels are the strongest relationships in this test, where the parental educational levels for father and mother form a clear higher group. The Pearson’s chi square for father’s educational level is highest of all four tests at 331.406 and the mother’s follows with a level of 269.335 (df = 3 for both tests). The parental occupational SES levels of 182.994 for the father and 96.663 for the mother (df = 3 for both tests) form the lower group.
In all four tests, the skew of distributions is always greater when a student responded that she/he did not plan to pursue postsecondary education. Within each row of this response in each test, the distribution skews more at the highest and lowest quartiles for parental SES and for highest and lowest levels of parental educational. When looking at the distribution in this row for tests of parental occupational SES, the skew is greatest for the highest quartile in each of the two tests, where the standardized residuals of -9.5 for father and -7.2 for mother are the highest levels in each test. This suggests that when parental occupational SES quartile is high, there are fewer than expected students who would respond “no” when asked if they planned to pursue further education after secondary school.

When assessing the “no” response rows against parental educational level, a “mirror” effect is seen in the skew between highest and lowest educational cells. For the father’s level, the highest and lowest levels reveal standardized residuals of -11.7 and 11.9, respectively. For mother’s level, these same cells have standardized residuals of -10.4 and 10.6, respectively. The “yes” responses for these two tests also reflect a mirror effect in the skew between the highest and lowest levels/quartile, yet at a lower level (-4.0 and -3.9 for mother and -4.5 and 4.4 for father, respectively). In the “yes” response rows for parental occupational SES, little is significant and students are distributed according to expected levels, with the exception of a slight skew at the highest and lowest quartiles for the father.

The results of chi-square tests of student plans for the level of study after secondary school and parental SES variables were much less uniform (Appendix F). While all four tests reveal significant relationships at the critical level \( p < .001 \), there is
one highest result, one lowest result and two very close results in the middle, given the levels of Pearson chi squares. The strongest relationship was seen when the father’s educational level was set against the student’s planned level of study (Pearson $\chi^2 = 584.783$, df = 6). The father’s occupational SES quartile and mother’s educational level were nearly identical (Pearson $\chi^2 = 370.752$ and 376.402, respectively, df = 6 for both tests). The lowest level/weakest relationship was seen between the student’s planned level of study and the mother’s occupational SES quartile (Pearson $\chi^2 = 219.359$, df = 6).

In each of these four tests, the greatest level of skew between expected and actual distributions occurs for students in the highest quartile of parental occupational SES or highest level of parent’s education. The over- or underrepresentation here is consistent across all levels of educational planning, suggesting that being a part of this upper level/quartile has a disproportionate relationship to the level of study planned by a year nine student. Many of the standardized residuals in these columns approach or exceed at level of 10 or -20.

Also noteworthy in these tests is the skew for all rows of TAFE study. In each test, its results were farther from the expected distributions. While still skewed toward the highest levels/quartiles, there is also a skew present in the lowest levels/quartiles, approaching the mirror effect seen in the previous planned access tests. For example, in the chi-square analysis of student’s planned level of study and mother’s occupational SES quartile, the standardized residual for the lowest quartile is 6.2, as opposed to -7.8 in the highest quartile. These results suggest that, generally, parental SES variables are less associated with TAFE plans than for other levels of study, especially in the highest and lowest ends of the parental levels/quartiles.
Appendix G contains the results of chi-square analyses of the relationships between the student’s actual access to postsecondary education in 2002 and parental SES variables. All four tests reveal significant relationships between the variables of interest at the critical level of $p < .001$. The magnitude of the Pearson chi square or strength of the relationships between the four tests is similar to the pattern seen in the planned level of access in the last test. Clearly, the strongest relationship is seen between actual access in 2002 and the father’s education level ($\chi^2 = 182.771$, $df = 3$). Close results were seen between the results for father’s occupational SES quartile and mother’s level of education ($\chi^2 = 114.242$ and 120.815, respectively, $df = 3$ for both cases). Again, the weakest relationship was seen when considering the relationship between the variable of interest and the mother’s occupational SES quartile ($\chi^2 = 80.849$, $df = 3$).

The skew of distributions within each row or column again resembled the last test, where the highest levels of standardized residuals were found in the columns representing the highest parental SES quartile or education levels. However, the magnitude of these levels was overall lower than the last test and tended to be at or around $\pm .5$. The highest standardized residual is found in the father’s education level for students who did not study after secondary education (-8.4). The difference between expected and actual distributions suggests that, when a parent’s SES situation is higher (occupationally or educationally), the likelihood that the student will enter postsecondary education is also higher, generally.

The last chi-square test for this data set compares parental SES variables to the actual study status of the student by 2003 (Appendix H). As was true for all chi-square tests for this set, the results were found to be significant at the critical level $p < .001$. In
grouping the magnitude of the Pearson chi squares to reflect strength of relationships, the pattern revealed in the last two tests was replicated here. The father's education level clearly holds the strongest relationship to the student's study status (Pearson $\chi^2 = 272.527$, $df = 15$), with the father's occupational SES quartile and mother's education level grouped closely together (Pearson $\chi^2 = 206.201$ and 214.850, $df = 15$ for both tests), and mother's occupational SES holding the weakest relationship (Pearson $\chi^2 = 153.398$, $df = 15$).

In assessing the rows, columns and individual cell results to look for skew between the expected and actual distribution of cases, there are a wide variety of results. Notably, there was little evidence of significance between deferred study, completion of studies in 2002 or 2003, and parental SES variables. When it did occur (i.e., -2.7 for mother's education level and 2002 completion), the magnitude of the standardized residual is barely above the critical level 2.0. These rows also had the lowest number of cases in the tests and the low $n$ may account for some degree of absence here.

Three of the four tests (father's occupational SES quartile, father's and mother’s education level) reveal a skew toward the highest quartile or level, where significance was found in that row. The range of under- or overrepresentation was greatest in this column at the two extremes, university/TAFE study and no study. The example of father’s education level demonstrates this effect, where the standardized residuals for university/TAFE study and no study are 8.2 and -7.4, respectively, and the next highest level is -5.6 for apprenticeship. Other results in that column are either not or barely significant. For the fourth test, mother’s occupational SES, the mirror effect (closer levels between the highest and lowest levels/quartiles) was more present in those rows.
containing significant standardized residual levels. For example, the rows
university/TAFE, study, apprenticeship, and no study had standardized residuals at the
lowest and highest quartile cells of -4.3 and 5.3, -4.7 and 3.0, and 4.7 and -4.5,
respectively.

In this last test, there were some mixed results. First, there is little or no
significance between parental SES variables and completion or deferral of study by 2003.
While a greater number of cases in the study may have increased the levels of
significance, this is speculation, as there were at least 100 cases in each row for testing.
Otherwise, when parental SES situation (educationally or occupationally) was higher, the
likelihood that a student was pursuing study at an apprenticeship, TAFE institute or
university was higher, generally. The reverse was also true, although not always at the
same magnitude.

Aspiration Variables and Actual College Access

Students asked in 1998 for their plans to attend postsecondary education and the
type of education can be set against actual outcomes. The same variables for parental
expectations can be assessed, as well, to determine if there is any significant relationship
between these variables of interest and, if so, if there are any similarities or differences
between the parents and students. First, a correlation matrix between student aspirations
in 1998 and actual access in 2002 was created, as was a correlation matrix for the
student’s planned level of study in 1998 and actual level of study by 2003.
Table 37

Student Postsecondary Plans and Actual Access, 2002, Australia

<table>
<thead>
<tr>
<th></th>
<th>98 Post school study? valid cases</th>
<th>Studying since leaving school?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>p</td>
<td>1.000</td>
</tr>
<tr>
<td>valid cases</td>
<td>Sig. (2-tailed)</td>
<td>N 13120 5674</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>.205(***).000</td>
</tr>
<tr>
<td>N</td>
<td>5674</td>
<td>6010</td>
</tr>
</tbody>
</table>

Note. ** p < .01, two-tailed.

Table 38

Student Level of Planned Study and Actual Level, 2003, Australia

<table>
<thead>
<tr>
<th></th>
<th>98 Post-school study type valid cases</th>
<th>Study status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>p</td>
<td>1.000</td>
</tr>
<tr>
<td>type valid cases</td>
<td>Sig. (2-tailed)</td>
<td>N 10362 4676</td>
</tr>
<tr>
<td>Study status</td>
<td>p</td>
<td>.346(***).000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>N 4676 5979</td>
</tr>
</tbody>
</table>

Note. ** p < .01, two-tailed.
Both tables reveal significant relationships between the variables of interests at the critical level $p < .01$. The direction of the relationship and the coding structure for these variables indicates that, as a student’s plan for college access and university-level or TAFE-level study rises, the likelihood of actual study and study at that level also rises, generally. The greater level of Spearman’s rho for the relationship between planned and actual level of study indicates a stronger level of relationship between these variables.

Parental aspirations for students were consolidated into one variable from four possible responses from parents in 1998. Here, parents were asked whether their plans for students were to study (full-time or part-time) or work (full-time or part-time). The frequency of responses is shown in the table below for the consolidated variable, 1998.

Parental Plans for Students after Secondary School. The correlation matrices for those aspirations and actual access and actual level of study follow it.

Table 39

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Full-time study</td>
<td>2937</td>
<td>20.8</td>
<td>37.4</td>
<td></td>
</tr>
<tr>
<td>2 Part-time study</td>
<td>379</td>
<td>2.7</td>
<td>4.8</td>
<td>42.3</td>
</tr>
<tr>
<td>3 Part-time work</td>
<td>2056</td>
<td>14.6</td>
<td>26.2</td>
<td>68.5</td>
</tr>
<tr>
<td>4 Full-time work</td>
<td>2474</td>
<td>17.5</td>
<td>31.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>7846</td>
<td>55.6</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing System</td>
<td>6272</td>
<td>44.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14118</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 40  
**Parental Aspirations and Actual Access, 2002, Australia**

<table>
<thead>
<tr>
<th>1998 Parental plans for student</th>
<th>Studying since leaving school?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>p</strong></td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>7846</td>
</tr>
<tr>
<td><strong>p</strong></td>
<td>0.245 (**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>3269</td>
</tr>
</tbody>
</table>

*Note. **p < .01, two-tailed.*

Table 41  
**Parental Aspirations and Actual Study Status, 2003, Australia**

<table>
<thead>
<tr>
<th>1998 Parental plans for student</th>
<th>2003 Study status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>p</strong></td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>7846</td>
</tr>
<tr>
<td><strong>p</strong></td>
<td>0.268 (**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>3276</td>
</tr>
</tbody>
</table>

*Note. **p < .01, two-tailed.*
From these tables, we see significant and similar relationships between the variables of interest at the critical level \( p < .01 \). Parental aspirations for students were slightly higher when compared to the actual level of study but are quite close to the magnitude of the relationship for actual access (Spearman’s \( \rho = .268 \) and .245, respectively). The positive direction of the relationships suggests that, as parental aspirations for students to study full-time increase, both actual access and study at the university/TAFE level also rise, generally.

Finally, it is important to assess the relationship between parental/student aspirations and SES variables. Using the four variables of interest in our previous tests, a correlation matrix was developed to assess their relationship to parent’s desires for student’s plans after secondary school. As well, as matrix to compare parent and student aspirations was developed to explore those relationships.

Table 42

*Parental Aspirations and SES Variables, 1998, Australia*

<table>
<thead>
<tr>
<th>FOCC SES quartile</th>
<th>( \rho )</th>
<th>1998 Parental plans for student after secondary school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-.169(**)</td>
<td>( p )</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>( N )</td>
<td>5172</td>
<td>5172</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOCC SES quartile</th>
<th>( \rho )</th>
<th>1998 Parental plans for student after secondary school</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-.176(**)</td>
<td>( p )</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>( N )</td>
<td>3762</td>
<td>3762</td>
</tr>
</tbody>
</table>
Table 42 (continued)

<table>
<thead>
<tr>
<th>Father's education level</th>
<th>$\rho$</th>
<th>-.182(**)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>$N$</td>
<td>5754</td>
</tr>
<tr>
<td>Mother's education level</td>
<td>$\rho$</td>
<td>-.158(**)</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>$N$</td>
<td>5416</td>
</tr>
</tbody>
</table>

*Note. ** $p < .01$, two-tailed.*

This table reveals significant relationships between the variables of interest at the critical level $p < .01$. However, the level of Spearman's rho suggests that other factors also account for parental aspirations and that SES status alone does not account for the relationship.

Table 43

*Parental and Student Aspirations for Postsecondary Study/Work, 1998, Australia*

<table>
<thead>
<tr>
<th>1998 Parental plans for student</th>
</tr>
</thead>
<tbody>
<tr>
<td>98 Post-school study? valid</td>
</tr>
<tr>
<td>cases</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
The relationships between student and parent aspirations are significant at the critical level $p < .01$, as well. The magnitude of the Spearman's rho is higher when type of study is considered and both relationships have a positive direction and a moderate level of significance. Given this, the results suggest that student and parent aspirations are similar but not identical. Other factors account for this relationship, as they do in the relationship between parental SES and parental aspirations.

In assessing student aspirations and SES variables, the variable for student postsecondary plans in 1998 was set against the significant parental SES variables determined earlier. The correlation matrix developed for this is shown in the table below and utilizes Spearman's rho for ranked variables, where a student's plan to study was coded 1 for 'yes' and 2 for 'no.' The correlation matrix demonstrates that there are statistically significant relationships between all variables of interest at the critical level $p < .01$. The direction of the relationships is negative, and the coding structure of these variables (as both parental occupational SES and education levels rise, so do the values for their dummy variables) suggests that, when a parent's SES level rises, the likelihood that the student will plan to study after secondary school also rises, generally. The
magnitude of the Spearman’s rho is greatest for education levels and slightly lower for occupational SES, suggesting that these are stronger in their relationship to student’s plans.

Table 44

Parental SES and Student Postsecondary Plans, 1998, Australia

<table>
<thead>
<tr>
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<th>Mother’s education</th>
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<td>-.119(***</td>
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Table 44 (continued)

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<td>-.119(**)</td>
<td>-.189(**)</td>
<td>-.175(**)</td>
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<tr>
<td>Schoo! Sig. (2-tailed)</td>
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<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.</td>
</tr>
<tr>
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<td>6264</td>
<td>9305</td>
<td>8679</td>
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</tbody>
</table>

Note. ** p < .01, two-tailed.

Conclusions about the 1998 LSAY Data Set

The most notable conclusion about the tests performed on parental SES variables and student planning, access, and persistence variables is the predominance of the
father's education level in many of these tests. In all but one of the correlation matrices (actual 2002 access), it held the strongest relationship to the student variable of interest. In the chi-square tests, it held the highest magnitude of Pearson chi square in each result and was clearly higher than other results three of the four times.

All four parental SES variables were significant in this data set, when set against student planning, access, and persistence variables. In several instances, however, the mother's occupational SES held the weakest relationship to student variables. The two remaining variables, father's occupational SES quartile and mother's education level, were often very similar in their results and grouped between the two others.

There were several instances where the highest level of occupational SES quartile or education held the strongest relationship to the student variables. More often than not, it outweighed the reverse relationship held by the lowest quartiles or education levels. Other times, there was a mirror effect where the offsetting distribution of students from one end of the quartile/level was seen distributed to the opposite end of the row. Clearly, being in the highest or lowest SES and educational level quartile was found to be significant in relationship to the student's plans for and actual outcomes in postsecondary education. Greater specificity in the responses allowed students during these studies could have revealed any differences in effects for university versus TAFE level studies, or completion of studies as opposed to stopping them for other reasons.

Comparison of the Results from the 1995 and 1998 LSAY Data Sets
It is important to note that a limitation of this study is the inability to compare students in one study to another using statistical analysis. Rather, general comparisons can be made about the factors that were similar, different and any changes in the relationship between these factors and student planning and outcomes variables between the two data sets.

Data were gathered in one study that were not gathered in another (i.e., household possessions were measured in 1996 but not in any year of the 1998 LSAY) or were gathered using similar but not identical questions from one study to the next (i.e., parental secondary education was asked in two levels in the 1995 study and only one level in the 1998 study). Attempts were made to recode variables in the 1998 study to provide the best possible similarities to the 1995 data. However, they are not and should not be assumed to be identical. Perhaps their greatest similarity and benefit for study lies in the size of the original pool of students (13,000 – 14,000) and sizes of the samples in each annual follow-up survey. The consistent annual follow-up provides a large number of cases for analysis in each set and allows for differentiation between relationships of variables to one another.

College planning. In 1995, parental education level was barely or not significant when set against a student’s plan to attend postsecondary study or the level of study planned in a correlation matrix. Rather, the greater levels of significance were found with the parental SES quartile variables. This was reversed in 1998, where father’s educational level was clearly dominant in three of the four matrices. When chi-square tests were performed, the father’s education level did achieve some high levels in 1995 yet was dominant in the 1998 tests.
The correlations between student aspirations at the beginning of each study and actual access rose between 1995 and 1998 groups. However, the reverse is true for planned and actual levels of study in these two cohorts. The levels are all similar, so the conclusion reached here is that, while there is some slight variation in student plans and outcomes, they are generally more similar than different between the two studies.

Parental aspirations and actual access were also similar between these two study cohorts. The relationship between parental SES and parental aspirations was also similar between the studies, as well the relationship between student and parent aspirations. In both studies, the levels of magnitude of the Spearman’s rho suggest a moderately strong relationship, yet other factors must also account for this relationship.

The magnitude of the correlation between student plans to work or study and significant parental SES variables grew slightly between 1995 and 1998. Specifically, the level of Spearman’s rho for the father’s education level (the strongest magnitude in either cohort) increased from -1.177 to -1.189 between 1995 and 1989. The result of the relationship between mother’s occupational SES and student plans grew from -1.09 to -1.144 in this same period. The trend in these results shows an increase in the strength of the relationship between student plans for higher education and socioeconomic status.

College access. The difference between the two data sets in the significance of parental SES variables in relationship to student access is notable. In 1995, parental SES variables were not found to significantly correlated to student access or level of study in most cases. In the 1998 study, all four variables were found to have significant relationships in both Spearman’s rho and Pearson’s chi-square analyses. There are at least two possible explanations for these striking differences. First, the compilation of
variables differed between these two sets. The difference in the data available for the two studies and the method by which these could be compiled, given the data limitations, could account for some of the difference (although the variable responses compiled are similar). Second, the increase in costs and differentiation of academic programs into cost bands in 1997 may have impacted actual access and level of study, making their relationship to SES stronger, as a result.

There are clear differences in the role played by parental educational level, especially the father’s level, which may indicate a greater propensity to replicate societal status in college access. The sharp differences in significance of parental SES variables to actual access and level of study also suggest a strengthening in the relationships there for the 1998 cohort. The low-interest and set level of interest for loans to low-income students introduced as that cohort entered its first likely year of postsecondary study beyond the senior secondary year do not appear to have resulted in the same or less strong relationships between access, level of study and parental SES.

Suggestions for improvement of the LSAY study. Inclusion of income questions would provide yet another lens through which socioeconomic status could be viewed. The limitations of parental education levels and occupational SES have been noted by other researchers and inclusion of that data may add to the similarity or differences between the results observed in these two studies.

Several data could be disaggregated in future studies. These include the separation of TAFE from university level studies in every instance. When attempting to assess the benefit of a baccalaureate degree, it is not possible without these data being separated. Not included in this analysis but present in the data sets are significant data on
income and job satisfaction of subjects. However, that cannot be tied to educational attainment by level of degree or qualification earned, other than to separate those who completed apprenticeships from those who earned either a certificate, diploma, associate's or bachelor's degree. Other data for disaggregation would be the difference between stopping study without completion from completion of study. This makes persistence analysis very muddy, at best. While we know who was still enrolled from one year to the next, we do not know what level of degree or credential was earned or why those who stopped their studies did so for successful or unsuccessful reasons.
Public policy for the funding of higher education in the Netherlands has undergone few substantial changes over the past several decades, especially when considering the access and attainment of low-income/low-SES students. The most notable changes occurred in 1996-97, when the basic grant extended to all university students was transformed from a grant into a loan. Students could have the debt relieved in its entirety by successful completion of the first year courses at a rate of 50% of courses attempted and receipt of the baccalaureate degree within 10 years (Johnstone & Marcucci, 2005). At the same time, the period of the loan/grant was diminished from 5 years to 4 years, in an attempt to move students through their degree programs in a timely fashion (Canton & Jongbloed, 2000). These changes, as well as a summary of all current student financial aid policy, can be found in the national law on student finance, studiefinanciering 2000 or “Student Finance Act 2000,” known commonly as WSF-2000 (Appendix I).

Changes to the income requirements for obtaining student assistance also changed during the 1990s. In 1992, family incomes less than f30,000 (€13,613) qualified students for the full amount of the supplementary grant, which replaces the family contribution to tuition. Students whose family incomes were between f30,000 and 55,000 (€13,613 - €24,957) were eligible for partial supplementary grants. By 1997, the income ceiling for the full grant had fallen to f22,500 (€10,210) and the partial grant level ceiling was at f40,000 (€18,151). In 1999, these levels were slightly higher...
(£25,000 or €11,344 for the full grant and £45,000 or €20,420 for any partial grant) yet still lower than the 1992 levels.

Costs in Dutch Higher Education

Price control is a feature of Dutch higher education within its national university system. All Dutch citizens and some EU citizens pay a “home” rate for tuition each year. The rate set for this is centrally determined and universities are free to charge market rates for foreign students and contract teaching. Tuition revenues account for just 8% of university funding (Boezeroy, 2003). The history of tuition rates has varied over the past decades but it is important to note that the highest rate has been nominal (about €1,000).

The rates shown in Figure 12 represent Euros in 1990 constant currency. Thus, the decline witnessed between 1955 and 1970 is less dramatic as the value of Dutch currency increased and rates remained stable. The spike in rate in 1972 was reversed the following year, when the rate dropped from €1000 to €500. The rate then declined until 1980, when it began a rapid upswing, pausing slightly in the period 1985-1990.
Figure 17. Historical trends in the “home” rate of university tuition in the Netherlands. Taken from a table compiled by Canton and de Jong of Statistics Netherlands data (Canton & de Jong, 2002).
Students are eligible to have some or all of their tuition paid by the government. The authority agency, Informaat Beheer Groep (IBG), assesses student need nationally, using parental and student income data. This process resembles closely the U.S. needs analysis system in some aspects. There is central federal processing of income information for both students and parents. The result is an expected level of contribution towards the cost of tuition and fees at the university, generally, and parents are expected to contribute to the educational costs of their dependent children.

Here, the similarities end. The Dutch needs analysis system is highly simplified. There are no extra calculations for size of family, income protection allowance based on the age of the older parent, or any income protection allowance for student earnings. Rather, for dependent students, the family income is taken from tax records on file with the government and broken into three general groupings:

1. Below a certain level of income, no contribution is expected and the student is eligible for a supplementary grant that pays the entire university tuition fee;

2. A range between this income level and a middle-income level, in which the student is eligible for a partial portion of the grant and the parents required to contribute the balance; and

3. At or above an income level, there is no supplementary grant and the entire amount of the “home” rate is due to the university by the student/parents.

In the latter two scenarios, the parent may borrow the amount required as contribution toward the university fees. All students are eligible for a basic grant, which pays some amount toward the costs of living and studying, as well as an OV-kaart, a bus
and train pass for free transportation during the week (when classes are mostly in session) and discounted fares on the weekends.\(^{11}\)

Two features of the Dutch system are important to note. First, qualification for free tuition is based on simple data known to students and parents. If their family income falls into one of the three bands for assistance (full, partial, or none), they know what assistance will be provided them without the complex calculations required for an answer in the United States. Further, the cost of tuition is standardized for any national university. Students and parents have one single rate of tuition as a variable to consider when planning for college attendance. The two factors form a simple transparency of published and actual costs.

_Data on Student Access and Attainment_

The large national longitudinal data sets found in Australia and the United States are not found in the Netherlands. Smaller micro-sets are available and reveal some information about student socioeconomic status (SES), aspirations for and enrollment in baccalaureate courses. These will be used in this study to give some comparison to the framework for statistical analysis in the other two countries. However, to gain a sense of these trends on a national basis, additional data have been gathered and analyzed.
The first trend to observe is higher education enrollment, nationally. In Figure 13, the decline in overall higher education enrollments is tied to university enrollment for the period 1993-1997. From this point forward, the increase in enrollments is tied to the growth of HBO enrollments with university (WO) levels remaining flat. New entrants to higher education also experienced different trends by sector, as well. These are shown in Figure 14. Here, the downward trend in overall enrollment for university students 1993-1997 is seen in new entrants, as well. However, these numbers begin to rebound after 1997, a trend not seen in the total system enrollment for universities. New entrants to HBO professional schools began a steady climb in 1995 and would account for some of the total HBO system growth, as seen in Figure 14.
Figure 13. Higher education enrollments in the Netherlands by sector, 1993-2000.

Figure 14. New entrants to higher education in the Netherlands by sector, 1993-2000.

Compiled from data received from the Informatie Beheer Groep, 2006.
These data are important when analyzing the patterns of aid awarded to students in these sectors. Figure 15 demonstrates the general trend of basic and supplementary grants awarded to students during the period 1993-2000. The large spike in basic grant recipients for HBO institutions in 1999 corresponds with an increase in new entrants and a policy change, allowing students with certain test scores to be admitted directly to their programs of choice, rather than through the weighted lottery system used previously (Boezer ooy & Huism an, 2000). The downward trend in recipients in universities corresponds with the new entrant decline from 1993-1996 but does not rebound with the rising numbers after that. Supplementary grants for HBO students also rise with new entrants and overall enrollments from 1993 to 1998 but then decline, although new entrants and total enrollments both rose. Figure 15 combines all data to reflect the number of supplementary grant recipients as a percentage of total enrollments. Here, the trend lines reveal that, although new entrants to both sectors rose in the second half of the decade, the percentage of students receiving supplementary grants (those from the lowest income backgrounds) declined. Most notable is a “bubble” of increasing percentages of supplementary grant recipients in the middle of the decade that then declines later in that decade.
Figure 15. Trends in basic and supplementary grants in the Netherlands, 1993-2000
Figure 16. Percentage of supplementary grant recipients to total enrollments and number of new entrants by sector in the Netherlands, 1993-2000. Chart compiled from data received from the Informatie Beheer Groep (2006) and data from the *Netherlands Country Report* (Boezerooy, 2003).
General population trends could account for such a difference. If there was a decrease in low-income families during this period, it would be possible for new student enrollments to increase, supplementary grants to decrease and not cause an access conflict. There is evidence of this trend in the chart shown below, where the poorest households decreased by nearly 38% between 1992 and 1998. During this same time, the number of households with incomes between €10,000 and 20,000 grew by 14%; the total number of households with incomes less than €20,000 dropped by 6%. This trend could account in part for the decrease in supplemental grant recipients between 1997 and 1999, even as the ceiling for income rose during the same period.

However, Figure 18 overlays the percentage of all supplementary grants in WO and HBO institutions, revealing that the “bubble” of increased percentage of supplementary grants in these institutions does not correspond to population income changes. Rather, it is counter to this trend, where, as population groups in this income range shrank, the percentage of students receiving these grants in Dutch higher education rose. The only corresponding trend can be seen between 1997 and 1998, where the levels of the lowest income group and the percentage of higher education supplementary grant recipients both declined slightly.
Figure 17. Households with incomes less than €20,000 in 1992, 1997 and 1998 (x 1000).

Compiled from data received from the Netherlands Statistics Bureau (CBS), 2006.
Figure 18. Lower incomes and supplementary grant recipients in 1992, 1997, and 1998
What can be made of these multiple and conflicting trends? One possible explanation is that, as the maximum income level for the supplementary grant declined, so did the number of students who aspired to higher education from those groups, affecting the overall number who eventually wound up on higher education at some point in the following years. The delayed response to the declining availability of these grants would show up as students planned to and actually attended higher education a few years later, in keeping with St. John’s balanced access model (St. John, 2003). Another possible explanation would be the change from outright to performance-based grants, where low-income students in the United States were found to be less receptive to this type of financial aid (Callan, 2001; Dowd, 2004; Gladieux, 1996; Hossler et al., 1999; McPherson & Shapiro, 1991). Although the data sets available for study in the Netherlands are limited in their design and scope, there may be additional information revealed through their study to help illuminate what occurred for low-income students in this period of policy change.

*Longitudinal Data Sets from 1991-1997*

Two related studies were conducted on Dutch youth in the 1990s. The first began with students in May 1991, where three different surveys were administered over a 5-year period. The first survey (A) was administered to 1065 students as they progressed through secondary education from May 1991 through November 1994. The second (B)
was administered to those who completed their leaving examinations at the end of secondary education in 1991 (1366 subjects) and then as they continued from May 1991 that point forward (into higher education or not), ending with a final survey in November 1995. The third survey (C) was administered to 3845 students already enrolled in higher education in November 1991 and followed them through higher education and beyond (for those who completed studies during the panel survey process). A detailed account of the research method can be found in Appendix J.

These three surveys can be used to assess the relationships between income and aspirations (A), income and access/institutional choice (B), and income and enrollment in higher education (C). However, a limitation of this survey group is the lack of linkage between these groups, such that the pattern of low-income students from planning for college through initial enrollment and through degree attainment could be measured. Further, students may have self-selected into survey groups by their academic accomplishments (i.e., being inclined to and prepared for leaving examinations). These surveys, administered and available only in Dutch, have been translated into rough English and are available in Appendix K. As the survey construction was the key to the variables in the corresponding data set, those questions which were most germane to this study’s research questions were most closely scrutinized for understanding and translation. A wide variety of questions were asked, including student aspirations for the type of schooling they might attain in the near and far future, current living situations, parental income, and opinions on current and proposed legislation to affect higher education.
In 1997, another survey was administered to 4182 enrolled in HBO and WO institutions. Any connection to students included in the previous surveys is coincidental and cannot be assumed. The surveys were not targeted to students included in the 1991-1995 surveys, although there may be some overlap, given that these were administered to students at the University of Amsterdam in both cases (Questionnaire C from the earlier study). As in the earlier study, the questions ranged widely from demographic and income information to students’ opinions on higher education legislation and questions on student engagement with faculty and fellow students, condition of facilities, and expected earnings after college. These surveys only capture information from students currently enrolled into higher education but can help to illuminate relationships between income and college choice, as HBO and WO students are identified in the variables. As no printed research method exists for these latter two data sets, the administration of the surveys was solicited from primary researchers Uilke de Jong and Jaap Roeleveld of the University of Amsterdam through e-mail correspondence and phone conversations between December 2005 and February 2006.

Student Access and Family Income/Parental Education Levels

Information on parental income is broken into various segments. Net monthly income for both mother and father was asked, with most of the 1366 parents in the B group providing a response. A small number of responses were also reported for non-custodial parents (98) and slightly more for combined parental income (153). As the table below reveals, there are a high number of cases reported for low or no income for
mothers in the study. Missing responses were coded -9 (these were removed from the valid cases used for analysis to create a clearly ranked order to the variable coding structure), with each income group (starting at no income) numbered with values from 1 through 10, creating a coding structure such that the value of the dummy variable rises as income level rises.

Table 45

*Mother's Net Monthly Income, 1991, Netherlands*

<table>
<thead>
<tr>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>298</td>
<td>21.8</td>
<td>21.8</td>
</tr>
<tr>
<td>No income</td>
<td>532</td>
<td>38.9</td>
<td>38.9</td>
</tr>
<tr>
<td>&lt; 1500</td>
<td>365</td>
<td>22.3</td>
<td>22.3</td>
</tr>
<tr>
<td>1500-1750</td>
<td>72</td>
<td>5.3</td>
<td>5.3</td>
</tr>
<tr>
<td>1750-2000</td>
<td>46</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>2000-2500</td>
<td>50</td>
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<td>3000-3500</td>
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<td>1.4</td>
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<tr>
<td>3500-4500</td>
<td>10</td>
<td>.7</td>
<td>.7</td>
</tr>
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<td>4500-5000</td>
<td>6</td>
<td>.4</td>
<td>.4</td>
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<td>.1</td>
</tr>
<tr>
<td>&gt;5990</td>
<td>5</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td>Total</td>
<td>1366</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In the income ranges reported for fathers, the spread of incomes falls more into the middle of the ranges than the low end, as shown in the next table.
Table 46

**Father’s Net Monthly Income, 1991, Netherlands**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>1366</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
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<tr>
<td>&lt; 0</td>
<td>305</td>
<td>22.3</td>
<td>22.3</td>
<td></td>
</tr>
<tr>
<td>No income</td>
<td>10</td>
<td>7</td>
<td>.7</td>
<td>23.1</td>
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<tr>
<td>&lt; 1500</td>
<td>33</td>
<td>2.4</td>
<td>2.4</td>
<td>25.5</td>
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<tr>
<td>1500-1750</td>
<td>39</td>
<td>2.9</td>
<td>2.9</td>
<td>28.3</td>
</tr>
<tr>
<td>1750-2000</td>
<td>88</td>
<td>6.4</td>
<td>6.4</td>
<td>34.8</td>
</tr>
<tr>
<td>2000-2500</td>
<td>162</td>
<td>11.9</td>
<td>11.9</td>
<td>46.9</td>
</tr>
<tr>
<td>2500-3000</td>
<td>144</td>
<td>10.5</td>
<td>10.5</td>
<td>57.2</td>
</tr>
<tr>
<td>3000-3500</td>
<td>227</td>
<td>16.6</td>
<td>16.6</td>
<td>73.8</td>
</tr>
<tr>
<td>3500-4500</td>
<td>125</td>
<td>9.2</td>
<td>9.2</td>
<td>82.9</td>
</tr>
<tr>
<td>4500-5000</td>
<td>50</td>
<td>3.7</td>
<td>3.7</td>
<td>86.6</td>
</tr>
<tr>
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<td>&gt;5500</td>
<td>141</td>
<td>10.3</td>
<td>10.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

One possible explanation for the differences in this distribution could be married couples, where only one parent (predominantly the father) has a monthly income. Of the cases in this survey, 1137 students reported living with both parents. By testing the variables for mother’s and father’s net monthly income to establish the patterns of parental income and parental household situation (married, separated, deceased, etc.), it is possible to understand better these income ranges and distributions. As shown below, most cases in this study where either parent’s income was reported were for those cases...
where both parents reside in the same household as the student. In these cases, the mother's income is distributed toward the lower end of the scale and the father's to the middle of the scale, suggesting that the main household income in most cases is earned by the father and, when the mother does provide an income, it is smaller, generally.

Table 47

*Distribution of Mother's Income by Parental Household Status, 1991, Netherlands*

<table>
<thead>
<tr>
<th>Net monthly income(^a)</th>
<th>All cases</th>
<th>Both parents</th>
<th>One parent in household</th>
</tr>
</thead>
<tbody>
<tr>
<td>No income</td>
<td>532</td>
<td>481</td>
<td>15</td>
</tr>
<tr>
<td>&lt; 1500</td>
<td>305</td>
<td>245</td>
<td>34</td>
</tr>
<tr>
<td>1500-1750</td>
<td>72</td>
<td>51</td>
<td>9</td>
</tr>
<tr>
<td>1750-2000</td>
<td>46</td>
<td>31</td>
<td>10</td>
</tr>
<tr>
<td>2000-2500</td>
<td>50</td>
<td>28</td>
<td>12</td>
</tr>
<tr>
<td>2500-3000</td>
<td>22</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>3000-3500</td>
<td>19</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>3500-4500</td>
<td>16</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>4500-5000</td>
<td>6</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5000-5500</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>&gt;5500</td>
<td>5</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1068</td>
<td>878</td>
<td>92</td>
</tr>
</tbody>
</table>

*Note: \(a\) income in guilders.*
<table>
<thead>
<tr>
<th>Net monthly income (in guilders)</th>
<th>All cases</th>
<th>When both parents in the household</th>
<th>When one parent in the household</th>
</tr>
</thead>
<tbody>
<tr>
<td>No income</td>
<td>10</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>&lt; 1500</td>
<td>33</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>1500-1750</td>
<td>39</td>
<td>35</td>
<td>2</td>
</tr>
<tr>
<td>1750-2000</td>
<td>88</td>
<td>75</td>
<td>8</td>
</tr>
<tr>
<td>2000-2500</td>
<td>162</td>
<td>138</td>
<td>18</td>
</tr>
<tr>
<td>2500-3000</td>
<td>144</td>
<td>123</td>
<td>15</td>
</tr>
<tr>
<td>3000-3500</td>
<td>227</td>
<td>207</td>
<td>13</td>
</tr>
<tr>
<td>3500-4500</td>
<td>125</td>
<td>111</td>
<td>8</td>
</tr>
<tr>
<td>4500-5000</td>
<td>50</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>5000-5500</td>
<td>42</td>
<td>31</td>
<td>2</td>
</tr>
<tr>
<td>&gt;5500</td>
<td>141</td>
<td>126</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>1065</td>
<td>901</td>
<td>97</td>
</tr>
</tbody>
</table>

In order to determine what significance student access may have to parental income levels, a Spearman’s rho correlation matrix was developed, using a variable from the November 1991 student survey. Here, students were asked whether or not they had enrolled and their enrollment status (full-time or part-time). The coding structure for this
is shown below, where exactly 1000 of the subjects had enrolled as full-time students in
the Fall 1991 term:

1 = Yes, Full-Time
2 = Yes, Part-time
3 = No, One Course Only
4 = Not Enrolled

Table 49


<table>
<thead>
<tr>
<th></th>
<th>Mother's Income per Month</th>
<th>Father's Income per Month</th>
<th>Enrollment Status November 1991</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother's</td>
<td>p</td>
<td></td>
<td></td>
</tr>
<tr>
<td>income</td>
<td>.000</td>
<td>.000</td>
<td>0.06</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.090</td>
<td>.090</td>
<td>1.00</td>
</tr>
<tr>
<td>N</td>
<td>1366</td>
<td>1366</td>
<td>1229</td>
</tr>
<tr>
<td>Father's</td>
<td>p</td>
<td></td>
<td></td>
</tr>
<tr>
<td>income</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.090</td>
<td>.090</td>
<td>1.00</td>
</tr>
<tr>
<td>N</td>
<td>1366</td>
<td>1366</td>
<td>1229</td>
</tr>
<tr>
<td>Enrollment</td>
<td>p</td>
<td></td>
<td></td>
</tr>
<tr>
<td>states</td>
<td>-.050</td>
<td>-.128</td>
<td>1.00</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.079</td>
<td>.079</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1229</td>
<td>1229</td>
<td>1229</td>
</tr>
</tbody>
</table>

Note: ** p < .01, two-tailed.
From this table, it is evident that the relationship between student access to higher education and the mother's income level is not significant. The father's income level does have a significant relationship, however (Spearman's $\rho = -.128, p < .01$). The negative direction of this relationship, when considered with the coding structure, suggests that, as the father's income level rises, the likelihood that the student will enroll full-time in higher education also rises, generally.

For the three variables of interest found to have significant relationships to students' access (father's monthly income and parental education levels), a chi-square analysis was performed in order to better understand the relationships between each of the possible responses in all variables. The first analysis, mother's education level and student access, is shown in Table 50.
<p>| Enrollment Status in November Time 1991 | 1 Yes | Count | 338 | 433 | 60 | 116 | 25 | 978 |
|---------------------------------------+-------+-------+-----+-----+-----+-----+-----+-----|
| Expected                             | 376.7 | 412.5 | 57.8 | 109.8 | 21.2 | 978.6 |
| Count                                |       |       |      |       |      |      | 21.2 | 978.6 |
| % of Total                           | 28.1% | 36.9% | 5.5% | 9.7% | 2.1% | 81.4% |
| Total Std.                           | -2.0  | 1.0   | 1.1  | 6    | .8   |      |
| Residual                             |       |       |      |      |      |      | 53   |
| 2 Yes Part Time                      | 24    | 22    | 2    | 4    | 1    | 53   |
| Expected                             | 20.4  | 22.4  | 3.1  | 6.0  | 1.1  | 53.0 |
| Count                                |       |       |      |      |      |      | 1.1  | 53.0 |
| % of Total                           | 2.0%  | 1.8%  | .2%  | .3%  | .1%  | 4.4% |
| Total Std.                           | .8    | -.1   | -.6  | -.8  | -.1  |      |
| Residual                             |       |       |      |      |      |      |      |      |</p>
<table>
<thead>
<tr>
<th>Course</th>
<th>Expected</th>
<th>Count</th>
<th>% of Total</th>
<th>Std.</th>
<th>Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>20.4</td>
<td>29</td>
<td>2.4%</td>
<td>1.9</td>
<td>-1.1</td>
</tr>
<tr>
<td></td>
<td>22.4</td>
<td>17</td>
<td>1.4%</td>
<td>-1.1</td>
<td>-1.8</td>
</tr>
<tr>
<td></td>
<td>3.1</td>
<td>0</td>
<td>0.0%</td>
<td>.4</td>
<td>.4</td>
</tr>
<tr>
<td></td>
<td>6.0</td>
<td>7</td>
<td>0.0%</td>
<td>-1.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>0</td>
<td>4.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>53.0</td>
<td>53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four</td>
<td>45.5</td>
<td>72</td>
<td>6.0%</td>
<td>3.9</td>
<td>-2.1</td>
</tr>
<tr>
<td></td>
<td>49.5</td>
<td>35</td>
<td>2.9%</td>
<td>-2.1</td>
<td>-1.5</td>
</tr>
<tr>
<td></td>
<td>7.0</td>
<td>3</td>
<td>.2%</td>
<td>-1.5</td>
<td>-1.4</td>
</tr>
<tr>
<td></td>
<td>13.3</td>
<td>8</td>
<td>.9%</td>
<td>-1.4</td>
<td>-1.6</td>
</tr>
<tr>
<td></td>
<td>2.6</td>
<td>0</td>
<td>.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>118.0</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total

<table>
<thead>
<tr>
<th>Expected</th>
<th>Count</th>
<th>% of Total</th>
<th>Std.</th>
<th>Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>463</td>
<td>463.0</td>
<td>463.0</td>
<td>5.9%</td>
<td>2.2%</td>
</tr>
<tr>
<td>507.6</td>
<td>507.6</td>
<td>507.6</td>
<td>11.2%</td>
<td>2.2%</td>
</tr>
<tr>
<td>71.0</td>
<td>71.0</td>
<td>71.0</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Note. 1 = Completed lower education or less. 2 = Secondary practical education – professional preparation. 3 = Gymnasium or HAVO preparatory education. 4 = HBO professional degree. 5 = University degree or higher.
In this analysis, there is little of note when assessing the expected and actual cell counts. The strongest relationships appear in the "not enrolled" row, where the two lowest levels of mother's education level reveal standardized residuals of 3.9 and -2.1, respectively. This suggests that students whose mothers have the lowest levels of education are overrepresented in their lack of enrollment and slightly underrepresented in the next educational level column. The only other significant relationship is found at the mother's lowest level of education and full-time higher education enrollment, where the standardized residual is -2.0. Otherwise, students distributed as expected. The Pearson chi-square value for this test is 45.056 ($df = 12, p < .001$).

The chi-square assessment of father's education level and student access is shown in the following table. There are a few more significant cells in this test than were found in the table above. The most notable cells appear in the "not enrolled" row, as they did in the assessment of access and the mother's education level. Again, the strongest level in the table is found at the lowest education level in this row, where the standardized residual is 3.6. The actual over-representation of students in this cell against the expected results are somewhat offset by underrepresentation at the other end of this row. Where fathers had earned baccalaureate degrees (HBO or WO), the underrepresentation was significant, where standardized residuals of -2.0 for HBO and -2.5 for WO are found. Otherwise, there is little of significance in this distribution. The Pearson chi-square value for this test was almost identical to the previous test for the mother's education level with a value of 46.375 ($df = 12, p < .001$).
<table>
<thead>
<tr>
<th>Enrollment Status in November 1991</th>
<th>Father's Education Level Consolidated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>Yes, Full-time</td>
<td>241</td>
<td>949</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>274.4</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>20.7%</td>
</tr>
<tr>
<td></td>
<td>Std.</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>residual</td>
<td></td>
</tr>
<tr>
<td>Part-time</td>
<td>21</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>14.5</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>1.8%</td>
</tr>
<tr>
<td></td>
<td>Std.</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>residual</td>
<td></td>
</tr>
<tr>
<td>No, just one course</td>
<td>21</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>14.5</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>1.8%</td>
</tr>
<tr>
<td></td>
<td>Std.</td>
<td>1.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Count</th>
<th>Expected</th>
<th>% of total</th>
<th>Std.</th>
<th>residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment Status in November 1991</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes, Full-time</td>
<td>241</td>
<td>274.4</td>
<td>20.7%</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>Part-time</td>
<td>21</td>
<td>14.5</td>
<td>1.8%</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>No, just one course</td>
<td>21</td>
<td>14.5</td>
<td>1.8%</td>
<td>1.7</td>
<td></td>
</tr>
</tbody>
</table>
Table 51 (continued)

<table>
<thead>
<tr>
<th>Father's education level consolidated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>4 Not enrolled</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>53</td>
</tr>
<tr>
<td>Expected count</td>
<td>32.7</td>
</tr>
<tr>
<td>% of total</td>
<td>4.6%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>.36</td>
</tr>
<tr>
<td>Count</td>
<td>336</td>
</tr>
<tr>
<td>Expected count</td>
<td>336.0</td>
</tr>
<tr>
<td>% of total</td>
<td>28.9%</td>
</tr>
</tbody>
</table>

Note: 1 = Completed lower education or less, 2 = Secondary practical education - professional preparation, 3 = Gymnasium or HAVO preparatory education, 4 = HBO professional degree, 5 = University degree or higher.

The final test of chi squares assesses the expected and actual distribution of student access and father’s monthly income responses, as shown in the next table. Only two cells have any level of significance, both found in the “not enrolled” row. In the income bracket 1750 to 2000 guilders per month, the highest standardized residual level of 2.3 is found. The other is in the highest income level (> $ 5500), where the critical level of the standardized residual 2.0 is just reached.
<p>| Table 52: Student Access and Father’s Monthly Income, 1991, Netherlands |
|--------------------|----------------|----------------|--------------------|
|                     | Father’s income per month |                | Total              |
|                     | 1                | 2              | 3                | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11             | 12             | Total          |
| November 1991       | 1000            |                |                  |                |                |                |                |                |                |                |                |                |                |
| 1 Yes               | 205             | 6              | 27               | 28              | 68             | 112            | 113             | 176            | 169            | 94             | 166            | 293            | 98.5           |
| 0                  | 1000            |                |                  |                |                |                |                |                |                |                |                |                |                |
| Time                | Count           |                |                  |                |                |                |                |                |                |                |                |                |                |
| % of               | 16.7%           | 5%             | 1.7              | 2.3%            | 4.9%           | 9.5%           | 9.2%            | 14.3           | 8.5%           | 10.9%          | 2.5%           | 8.8%           | 81.4%          |
| Total              | %               | %              |                  |                |                |                |                |                |                |                |                |                |                |
| Std                | -1.0            | -2             | -4               | -6              | -5             | 3              | 1.1             | 1              | 3              | 1.0            |                |                |                |
| Residual           |                 |                |                  |                |                |                |                |                |                |                |                |                |                |
| 2 Yes               | 56              | 1              | 1                | 2               | 4              | 8              | 2               | ?              | 4              | 3              | 3              | 5              | 54             |
| 1                  | 54              |                |                  |                |                |                |                |                |                |                |                |                |                |
| Time                | Count           |                |                  |                |                |                |                |                |                |                |                |                |                |
| % of               | 1.3%            | 1%             | 1%               | 2%              | 3%             | 7%             | 2%              | 6%             | 3%             | 2%             | 1%             | 4%             | 4.4%           |
| Total              | %               |                |                  |                |                |                |                |                |                |                |                |                |                |
| Std                | 1.2             | 1              | -2               | 4               | 3              | 6              | -4.4            | -0.5           | 3              | -5             | -1             |                |                |
| Residual           |                 |                |                  |                |                |                |                |                |                |                |                |                |                |
| 3 No                | 13              | 0              | 1                | 3               | 5              | 11             | 8               | 8              | 1              | 3              | 2              | 3              | 55             |
| 0                  | 55              |                |                  |                |                |                |                |                |                |                |                |                |                |
| Time                | Count           |                |                  |                |                |                |                |                |                |                |                |                |                |
| % of               | 1.3%            | 0%             | 2%               | 0%              | 2%             | 9%             | 2%              | 5%             | 7%             | 1%             | 2%             | 3%             | 4.5%           |
| Total              | %               |                |                  |                |                |                |                |                |                |                |                |                |                |
| Std                | -3              | -6             | 1.6             | -1.3            | -3             | 1.7            | -5             | 1.8            | -3            | -1.0           |                |                |                |
| Residual           |                 |                |                  |                |                |                |                |                |                |                |                |                |                |</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Mother's income per week</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>36</td>
<td>26.1</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>Expected</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>36</td>
<td>27.3</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>Expected</td>
</tr>
</tbody>
</table>
| Other variables also exist for this analysis, namely, parental education level. There is a variable for each father's and mother's education level. In both variables, a wide range of responses was available to respondents. An analysis of the frequencies of these responses revealed some logical break points within the 12 possible responses. These responses were consolidated into the following coding structure:

1 = Complete lower education or less
2 = Secondary practical training or professional preparation
3 = Gymnasium or HAVO university preparation
4 = HBO professional degree
5 = University degree or higher

Note: 1 = Missing; 2 = No income; 3 = < 1500; 4 = 1500 - 1750; 5 = 1750 - 2000; 6 = 2000 - 2500; 7 = 2500 - 3000; 8 = 3000 - 3499; 9 = 3500 - 4500; 10 = 4500 - 5000; 11 = 5000 - 5500; 12 = > 5500.
Table 53

Access to Higher Education and Parental Education Levels, 1991, Netherlands

<table>
<thead>
<tr>
<th></th>
<th>Mother’s education level</th>
<th>Father’s education level</th>
<th>Enrollment status in November</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothe’s ρ</td>
<td>1.000</td>
<td>.544(**</td>
<td>-.172(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1333</td>
<td>1273</td>
<td>1202</td>
</tr>
<tr>
<td>Father’s ρ</td>
<td>.544(**</td>
<td>1.000</td>
<td>-.190(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1279</td>
<td>1287</td>
<td>1162</td>
</tr>
<tr>
<td>Enrollment Status</td>
<td>ρ</td>
<td>-.172(**</td>
<td>-.190(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1202</td>
<td>1162</td>
<td>1229</td>
</tr>
</tbody>
</table>

Note. ** ρ < .01, two-tailed.
In this correlation matrix, both parental education levels are significantly related to student access at the critical level \( p < .01 \). The magnitude of the Spearman’s rho is slightly lower for the mother (-.172) than the father (-.190), although both are higher than the magnitude of the relationship between access and father's income. As seen in the income direction, the negative direction of these education levels to access suggest that, as parental level of education rises, so does the likelihood that a student will enroll as a full-time HBO or WO student, generally.

The type of educational institution chosen by students in November 1991 can also be analyzed in light of these significant income and education variables. At that time, all but one respondent had entered either the final preparatory year for university studies (last year of HAVO), directly into the WO university institution, student teaching (six cases), professional preparation for professional studies, or HBO professional degree programs. These educational options were re-ordered in the dummy variables assigned them in the research data to form a clearly ranked system of responses, such that higher levels indicated tracking to or entering into WO institutions:

1 = HBO (one case only)
2 = HAVO professional preparation
3 = Student teaching
4 = HBO professional degree programs
5 = VWO preparatory education
6 = WO university degree programs

This variable was set against father’s income and both parents’ education level in a correlation matrix, using Spearman’s rho, as the structure of all variables forms ranked
order. In the table below, it is evident that none of these parental SES variables found to be significant in student access form a significant relationship to institutional type (choice of institutional level). These results suggest that, while the income level of the father and the parental education level are significantly related to student access to higher education, the level of education has no significant relationship to parental SES in the Netherlands in 1991.

Table 54

*Educational Choice and Significant Parental SES Variables, 1991, Netherlands*

<table>
<thead>
<tr>
<th></th>
<th>Father's education level</th>
<th>Mother's education level</th>
<th>Father's income per month</th>
<th>Mother's income per month</th>
<th>1991 Level of study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Father's</strong></td>
<td>p</td>
<td>.</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>education Sig. (2-tailed)</td>
<td>1.000</td>
<td>.544(<em><strong>), .422(</strong></em>), .338(***), .026</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>level</td>
<td>N</td>
<td>1287</td>
<td>1279</td>
<td>1287</td>
<td>1287</td>
</tr>
<tr>
<td><strong>Mother's</strong></td>
<td>p</td>
<td>.</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>education Sig. (2-tailed)</td>
<td>.544(<em><strong>), .289(</strong></em>), .214(***), .094</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>level</td>
<td>N</td>
<td>1279</td>
<td>1333</td>
<td>1333</td>
<td>1333</td>
</tr>
<tr>
<td><strong>Father's</strong></td>
<td>p</td>
<td>.</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>income per month Sig. (2-tailed)</td>
<td>.442(<em><strong>), .289(</strong></em>), .337(***), .014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>level</td>
<td>N</td>
<td>1279</td>
<td>1333</td>
<td>1366</td>
<td>1366</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1034</td>
</tr>
</tbody>
</table>
Table 54 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Father's education level</th>
<th>Mother's education level</th>
<th>Father's income per month</th>
<th>Mother's income per month</th>
<th>1991 Level of study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers income per month</td>
<td>.138(<em><strong>), .214(</strong>), .337(</em>**), 1.000, - .059</td>
<td>.000, .000, .000, 1.000, .058</td>
<td>N = 1287, 1333, 1366, 1366, 1034</td>
<td>1991 Level of study</td>
<td>.026, .004, -.014, -.059, 1.000</td>
</tr>
<tr>
<td>Study valid cases</td>
<td>.408, .899, .648, .958</td>
<td></td>
<td></td>
<td></td>
<td>982, 1013, 1034, 1034</td>
</tr>
</tbody>
</table>

*Note: ** p < .01 level, two-tailed.

It is notable in the table above to find evidence of significant relationships between mother's and father's education level (Spearman's ρ = .544, p < .01), where the magnitude and direction of the relationship suggests that the higher one parent's education levels, the higher the spouse's level, generally. The income and education level of the father were also significant (Spearman's ρ = .424, p < .01). The positive direction of this relationship suggests that higher education levels are more likely to be found in fathers of higher income levels, generally. These two relationships are the strongest in this analysis, where the magnitude of the relationships is moderate. Also significant but weaker is the relationship between mother's education level and income.
(Spearman’s $p=.214, p < .01$). It is also positive, indicating a similar rise in income levels when education levels rise, generally.

The questionnaires from 1991-1995 and 1997-1998 allow for the assessment of institutional choice and income/SES variables. In questionnaire C (1991-1995), higher education students in HBO and WO institutions were surveyed. The 1997-1998 questionnaires are very similar in their data to those earlier ones, as family income and parental education levels were asked of both groups. In the 1991-1995 questionnaire C, survey respondents provided parental income information at lower levels than students in questionnaire B group, with less complete records for individual incomes for mother or father and greater levels for combined parental income. These distributions are shown in the table below. Like the B group and at an even higher level, students reported mothers with no or low incomes. Fathers’ incomes distributed more toward the middle and high end of the scale, especially in the highest income bracket ($\geq 28$ compared to $141$ in the B group). However, the number of missing responses for mother and father’s income separately are over 1,000 out of 3,845 cases. Combined income reported by respondents only accounts for about half of these missing records and non-custodial parental income also rose, where group C respondents provided this for 277 parents, compared to just 98 responses from group B. Given these patterns, a test of significance must be performed to determine what response group might hold significant relationships with institutional choice and full-time/part-time enrollment patterns.
Table 55

<table>
<thead>
<tr>
<th>Monthly net income</th>
<th>Mother</th>
<th>Father</th>
<th>Combined</th>
<th>Non-custodial</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Income</td>
<td>1270</td>
<td>42</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>&lt;1500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1500-1750</td>
<td>725</td>
<td>76</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>1750-2000</td>
<td>156</td>
<td>91</td>
<td>30</td>
<td>22</td>
</tr>
<tr>
<td>2000-2250</td>
<td>133</td>
<td>92</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>2250-2500</td>
<td>109</td>
<td>153</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>2500-3000</td>
<td>69</td>
<td>196</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td>3000-3500</td>
<td>88</td>
<td>286</td>
<td>44</td>
<td>34</td>
</tr>
<tr>
<td>3500-4000</td>
<td>59</td>
<td>391</td>
<td>74</td>
<td>30</td>
</tr>
<tr>
<td>4000-4500</td>
<td>46</td>
<td>295</td>
<td>60</td>
<td>22</td>
</tr>
<tr>
<td>4500-5000</td>
<td>23</td>
<td>259</td>
<td>66</td>
<td>15</td>
</tr>
<tr>
<td>5000-5500</td>
<td>17</td>
<td>157</td>
<td>54</td>
<td>14</td>
</tr>
<tr>
<td>&gt;5500</td>
<td>7</td>
<td>145</td>
<td>33</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>2739</td>
<td>2711</td>
<td>572</td>
<td>277</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>1186</td>
<td>1134</td>
<td>3273</td>
<td>3568</td>
</tr>
<tr>
<td>Total</td>
<td>3845</td>
<td>3843</td>
<td>3845</td>
<td>3845</td>
</tr>
</tbody>
</table>

A variable for institutional type was used from the 1991-1995 questionnaire. C group, where possible responses were 1 for students in HBO professional degree.
programs, 2 for students in WO university degree programs and 3 for students who had progressed into advanced degrees in WO universities. There were 93 students in this last category with the remainder distributed between HBO (1727) and WO (1992) baccalaureate programs. An additional question was asked of these students to determine their enrollment status, coded 1 for full-time studies (3488 cases) and 2 for part-time (338 cases). The correlation of these variables to parental income variables is shown in the matrix below.

Table 56
Institutional Choice, Enrollment Level and Parental Income. 1991, Netherlands

<table>
<thead>
<tr>
<th>Income Source</th>
<th>Currently full-time or part-time studies?</th>
<th>Current level of studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother's income per month</td>
<td>0.099</td>
<td>0.028</td>
</tr>
<tr>
<td>Father's income per month</td>
<td>-.122(***), Sig. (2-tailed)</td>
<td>0.189(**), Sig. (2-tailed)</td>
</tr>
<tr>
<td>Joint parental income per month</td>
<td>-.132(**), Sig. (2-tailed)</td>
<td>0.160(**), Sig. (2-tailed)</td>
</tr>
<tr>
<td>Non-custodial parent income per month</td>
<td>-.025</td>
<td>0.098</td>
</tr>
</tbody>
</table>

*N* Note: *p < .05, two-tailed. **p < .01, two-tailed.
This correlation matrix reveals that two of the four parental income variables hold significance in their relationship to both student institutional choice and level of enrollment at the critical level $p < .01$. The strength of these relationships differs between the student variables, where the father’s monthly income has the strongest relationship to institutional choice (Spearman’s $\rho = .180$), and joint income holds the strongest relationship to enrollment level (Spearman’s $\rho = -.132$). The negative direction of the relationships between income levels and enrollment level reflects the coding structure of dummy variables, where variable values rise as income levels rise and values for enrollment level rise as the level is part-time. The positive direction of the relationship between parental income levels and educational choice reflects that coding structure, where the variable values for institutional type rise from HBO to WO and through WO – advanced. These suggest that, as father’s and joint income levels rise, so does the likelihood that the student will be enrolled full-time and enrolled in a WO institution.

Education levels of parents are also included in the questionnaire C group data. As in the B group, there were 12 possible responses, collapsed into five levels:

1 = Complete lower education or less
2 = Secondary practical training or professional preparation
3 = Gymnasium or HAVO university preparation
4 = HBO professional degree
5 = University degree or higher
Mother's and father's education levels were compared to both institutional choice and enrollment level, using the same two variables for these from the income comparisons. A correlation matrix was developed and is shown below. It reveals significant relationships between all variables of interest at the critical level $p < .01$. The strongest relationships are found in the magnitude of Spearman's rho between parental education levels and institutional choice with the father's level (.209) slightly higher and roughly equal to the mother's level (.202). Lower levels of the Spearman's rho were found in the relationships between parental education level and enrollment level with the mother's education level (.13) slightly higher than that of the father (.12). Given the direction of these relationships and the coding structures of the variables, they suggest that, when the education level of the parent rises, the likelihood that the student will enroll in a university degree program and also enroll as a full-time student also rises, generally.
Table 57


Netherlands

<table>
<thead>
<tr>
<th></th>
<th>Mother's education level</th>
<th>Father's education level</th>
<th>Currently full-time or part-time studies?</th>
<th>Current level of studies?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ρ</strong></td>
<td>1.000</td>
<td>.594(***)</td>
<td>-.130(***)</td>
<td>.202(***)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>3763</td>
<td>3595</td>
<td>3744</td>
<td>3732</td>
</tr>
<tr>
<td><strong>ρ</strong></td>
<td>.594(***)</td>
<td>1.000</td>
<td>-.120(***)</td>
<td>.209(***)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>3595</td>
<td>3636</td>
<td>3617</td>
<td>3607</td>
</tr>
<tr>
<td><strong>ρ</strong></td>
<td>-.130(***)</td>
<td>-.120(***)</td>
<td>1.000</td>
<td>-.118(***)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.</td>
<td>.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>3744</td>
<td>3617</td>
<td>3826</td>
<td>3797</td>
</tr>
</tbody>
</table>
Further assessment of these relationships can be performed using chi-square analysis. Using the four variables of interest where significant relationships were observed between them and student institutional choice and enrollment level, chi-square tests were performed. Those results are shown in tables found in Appendix M. The tests for joint parental income failed to provide a significant statistical relationship at the critical level \( p < .01 \). The other six tests did reveal significant relationships at the level \( p < .001 \), with the highest level of Pearson’s chi square found in the relationship between the mother’s and father’s education level and the student’s institutional choice (179.773 and 191.273, respectively, with \( df = 8 \) for both tests). These form a clear “high group” for the six test results. The test for the two student variables and the father’s monthly
income had the next highest level (Pearson’s \( \chi^2 = 123.344, df = 24 \)). The three remaining tests form a significant but “lowest group” where the level of Pearson’s chi square ranged from 54.472 (df = 4) for father’s education level and student enrollment level (full- or part-time) to 72.138 (df = 4) for the mother’s education level to this variable.

Within these results, the relationship between expected and actual results reveal a skew toward the highest and lowest parental levels of education and student educational choice, where the skew is strongest toward university enrollment and away from HBO enrollment where the father holds a university degree, also. In this relationship for the mother, the skew was strongest toward HBO enrollment and away from university enrollment when the mother had primary education or less. While significant standardized residual levels were also found in the father’s test here, it was not at the same level as the mother’s test.

In the test of the father’s monthly income and student’s institutional choice, there were few significant standardized residuals found in the cells, which could be partially due to the large number of possible income levels. In the top income group, which includes all fathers with more than \$5500 and also had a high \( n \) for cases, the level of skew was the strongest. Here, students were overrepresented in the cases where they enrolled in university programs (standardized residual = 4.3) and underrepresented in HBO enrollments (-4.9).

A review of the relationships between father’s income and level of enrollment reveals a single significant cell result. When a father’s income was reported as “no income” students were overrepresented in their actual part-time level of enrollment (standardized residual = 3.3). This suggests that when fathers do not have an income, it
is more likely that the student may need to enroll in part-time studies for financial reasons. A similar instance occurs in the relationship between the mother's education level and the student's level of enrollment. When the mother's education level was primary or less, the student was overrepresented in the actual distribution of part-time enrollments and underrepresented in full-time enrollments (standardized residuals = 6.5, -2.0, respectively). In this test, however, the direction of the representation reverses at the next level of mother's education, where there is underrepresentation in part-time enrollments when the mother has practical training or professional preparatory education (standardized residual = -2.5). These results suggest that the lowest levels of education for the mother result in greater likelihood of a student's part-time enrollment and that just slightly more education for the mother might reverse this trend. The same test for the father's education level and student enrollment level revealed a similarly strong skew toward part-time enrollment at the lowest level of education, primary or less (standardized residual = 5.4). This is where the similarity with the mother's test ends, however, as the reversal of this trend does not occur until the level of father's education reaches baccalaureate attainment, where HBO and WO or higher attainment resulted in significant skew away from part-time enrollment (standardized residuals = -2.7, -3.6, respectively). While only about 9% of the student subjects reported part-time enrollment, their association with parental income levels reveals some of the strongest relationships in the tests of all variables of interest in this section.

The 1997-1998 questionnaires were received from 4815 students enrolled in HBO and WO institutions. The surveys asked these same parental income and education questions (with increased options for responses in both variables), as well as a modified
version of the student enrollment question for institutional type (advanced WO degree
was consolidated into WO) and an identical question from 1991-1995 for full-time or
part-time level. Using these variables, an assessment of the relationships between them
can be completed. In the institutional type variable, 49 cases coded as “J” with no
explanation are embedded into the data. There is no additional response option available
in the survey, so these responses will be assumed to be missing responses; the small
number should have no significant effect on the statistical tests.

The changes to the parental income question allowed students to grade parental
income into 14 different levels, up from 11 in the previous study. The top monthly
income group rose from f5500 to f8000. Otherwise, the increasing level of income was
coded with increasing values as it had in the previous study. Full-time and part-time
enrollment responses are coded 1 and 2, respectively. Parental education levels
expanded, with a response for “some college, no degree” available in this survey. The 13
possible education level responses were consolidated into six ranked categories, as shown
below:

1 = Complete lower education or less
2 = Secondary practical training or professional preparation
3 = Gymnasium or HAVO university preparation
4 = Some college, no degree
5 = HBO professional degree
6 = University degree or higher

Parental income distributions were again analyzed to understand better their
representation in this data set. As shown in the table below, similar results are found here
to the responses in 1991. Again, over 1000 responses were not provided for either mother’s or father’s income level. Although the number of missing values increased here, the data set is larger, so it is roughly proportional to the number missing in 1991.

There are 532 responses for joint income listed, down slightly from the 572 responses to this option in the earlier study. There was no option to list non-custodial parent income here, possibly due to the low number of responses received to that question in 1991. The number and proportion of mothers reported as having no income decreased in this study, and that may be related to the number reporting the lowest levels of education, where just 736 mothers were reported at this level in 1997, down sharply from the 1213 cases reported in 1991. However, the income levels for mothers still tend to skew toward the bottom of the scale, where fathers’ incomes skew toward the middle ranges, and joint income levels toward the upper end.

Table 58

<table>
<thead>
<tr>
<th>Parental Net Monthly Incomes</th>
<th>Mother</th>
<th>Father</th>
<th>Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>No income</td>
<td>1094</td>
<td>70</td>
</tr>
<tr>
<td>&lt;1500</td>
<td>636</td>
<td>64</td>
<td>5</td>
</tr>
<tr>
<td>1500-1750</td>
<td>224</td>
<td>51</td>
<td>11</td>
</tr>
<tr>
<td>1750-2000</td>
<td>179</td>
<td>70</td>
<td>22</td>
</tr>
<tr>
<td>2000-2250</td>
<td>170</td>
<td>119</td>
<td>11</td>
</tr>
<tr>
<td>2250-2500</td>
<td>142</td>
<td>155</td>
<td>15</td>
</tr>
<tr>
<td>2500-3000</td>
<td>138</td>
<td>282</td>
<td>27</td>
</tr>
<tr>
<td>3000-3500</td>
<td>113</td>
<td>335</td>
<td>49</td>
</tr>
<tr>
<td>3500-4000</td>
<td>49</td>
<td>305</td>
<td>53</td>
</tr>
</tbody>
</table>
Table 58 (continued)

<table>
<thead>
<tr>
<th>Parental Net Monthly Incomes</th>
<th>Mother</th>
<th>Father</th>
<th>Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000-4500</td>
<td>30</td>
<td>287</td>
<td>38</td>
</tr>
<tr>
<td>4500-5000</td>
<td>32</td>
<td>251</td>
<td>51</td>
</tr>
<tr>
<td>5000-6000</td>
<td>32</td>
<td>254</td>
<td>72</td>
</tr>
<tr>
<td>6000-7000</td>
<td>13</td>
<td>166</td>
<td>45</td>
</tr>
<tr>
<td>7000-8000</td>
<td>6</td>
<td>88</td>
<td>33</td>
</tr>
<tr>
<td>&gt;8000</td>
<td>21</td>
<td>256</td>
<td>88</td>
</tr>
<tr>
<td>Total</td>
<td>2879</td>
<td>2753</td>
<td>532</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>1303</td>
<td>1429</td>
<td>3650</td>
</tr>
<tr>
<td>Total</td>
<td>4182</td>
<td>4182</td>
<td>4162</td>
</tr>
</tbody>
</table>

The first statistical test for this survey group compares the relationships between student institutional choice (HBO or WO) and enrollment level (full-time or part-time) with parental income levels. Spearman’s rho was used for this test, as the values for all variables form ranked orders of the responses, given full-time and university enrollments as more desirable than HBO and part-time enrollments; parental education levels are ranked higher with greater levels of attainment and parental income is ranked by level of income earned.
### Table 59

**Student Institutional Choice, Enrollment Level and Parental Income, 1997, Netherlands**

<table>
<thead>
<tr>
<th></th>
<th>Mother's net monthly income</th>
<th>Father's net monthly income</th>
<th>Joint parental net monthly income</th>
<th>Level of enrollment in 1997</th>
<th>Educational institution type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mother's net monthly income</strong></td>
<td>1.000</td>
<td>.070(*** )</td>
<td>.265</td>
<td>-.021</td>
<td>.085(*** )</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
<td>.214</td>
<td>.268</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>2879</td>
<td>2619</td>
<td>24</td>
<td>2856</td>
<td>2879</td>
</tr>
<tr>
<td><strong>Father's net monthly income</strong></td>
<td>0.070(*** )</td>
<td>1.000</td>
<td>.778(*** )</td>
<td>-.040(*)</td>
<td>.212(*** )</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.036</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>2619</td>
<td>2753</td>
<td>24</td>
<td>2733</td>
<td>2753</td>
</tr>
</tbody>
</table>
Table 59 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Mother's monthly income</th>
<th>Father's monthly income</th>
<th>Joint monthly income</th>
<th>Enrollment in 1997</th>
<th>Educational institution type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint</td>
<td>0.263</td>
<td>0.778(**)</td>
<td>1.000</td>
<td>-0.124(**)</td>
<td>0.282(**)</td>
</tr>
<tr>
<td>Parental not monthly income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.214</td>
<td>0.000</td>
<td>0.004</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>532</td>
<td>529</td>
<td>532</td>
</tr>
<tr>
<td>Level of enrollment</td>
<td>-0.021</td>
<td>-0.040(*)</td>
<td>1.000</td>
<td>-0.172(**)</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td>0.124(**)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>2856</td>
<td>2733</td>
<td>529</td>
<td>4141</td>
<td>4141</td>
</tr>
<tr>
<td>Educational institution type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.085(**)</td>
<td>0.212(**)</td>
<td>0.282(**)</td>
<td>-0.172(**)</td>
<td>1.000</td>
</tr>
<tr>
<td>N</td>
<td>2879</td>
<td>2753</td>
<td>532</td>
<td>4141</td>
<td>4181</td>
</tr>
</tbody>
</table>

Note: * p < .05, two-tailed. ** p < .01, two-tailed.
This matrix reveals that income levels for all three categories hold a significant relationship to student institutional choice and enrollment level at the critical level \( p < .01 \), as do joint income to enrollment level. The direction of these relationships and the coding structure of the variables suggest that, as parental income rises, so does the likelihood that the student will enroll in a WO university degree program. Similarly, at the level of joint income rises, the likelihood that the student will enroll as a full-time student also rises, generally. Mother's monthly net income is not significantly related to enrollment level and father's income is significantly related to this variable only at the critical level \( p < .05 \).

The next statistical analysis places these two student enrollment variables with parental education levels to determine any potential areas where significant relationships exist. As the Table 60 reveals, both parents' education levels hold significant relationships to student institutional choice and enrollment level at the critical level \( p < .01 \). The strongest relationships are seen between parental education levels and institutional type, where the level of the Spearman's rho is nearly identical for the mother (.240) and the father (.242). The magnitude of the relationships is lower between the parental education levels and enrollment level, where the father's education level (-.067) is about half that of the mother's (-.112). The direction of these relationships and the coding structures of the variables suggest that, as parental education level rises, the likelihood that the student will enroll in full-time studies and enroll in a university baccalaureate program also increase, generally.
Table 60

Student Institutional Choice, Enrollment Level and Parental Education Level, 1997, Netherlands

<table>
<thead>
<tr>
<th>Mother's education level</th>
<th>Father's education level</th>
<th>Level of enrollment in 1997</th>
<th>Educational institution type</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>1.000</td>
<td>.547(**)</td>
<td>-.112(**)</td>
</tr>
</tbody>
</table>

Mother's education level

<table>
<thead>
<tr>
<th>Sig. (2-tailed)</th>
<th></th>
<th>.000</th>
<th>.000</th>
<th>.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>3985</td>
<td>3747</td>
<td>3945</td>
<td>3984</td>
</tr>
</tbody>
</table>

Father's education level

<table>
<thead>
<tr>
<th>Sig. (2-tailed)</th>
<th></th>
<th>.000</th>
<th>.000</th>
<th>.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>3747</td>
<td>3847</td>
<td>3809</td>
<td>3846</td>
</tr>
</tbody>
</table>
Table 60 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Mother's education level</th>
<th>Father's education level</th>
<th>Level of enrollment in 1997</th>
<th>Educational institution type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of enrollment in 1997</td>
<td>( \rho )</td>
<td>-.112(**)</td>
<td>-.067(**)</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (G-tailed)</td>
<td>( N )</td>
<td>3945</td>
<td>3809</td>
<td>4141</td>
</tr>
<tr>
<td>Educational institution type</td>
<td>( \rho )</td>
<td>.240(**)</td>
<td>.242(**)</td>
<td>-.172(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>( N )</td>
<td>3984</td>
<td>3846</td>
<td>4141</td>
</tr>
</tbody>
</table>

Note ** \( p < .01 \), two-tailed.

The number of significantly related variables available for chi-square analysis is greater here than in the 1991 study. The resulting tables have been placed into Appendix N as a reference. Three of the tests failed to provide results of relationships between expected and actual distributions within the chi-square cells at the critical level \( p < .001 \):
mother’s income and institutional choice/type, joint income and enrollment level, and
father’s education level and enrollment level.

The relationships between parental education level and institutional choice/type
form a clear “high group” where the magnitude of the Pearson chi squares is higher for
the father (280.001) than for the mother (256.019) ($df = 10$ for both cases). The next
strongest relationship is found between the father’s income and the student’s institutional
choice (Pearson $\chi^2 = 173.373$, $df = 28$). The two remaining tests form a “lowest group”
where the levels of Pearson chi square for the relationships between joint income and
institutional choice/type ($70.825$, $df = 28$), and the mother’s education level and
enrollment level ($58.040$, $df = 5$). It is important to note that the relationship between the
mother’s education level and the student’s enrollment level was not significant in the
previous correlation matrix using Spearman’s rho, but this additional test yielded a
significant result.

Within the tests for parental education level and student’s institutional choice,
there are some similarities and differences. In both tests, the skew between expected and
actual results is greatest at the ends of the spectrum of parental education levels. The
greatest levels of student overrepresentation of WO enrollments are seen in the highest
levels of parental educational attainment. Correspondingly, the highest levels of student
underrepresentation in HBO enrollments are seen here, too. In the lowest parental
education level rows, the skew away from WO enrollment and toward HBO enrollment is
balanced for both, with the standardized residual levels forming nearly perfect opposite
negative and positive levels. While the table for the mother’s relationships here also
shows a “mirror image” effect between the highest and lowest education level rows and
those one up or down from them, the skew in the father’s education level is more greatly
seen in the highest education level row, where the greatest magnitude of standardized
residuals are seen for these tests (HBO = -9.4, WO = 9.8).

As was evidenced in the last series of chi-square tests for the 1991 group C
respondents, there are few noteworthy cells when analyzing income levels. The greater
spread of possible responses in the 1997 group may exacerbate this, as the count of
potential answers grew from 11 to 14. However, in the relationship between the father’s
income and student’s institutional choice, the top income level (> f8000) reveals a skew
away from HBO enrollment and towards WO enrollment (standardized residuals = -5.1,
5.3, respectively). To a lesser extent, the same pattern is found in the relationship
between joint income and institutional choice (standardized residuals = -3.6, 3.5,
respectively). These relationships suggest that, as the income levels of fathers or joint
income rises, the likelihood that the student will enroll in a WO university curriculum
also rises, generally.

In the relationship between mother’s education level and student enrollment level,
the single cell of note is found at the lowest education level of the mother, primary or
less. This same skew was found in the earlier study, where the overrepresentation of
these students in part-time studies was seen. Here, the level of standardized residual is
5.9, and this was not seen significantly in the father’s education level relationship to this
student variable. These results may indicate that the situation for lower educated mothers
has not changed in this period, while it may have changed for fathers.
The data sets available for analysis lack comparative attainment data necessary to understand any relationships that may exist between baccalaureate degree attainment and socioeconomic status in Dutch higher education in these two different periods. This is a limitation of this study. However, it is possible to understand better degree persistence in light of these SES factors, given the data at hand, as well as degree completion for the students that comprise the questionnaire C group from 1991. Their follow-up study in 1995 included a question to determine whether they completed the study begun in 1991. The 1997 group had only one follow-up study in 1998, and this includes a persistence question but not a degree completion question (it was likely too soon for any degree completions for those starting studies that year). Given these limitations, an analysis of degree completion for the 1991 group will be performed, as well as statistical tests to examine persistence in both the 1991 and 1997 groups.

To assess degree attainment of the 1991 questionnaire C group, those enrolled in higher education that year, a variable for degree completion was used from the 1995 follow-up study. In that year’s survey, 2063 students from the original panel (53.7%) provided responses to this question, indicating that they had either completed or not completed their original studies. These responses provided separate responses for no (coded as 1), yes, the original study was completed (coded as 2), and yes, but another degree was earned (coded as 3). These last two responses were consolidated into a single value (2) for “yes, original or another degree completed” as this study is concerned with any baccalaureate completion.
This degree completion consolidated variable was set against the three parental income options (mother, father, and joint) from 1991, as well as the consolidated parental education level variables. These variables all utilize a coding structure where the value of the dummy variable rises as income or education level rises. The correlation matrix developed to assess these relationships is shown in Table 61 and uses Spearman’s rho, as these values constitute ranked order.

This correlation study reveals statistically significant relationships between student degree attainment in 1995 and three variables for parental SES in 1991 at the critical level $p < .01$: father’s monthly income and both parents’ education levels. The magnitude of these levels is not high, where the greatest magnitude of Spearman’s rho is -.128 for both the father’s income and education level. The direction of all three is negative, which is not what would be expected or seen in other countries. This would suggest that the higher the father’s income and parental education levels, the less likely that the student had completed a degree by 1995.
Table 61

Student Degree Attainment and Parental SES, 1995, Netherlands

<table>
<thead>
<tr>
<th></th>
<th>Mother's income</th>
<th>Father's income</th>
<th>Joint parental income</th>
<th>Mother's education level</th>
<th>Father's education level</th>
<th>Degree completion by 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>per month</td>
<td>per month</td>
<td>per month</td>
<td>level</td>
<td>level</td>
<td>by 1995</td>
</tr>
<tr>
<td>Mother's</td>
<td>1.000</td>
<td>.002</td>
<td>.088</td>
<td>.280(**</td>
<td>.121(**</td>
<td>-.017</td>
</tr>
<tr>
<td>income per</td>
<td>Sig. .917</td>
<td>.608</td>
<td>.000</td>
<td>.000</td>
<td>.522</td>
<td></td>
</tr>
<tr>
<td>month</td>
<td>(2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>2739</td>
<td>2446</td>
<td>36</td>
<td>2704</td>
<td>2620</td>
</tr>
<tr>
<td>Father's</td>
<td>.002</td>
<td>1.000</td>
<td>.802(**</td>
<td>.373(**</td>
<td>.580(**</td>
<td>-.128(**</td>
</tr>
<tr>
<td>income per</td>
<td>Sig. .917</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>month</td>
<td>(2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>2446</td>
<td>2711</td>
<td>41</td>
<td>2671</td>
<td>2623</td>
</tr>
<tr>
<td>Joint</td>
<td>.088</td>
<td>.802(**</td>
<td>1.000</td>
<td>.401(**</td>
<td>.476(**</td>
<td>-.101</td>
</tr>
<tr>
<td>parental</td>
<td>Sig. .608</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.073</td>
</tr>
<tr>
<td>income per</td>
<td>(2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>36</td>
<td>41</td>
<td>572</td>
<td>561</td>
<td>538</td>
</tr>
</tbody>
</table>
Table 61 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Mother's income</th>
<th>Father's income</th>
<th>Joint parental income</th>
<th>Mother's education level</th>
<th>Father's education level</th>
<th>Degree by 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>per month</td>
<td>per month</td>
<td>per month</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother's education</td>
<td>.280(<strong>), .373(</strong>), .401(<strong>), 1.000, .594(</strong>), -.106(**), .000, .000, .000, .000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>level</td>
<td>Sig.</td>
<td>.000, .000, .000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>2704, 2671, 561</td>
<td>3763, 3595, 2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father's education</td>
<td>.121(<strong>), .580(</strong>), .476(<strong>), .594(</strong>), 1.000, -.128(**), .000, .000, .000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>level</td>
<td>Sig.</td>
<td>.000, .000, .000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>2620, 2623, 538</td>
<td>3595, 3636, 1966</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree completion</td>
<td>-.017, -.101, -.106(<strong>), -.128(</strong>), 1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by 1995</td>
<td>Sig.</td>
<td>.522, .000, .073</td>
<td>.000, .000, .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>1459, 1450, 315</td>
<td>2021, 1966, 2063</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. ** p < .01, two-tailed.
This result warranted further investigation. An additional variable in this 1995 follow-up study asked students their future study plans in 1996. The possible responses are shown below and do not form a ranked order:

1 = Continue present course of study
2 = Obtained degree/diploma plus additional study
3 = Obtained degree/diploma but no additional study
4 = Not obtained degree/diploma but other study
5 = Neither obtain degree/diploma nor further study

A new variable was created for those students who responded that they had completed their studies by November 1995’s follow-up study. The distribution of these responses is shown in the table below. Here, the majority of students indicated that they planned to continue their current studies (216 cases) or receive their diplomas (392 cases) within the next year. Only five of these students indicated no plans to finish their education. This distribution does raise the suspicion that this follow-up sample of the original could have been taken from those still enrolled in higher education, as opposed to a more representative sample of students both enrolled and not enrolled. There is no indication in the research method to answer this potential concern, either way.
Table 62

<table>
<thead>
<tr>
<th>Future Study in 1995 When Degree Not Completed, 1995, Netherlands</th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continue present course of study</td>
<td>216</td>
<td>5.6</td>
<td>31.5</td>
<td>31.5</td>
</tr>
<tr>
<td>Diploma plus additional study</td>
<td>72</td>
<td>1.9</td>
<td>10.5</td>
<td>42.0</td>
</tr>
<tr>
<td>Diploma but no additional study</td>
<td>392</td>
<td>10.2</td>
<td>57.2</td>
<td>99.3</td>
</tr>
<tr>
<td>No diploma but additional study</td>
<td>1</td>
<td>.0</td>
<td>.1</td>
<td>99.4</td>
</tr>
<tr>
<td>No diploma and no additional study</td>
<td>4</td>
<td>.1</td>
<td>.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>685</td>
<td>17.8</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>3160</td>
<td>82.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3845</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Given these distributions, a further correlation test was performed to determine if any significant relationships exist between these responses and parental SES variables. That correlation utilized Pearson’s correlation coefficients, as there is no ranked order to the student responses. In the table below, the only parental variable that holds a significant relationship to these student responses is found with the mother’s income level...
Weaker relationships are seen at the critical level $p < .05$ for parental education level. The negative direction of these relationships and the previous negative relationship directions suggest that, when parental SES level rises, the likelihood that the student will delay graduation increases, generally.

### Table 3

**Student Non-Completion of Degree and Parental SES, 1995, Netherlands**

<table>
<thead>
<tr>
<th></th>
<th>Mother's income per month</th>
<th>Father's income per month</th>
<th>Joint parental education level</th>
<th>Mother's education level</th>
<th>Father's education level</th>
<th>Future study when not completed in 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pearson $r$</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>$N$</strong></td>
<td>2739</td>
<td>2446</td>
<td>36</td>
<td>2704</td>
<td>2620</td>
<td>489</td>
</tr>
</tbody>
</table>

|                  |                            |                            |                               |                          |                          |                                          |
| **Pearson $r$**  |                            |                            |                               |                          |                          |                                          |
| **Sig. (2-tailed)** |                            |                            |                               |                          |                          |                                          |
| **$N$**          | 2446                      | 2711                      | 41                            | 2671                     | 2623                     | 496                                      |

($r = -.124, p < .01$).
Table 63 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Mother’s income per month</th>
<th>Father’s income per month</th>
<th>Joint parental income per month</th>
<th>Mother’s education level</th>
<th>Father’s education level</th>
<th>Future study when not completed in 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Pearson r</td>
<td>.267</td>
<td>.768(**)</td>
<td>1</td>
<td>.395(**)</td>
<td>.468(**)</td>
<td>-.031</td>
</tr>
<tr>
<td>Pearson Sig. (2-tailed)</td>
<td>.116</td>
<td>.000</td>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.749</td>
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<tr>
<td>income per month</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>36</td>
<td>41</td>
<td>572</td>
<td>561</td>
<td>538</td>
<td>107</td>
</tr>
<tr>
<td>Mother’s Pearson r</td>
<td>.336(**)</td>
<td>.336(**)</td>
<td>.395(**)</td>
<td>1</td>
<td>.590(**)</td>
<td>-.077(*)</td>
</tr>
<tr>
<td>Pearson Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.012</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>2704</td>
<td>2671</td>
<td>561</td>
<td>3763</td>
<td>3595</td>
<td>667</td>
</tr>
<tr>
<td>Father’s Pearson r</td>
<td>.176(**)</td>
<td>.553(**)</td>
<td>.468(**)</td>
<td>.590(**)</td>
<td>1</td>
<td>-.096(*)</td>
</tr>
<tr>
<td>Pearson Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td>.014</td>
</tr>
<tr>
<td>education level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>2620</td>
<td>2623</td>
<td>538</td>
<td>3595</td>
<td>3636</td>
<td>650</td>
</tr>
<tr>
<td>Future Pearson r</td>
<td>-.024(**)</td>
<td>-.063</td>
<td>-.031</td>
<td>-.097(*)</td>
<td>-.096(*)</td>
<td>1</td>
</tr>
<tr>
<td>Pearson Sig. (2-tailed)</td>
<td>.006</td>
<td>.161</td>
<td>.749</td>
<td>.012</td>
<td>.014</td>
<td>.</td>
</tr>
<tr>
<td>when not completed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>489</td>
<td>496</td>
<td>107</td>
<td>667</td>
<td>650</td>
<td>685</td>
</tr>
</tbody>
</table>

Note. * p < .05, two-tailed. ** p < .01, two-tailed.
The tests for 1-year persistence utilize the same parental SES variables (income and education levels) from the 1991 and 1997 studies. Each study asked students their enrollment status 1 year later (1992 and 1998). However, the status obtained for the 1991 questionnaire C group was obtained during the 1993 follow-up, asked the question of them regarding their status the previous year. The 1993 persistence variable asked students if they were studying in 1992 in HBO/WO institutions (coded 1), another type of institution (coded 2), or not studying (coded 3). Of the 2374 students from the original panel (61.7%), 266 students indicated they had left the HBO or WO institutions.

A correlation matrix to assess the relationships between this 1993 variable and 1991 parental SES variables was constructed using Spearman's rho and is shown below. It reveals a single statistically significant relationship between persistence and mother's education level (Spearman's \( \rho = -.055, p < .01 \)). The negative direction of this relationship and the coding structure of the variables suggest that, as the mother's education level rises, the likelihood that the student will still be enrolled in the next year also increases, generally. The magnitude of this relationship is significant yet very low; perhaps the most remarkable information to be gleaned from this matrix is the lack of significance between student persistence and parental SES.
Table 64

*Student Persistence and Parental SES, 1993, Netherlands*

<table>
<thead>
<tr>
<th></th>
<th>Mother's income per month</th>
<th>Father's income per month</th>
<th>Joint parental income per month</th>
<th>Mother's education level</th>
<th>Father's education level</th>
<th>Education/public tender course in 92/93</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mother's income per</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>month</strong></td>
<td>p</td>
<td></td>
<td></td>
<td>.000</td>
<td>.121(**)</td>
<td>.036</td>
</tr>
<tr>
<td><strong>(2-tailed)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>N</td>
<td>2739</td>
<td>2446</td>
<td>36</td>
<td>2704</td>
<td>2620</td>
<td>1711</td>
</tr>
<tr>
<td><strong>Father's income per</strong></td>
<td></td>
<td></td>
<td></td>
<td>.002</td>
<td>.802(**)</td>
<td>-.028</td>
</tr>
<tr>
<td><strong>month</strong></td>
<td>p</td>
<td>.917</td>
<td>.000</td>
<td>.373(**)</td>
<td>.580(**)</td>
<td>.247</td>
</tr>
<tr>
<td><strong>(2-tailed)</strong></td>
<td></td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>2446</td>
<td>2711</td>
<td>41</td>
<td>2671</td>
<td>2623</td>
<td>1692</td>
</tr>
<tr>
<td><strong>Joint parental income</strong></td>
<td></td>
<td></td>
<td></td>
<td>.088</td>
<td>.802(**)</td>
<td>-.068</td>
</tr>
<tr>
<td><strong>per month</strong></td>
<td>p</td>
<td>.908</td>
<td>.000</td>
<td>.401(**)</td>
<td>.476(**)</td>
<td>.204</td>
</tr>
<tr>
<td><strong>(2-tailed)</strong></td>
<td></td>
<td>.000</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>N</td>
<td>36</td>
<td>41</td>
<td>572</td>
<td>561</td>
<td>538</td>
<td>353</td>
</tr>
<tr>
<td></td>
<td>Mother's income per month</td>
<td>Father's income per month</td>
<td>Joint parental income level</td>
<td>Mother's education level</td>
<td>Father's education level</td>
<td>Education/public tender course in 92/93</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------</td>
<td>---------------------------</td>
<td>----------------------------</td>
<td>-------------------------</td>
<td>-------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Mother's education level</td>
<td>p</td>
<td>Sig.</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.280(<em><strong>), .373(</strong></em>), .401(<em><strong>), 1.000, .594(</strong></em>), -.055(***), 0.009</td>
<td>.000, .000, .000, .090, .009</td>
<td>2704, 2671, 561, 3763, 3595, 2321</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2-tailed)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Father's education level</td>
<td>p</td>
<td>Sig.</td>
<td>N</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>.121(<em><strong>), .580(</strong></em>), .476(<em><strong>), .594(</strong></em>), 1.000, -.039, .064</td>
<td>.000, .000, .000, .090, .009</td>
<td>2620, 2623, 538, 3595, 3636, 2256</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education/public tender course in 92/93</td>
<td>p</td>
<td>Sig.</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.036, -.028, -.068, -.055(***), -.039, 0.064</td>
<td>.139, .247, .204, .009, .064</td>
<td>1711, 1692, 353, 2321, 2256, 2374</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note: ** p < .01, two-tailed.
A similar statistical test was performed for the 1997 survey group, using a response from the 1998 follow-up survey. Here, students were asked if they were still enrolled in the same institution as they were in 1997. The possible responses were yes (coded 1), transferred to another institution (coded 2) and no longer enrolled in higher education (coded 3). As any persistence would be positive, the first two responses were consolidated into a single response for “still enrolled” and coded 1. The not enrolled response was coded as 2. Of the 2340 respondents to this question (56% of the original panel), 91 indicated that they were no longer enrolled in higher education.

This consolidated variable was placed with the parental SES variables (income and education levels) from 1997 to determine any significant relationships that exist between them. The table below uses Spearman’s rho and is shown below. It reveals a single relationship significant at the critical level $p < .01$, that between mother’s education level and student persistence. The magnitude of Spearman’s rho in this relationship (.057) is almost identical to the same relationship found in the 1991 study in the previous table. The direction here is positive but (due to differences in coding between variables in these studies) they both suggest that, as the mother’s education level rises, so does the likelihood that the student will persist to a second year of studies.
<table>
<thead>
<tr>
<th></th>
<th>Mother’s net</th>
<th>Father’s net</th>
<th>Joint net</th>
<th>Mother’s education</th>
<th>Father’s education</th>
<th>Persisted from 1997 to 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>net</td>
<td>1.000</td>
<td>0.070(**)</td>
<td>0.263</td>
<td>0.339(**)</td>
<td>0.565(**)</td>
<td>0.950(*)</td>
</tr>
<tr>
<td>monthly</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>.</td>
<td>0.000</td>
<td>0.214</td>
<td>0.000</td>
<td>0.000</td>
<td>0.041</td>
</tr>
<tr>
<td>Father’s</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>net</td>
<td>0.070(**)</td>
<td>1.060</td>
<td>0.778(**)</td>
<td>0.327(**)</td>
<td>0.520(**)</td>
<td>-0.020</td>
</tr>
<tr>
<td>monthly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
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<td>0.000</td>
<td>0.000</td>
<td>0.009</td>
<td>0.432</td>
<td></td>
</tr>
<tr>
<td>Joint</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>parental</td>
<td>0.263</td>
<td>0.778(**)</td>
<td>1.000</td>
<td>0.469(**)</td>
<td>0.536(**)</td>
<td>-0.088</td>
</tr>
<tr>
<td>net</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>monthly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.214</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.128</td>
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</tr>
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<td>N</td>
<td>2679</td>
<td>2619</td>
<td>24</td>
<td>2794</td>
<td>2643</td>
<td>663</td>
</tr>
<tr>
<td>N</td>
<td>2619</td>
<td>2753</td>
<td>24</td>
<td>2663</td>
<td>2991</td>
<td>1600</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>532</td>
<td>514</td>
<td>489</td>
<td>299</td>
</tr>
</tbody>
</table>
Table 65 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Mother's net income</th>
<th>Father's net income</th>
<th>Joint parental net income</th>
<th>Mother's education level</th>
<th>Father's education level</th>
<th>Persisted from 1997 to 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>p</strong></td>
<td>.339(**)</td>
<td>.332(**)</td>
<td>.469(**)</td>
<td>.100</td>
<td>.547(**)</td>
<td>.05(**)</td>
</tr>
<tr>
<td><strong>Sig.</strong></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.007</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>2794</td>
<td>2663</td>
<td>514</td>
<td>3985</td>
<td>3747</td>
<td>2256</td>
</tr>
</tbody>
</table>

For **Father's education level (2-tailed)**:

| **p**          | .165(**)            | .520(**)            | .536(**)                  | .547(**)                  | .000                     | .001                       |
| **Sig.**       | .000                | .000                | .000                      | .000                     | .961                     | .961                       |
| **N**          | 2683                | 2591                | 489                       | 3747                     | 3847                     | 2178                       |

For **Persisted from 1997 to 1998 (2-tailed)**:

| **p**          | .050(*)             | -0.20               | -0.88                     | .057(**)                  | .001                     | 1.000                      |
| **Sig.**       | .041                | .432                | .128                      | .007                     | .961                     | .961                       |
| **N**          | 1663                | 1600                | 299                       | 2256                     | 2178                     | 2340                       |

*Note: *p < .05, two-tailed. **p < .01, two-tailed.*
Student Aspirations and Socioeconomic Status

Questions from the 1991 survey of students entering secondary studies allow for the assessment of student aspirations for higher education and parental SES in 1991. Although there is no follow-up to match these aspirations to higher education outcomes (access and attainment) and this is a limitation of this study, it allow for a description of the relationship between these variables. Questionnaire A was administered to 1065 students who were leaving primary education to enter secondary education in 1991.

Parental incomes were solicited in this survey and the distribution of mother, father, joint, and non-custodial parental incomes is shown in the table below. The responses show a distribution of the known levels as about 80% known for individual parent incomes, about 10% for joint incomes, and another 10% for non-custodial parents. As seen in other 1991 surveys, the mother’s income level is skewed toward the lowest end of the scale and fathers to the middle of the scale. This distribution is closest to the secondary survey (B), seen earlier in this chapter. Joint incomes also are distributed across the middle levels of the range and non-custodial parent incomes are skewed toward the lower levels.
### Table 66

**Parental Income Responses for Questionnaire A Respondents, 1991, Netherlands**

<table>
<thead>
<tr>
<th>Net monthly income</th>
<th>Mother</th>
<th>Father</th>
<th>Joint income</th>
<th>Non-custodial parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>388</td>
<td>17</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>&lt; 1500</td>
<td>280</td>
<td>32</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>1500-1750</td>
<td>53</td>
<td>75</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>1750-2000</td>
<td>44</td>
<td>126</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>2000-2500</td>
<td>27</td>
<td>149</td>
<td>13</td>
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</tr>
<tr>
<td>2500-3000</td>
<td>17</td>
<td>118</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>3000-3500</td>
<td>7</td>
<td>132</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>3500-4500</td>
<td>1</td>
<td>54</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>4500-5000</td>
<td>3</td>
<td>31</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>5000-5500</td>
<td>0</td>
<td>18</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>&gt;5500</td>
<td>6</td>
<td>49</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>826</td>
<td>891</td>
<td>111</td>
<td>102</td>
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<tr>
<td>Missing</td>
<td>239</td>
<td>264</td>
<td>954</td>
<td>963</td>
</tr>
<tr>
<td>Total</td>
<td>1065</td>
<td>1065</td>
<td>1065</td>
<td>1065</td>
</tr>
</tbody>
</table>

Parental education levels were identical to other 1991 surveys. As such, the 12 possible responses were consolidated into five possible responses. These ranged from primary education or less (coded 1) through WO university degree or higher (coded 5).

Students were asked about their plans for study beyond secondary education. The possible responses included further study (coded 1), courses but no degree/diploma study
(coded 2) and no further study (coded 3). An additional response for "don't know" was possible; these 80 responses were eliminated from the analysis to allow for a clearly ordered rank of the responses.

To determine the significance of relationships among these variables of interest, a correlation matrix was developed using Spearman's rho and is shown in the table below. It reveals that only the parent's educational levels hold relationships to the student's aspirations for study after secondary school at the critical level $p < .01$. The negative direction of these relationships and the coding structure of the variables (planning for college was a lower value than not planning for any postsecondary education) suggests that as parental education level rises, so does the likelihood that the student will plan to attend a postsecondary institution, generally.
Table 6:

Student Aspirations and Parental SES, 1991, Netherlands

<table>
<thead>
<tr>
<th></th>
<th>Mother's</th>
<th>Father's</th>
<th>Parent's</th>
<th>Non-custodial</th>
<th>Mother's</th>
<th>Father's</th>
<th>Future</th>
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<tr>
<td></td>
<td>monthly</td>
<td>monthly</td>
<td>monthly</td>
<td>parent</td>
<td>education</td>
<td>education</td>
<td>educational</td>
</tr>
<tr>
<td></td>
<td>income</td>
<td>income</td>
<td>income</td>
<td>level</td>
<td>level</td>
<td>plans</td>
<td>cases</td>
</tr>
<tr>
<td>Mother's</td>
<td>ρ</td>
<td>.100</td>
<td>.319(**)</td>
<td>-.313(***)</td>
<td>.186(***)</td>
<td>.097(***)</td>
<td>.074</td>
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</tr>
<tr>
<td>monthly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>income</td>
<td></td>
<td>.218(**)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
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<td>.000</td>
<td>.001</td>
<td>.000</td>
<td>.002</td>
<td>.295</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>1065</td>
<td>1065</td>
<td>1065</td>
<td>102</td>
<td>1022</td>
<td>978</td>
</tr>
<tr>
<td>Father's</td>
<td>ρ</td>
<td>.319(**)</td>
<td>1.000</td>
<td>.395(**)</td>
<td>.188(***)</td>
<td>.322(***)</td>
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<td>monthly</td>
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</tr>
<tr>
<td>income</td>
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<td>.201(**)</td>
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<td>.090</td>
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<td>1065</td>
<td>1065</td>
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<td>1022</td>
<td>978</td>
</tr>
<tr>
<td>Parent's</td>
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<td>-</td>
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<td>-1.177</td>
<td>-.033</td>
<td>-.062</td>
<td>.000</td>
</tr>
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<tr>
<td>income</td>
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<td>.218(**)</td>
<td>.201(**)</td>
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<td>.051</td>
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<td>1065</td>
<td>1065</td>
<td>102</td>
<td>1022</td>
<td>978</td>
</tr>
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</table>
Table 67 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Mother's monthly income</th>
<th>Father's monthly income</th>
<th>Parent's monthly income</th>
<th>Non-custodial parent monthly income</th>
<th>Mother's education level</th>
<th>Father's education level</th>
<th>Future educational plans valid cases</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-custodial</td>
<td>.313(<em><strong>), .395(</strong></em>),</td>
<td>.013, .000, .170, .012,</td>
<td>.001, .001, .386</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>monthly</td>
<td>N</td>
<td>102, 102, 102, 99, 85,</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Mother's</td>
<td>.186(<em><strong>), .188(</strong></em>),</td>
<td>.000, .000, .287, .012,</td>
<td>.000, .000, .004</td>
<td>.095(***), .000, .000, .001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>education</td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>level</td>
<td>N</td>
<td>1022, 1022, 1022, 99,</td>
<td>961, 940</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father's</td>
<td>.097(<em><strong>), .322(</strong></em>),</td>
<td>.000, .051, .001, .000,</td>
<td>.001</td>
<td>.011(***), .000, .001, .000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>education</td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>level</td>
<td>N</td>
<td>972, 975, 978, 85, 963,</td>
<td>978, 909</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future</td>
<td>.034, .034, .000, .093,</td>
<td>.095(<em><strong>), .112(</strong></em>),</td>
<td>.004, .001, .001</td>
<td>.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>educational</td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>plans valid</td>
<td>N</td>
<td>974, 974, 974, 90, 940,</td>
<td>909</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* \( p < .05, \) two-tailed. ** \( p < .01, \) two-tailed.
Further analysis of these significant relationships was completed using chi-square analysis. However, these tests failed to yield a significant result and the critical level $p < .091$. Rather the Pearson chi-square values were under 15, and only one cell yielded a standardized residual above the critical level 2.0/-2.0. This was found in the father’s education level test for father’s holding HBO professional degrees. Here, the students of these fathers were underrepresented in the desire for courses only at a level of -2.4.

Conclusions Regarding the 1991 and 1997 Data Sets and Cost/Aid Data from the Netherlands:

Overall, the limitations of the scope and method of this study by researchers from the University of Amsterdam result in more description of the relationships of SES to student enrollments and aspirations than comparisons between pre- and post-policy changes in 1997. Self-selection is a major issue with the data for students in secondary and higher education, where by virtue of sitting for leaving examinations in secondary education and enrollment into HBO and WO institutions, these students are predisposed to higher education. However, there are some interesting and noteworthy observations.

The decrease in absolute numbers of students receiving supplementary grants in the latter half of the 1990s is of concern and only partially explained by the decrease in the number of families in the Dutch population that decreased during that time. Costs increased steadily during the decade and the maximum income threshold decreased for the supplementary grant. This combination of factors could lead low-income/low-SES
students to see higher education as less affordable that in the early part of the decade. Certainly, there was little data to support any relationship between parental SES and student aspirations as they enter secondary school.

When considering access and SES, father's income was found to be significant in the correlation matrix but the chi-square analysis revealed little of note. Parental education level also was significantly related and there was cause for concern with the lowest levels of education among parents, where students were less likely to be represented in the distribution of students enrolled full-time and in WC institutions.

One-year persistence among students in these two studies was remarkable mainly for the lack of significance between it and parental SES. In the lone case of mother's education level and only at a very low magnitude, there was some suggestion that this may be positively related to persistence. However, the lack of this relationship among any other variables was striking, especially where this was the one area where any comparison between the cohorts was most possible.

Equally striking was the lack of any finding to indicate that progress toward degree completion among the 1991 cohort was in any way related to parental SES. Rather, it appeared that higher parental SES levels allowed students to linger in higher education rather than finish more quickly. The change in policy in 1997 to lower the number of years of grant eligibility would not likely affect this most affluent (by means of educational and income capital) group.
CHAPTER VII

CASE STUDY THREE: THE UNITED STATES

Public policy in the United States has experienced a steady trend from mainly grant-funded aid to college students to mainly loan-funded aid at the federal level. In 1992, the reauthorization of the Higher Education Act of 1965 included provisions that widened the number of loan programs, as well as the number of borrowers eligible for them (King, 2005). While the ratio of grants to loans had been separating apart before this time (Gliseix & King, 1999), this change in public policy accelerated the diversion of these two sources, creating an environment where federal funding for loan programs exceeds federal grant funding by more than three to one (College Board, 2005d).

Annual policy changes are also possible as Congress appropriates funding for these programs in the federal budget. The law created through the initial Higher Education Act of 1965 and its reauthorizations is impacted annually by these appropriations. Therefore, a single copy of these laws would not provide the context of these changes or the environment of changes in which they exist. Instead, a policy analysis compiled by the National Center for Educational Statistics is attached (Appendix O). This document presents the decade of the 1990s in these contexts.

What, if any, access and attainment effects on this shift in policy and funding were felt by low-income and low-SES students? In order to observe any consistency or changes in the enrollment patterns of these students, two longitudinal data sets were utilized. The first, High School and Beyond 1980 (HSB '80), studied the patterns of high school sophomores in 1980 as they progressed through high school, tracking them into
careers, college, and beyond. A follow-up study was conducted on these students in 1992, and the data set includes those results, as well as descriptive statistics on the students as they appeared in 1980.

Students in this study would have first been eligible to enter college in 1983, well before the changes to policy and funding of the 1992 reauthorization. If we could assume that students may have started college immediately after completion of a high school diploma, even a 6-year completion time-frame places them out of college before any effects of the policy changes. Although we know that not all students will begin college immediately after high school and that some may stop out and return later, this data set will allow us to observe the trends of those students who embarked on a college career after high school completion and within a reasonable completion time-frame after entrance. Even if students experienced a delayed entrance into higher education, the follow-up study in 1992 captures that activity before the policy shifts took effect.

The second panel study, the National Education Longitudinal Study, is similar in its intent and records. Here, the panel study begins with students in the eighth grade in 1988. These students would have first been eligible to enter college in 1993, 5 years after the 1992 reauthorization and the first year of funding for the changes in loans. Follow-up studies were conducted on students in 1990 during their sophomore year in high school. Here, the data include their attitudes and aspirations for college attendance. As some students left the original study for various reasons, the pool of students was “freshened” by the researchers in 1990 and 1992. The additional 401 students are noted but “skipped” in certain statistical results, given that their original descriptive statistics were not part of the original 1988 cohort. For example, when looking at the socioeconomic status (SES)
of students in 1988 and their eventual entrance into higher education, students who entered the study in 1992 are “skipped” from the analysis, as their SES in 1988 was unknown. Follow-up studies were conducted in 1992, 1994, and 2000. This last survey follow-up provides the data set of students for analysis, and 12,144 subjects are included in it. The raw data were received from the Department of Education via CD on November 14, 2005, and included an electronic code book that describes each variable.

A time-line of these two studies is shown below. The educational patterns shown here assume 3 years of middle school (although this varies by local school administration type), 4 years of secondary education, 6 years of college/Higher education (although many may have graduated in as little as 4 years), and vocational training that could have started any time after secondary education. These time-lines are rough estimates of the postsecondary patterns, as there is no "lock-step" system for higher or vocational education in the United States.
Figure 19. The High School and Beyond (1980) and National Education Longitudinal Survey (1988) with the Reauthorization of Title IV in 1992.
The reauthorization of Title IV in 1992 is shown on the vertical line on the chart. Even though it would have occurred after the NELS 88 panel would have likely entered college, the loan expansions would have affected student attainment. This reauthorization did not expand loan programs for low-income students, as they were already eligible for subsidized Stafford Loans. Rather, the expansion of the loan programs better enabled students from higher income groups to finance educational programs and choice, at the expense of funding grant programs or expanding low-interest loan programs for low-income students. The effects of this change in funding or purchasing power of the federal Pell grant are described in the next section.

Cost and Aid Ratios

In the United States, we know that gift aid (scholarships and grants that do not have to be repaid) is a compilation of federal, state, and institutional aid sources. Price is also highly varied, as there are few controls that standardize prices, except for those within states where public institution prices are set or controlled by a state coordinating or governing board. At the individual student level, the perception of price and gift aid will be governed by the number and type of institutions considered for attendance. Given these wide variables, a simple approach to looking at cost and aid will be used. The variations and role of state and institutional aid on student choice and perceptions are limitations of the study and worthy subjects for future consideration.
The research questions of this study consider federal policies, so the actual value of a federal Pell (BEOG) grant will be considered against national average prices for public and private institutions. The federal Pell grant is the Title IV program that targets gift aid to the lowest income and asset students in the United States, derived from a calculation of need that primarily uses family income (parent and student), family assets, and family size, and the number of dependent family members in college (U.S. Department of Education, 2004a). In 1983 (when most students in the HS&B data set would have been eligible to enter college), the maximum value of a federal Pell grant was $1800. In 1993 (the first year that most students in the NELS:88 set would have been eligible to enter college), the maximum value was $2300 (Pearson, 2001). During this interval, the actual value of the grant had increased by $500 or 27.8%.

College costs for 4-year institutions are tracked by institutional control for public and private institutions (College Board, 2004a). In 1983, the national average published cost (tuition, fees, room and board) of 1 year of 4-year education was $7759 at a private institution and $3433 at a public institution. In 1993, these same rates were $15,795 for a private institution and $6212 at a public institution. For private institutions, rates increased by $8036 or 103.6%. At their public counterparts, rates increased by $2779 or 80.9% in the same interval.

By dividing the maximum value of the federal Pell grant by the national average for private and public institutions, the percentage of these costs covered by the federal grant in 1983 and 1993, when most students in each data set would have been first eligible to enter college and receive the grants, can be observed. The ratios are labeled Pell to Private and Pell to Public ratios in the table below.
Table 68

<table>
<thead>
<tr>
<th>Year</th>
<th>Maximum</th>
<th>Average</th>
<th>Average</th>
<th>Pell to</th>
<th>Pell to</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Federal Pell Grant value</td>
<td>Private cost</td>
<td>Public cost</td>
<td>private ratio</td>
<td>public ratio</td>
</tr>
<tr>
<td>1983-1984</td>
<td>$1,830</td>
<td>$7,759</td>
<td>$3,433</td>
<td>23.2%</td>
<td>52.4%</td>
</tr>
<tr>
<td>1993-1994</td>
<td>$2,300</td>
<td>$15,795</td>
<td>$6,222</td>
<td>14.6%</td>
<td>37.0%</td>
</tr>
<tr>
<td>Dollar change</td>
<td>$500</td>
<td>$8,036</td>
<td>$2,779</td>
<td>Percentage change 27.8%</td>
<td>103.6%</td>
</tr>
</tbody>
</table>

Note. Data for this table were compiled from information from The College Board (College Board, 2004a, 2004b) and the U.S. Department of Education (Pearson, 2001).

The chart shows that the federal Pell grant increased during this interval but that this growth was slower than the growth in costs in both the private and public sectors. As a result, the percentage of costs covered by the maximum grant shrank in the private and public sectors by 37.2% and 29.4%, respectively.

Analysis of the High School and Beyond 1980 Data Set

In 1980, nearly 15,000 high school sophomores in more than 1100 high schools across the United States formed an initial panel of students that were followed through high school and beyond, to 1992. Follow-up studies were conducted in 1982, 1984 and 1992 by sampling the original panel (Tuma et al., 1995). Original surveys were taken of
students, parents, teachers, high school vocational directors and guidance counselors. They asked some descriptive questions about student and parent characteristics, as well as aspirations for the future (work, college, marriage, etc.). Follow-up studies tracked their progress through high school and on to work, military service, and postsecondary education. In 1992, the original panel was again surveyed to obtain any updates to these outcomes.

To assess the relationship between socioeconomic status and student access and baccalaureate degree attainment, an initial set of variables was extracted from the data set. The first is a consolidated variable for socioeconomic status (SES) contained in the data set and assumed to be accurate for the purposes of this study. It divides the students into quartiles of family SES as coded below:

1 = Lowest quartile
2 = Second quartile
3 = Third quartile
4 = Highest quartile

Some records were contained in the set that did not have SES values associated with them. These 1,747 records were removed from the quartile variable and the remaining valid cases were recoded into “Base Year SES Quartile valid cases.”

For the variable related to access to postsecondary education (any type), one from the 1984 follow-up study, “WENT TO POSTSEC SCH BY 1984,” was selected. As this survey was a sample of the original 1980 panel, it contains 13,682 records. Of these, 64 records were not valid cases, as they were missing values, duplicate records, or the student refused to answer that question on the survey. This small number of records was
skimmed from the cases, although inclusion of them would not have resulted in inaccurate results. The remaining 13,618 records are ceded 1 = yes and 2 = no, allowing for ranked responses with one being considered more desirable than 2 as a response. The new variable is titled, "Access Postsecondary Education by 1984." By this date, sophomores in 1980 would have likely been out of high school for 2 years, if following a normal progression toward the diploma.

The 1992 sample survey asked respondents if they had ever earned a degree and, if so, the type/level. The data were enriched by a transcript analysis of students in the original sample to account for any student not sampled or providing responses but for whom an academic transcript had been received (McCormick & Carroll, 1999). This variable included 2382 missing records (not surveyed), which were eliminated from the consolidated variable created for this analysis, "Highest Degree Attained by 1992." The responses are coded in ranked order, as shown below:

1 = Less than High School
2 = High School Diploma
3 = Certificate
4 = Associate’s Degree
5 = Bachelor’s Degree
6 = Master’s Degree
7 = Professional Degree
8 = Doctoral Degree
Socioeconomic quartile and access to higher education. Two variables of interest were used to assess the relationship between access to higher education and socioeconomic status. The variable used as a proxy for access was "Access Postsecondary Education by 1984." The "Base Year SES Quartile valid cases" consolidated variable was used, where the lowest value (1) represents the lowest SES quartile. To determine the significance of the relationship, a correlation matrix was developed. As these are ranked values, Spearman's rho was used for the analysis.

Table 69

SES Quartile and Access, 1984, U.S.

<table>
<thead>
<tr>
<th>SES quartile</th>
<th>Access by 1984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year SES</td>
<td>ρ</td>
</tr>
<tr>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>-.338(**)</td>
</tr>
</tbody>
</table>

Sig. (2-tailed) .000

N 13618

Access education ρ -.338(**) 1.060

by 1984

Sig. (2-tailed) .000

N 12171 13618

Note. ** p < .01, two-tailed.

The matrix reveals that the relationship between SES and access is significant (Spearman's ρ = -.338, p < .01). The direction of the relationship is negative and, given
the coding structure of the variables, suggests that, the higher the SIS quartile, the greater the chance that the student will have accessed some type of post-secondary education by 1984, generally.

A further analysis of this relationship is possible by using a chi-square test. In this, the distribution of expected and actual cases into cells on the matrix is observed to reveal the levels of significance between each of the possible values within each variable. This test reveals that the relationship is significant (Pearson’s χ² = 1401.932, df = 3, p < .001).

Table 70

*SIS and Access Chi-square Test, 1984, U.S.*

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>1401.932</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood ratio</td>
<td>1495.224</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-linear assoc.</td>
<td>1390.723</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid cases</td>
<td>12171</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* 0 cells (.0%) have expected count less than 5. The minimum expected count is 1075.81.
<table>
<thead>
<tr>
<th>Base year SES</th>
<th>Quartile</th>
<th>Count</th>
<th>Access</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>1</td>
<td>1379</td>
<td>Yes</td>
<td>3259</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2047.1</td>
<td></td>
<td>3259.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>% of total</td>
<td>11.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Std. residual</td>
<td>-14.8</td>
</tr>
<tr>
<td></td>
<td>2 Low middle</td>
<td>1664</td>
<td></td>
<td>2968</td>
</tr>
<tr>
<td></td>
<td>Low middle</td>
<td>1564.3</td>
<td></td>
<td>2968.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>% of total</td>
<td>13.7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Std. residual</td>
<td>-4.6</td>
</tr>
<tr>
<td></td>
<td>High middle</td>
<td>1967</td>
<td></td>
<td>2893</td>
</tr>
<tr>
<td></td>
<td>High middle</td>
<td>1817.2</td>
<td></td>
<td>2893.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>% of total</td>
<td>16.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Std. residual</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>Highest</td>
<td>2635</td>
<td></td>
<td>3051</td>
</tr>
<tr>
<td></td>
<td>Highest</td>
<td>1916.4</td>
<td></td>
<td>3051.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>% of total</td>
<td>21.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Std. residual</td>
<td>16.4</td>
</tr>
</tbody>
</table>
Table 71 (continued)

<table>
<thead>
<tr>
<th>Access postsecondary education by 1984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Count</td>
</tr>
<tr>
<td>7645 4526 12171</td>
</tr>
<tr>
<td>Expected count</td>
</tr>
<tr>
<td>7645.0 4526.0 12171.0</td>
</tr>
<tr>
<td>% of total</td>
</tr>
<tr>
<td>62.8% 37.2% 100.0%</td>
</tr>
</tbody>
</table>

In the detail analysis above, any cell where the standardized residual level exceeds 2.0 is significant (Haberman, 1973). The general pattern of skew between expected and actual results reveals the highest levels of significance in the lowest and highest quartiles. Here, all cells reveal significant relationships between each value in each variable. In the lowest SES quartile (1), students are underrepresented in access and overrepresented in no access, where the standardized residual levels are -14.8 and 19.2, respectively. The middle two quartiles reflect lower levels of significance, where standardized residuals are closer to the expected levels. The negative and positive levels are reversed between the two quartiles, where overrepresentation in the no access cell for the second quartile is replaced by underrepresentation in this cell for quartile three. An inverse and mirror relationship is found between the remaining two cells in these two quartiles, with identical -4.6 levels of standardized residual.

In the highest quartile (4), two of the three highest levels of standardized residuals are evident. The overrepresentation of yes responses (standardized residual = 16.4) and the underrepresentation of no responses (standardized residual = -21.3) show a strong
skew from the expected results. These results suggest that, generally, socioeconomic status is more prevalent in its relationship to postsecondary access at the extremes than in the middle. Students from these highest and lowest quartile backgrounds are more likely and less likely, respectively, to access higher education than their counterparts in the middle of the SES distribution.

The type of institution accessed in postsecondary education is also important, as the attainment of a baccalaureate degree provides the pathway to greater income gains (Government Accounting Office, 1995) and career opportunities based upon baccalaureate degree completion. To assess the relationship between SES and the level or type of institution accessed by those attending postsecondary education, an additional variable was extracted and manipulated for this analysis. The original variable, “KIND OF SCHOOL ATTENDED BY 1984,” contained 77 missing and five duplicate responses. It also contained 5,289 legitimate skips, where students did not access postsecondary education. These responses were removed from the recoded variable “Postsecondary Institution Type Accessed by 1984.” The original coding structure included 127 “other type” responses, which were retained. However, the value of this response was changed from 4 to 0, placing it at the lowest rather than the highest end of the values of the variable, as shown below:

0 = Other type of institution
1 = Vocational or Training School
2 = Community or Junior College
3 = College or University
The first analysis performed on this variable is a correlation matrix with the SES quartile variable to determine if there is any significant relationship. As shown in the table below, the relationship between the variables of interest is significant and positive (Spearman's $\rho = .267$, $p < .01$). The direction of the relationship suggests that, as socioeconomic quartile rises, it is more likely that the student will access a baccalaureate institution over a junior college and a 2-year school over a vocational or training program.

Table 72

<table>
<thead>
<tr>
<th>SES Quartile and Institutional Type Accessed – Correlation, 1984, U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year</td>
</tr>
<tr>
<td>SES quartile</td>
</tr>
<tr>
<td>valid cases</td>
</tr>
<tr>
<td>Base year SES quartile</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>$N$</td>
</tr>
<tr>
<td>Institution type accessed by 1984</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>$N$</td>
</tr>
</tbody>
</table>

Note. ** $p < .01$, two-tailed.
Further analysis of this relationship is conducted using a chi-square test. In the table below, the individual institutional types are set against each of the four SES quartiles. The first table below reveals that the relationship is significant in this test, also, where the Pearson $\chi^2 = 587.826 (df = 9, p < .001)$.

Table 73

**SES Quartile and Institutional Type – Chi-square Test, 1984, U.S.**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>587.826*</td>
<td>9</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood ratio</td>
<td>602.327</td>
<td>9</td>
<td>.090</td>
</tr>
<tr>
<td>Linear-by-linear association</td>
<td>513.522</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of valid cases</td>
<td>7623</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* *0* cells (.0%) have expected count less than 5. The minimum expected count is 20.90.
<table>
<thead>
<tr>
<th>Base year SES quartile</th>
<th>Postsecondary institution type accessed by 1984</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 Other</td>
<td>1</td>
</tr>
<tr>
<td>valid cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postsecondary institution</td>
<td>Vocational training institution</td>
</tr>
<tr>
<td>1 Lowest quartile</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>Expected count</td>
<td>20.9</td>
<td>185.1</td>
</tr>
<tr>
<td>Std. residual</td>
<td>1.6</td>
<td>11.6</td>
</tr>
<tr>
<td>% of total</td>
<td>0.4%</td>
<td>4.5%</td>
</tr>
<tr>
<td>2 Low middle quartile</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>Expected count</td>
<td>25.6</td>
<td>226.3</td>
</tr>
<tr>
<td>Std. residual</td>
<td>0.7</td>
<td>5.4</td>
</tr>
<tr>
<td>% of total</td>
<td>0.4%</td>
<td>4.0%</td>
</tr>
<tr>
<td>3 High middle quartile</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>Expected count</td>
<td>30.1</td>
<td>266.6</td>
</tr>
<tr>
<td>Std. residual</td>
<td>-0.4</td>
<td>-1.2</td>
</tr>
<tr>
<td>% of total</td>
<td>0.4%</td>
<td>3.2%</td>
</tr>
</tbody>
</table>
Table 74 (continued)

<table>
<thead>
<tr>
<th></th>
<th>0 Other</th>
<th>1</th>
<th>2</th>
<th>3 College</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postsecondary</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>training school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or junior college</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or university</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>32</td>
<td>138</td>
<td>637</td>
<td>1827</td>
<td>2634</td>
</tr>
<tr>
<td>Highest Quartile</td>
<td>Expected</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of total</td>
<td>.4%</td>
<td>.8%</td>
<td>8.4%</td>
<td>24.0%</td>
<td>34.6%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>-1.3</td>
<td>-11.6</td>
<td>-6.4</td>
<td>10.9</td>
<td></td>
</tr>
<tr>
<td>Total Count</td>
<td>117</td>
<td>1036</td>
<td>2373</td>
<td>4097</td>
<td>7623</td>
</tr>
<tr>
<td>Expected count</td>
<td>117.0</td>
<td>1036.0</td>
<td>2373.0</td>
<td>4097.0</td>
<td>7623.0</td>
</tr>
<tr>
<td>% of total</td>
<td>1.5%</td>
<td>13.6%</td>
<td>31.1%</td>
<td>53.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

From the detail above, “other” institutions provide too few cases in each cell for a meaningful analysis. However, the institutions coded one through three each reveals important and significant results. The column for vocational and training programs reveals a mirror image between the lowest and highest SES quartiles, where the standardized residuals are 11.6 and -11.6, respectively. The community and junior college column shows overrepresentation in each quartile except for the highest one, where the level is reversed to a negative value (underrepresentation). This is also true for the college and university column, although the result for the third quartile is not statistically significant.
Both the third and the fourth SES quartiles are interesting but for different reasons. The third quartile shows little difference from the expected distribution. Actual institutional type distributed within a range where there is no statistical significance between them and the expected cases. The fourth quartile, however, it just the opposite, where the highest levels of skew away from expected results occur. The magnitude of these standardized residuals and the lone positive value in the college and university column suggest a strong pull of those students into baccalaureate institutions and away from other institutional types. While not at the same level in each cell, an opposite effect is seen in the lowest quartile, where these students skew away from baccalaureate institutions and more strongly toward vocational and training programs.

**Socioeconomic quartile and bachelor's degree attainment.** Once students access higher education institutions, the receipt of a baccalaureate degree is not guaranteed. As discussed in chapter 2, there are multiple factors associated with persistence through college. Financial support is one of them (McPherson & Shapiro, 1991; Tinto, 1987). When students begin their careers in less than baccalaureate institutions, the likelihood of baccalaureate attainment decreases (Clark, 1960; Tinto, 2004). This study will test those previous findings by using data from these longitudinal studies. The variable referenced at the beginning of this data set, "Highest Degree Attained by 1992," is used to assess its relationship to SES quartile.

The first statistical test is a correlation matrix, used to determine any significance between the variables of interest. As shown in the table below, the relationship is significant and positive (Spearman's $r = .362, p < .01$). The level of significance
indicates it is a mildly positive one and the direction suggests that, as SES quartile rises, the likelihood that the student will earn a bachelor’s degree or higher also rises, generally.

Table 75

<table>
<thead>
<tr>
<th>SES quartile valid cases</th>
<th>Base year SESρ</th>
<th>Highest degree attained by 1992</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.000</td>
<td>.362(***)</td>
</tr>
</tbody>
</table>

Sig. (2-tailed) . .000
N 13078 11193

Highest degree attained by 1992

ρ .362(***) 1.000

Sig. (2-tailed) . .000
N 11193 12443

Note: ** p < .01, two-tailed.

Next, a chi-square test is used to assess the relationships between each of the responses in each variable. In the detail chart below, there are several cells of note. In the lowest SES quartile row, the differences between expected and actual cases skew toward lower levels of education (less than high school or high school diploma) and away
from baccalaureate education, where the standardized residual is -16.5. It is also important to note here that associate's degree attainment is not statistically significant and that students in this data set are distributed into that group as would be expected.

Students in this quartile were also less likely to complete high school, where the standardized residual level of 12.9 demonstrates their greater association with this preparatory requirement for higher education access.

Table 76

<table>
<thead>
<tr>
<th>SES Quartile and Highest Degree Earned, 1992, U.S.</th>
<th>Highest degree attained by 1992</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Year SES</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Quartile valid cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>317</td>
<td>1718</td>
</tr>
<tr>
<td>Expected count</td>
<td>156.3</td>
<td>1360.0</td>
</tr>
<tr>
<td>% of total</td>
<td>2.8%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Std. res.</td>
<td>12.9</td>
<td>9.7</td>
</tr>
<tr>
<td>Count</td>
<td>165</td>
<td>1432</td>
</tr>
<tr>
<td>Expected count</td>
<td>148.5</td>
<td>1292.1</td>
</tr>
<tr>
<td>% of total</td>
<td>1.5%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Std. res.</td>
<td>1.4</td>
<td>3.9</td>
</tr>
<tr>
<td>Count</td>
<td>88</td>
<td>261</td>
</tr>
<tr>
<td>Expected count</td>
<td>144.8</td>
<td>1260.0</td>
</tr>
<tr>
<td>% of total</td>
<td>.8%</td>
<td>11.3%</td>
</tr>
<tr>
<td>Std. res.</td>
<td>-4.7</td>
<td>-.0</td>
</tr>
</tbody>
</table>
Table 76 (continued)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest quartile</td>
<td>37</td>
<td>871</td>
<td>184</td>
<td>205</td>
<td>1265</td>
<td>225</td>
<td>97</td>
<td>19</td>
</tr>
<tr>
<td>Count</td>
<td>157.4</td>
<td>1369.9</td>
<td>286.9</td>
<td>239.1</td>
<td>706.8</td>
<td>986</td>
<td>37.6</td>
<td>6.7</td>
</tr>
<tr>
<td>% of total</td>
<td>.3%</td>
<td>7.8%</td>
<td>1.6%</td>
<td>1.8%</td>
<td>11.3%</td>
<td>2.0%</td>
<td>.9%</td>
<td>.2%</td>
</tr>
<tr>
<td>Std. res.</td>
<td>-.9</td>
<td>-.6</td>
<td>-.1</td>
<td>-.2</td>
<td>.0</td>
<td>12.7</td>
<td>9.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Total Count</td>
<td>607</td>
<td>5282</td>
<td>1106</td>
<td>922</td>
<td>2725</td>
<td>380</td>
<td>145</td>
<td>26</td>
</tr>
<tr>
<td>Expected count</td>
<td>607.0</td>
<td>5282.0</td>
<td>1106.0</td>
<td>922.0</td>
<td>2725.0</td>
<td>380.0</td>
<td>145.0</td>
<td>26.0</td>
</tr>
<tr>
<td>% of total</td>
<td>5.4%</td>
<td>47.2%</td>
<td>9.9%</td>
<td>6.2%</td>
<td>24.3%</td>
<td>3.4%</td>
<td>1.3%</td>
<td>.2%</td>
</tr>
<tr>
<td>%</td>
<td>100.0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. Less than high school. 2 = High school diploma. 3 = Certificate. 4 = Associate’s degree. 5 = Bachelor’s degree. 6 = Master’s degree. 7 = Professional degree. 8 = Doctoral degree.

Students in the second SES quartile also show a skew away from bachelor’s degree attainment, where the standardized residual is -6.9. Otherwise, there is little significance to any other distribution below this education level. The third quartile row is similarly close to its expected distributions, except for underrepresentation in the less than high school level, where the standardized residual is -4.7.

In the top SES quartile, the distribution is skewed heavily toward baccalaureate degree attainment and away from high school diplomas (or less) as the highest degree earned.

As seen in other tests where SES quartile is used as a variable of interest, some of the highest levels of standardized residuals are found here. For students earning bachelor’s
degrees, the highest single cell level of standardized residual is found, where overrepresentation in this distribution results in a level of 21.0. At the other end of educational attainment, the skew away from high school diploma or less is also seen at high levels, where the standardized residuals of -13.5 and -9.6, respectively, are found.

For students in the High School and Beyond Data set, SES quartile was more strongly associated with degree attainment at the lowest and highest ends of the SES spectrum. Baccalaureate degree attainment was even more strongly associated with students from the highest quartile, generally.

Observations beyond the research questions. There are additional relationships that warrant attention in the High School and Beyond data set from 1980. Any potential relationships between race, access, and attainment may be analyzed, as a composite race variable was assembled by the researchers who compiled the data. The coding structure is shown below:

1 = Hispanic or Spanish

2 = American Indian/Alaskan Native

3 = Asian/Pacific Islander

4 = Black/African American

5 = White, non-Hispanic

6 = Other
Other responses totaled just 192 from the entire set of coded cases (14,825). These were, however, removed to allow for the cleanest possible data set and analysis. Data labels were updated to reflect more current practices of describing these groups, using Integrated Postsecondary Educational Statistics (IPEDS) descriptions. "Spanish" was retained in the first label, although it is no longer used as a descriptor, to reflect responses for any student who may have associated himself/herself that way and been of European descent, as opposed to Latin American descent. Racial group does not form a ranked order, so Spearman's rho could not be used as a tool for analysis. Rather, Pearson correlation is used; instead, to form the matrix shown below, which assesses the relationship between racial group and any postsecondary access.

Table 77
Racial Group and Any Postsecondary Access, 1984, U.S.

<table>
<thead>
<tr>
<th>Composite race</th>
<th>Access education by 1984</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson r</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

Access education by 1984

<table>
<thead>
<tr>
<th>Pearson r</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>13546 13618</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0.076**</td>
<td>0.000</td>
<td>13546</td>
<td></td>
</tr>
</tbody>
</table>

Note: * excludes "Other" responses. * p < .05, two-tailed. ** p < .01, two-tailed.
While the results are significant ($r = -0.076, p < .01$), the low level of significance in this relationship does not offer great insight into the results. A chi-square analysis could reveal any greater disparities in individual groups and is shown below.

**Table 78**

**Racial Group and Any Postsecondary Access – Chi-square Detail, 1984, U.S.**

<table>
<thead>
<tr>
<th>Composite Race</th>
<th>Access education by</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1 Hispanic or excluding &quot;Other&quot; Spanish responses</td>
<td>Count</td>
<td>1593</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>1816.5</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>17.8%</td>
</tr>
<tr>
<td></td>
<td>Std. residual</td>
<td>-5.2</td>
</tr>
<tr>
<td>2 American</td>
<td>Count</td>
<td>121</td>
</tr>
<tr>
<td>Indian/Alaskan Native</td>
<td>Expected count</td>
<td>158.7</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>.9%</td>
</tr>
<tr>
<td></td>
<td>Std. residual</td>
<td>-3.0</td>
</tr>
<tr>
<td>3 Asian/Pacific Islander</td>
<td>Count</td>
<td>330</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>239.5</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>2.4%</td>
</tr>
<tr>
<td></td>
<td>Std. residual</td>
<td>5.8</td>
</tr>
<tr>
<td>4 Black/African American</td>
<td>Count</td>
<td>1151</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>1137.1</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>8.5%</td>
</tr>
<tr>
<td></td>
<td>Std. residual</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Access education by 1984</td>
<td>Total</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>5104</td>
</tr>
<tr>
<td>Hispanic</td>
<td>Expected count</td>
<td>4947.2</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>37.7%</td>
</tr>
<tr>
<td></td>
<td>Std. residual</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>8299</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>8299.0</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>61.3%</td>
</tr>
</tbody>
</table>

Three of the five rows reveal little of great significance. American Indian/Alaskan Native students skew slightly toward no access, where the standardized residual for the "no" response is 3.8. Black/African American students had no statistically significant results and White, non-Hispanic students had levels barely above the 2.0 critical level of significance.

Assessment of highest level of degree attainment and racial group is also possible. The tables below show a correlation matrix and chi-square analysis of these two variables. The correlation matrix demonstrates a stronger significant relationship ($r = .121$, $p < .01$) between racial group and degree attainment than the one observed previous regarding any postsecondary access.
Table 79

*Composite Race and Highest Degree Attained – Correlation, 1992, U.S.*

<table>
<thead>
<tr>
<th>Composite race excluding &quot;Other&quot; responses</th>
<th>Pearson r</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
<th>1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite race</td>
<td>1</td>
<td></td>
<td>14633</td>
<td>12367</td>
</tr>
<tr>
<td>Highest degree attained by 1992</td>
<td>.121(***)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.*** p < .01, two-tailed.*
<table>
<thead>
<tr>
<th>Composite Race</th>
<th>Highest Degree Attained by 1992</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>excluding &quot;Other&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or Spanish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Hispanic or Spanish</td>
<td>222</td>
<td>1409</td>
</tr>
<tr>
<td>Expected count</td>
<td>154.5</td>
<td>1249.3</td>
</tr>
<tr>
<td>Std. res.</td>
<td>5.4</td>
<td>4.3</td>
</tr>
<tr>
<td>2 American</td>
<td>20</td>
<td>143</td>
</tr>
<tr>
<td>Expected count</td>
<td>14.0</td>
<td>113.3</td>
</tr>
<tr>
<td>Std. res.</td>
<td>8</td>
<td>.8</td>
</tr>
<tr>
<td>3 Asian/Pacific</td>
<td>3</td>
<td>127</td>
</tr>
<tr>
<td>Expected count</td>
<td>20.8</td>
<td>168.5</td>
</tr>
<tr>
<td>Std. res.</td>
<td>-3.9</td>
<td>-3.2</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>-------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>4 Black/African American</td>
<td>Count</td>
<td>101</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>91.9</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>.8%</td>
</tr>
<tr>
<td></td>
<td>Std. res.</td>
<td>.9</td>
</tr>
<tr>
<td>5 White, non-Hispanic</td>
<td>Count</td>
<td>382</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>446.7</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>3.1%</td>
</tr>
<tr>
<td></td>
<td>Std. res.</td>
<td>-3.1</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>728</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>728.0</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>5.9%</td>
</tr>
</tbody>
</table>

Note. Less than high school. 2 = High school diploma 3 = Certificate. 4 = Associate’s degree.
5 = Bachelor’s degree. 6 = Master’s degree. 7 = Professional degree. 8 = Doctoral degree.

The greatest skew away from baccalaureate degree attainment is found in Hispanic students, where the standardized residual is -8.0. Also skewing away from this
education level are Native American/Alaskan Islanders (4.1) and African Americans (4.6). Standardized residual levels reflective of a skew toward baccalaureate attainment are found in Asian American (4.8) and White, non-Hispanic (6.5) students. While the overall correlation level in the first table showed a level that was not high, the analysis of individual cells reveals some sharp differences in baccalaureate attainment between racial groups.

Students and parents were asked in the initial 1980 surveys about their aspirations for future education (for the student). Mothers and fathers were asked separately about their aspirations for their student and students were asked how far in the educational continuum they thought they might get in their lives. Each of these questions can be posed against SES data, as well as outcome data, to determine any meaningful relationships between them. In this sense, this study tests the St. John’s balanced access model (St. John, 2003), which posits that student and parent attitudes about college attendance in the future influence college-going planning behaviors and outcomes.

The first two variables are those for the parents, where they were asked what plans they had for the student after college, ranging from work to college to military service. All non-college options were collapsed into a single response. In each parent response category, there are significant cases where no response or “don’t know” was given. These have been removed and the variables recoded to reflect “not college” (coded as 1) or “college” (coded as 2) as options. In the majority of cases, parental aspirations for the student were for college attendance, as shown in the frequency tables below. In each table, the “missing” responses represent those removed from the
responses for this purpose. The remaining levels and coding create a ranked structure and allow for the use of Spearman's rho in the analysis.

Table 81

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Valid</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Other than</td>
<td>2881</td>
<td>19.4</td>
<td>27.5</td>
<td>27.5</td>
</tr>
<tr>
<td>college/don't</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Go to college</td>
<td>7614</td>
<td>51.4</td>
<td>72.5</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10495</td>
<td>70.8</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td><strong>Missing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>4730</td>
<td>29.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14825</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 82
*Mother’s College Aspirations for Student, 1980, U.S.*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>2884</td>
<td>19.5</td>
<td>24.7</td>
<td>24.7</td>
</tr>
<tr>
<td>1 Other than</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>college/don't</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Go to college</td>
<td>8770</td>
<td>59.2</td>
<td>75.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>11654</td>
<td>78.6</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>3171</td>
<td>21.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14825</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Student aspirations were asked in a different manner. Here, researchers asked students to identify the highest level of education they would eventually obtain. The resulting levels are shown below and are coded between 1 (less than high school diploma) through 9 (doctoral or professional degree), creating a ranked scale. The 1,662 “missing” responses include multisteps, “don’t know” and no response or missing response cases.
<table>
<thead>
<tr>
<th>Education Level</th>
<th>Frequency</th>
<th>%</th>
<th>Valid %</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school diploma</td>
<td>300</td>
<td>2.0</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>High school diploma</td>
<td>3040</td>
<td>20.5</td>
<td>23.1</td>
<td>25.4</td>
</tr>
<tr>
<td>Less than 2 years vocational school</td>
<td>667</td>
<td>4.5</td>
<td>5.1</td>
<td>30.4</td>
</tr>
<tr>
<td>Two years or greater vocational school</td>
<td>1357</td>
<td>9.2</td>
<td>10.3</td>
<td>40.8</td>
</tr>
<tr>
<td>Less than 2 years of college</td>
<td>376</td>
<td>2.5</td>
<td>2.9</td>
<td>43.6</td>
</tr>
<tr>
<td>Two years or greater of college</td>
<td>1586</td>
<td>10.7</td>
<td>12.0</td>
<td>55.7</td>
</tr>
</tbody>
</table>
The first statistical test places each parent’s aspiration for the student (no college or college) against the actual access variable previously used in this study. The results of those two tests are shown in the next two tables below. Both the father’s and mother’s table reveal significant relationships between the two variables (Spearman’s $p = -.410$, -.493, respectively, $p < .01$ for both). The coding structure of the variables (1 = yes and 2 = no for student access) and the negative direction of the relationship suggest that, when parental aspirations are for the student to attend college, the likelihood of student actual access increases, generally. The magnitude of the relationship is greater between student
access and the father’s aspirations than the mother’s, where the father’s relationship creates a moderate negative one and the mother’s nearly meets this level, staying just at the top of the low negative level (Hinkle et al., 2003).

Table 84

<table>
<thead>
<tr>
<th>Father’s college aspirations for student in 1980</th>
<th>Access to postsecondary education by 1984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father’s college aspirations for student in 1980</td>
<td>Access to postsecondary education by 1984</td>
</tr>
<tr>
<td>$\rho$</td>
<td>$\rho$</td>
</tr>
<tr>
<td>1.000</td>
<td>-.410(**)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sig. (2-tailed)</th>
<th>.</th>
<th>.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N$</td>
<td>10495</td>
<td>9786</td>
</tr>
<tr>
<td>Access $\rho$</td>
<td>-.410(**)</td>
<td>1.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sig. (2-tailed)</th>
<th>.000</th>
<th>.</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N$</td>
<td>9786</td>
<td>13618</td>
</tr>
</tbody>
</table>

Note. ** $p < .01$, two-tailed.
Table 85

*Mother’s College Aspirations for Student and Actual Access* 1984, U.S.

<table>
<thead>
<tr>
<th>Access postsecondary education by</th>
<th>Mother’s college aspirations for student in 1980</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access p</td>
<td>1.000</td>
</tr>
<tr>
<td>postsecondary education by 1984</td>
<td>.393(***)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>13618</td>
</tr>
<tr>
<td>Mother’s college</td>
<td>p</td>
</tr>
<tr>
<td>aspirations for student in 1980</td>
<td>.393(***)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>10850</td>
</tr>
</tbody>
</table>

*Note: ** p < .01, two-tailed.*

When student aspirations for education are tested, the variable for highest degree earned is placed against the highest degree planned. The correlation matrix for those variables is shown in the table below, where both variables are coded from lowest aspired
or actual level of education has the lowest value and the highest aspired or actual level of education has the highest value. This reveals a significant relationship between the variables of interest (Spearman’s $\rho = .471$, $p < .01$) and suggests that, as the aspired degree of a student rises, the actual level of degree earned also rises, generally. The level of magnitude (moderate positive) of this relationship is the highest seen in any of the comparisons between aspirations and student outcomes.

Table 86

*Student’s Planned Education Level and Highest Degree Earned, 1992, U.S.*

<table>
<thead>
<tr>
<th>Educational level expected in 1980</th>
<th>Highest degree attained by 1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\rho$</td>
<td>$\rho$</td>
</tr>
<tr>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Note.</strong> $<strong>p &lt; .01$, two-tailed.</strong></td>
<td><strong>Note.</strong> $<strong>p &lt; .01$, two-tailed.</strong></td>
</tr>
</tbody>
</table>
Measurement of the relationship between aspirations and SES quartile may also reveal significant relationships between these variables, where SES quartile may help to explain the outlook on the future held by students and parents. The correlation matrix in the table below shows the relationship between SES quartiles and all three aspiration variables. There is a significant and positive relationship between all variables of interest at the critical level $p < .01$. The magnitude of each relationship follows the same trend as the patterns seen previously between aspirations and actual outcomes, where student aspirations are the most strongly connected to SES quartile, followed by father and then mother.

Table 87

**SES Quartile and Education Aspirations, 1980, U.S.**

<table>
<thead>
<tr>
<th></th>
<th>Base year SES quartile valid cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student's educational level expected</strong></td>
<td>$\rho$</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>$N$</td>
</tr>
<tr>
<td><strong>Father's college aspirations for student</strong></td>
<td>$\rho$</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>$N$</td>
</tr>
<tr>
<td><strong>Mother's college aspirations for student</strong></td>
<td>$\rho$</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>$N$</td>
</tr>
</tbody>
</table>

*Note.* ** $p < .01$, two-tailed.
Conclusions regarding the High School and Beyond 1980 Data Set. The relationship between student access, attainment of baccalaureate degrees and SES quartiles is evident in each aspect of this study. The weakest relationships exist between racial group and actual access, with some slightly stronger relationships between those groups and degree level earned in 1992, the last follow-up survey administered by these researchers. Student aspirations for access and degree attainment were more strongly connected to outcomes than those of their parents, although all were significant. SES quartile was also significantly related to these aspirations and may account for some of the attitudes shaped by students and parents at the sophomore level of high school.

Analysis of the NELS:88 Data Set

In 1988, an initial panel of 26,432 eighth-grade students was surveyed, along with the parents and school administrators. Follow-up studies were conducted in 1990, 1992, 1994, and 2000 to track their progress through secondary education and beyond, to work and higher education. The study was enriched with additional students in the follow-up studies to assure a robust sample of American youth. Transcript analysis was also utilized to both validate and enrich the number of higher education outcomes for this cohort. The result of these surveys is a data set with 12,144 subjects/cases.

While an analysis of the student's state of residence may have revealed differences in aspirations, access and attainment by the aid programs in those states, that variable is not available in the NELS:88 data. This would have been especially helpful in assessing any differences in Georgia, where the HOPE merit scholarships began while
this group was in high school and beginning postsecondary study in 1990. The lack of state of residence variable forms a limitation for this study.

An initial set of variables was extracted from the data set for analysis.

Socioeconomic status had already been coded into quartiles for analysis and this grouping was accepted as accurate for these purposes:

1 = Lowest quartile
2 = Second quartile
3 = Third quartile
4 = Highest quartile
9 = Missing value

The 760 cases with missing values (9) were recoded into a new variable, “Base Year SES Quartile valid cases” to eliminate any skew from the results of the value 9 in the coding structure and to allow these values to be ranked. In turn, this allows for the use of Spearman’s rho of ranked variables analyses.

Participation at any time in post-secondary education was recorded as missing (-9)/yes (1)/no (2) values. This variable will serve as the definition of access to higher education for this data set. As only nine of 12,144 cases were coded as missing (-9), these cases were not eliminated from the variable records, as their presence will not significantly affect any outcomes.

For those that did attend a post-secondary institution at any time (achieved access to post-secondary education), the highest level of post-secondary experience by year 2000 was also coded into groupings, as shown below. Only 115 of 12,144 cases were coded as missing values (-9). Given this, the cases were retained. The legitimate skip (-
3) cases reflect those students who did not attempt postsecondary education. That value is important, as it helps demonstrate the relationship between postsecondary attendance and SES. As such, the coding and cases were retained.

-9 = Missing value
-3 = Legitimate skip
1 = Some post-secondary experience, no degree
2 = Certificate or license
3 = Associate’s degree
4 = Bachelor’s degree
5 = Master’s degree or its equivalent
6 = Doctoral degree

Socioeconomic quartile and access to higher education. In this analysis, the variables of interest are any participation in postsecondary education (coded 1 = yes, 2 = no), which serves as an initial proxy for access to higher education, and socioeconomic quartile (coded 1 = lowest quartile through 4 = highest quartile). A non-parametric test of correlation using Spearman’s rho reveals that there is a significant correlation at the $p < .01$ level between these two variables and that the direction of the relationship is a negative one. These results imply that the likelihood of attending any postsecondary institution rises with socioeconomic quartile and is less likely the lower the student’s socioeconomic quartile in eighth grade, the time of the initial study. The magnitude of the correlation (Spearman’s $\rho = -.353$) indicates a moderate level of significance (Hinkle et al., 2003).
Table 88

**SES Quartile and Any Postsecondary Attendance – Correlation, 2000, U.S.**

<table>
<thead>
<tr>
<th></th>
<th>Base year</th>
<th>Ever</th>
</tr>
</thead>
<tbody>
<tr>
<td>SES quartile valid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ρ</strong></td>
<td><strong>- .353(</strong>*)**</td>
</tr>
<tr>
<td>Base year SES</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Ever attended a PSE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>after HS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>11384</td>
<td>11384</td>
</tr>
<tr>
<td>Ever attended a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSE after HS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>11384</td>
<td>12144</td>
</tr>
</tbody>
</table>

*Note** **p < .01, two-tailed.*

In looking more closely at these results, a chi-square analysis of these variables reveals a statistically significant relationship between the variables of interest, as well. As shown in the table below, the Pearson chi-square value of 1458.394 is significant at the level of $p < .001$ with $df = 6$. The likelihood that these results could be produced by chance are less than 1 in 1000 and, given the high number of cases in the study (11,384), these are results that lend a high level of comfort to the analysis.
### Table 89

**SES and Access Chi-square Test, 2000, U.S.**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>1458.394*</td>
<td>6</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood ratio</td>
<td>1569.963</td>
<td>6</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-linear association</td>
<td>946.505</td>
<td>1</td>
<td>.006</td>
</tr>
<tr>
<td>N of valid cases</td>
<td>11384</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* 74 cells (33.3%) have expected count less than 5. The minimum expected count is 1.92.

In assessing the detailed chi-square analysis, the expected distribution of students by socioeconomic quartile differs from the observed distribution in several areas. Those of significance are any cells where the value is greater than 2 (Haberman, 1973). Missing value cells are not regarded, since there are too few cases to provide a relevant analysis of the data.
Table 90

SES Quartile and Any Postsecondary Attendance– Chi-squares Detail, 2000, U.S.

<table>
<thead>
<tr>
<th></th>
<th>Attended a PSE after HS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>{Missing}</td>
<td>Yes</td>
</tr>
<tr>
<td>Base year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Lowest</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>SES quartile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>quartile</td>
<td>Expected</td>
<td></td>
</tr>
<tr>
<td>valid cases</td>
<td>count</td>
<td></td>
</tr>
<tr>
<td>% of total</td>
<td>.0%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>.0</td>
<td>-12.3</td>
</tr>
<tr>
<td>2 Low middle</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>quartile</td>
<td>Expected</td>
<td></td>
</tr>
<tr>
<td>count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of total</td>
<td>.0%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>.8</td>
<td>-3.1</td>
</tr>
<tr>
<td>3 High</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>middle</td>
<td>Expected</td>
<td></td>
</tr>
<tr>
<td>quartile</td>
<td>count</td>
<td></td>
</tr>
<tr>
<td>% of total</td>
<td>.0%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>.7</td>
<td>4.6</td>
</tr>
</tbody>
</table>
Table 90 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Attended a PSE after HS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Missing) Yes No Total</td>
</tr>
<tr>
<td>4 Highest quartile</td>
<td>Count 0 2959 97 3056</td>
</tr>
<tr>
<td></td>
<td>Expected count 2.1 2448.5 605.3 3056.0</td>
</tr>
<tr>
<td></td>
<td>% of Total .0% 26.0% .9% 26.8%</td>
</tr>
<tr>
<td></td>
<td>Std. residual -1.5 10.3 -20.7</td>
</tr>
<tr>
<td>Total</td>
<td>Count 8 9121 2255 11384</td>
</tr>
<tr>
<td></td>
<td>Expected count 8.0 9121.0 2255.0 11384.0</td>
</tr>
<tr>
<td></td>
<td>% of total .1% 80.1% 19.8% 100.0%</td>
</tr>
</tbody>
</table>

The chi-square chart above shows the relative contributions to the expected versus actual distribution of students accessing higher education, by income quartile. Two of these quartiles make the greatest contribution in explaining the variance. In the lowest quartile 1, both the yes and no responses are unevenly distributed against the expected distribution with standardized residuals of -12.3 and 24.8, respectively. The similar yet opposite image of this result can be found in the highest quartile 4, where the yes and no standardized residual values are 10.3 and -20.7, respectively. However, the magnitude of these standardized residuals is slightly lower. This suggests that students in eighth grade are not accessing higher education as would be expected in an even distribution of access.
Those in the lowest and highest quartiles behave furthest from their expected distributions, suggesting that income at each end of this spectrum accounts for lesser or greater chances of access to higher education.

The observed distribution of the middle two quartiles is also not aligned with the expected distribution, although they are closer than the outer quartiles. Here, the results are similarly skewed to suggest the lower likelihood that a student from the lower of the two quartiles (2) is less likely to participate in any post-secondary education than those in the quartile above (3). The standardized residual values for students in quartile two are just slightly lower than anticipated (-3.1) and those not participating are higher (6.2). In quartile three, the students accessing postsecondary education are higher than anticipated with a standard residual value of 4.6. Those not accessing postsecondary education are lower than anticipated with a standard residual level of -.9.3. Here, the magnitude of the residual is half of the highest quartile (4) for students who did not access higher education, suggesting that students below the mean for SES are less likely to have access to postsecondary education.

These results provide further insight into the “yes-no” question of access but do not tell us what type of education these students accessed. Some may have access a vocational training program and others may have entered directly into an institution offering baccalaureate degrees. For this, an additional variable was utilized, the sector of first institution attended, coded as follows:

-7 = Not reached or an incomplete interview
-3 = Legitimate skip
-2 = Refused question – there is only one case of this in the sample
-1 = Don’t know
1 = Private, for profit
2 = Private non-profit, less than 4-year
3 = Public, less than 2-year
4 = Public, 2-year
5 = Private non-profit, 4-year or above
6 = Public, 4-year or above

As this analysis is concerned with the relationship between sector of education and SES, only those cases where students attempted postsecondary education were retained. The 2609 cases coded -1 through -3 were not retained in a new, recoded variable, “First Postsecondary Institution Sector valid cases.” While there are several levels expressed here and distinguishing levels between types of 2- and 4-year institutions, it can be generally noted that the higher the value, the more it represents a 4-year institution as the first post-secondary institution attended.

First, a correlation using Spearman’s rho was performed to determine if there was any significant relationship between the variables. As seen in the chart below, the relationship is significant and positive and the magnitude of the Spearman’s rho (.287, p < .01) borders on a low positive one. Generally, this means that, as socioeconomic quartile rises, the likelihood that a student would enter a 4-year institution also rises.
<table>
<thead>
<tr>
<th>Base year SES quartile valid cases</th>
<th>First postsecondary institution sector valid cases</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ρ</strong></td>
<td><strong>1.000</strong></td>
<td><strong>.287(</strong>*)**</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>11384</td>
<td>9066</td>
<td></td>
</tr>
<tr>
<td>First postsecondary institution sector valid cases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ρ</strong></td>
<td><strong>.287(</strong>*)**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>9066</td>
<td>9542</td>
<td></td>
</tr>
</tbody>
</table>

*Note: **p < .01, two-tailed.*

The chi-square analysis reveals more about the patterns of access within the overall relationship, as detailed in Table 92.
### Table 92

**SES and Level of First Postsecondary Institution, 2000, U.S.**

<table>
<thead>
<tr>
<th>Base year SES quartile</th>
<th>First postsecondary institution sector valid cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid cases</td>
<td>1  2  3  4  5  6</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Count 208 34 52 815 141 387</td>
<td>1637</td>
</tr>
<tr>
<td>Lowest quartile</td>
<td>Expected 99.1 23.7 19.0 597.8 303.6 594.4</td>
<td>1637.0</td>
</tr>
<tr>
<td>% of total</td>
<td>2.2% 0.4% 0.6% 9.0% 1.6% 4.3%</td>
<td>18.1%</td>
</tr>
<tr>
<td>Std. res.</td>
<td>10.9 2.1 7.6 8.9 -9.3 -8.5</td>
<td></td>
</tr>
<tr>
<td>2 Low quartile</td>
<td>Count 163 26 33 942 224 646</td>
<td>2034</td>
</tr>
<tr>
<td>Middle quartile</td>
<td>Expected 123.2 29.4 23.6 742.8 376.5 738.6</td>
<td>2034.0</td>
</tr>
<tr>
<td>% of total</td>
<td>1.8% -3% 0.4% 10.4% 2.5% 7.1%</td>
<td>22.4%</td>
</tr>
<tr>
<td>Std. res.</td>
<td>3.6 -6 1.9 7.3 -7.9 -3.4</td>
<td></td>
</tr>
</tbody>
</table>
Table 92 (continued)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 High</td>
<td>Count</td>
<td>124</td>
<td>35</td>
<td>17</td>
<td>968</td>
<td>367</td>
<td>930</td>
</tr>
<tr>
<td>middle quartile</td>
<td>Expected count</td>
<td>147.8</td>
<td>35.3</td>
<td>28.3</td>
<td>891.5</td>
<td>451.8</td>
<td>886.4</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>1.4%</td>
<td>0.4%</td>
<td>0.2%</td>
<td>10.7%</td>
<td>4.0%</td>
<td>10.3%</td>
</tr>
<tr>
<td></td>
<td>Std. res.</td>
<td>-2.0</td>
<td>-0.0</td>
<td>-2.1</td>
<td>2.6</td>
<td>-4.0</td>
<td>1.5</td>
</tr>
<tr>
<td>4</td>
<td>Count</td>
<td>54</td>
<td>36</td>
<td>3</td>
<td>586</td>
<td>946</td>
<td>1329</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>Expected count</td>
<td>178.9</td>
<td>42.7</td>
<td>34.2</td>
<td>1073.8</td>
<td>546.7</td>
<td>1072.6</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>0.6%</td>
<td>0.4%</td>
<td>0.0%</td>
<td>6.5%</td>
<td>10.4%</td>
<td>14.7%</td>
</tr>
<tr>
<td></td>
<td>Std. res.</td>
<td>-9.2</td>
<td>-1.0</td>
<td>-5.3</td>
<td>-15.0</td>
<td>17.1</td>
<td>7.8</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>549</td>
<td>131</td>
<td>105</td>
<td>3311</td>
<td>1678</td>
<td>3292</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>549.0</td>
<td>131.0</td>
<td>105.0</td>
<td>3311.0</td>
<td>1678.0</td>
<td>3292.0</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>6.1%</td>
<td>1.4%</td>
<td>1.2%</td>
<td>36.5%</td>
<td>18.5%</td>
<td>36.3%</td>
</tr>
</tbody>
</table>

Note. 1 = Private for profit. 2 = Private, non-profit, less than 4-year. 3 = Public less than 2-year. 4 = Public 2-year. 5 = Private, non-profit, 4-year or above. 6 = Public, 4-year or above.

For the 9642 students who attended a postsecondary institution in this study, the observed distribution of institutional types varies from the expected results in most
categories. Each quartile reveals cells that contribute to an explanation of entrance into higher education, with some cells within each quartile being especially notable.

In the lowest socioeconomic quartile (1), we see that the distribution is skewed away from attendance at any 4-year institution and toward proprietary and vocational institutions. Here, the standardized residuals for private and public institutions are -9.3 and -8.5, respectively, demonstrating underrepresentation in baccalaureate institutions. A level of significant disparity also exists between the expected and observed standard residual levels for students in this quartile at private for-profit (10.9) and public, less than 2-year institutions (7.6).

The second quartile reveals smaller levels of difference between observed and expected differences, yet some are significant. The most significant departures from expected levels occurred when 4-year private and 2-year public institutions were the first type attended. While there is some significance in the level of underrepresentation in any baccalaureate institution, the skew between private baccalaureate and public, 2-year institutions forms an almost mirror image. Participation in public 2-year institutions also exceeded the expected levels for students in this quartile, where the level of standard residual is 7.3. Participation in private, 4-year or higher institutions was less than the expected distribution, where the level of standardized residual is -7.9. Generally, when students in this quartile entered their first postsecondary institution after high school, they were more likely to enter a private, for-profit or public 2-year institution. Like their counterparts in quartile one, they were less likely to enter into any baccalaureate institution and about as likely to enter into a public 2-year institution, where some pathways to a baccalaureate degree may be found.
Students in the third quartile may best be characterized as performing closest to their expected distribution with only one slight exception. These students were underrepresented in private baccalaureate institutions, where the level of standardized residual is -4.0. This could suggest that SES may be a factor in driving students to choose institutions that generally have lower sticker prices (College Board, 2004a).

In the highest socioeconomic quartile, the most striking skew in the distributions is seen between private baccalaureate and public, 2-year institutions. The standard residual levels between expected and observed levels for private baccalaureate institutions is 17.1, the highest level of any cell in this analysis. The next highest level is found in the underrepresentation of these students in public, 2-year institutions, where the standardized residual is -15.0. Generally, students in this highest quartile are more likely to start their college careers at baccalaureate institutions over any other type, especially choosing private institutions. They are also more likely not to select any 2-year or less school, especially public ones.
Socioeconomic quartile and bachelor's degree attainment. In the same fashion that access was analyzed above, degree attainment (coded -9 = missing, -1 = legitimate skip, 1 = some postsecondary education/no degree through 6 = doctoral degree) and socioeconomic quartile (coded 1 = lowest quartile through 4 = highest quartile) are the variables of interest. The small number of missing cases (115) did force a significant challenge to obtaining a clear picture of the relationship. Legitimate skips again indicate those students who did not attempt postsecondary education and, for that reason, were retained in the analysis. The first analysis performed was a correlation, using Spearman’s rho to assess categorical data for these two variables.

As shown in the table below, the relationship between socioeconomic quartile and degree attainment is significant and positive. The value of the Spearman’s rho is .461 and is significant at the level \( p < .01 \). The positive direction suggests that, as socioeconomic quartile rises, so does the level of degree earned, generally. The magnitude of the Spearman’s rho suggests a moderate level of strength between these variables.
Table 93

*SES and Highest Degree Earned – Correlation, 2000, U.S.*

<table>
<thead>
<tr>
<th>Base year SES quartile valid cases</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.</td>
<td>11384</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Base year</th>
<th>Highest valid cases</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>.</td>
<td>11384</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest PSE degree attained as of 2000</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.</td>
<td>11384</td>
</tr>
</tbody>
</table>

| Note. ** p < .01, two-tailed. |

To look more deeply into this relationship, a chi-square analysis was performed. Here, the observed and expected results, given the distribution of cases within the sample, show the variations in distribution within each quartile and degree earned. As was true in the last analysis, these distributions include 2533 records of students who never attended any postsecondary institution. The table below, then, gives us results that span access and attainment, in light of socioeconomic quartile.
Table 94

SES and Highest Degree Earned – Chi Squares, 2000 U.S.

<table>
<thead>
<tr>
<th>Base year SES quartile</th>
<th>Count</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest quartile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>28</td>
<td>1137</td>
<td>829</td>
<td>320</td>
<td>192</td>
<td>271</td>
<td>17</td>
<td>3</td>
<td>2797</td>
<td></td>
</tr>
<tr>
<td>Expected count</td>
<td>26.3</td>
<td>554.5</td>
<td>826.8</td>
<td>217.9</td>
<td>205.6</td>
<td>853.3</td>
<td>94.6</td>
<td>18.4</td>
<td>2797.0</td>
<td></td>
</tr>
<tr>
<td>% of total</td>
<td>.2%</td>
<td>10.0%</td>
<td>7.3%</td>
<td>2.8%</td>
<td>1.7%</td>
<td>2.4%</td>
<td>.1%</td>
<td>-.0%</td>
<td>24.6%</td>
<td></td>
</tr>
<tr>
<td>Std.</td>
<td>.3</td>
<td>24.8</td>
<td>.1</td>
<td>6.9</td>
<td>-1.0</td>
<td>-19.9</td>
<td>-8.0</td>
<td>-3.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>residual</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Low quartile</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>33</td>
<td>687</td>
<td>936</td>
<td>250</td>
<td>260</td>
<td>516</td>
<td>48</td>
<td>7</td>
<td>2737</td>
<td></td>
</tr>
<tr>
<td>Expected count</td>
<td>25.7</td>
<td>542.2</td>
<td>809.0</td>
<td>213.3</td>
<td>281.2</td>
<td>835.0</td>
<td>92.6</td>
<td>18.0</td>
<td>2737.0</td>
<td></td>
</tr>
<tr>
<td>% of total</td>
<td>.3%</td>
<td>6.0%</td>
<td>8.2%</td>
<td>2.2%</td>
<td>2.3%</td>
<td>5.5%</td>
<td>.4%</td>
<td>.7%</td>
<td>24.0%</td>
<td></td>
</tr>
<tr>
<td>Std.</td>
<td>.4</td>
<td>6.2</td>
<td>4.5</td>
<td>2.5</td>
<td>4.1</td>
<td>-11.0</td>
<td>-4.6</td>
<td>-2.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>residual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quartile</td>
<td>Count</td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
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<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>3 High</td>
<td>Count</td>
<td>25</td>
<td>334</td>
<td>947</td>
<td>226</td>
<td>243</td>
<td>934</td>
<td>75</td>
<td>10</td>
<td>2794</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>26.3</td>
<td>553.4</td>
<td>825.9</td>
<td>217.7</td>
<td>205.4</td>
<td>852.4</td>
<td>94.5</td>
<td>18.4</td>
<td>2794.0</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>.2%</td>
<td>2.9%</td>
<td>8.3%</td>
<td>2.0%</td>
<td>2.1%</td>
<td>8.2%</td>
<td>7.9%</td>
<td>1.1%</td>
<td>24.5%</td>
</tr>
<tr>
<td></td>
<td>Std. residual</td>
<td>-2</td>
<td>-9</td>
<td>.3</td>
<td>4.2</td>
<td>.6</td>
<td>2.6</td>
<td>2.8</td>
<td>-2</td>
<td>-2</td>
</tr>
<tr>
<td>4 Highest quartile</td>
<td>Count</td>
<td>21</td>
<td>97</td>
<td>653</td>
<td>91</td>
<td>142</td>
<td>1752</td>
<td>245</td>
<td>55</td>
<td>3056</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>28.7</td>
<td>605.3</td>
<td>903.3</td>
<td>238.1</td>
<td>224.7</td>
<td>932.3</td>
<td>103.4</td>
<td>20.1</td>
<td>3056.0</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>.2%</td>
<td>.9%</td>
<td>5.7%</td>
<td>.8%</td>
<td>1.2%</td>
<td>15.4%</td>
<td>2.2%</td>
<td>.5%</td>
<td>26.8%</td>
</tr>
<tr>
<td></td>
<td>Std. residual</td>
<td>-1.4</td>
<td>-20.7</td>
<td>-3.3</td>
<td>-9.5</td>
<td>-5.5</td>
<td>26.8</td>
<td>13.9</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>107</td>
<td>2255</td>
<td>3365</td>
<td>887</td>
<td>837</td>
<td>3473</td>
<td>385</td>
<td>75</td>
<td>11384</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>107.0</td>
<td>2255.0</td>
<td>3365.0</td>
<td>887.0</td>
<td>837.0</td>
<td>3473.0</td>
<td>385.0</td>
<td>75.0</td>
<td>11384.0</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>.9%</td>
<td>19.8%</td>
<td>29.6%</td>
<td>7.8%</td>
<td>7.4%</td>
<td>30.5%</td>
<td>3.4%</td>
<td>.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*Note: 1 = Missing, 2 = Legitimate skip, 3 = Some PSE, no degree attained, 4 = Certificate or license, 5 = Associate’s degree, 6 = Bachelor’s degree, 7 = Master’s degree or equivalent, 8 = Ph.D. or professional degree.*
Some of the results witnessed in the previous analysis of access can be seen here in baccalaureate attainment. In the lowest socioeconomic quartile, the distribution expected for no participation (legitimate skips) is replaced by a much greater share in observed behavior, with a standardized residual of 24.5. The expected distribution of these students into the bachelor's degree attainment is replaced by a much lower observed level, where the standardized residual is 19.9. Students earning certificates or licenses are distributed higher than expected, where the standardized residual for this cell is 6.9. The number of cases above the bachelor's degree level (17 at the master's level and just three at the doctoral level) is too small for a meaningful analysis in this quartile.

As with the analysis of access and quartile and attainment has fewer extreme deviations between expected and observed results, but several are significant and skewed toward low attainment, generally. The rate of non-participation (no access) is higher than expected, where the standardized residual is 0.2. Higher than expected observations also exist in the categories of some participation without a degree and associate's degree attainment, where the levels of standardized residuals are 4.5 and 4.1, respectively. Baccalaureate and master's degree attainment observed levels are lower than the expected distributions, with standardized residual levels of -11.0 and -4.6, respectively. The low number of doctoral degree cases (seven) precludes a meaningful interpretation of these results. From this analysis, we see that students in the second quartile are more likely than expected to attend college without earning a degree and, when they do participate, they are more likely than expected to attend institutions where less than a baccalaureate degree is offered, earning associate's degrees, instead.
The third socioeconomic quartile has similarities to the second in its relatively lower levels of difference between expected and observed results. Here, however, the direction of the results shifts, showing a slight skew toward away from non-participation (no access). The standardized residual for legitimate skips/no access is -9.3. However, the number of cases for some participation without an earned degree is higher than expected, with a standardized residual of 4.2. It is important in understanding this result that factors other than socioeconomic status could account for lower than expected student persistence. Associate's and bachelor's degree attainment was barely significant, with standardized residuals of 2.6 and 2.8, respectively. Advanced degrees were distributed at lower than expected levels; however, these were not statistically significant. Other than students dropping out of college without earning a degree, this quartile performed very close to the expectations of the distribution.

The highest socioeconomic quartile is surprising in the strength of skew toward baccalaureate degree attainment and beyond. Students in this quartile were very unevenly distributed toward this end of the participation and degree spectrum, with standardized residual levels of 26.8 for baccalaureate attainment, 13.9 for master's degree attainment and 7.8 for doctoral degree attainment. Given the levels at this end, it is not surprising to see corresponding results at the other end of the spectrum, where associate's degree (-5.5), certificate/license (-9.5), some participation but no degree (-8.3) and no access (-20.7) are all lower than expected distributions, when observed.

These analyses of socioeconomic status, initial participation, institutional type and degree attainment provide clear evidence of socioeconomic status being negatively associated with higher education participation (access) and baccalaureate attainment.
This supports the college choice theories of Jackson and Hollister and Gallagher, which cite economic factors as significant in the college selection stage (Hollister et al., 1999). It also supports the persistence research of Tinto, where adequate financial support was one of many important factors supporting degree attainment (Tinto, 1987).

Observations beyond the research questions. In analyzing the NELS:88 data, other relationships are demonstrated that warrant additional comment. Race is one factor that may be differentially associated with higher education access and attainment. It is also possible to analyze the role of student/parent expectations and parental educational levels on student access and attainment.

To assess the relationship between race, access, and attainment, three variables were selected:

Composite Race, coded:
1 = Asian/Pacific Islander
2 = Hispanic
3 = Black not Hispanic
4 = White not Hispanic
5 = American Indian/Alaskan Native
8 = Missing
9 = Legitimate skip/not in wave of study (enriched case study)

The additional two variables were previously used, participation in higher education at any time, coded missing (-9) yes (1) no (2). This variable will serve as the definition of access to higher education for this data set.
For those that did attend a post-secondary institution at any time (achieved access to post-secondary education), the highest level of post-secondary experience was also coded into groupings, as follows:

-9 = Missing value
-3 = Legitimate skip
1 = Some post-secondary experience, no degree
2 = Certificate or license
3 = Associate’s degree
4 = Bachelor’s degree
5 = Master’s degree or its equivalent
6 = Doctoral degree

In assessing the relationship between race and access, a chi-square analysis was performed. In the table of results below, there is little significant deviation from the expected distribution of access based upon race alone. The only cells contributing in any significant manner are the greater than expected access of Asian/Pacific Islanders, where the standardized residuals of 4.5 (yes) and -4.7 (no) are the furthest from those expected. The distribution of Hispanic and American Indian/Alaskan Native that had not accessed higher education was higher than expected, although the values (3.2 and 4.0) are not extremely high. In the opposite case, White non-Hispanic students were slightly underrepresented in this answer, with a small standardized residual value of -3.0.

Generally, race has little significant relationship to access to higher education in this data set.
### Composite Race and Postsecondary Access, 2000, U.S.

<table>
<thead>
<tr>
<th>Composite race</th>
<th>Asian/Pacific Islander</th>
<th>Count</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>715</td>
<td>49</td>
<td>764</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Expected count</th>
<th>% of total</th>
<th>Std. residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian/Pacific Islander</td>
<td>6</td>
<td>0.8</td>
<td>-1.8</td>
</tr>
<tr>
<td></td>
<td>604.1</td>
<td>5.9%</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>159.4</td>
<td>.4%</td>
<td>-8.7</td>
</tr>
<tr>
<td></td>
<td>764.0</td>
<td>6.3%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hispanic</th>
<th>Count</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1087</td>
<td>356</td>
<td>1444</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Expected count</th>
<th>% of total</th>
<th>Std. residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>1.1</td>
<td>9.0%</td>
<td>-1.6</td>
</tr>
<tr>
<td></td>
<td>1141.7</td>
<td>2.9%</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>1444.0</td>
<td>11.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attended a PSE after HS</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>{Missing}</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Black not Hispanic</td>
<td>Count</td>
<td>0</td>
<td>797</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>.8</td>
<td>823.1</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>.0%</td>
<td>6.6%</td>
</tr>
<tr>
<td></td>
<td>Std.</td>
<td>-.9</td>
<td>-.9</td>
</tr>
<tr>
<td>White not Hispanic</td>
<td>Count</td>
<td>5</td>
<td>6377</td>
</tr>
<tr>
<td></td>
<td>Expected count</td>
<td>5.9</td>
<td>6252.7</td>
</tr>
<tr>
<td></td>
<td>% of total</td>
<td>.0%</td>
<td>52.5%</td>
</tr>
<tr>
<td></td>
<td>Std.</td>
<td>-.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Aner Ind/AK Native</td>
<td>Count</td>
<td>Missing</td>
<td>Yes</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------</td>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td>Expected count</td>
<td></td>
<td>.1</td>
<td>92.5</td>
</tr>
<tr>
<td>% of total</td>
<td>.0%</td>
<td>.6%</td>
<td>.4%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>-3</td>
<td>-2.0</td>
<td>4.0</td>
</tr>
<tr>
<td>(MISSING)</td>
<td></td>
<td>2</td>
<td>72</td>
</tr>
<tr>
<td>Expected count</td>
<td></td>
<td>.1</td>
<td>87.0</td>
</tr>
<tr>
<td>% of total</td>
<td>.0%</td>
<td>.6%</td>
<td>.3%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>6.7</td>
<td>-1.6</td>
<td>2.7</td>
</tr>
</tbody>
</table>
Table 95 (continued)

<table>
<thead>
<tr>
<th>{Legitimate skip/not in wave}</th>
<th>Count</th>
<th>{Missing}</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected count</td>
<td>.6</td>
<td>600.9</td>
<td>158.5</td>
<td>760.0</td>
<td></td>
</tr>
<tr>
<td>% of total</td>
<td>.0%</td>
<td>4.0%</td>
<td>2.3%</td>
<td>6.3%</td>
<td></td>
</tr>
<tr>
<td>Std. residual</td>
<td>.6</td>
<td>-4.9</td>
<td>9.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>9</td>
<td>9602</td>
<td>2533</td>
<td>12144</td>
</tr>
<tr>
<td>Expected count</td>
<td>9.0</td>
<td>9602.0</td>
<td>2533.0</td>
<td>12144.0</td>
<td></td>
</tr>
<tr>
<td>% of total</td>
<td>.1%</td>
<td>79.1%</td>
<td>20.9%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Baccalaureate attainment by race was also analyzed. Unlike access, where little relationship was observed by race, there are several significant relationships in the chi-square analysis of race and attainment. In the following table, several cells make significant contributions to the difference between expected and observed distributions. In this table, the 2533 cases of “legitimate skip” are those students who did not access higher education and will be referred to here as “no access.” In the first row, Asian/Pacific islander students have a higher distribution in baccalaureate attainment (standardized residual = 9.0) and correspondingly are lower in
no access (-8.7). In row two, Hispanic students were underrepresented in the baccalaureate attainment cell (-9.4) and overrepresented in starting higher education but not completing it with a credential (5.9). In the third row, Black non-Hispanic students were underrepresented in the baccalaureate cell (-4.7) and slightly overrepresented in the certificate/license cell (3.8). While they are also overrepresented in the distribution when start and not completing higher education, it is just slightly higher than expected (2.7).

The fourth row, White non-Hispanic students performed as expected in the distribution, except in their overrepresentation in the baccalaureate cell (5.8) and slight underrepresentation in the no access (-3.0) and starting higher education without successful completion (-3.6). American Indian/Alaskan Native students, the fifth row of this table, were underrepresented in the baccalaureate cell (-4.2) and overrepresented in the no access cell (4.0).

Table 96

<table>
<thead>
<tr>
<th>Composite race</th>
<th>Highest PSE degree attained as of 2000</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Asian/Pacific</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>Expected</td>
<td>7.2</td>
<td>159.4</td>
</tr>
<tr>
<td>Islander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of count</td>
<td>.1%</td>
<td>.4%</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>--------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Std.</td>
<td>-.1</td>
<td>-1.7</td>
</tr>
<tr>
<td>residual</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic Count</td>
<td>13</td>
<td>356</td>
</tr>
<tr>
<td>Expected count</td>
<td>13.7</td>
<td>301.2</td>
</tr>
<tr>
<td>% of total</td>
<td>1%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>-.2</td>
<td>3.2</td>
</tr>
<tr>
<td>Black not Hispanic Count</td>
<td>13</td>
<td>244</td>
</tr>
<tr>
<td>Expected count</td>
<td>9.9</td>
<td>217.1</td>
</tr>
<tr>
<td>% of total</td>
<td>1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>1.8</td>
<td>1.8</td>
</tr>
<tr>
<td>White not Hispanic Count</td>
<td>71</td>
<td>1526</td>
</tr>
<tr>
<td>Expected count</td>
<td>74.9</td>
<td>1649.5</td>
</tr>
<tr>
<td>% of total</td>
<td>.6%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Std. residual</td>
<td>-4.3</td>
<td>-3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>----</td>
</tr>
<tr>
<td>Amer</td>
<td>Count</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>1.1</td>
</tr>
<tr>
<td>Native</td>
<td>count</td>
<td>% of</td>
</tr>
<tr>
<td></td>
<td>total</td>
<td>% of</td>
</tr>
<tr>
<td></td>
<td>residual</td>
<td>% of</td>
</tr>
<tr>
<td>Missing</td>
<td>Count</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>count</td>
<td>% of</td>
</tr>
<tr>
<td></td>
<td>total</td>
<td>% of</td>
</tr>
<tr>
<td></td>
<td>residual</td>
<td>% of</td>
</tr>
<tr>
<td>Legitimate skip</td>
<td>Count</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>count</td>
<td>% of</td>
</tr>
<tr>
<td></td>
<td>total</td>
<td>% of</td>
</tr>
<tr>
<td></td>
<td>residual</td>
<td>% of</td>
</tr>
</tbody>
</table>
Table 96 (continued)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>2533</td>
<td>3594</td>
<td>960</td>
<td>872</td>
<td>3590</td>
<td>393</td>
<td>77</td>
<td>12144</td>
</tr>
<tr>
<td>Expected</td>
<td>115.0</td>
<td>2533.0</td>
<td>3594.0</td>
<td>960.0</td>
<td>872.0</td>
<td>3590.0</td>
<td>393.0</td>
<td>77.0</td>
<td>12144.0</td>
</tr>
<tr>
<td>count</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of total</td>
<td>.9%</td>
<td>20.9%</td>
<td>29.6%</td>
<td>7.9%</td>
<td>7.3%</td>
<td>29.6%</td>
<td>3.2%</td>
<td>.6%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Note. 1 = Missing. 2 = Legitimate skip. 3 = Some PSE, no degree attained. 4 = Certificate or license. 5 = Associate's degree. 6 = Bachelor's degree. 7 = Master's degree or equivalent. 8 = Ph.D. or professional degree.

Generally, Asian/Pacific Islander and White non-Hispanic students fared better in bachelor's degree attainment than their counterparts of other races. Although access showed little significant variation by race, this did not translate into degree attainment for students in this NELS:88 data set.

In St. John's (2003) balanced access model, there were several interrelated factors that affected a student's likelihood of attending college. Income, information, parent's education level and expectations were among them. The data collected in NELS:88 allows us to assess the relationships between parental education levels, access and attainment, as well as student and parent expectations for higher education against actual results.

To examine the relationship between parental educational levels, access, and attainment, the combined highest level of parental education was selected. It is coded in a ranked order, as shown below:
1 = Didn’t finish high school
2 = High school diploma or GED
3 = Some college/no degree
4 = Bachelor’s degree
5 = Master’s degree or equivalent
6 = Doctoral/professional degree

The values for missing and don’t know were coded as 98 and 99, respectively.

For the purposes of using a ranked order analysis of the variables, these were removed from the data set. There were only 70 cases of the 12,144 cases observed that required removal for this purpose. It is then possible, using the previous variables for student access and attainment, to correlate the relationship between parental educational level, access and attainment using Spearman’s rho for ranked variables.

In the correlation matrix shown below for parental education level and access, we see that the relationship between these two variables is significant and mildly negative ($\rho = -.232, p < .01$). The direction of the relationship is negative and, since access is coded 1 = yes and 2 = no, this means that, as the level of parental level of education increases, the likelihood of college attendance for the student also increases, generally.
Table 97

*Parental Education Level and Access, 2000, U.S.*

<table>
<thead>
<tr>
<th>Parents’ highest education level</th>
<th>Ever attended a PSE after HS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parents’ highest education level</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Ever attended a PSE after HS</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

Note. ** p < .01 , two-tailed.

Parental education level and attainment can also be analyzed using Spearman’s rho, as shown in the correlation matrix below. Again, we see a significant relationship between these two ranked variables (ρ = .321, p < .01). The direction here is a positive one and the strength is mild to moderate. As the student’s education level is also ranked with the higher levels using higher coded values, these results suggest that as parental education level increases, student educational attainment also increases, generally.
### Table 98

*Parental Education Level and Level of Degree Earned, 2000, U.S.*

<table>
<thead>
<tr>
<th></th>
<th>Parents’ highest education level</th>
<th>Highest degree attained as of 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents’ highest education level</td>
<td>$\rho$</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.</td>
</tr>
<tr>
<td>$N$</td>
<td>12144</td>
<td>12144</td>
</tr>
<tr>
<td>Highest PSE</td>
<td>$\rho$</td>
<td>0.321(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>$N$</td>
<td>12144</td>
<td>12144</td>
</tr>
</tbody>
</table>

*Note.* ** $p < .01$, two-tailed.

In assessing the relationship between parental educational level and student access and attainment, there is a clear relationship between them. This could be explained by two possible roles that parental education level plays in the aspirations of a student. First, the expectation level for attainment has been modeled by at least one parent. Students have a clear example of starting and completing college. Secondly, and related to St. John’s (2003) model, the information on how to attend college is better known. Parents
who have already attended college have some idea of how the process of applying for, enrolling in, and succeeding in college works. While teachers and guidance counselors also play a role in helping students understand the procedures and transitions, parents provide a resource for students as they seek information on college requirements, costs and expectations.

What roles do student and parent expectations for college play in access and attainment? The variables for the father’s and mother’s aspirations for the student’s academic achievement after high school were assessed and coded as follows:

1 = Less than a high school diploma or GED
2 = High school diploma or GED
3 = Vocational or trade training after high school
4 = Attend college
5 = Graduate from college
6 = Advanced degree after the baccalaureate

The responses of “Don’t know,” missing data or skipped case were coded as 7, 98, and 99, respectively. For the purposes of this analysis, these 2152 for student’s mother and 2517 for student’s father responses have been removed, so that a rank order correlation analysis using Spearman’s rho is possible.

The results for responses from fathers and mothers are shown in the following tables.
### Table 99

*Father’s Aspirations and Student Actual Access, 2000, U.S.*

<table>
<thead>
<tr>
<th>Father’s aspirations for student</th>
<th>Ever attended a PSE after HS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Father’s aspirations</td>
<td></td>
</tr>
<tr>
<td>$\rho$</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
</tr>
<tr>
<td>$N$</td>
<td>12144</td>
</tr>
<tr>
<td>Ever attended a</td>
<td></td>
</tr>
<tr>
<td>$\rho$</td>
<td>$-0.057^{(**)}$</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
</tr>
<tr>
<td>$N$</td>
<td>12144</td>
</tr>
</tbody>
</table>

*Note: ** $p < .01$, two-tailed.*
Table 100

Mother’s Aspirations and Student Actual Access, 2000, U.S.

<table>
<thead>
<tr>
<th>Mother’s aspirations</th>
<th>Ever attended a HS for student</th>
<th>PSE after HS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>1.060</td>
<td>-0.56 (**)</td>
</tr>
</tbody>
</table>

aspirations for student

<table>
<thead>
<tr>
<th>Sig. (2-tailed)</th>
<th>.</th>
<th>.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>12144</td>
<td>12144</td>
</tr>
</tbody>
</table>

Ever attended a HS

<table>
<thead>
<tr>
<th>Sig. (2-tailed)</th>
<th>.000</th>
<th>.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>12144</td>
<td>12144</td>
</tr>
</tbody>
</table>

Note. ** $p < .01$, two-tailed.

In both cases, the results are similar. While statistically significant in both cases at the critical level $p < .01$, the strength of the correlation is so weak (-0.057 and -0.056) that its significance would be hard to claim as important to the results. When the same analysis for degree attainment was conducted, almost identical results were returned.

A more interesting result occurs when assessing the student’s own expectation for education beyond high school. Here, the variable for how far the student though she/he would get after high school was selected, and is coded as follows:
1 = Won’t finish high school
2 = Will finish high school
3 = Vocational or trade training after high school
4 = Will attend college
5 = Will graduate from college
6 = Will earn an advanced degree beyond the baccalaureate

The responses for “Don’t know,” missing data, and legitimate skips were coded as 7, 98, and 99, respectively. These 847 cases were removed from this analysis, so that a Spearman’s rho correlation of ranked data could be performed.

The table below shows the results of the correlation analysis, where the relationship is significant and negative (Spearman’s rho = -.262, p < .01). As access is coded 1 = yes, 2 = no, the direction of the relationship suggests that, as the student’s expectation for higher education increases, the actual degree attainment also increases, generally.
Table 101
Student Aspirations and Actual Access, 2000, U.S.

<table>
<thead>
<tr>
<th></th>
<th>Student’s aspirations</th>
<th>Ever attended a PSE after HS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ρ</td>
<td>1.000</td>
<td>-.262(∗∗)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>12144</td>
<td>12144</td>
</tr>
</tbody>
</table>

An almost identical result was achieved when substituting the attainment variable for the access variable in this analysis. Another significant relationship emerges (Spearman’s rho = .312, p < .01) and the strength of both this and the previous relationship is mild to moderate.
Table 102

Student Aspirations and Highest Degree Earned, 2000, U.S.

<table>
<thead>
<tr>
<th>Student’s aspirations</th>
<th>Highest PSE degree attained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student’s aspirations</td>
<td>p</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>12144</td>
</tr>
<tr>
<td>Highest PSE degree</td>
<td>p</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>12144</td>
</tr>
</tbody>
</table>

Note. **p < .01, two-tailed.

As the coding of highest degree earned and expected degree both rise in value, the positive relationship between them suggests that as a student’s own expectations for degree attainment rise, the likelihood of attainment also rises, generally.

In assessing the relationship of expectations for college against the results for access and attainment, the role of parental expectations was not strongly significant. Rather, the student’s own expectation for college access and attainment was consistently significant. From this, one possible explanation is that students respond more strongly to the example of college completion set by their parents, as opposed to verbal expectations expressed by them. When assessing their own futures, their outlook on college as
attainable and accessible may shape their views. Having seen socioeconomic status as having a significant relationship to both access and attainment, this may also shape student expectations. To test this, one final correlation was performed, assessing the relationship between SES and student expectations.

In the table below, the results are the strongest yet seen when analyzing the relationships among variables. The result is significant and positive (Spearman’s rho = .398, p < .01). The strength of the relationship is moderate, suggesting that as socioeconomic status rises, so does the expectation of college attendance and attainment, generally.

Table 103

<table>
<thead>
<tr>
<th></th>
<th>Student’s aspirations</th>
<th>Base year SES quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student’s aspirations</td>
<td>( \rho )</td>
<td>1.000</td>
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<td></td>
<td></td>
<td>.398(***),</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>( N )</td>
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<td>12144</td>
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<tr>
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<td>11384</td>
</tr>
<tr>
<td>Base year SES quartile</td>
<td>( \rho )</td>
<td>.398(***),</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>( N )</td>
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<td>11384</td>
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<td>11384</td>
</tr>
</tbody>
</table>

Note: ** \( p < .01 \), two-tailed.
Conclusions regarding the NELS:88 Data Set. The contribution of SES to college access and attainment within the NELS:88 data set is great. It not only demonstrates its relationship directly, when assessing variables on access and attainment, but indirectly, in shaping student attitudes on their own chances for college. We also know that parental educational level and income are positively related (as degree attainment rises, so does household income) (Mortenson, 2003) and that this parental modeling of college attendance is also related to student access and especially attainment. Although racial group was not found to have a strong relationship to access, there was a stronger relationship between those groups and educational attainment, especially for some groups and especially at the baccalaureate level.

Conclusions Regarding the United States

The two data sets used for this study of access, attainment, and SES in the United States do not compare "apples to apples." In most instances, survey questions were worded differently or responses were broken out into different groups. These variations between the two sets negate any potential for direct comparisons between statistical tests. However, there are enough similarities in the areas of inquiry for each set, as well as some very close responses and questions, that general trends may be observed. Access to any postsecondary education did not change dramatically between the two studies. In both cases, it was possible to compare any access by students to their SES quartile. Between the two correlation tests performed for these cases, the differences in magnitude were only about two one-hundredths of a point different. However, when
assessing the type of institutions attended after high school, the relationship between SES quartile and baccalaureate institution access rose sharply in this period. The two tables below represent a reduction of variable responses between the two sets, such that a comparison of those students who access a baccalaureate institution after high school can be made, in light of SES quartile. As seen in the magnitude of these relationships, the association between baccalaureate access and SES quartile was significant in both studies at the critical level p < .01, and the level rose from .247 in the first study to .336 in the second, a change in magnitude of .089, or nearly a tenth of a point.

Table 104

<table>
<thead>
<tr>
<th>Base year SES quartile</th>
<th>Base year</th>
<th>Baccalaureate access by</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>1984?</td>
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<td></td>
<td>1,060</td>
<td>.247(***)</td>
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<tr>
<td></td>
<td>13078</td>
<td>7623</td>
</tr>
<tr>
<td></td>
<td>.000</td>
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</tr>
<tr>
<td></td>
<td>7623</td>
<td>8311</td>
</tr>
</tbody>
</table>

Note. ** p < .01, two-tailed.
Table 105

Baccalaureate Access and SES Quartile – NELS:88 Data Set, U.S.

<table>
<thead>
<tr>
<th>Base year SES quartile</th>
<th>Base year Baccalaureate access by 1992?</th>
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</thead>
<tbody>
<tr>
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<td>ρ</td>
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<tr>
<td>quartile</td>
<td>1.000</td>
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<tr>
<td></td>
<td>.336(***</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>.336(***</td>
</tr>
<tr>
<td>access by 1992?</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note. ** p < .01, two-tailed.

Students from low SES backgrounds were generally more likely to be distributed into associate’s degree attainment in 1992 than they were in 2000. A reduction in variables for these two studies was completed to demonstrate the level of attainment as “Baccalaureate or Greater” and “Less than Baccalaureate,” which includes any degree earned at the bachelor’s level or higher in both sets. As seen in the two correlation matrices below where both resulted in significant relationships at the critical level p < .01, this association grew in the magnitude of the Spearman’s rho by just over .03 during this period. It is also important to note that the number of students surveyed in the earlier set is higher by some 2,100 cases.
<table>
<thead>
<tr>
<th>Base year SES quartile</th>
<th>Base year Baccalaureate attainment by 1992?</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \rho )</td>
<td>1.000</td>
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<tr>
<td>Sig. (2-tailed)</td>
<td>( . )</td>
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<tr>
<td>( N )</td>
<td>13078</td>
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<tr>
<td>Baccalaureate attainment by 1992?</td>
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</tr>
<tr>
<td>( \rho )</td>
<td>.364(( ** ))</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>( .000 )</td>
</tr>
<tr>
<td>( N )</td>
<td>11193</td>
</tr>
</tbody>
</table>

Note. \( ** p < .01 \), two-tailed.
Table 107

<table>
<thead>
<tr>
<th></th>
<th>Base year</th>
<th>Baccalaureate attainment by 2000?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SES quartile</td>
<td>p</td>
</tr>
<tr>
<td>Base year SES</td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td>quartile</td>
<td></td>
<td></td>
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<tr>
<td>Sig. (2-tailed)</td>
<td></td>
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<tr>
<td>N</td>
<td></td>
<td>11384</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td></td>
<td>.397(***)</td>
</tr>
<tr>
<td>attainment by</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000?</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>N</td>
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<td>9022</td>
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</tbody>
</table>

Note. ** p < .01, two-tailed.

The skew away from baccalaureate attainment and toward lower levels became slightly more acute during the period. While attainment of a baccalaureate degree is not a certainty for those holding associate’s degrees, they do hold a possibility of transferring credits toward a baccalaureate degree. However, these students became less represented, generally, in 2000 than in 1992, among the two lowest SES quartile groups. Correspondingly and at an even higher rate, students in the top SES quartile were more likely to have attained bachelor’s degrees in 2000 than in 1992. Their skew tendency was even stronger in the later study and the magnitude of change between the two studies was
the greatest of any cells observed (over 5.0 change in standardized residual level). Being a member of the top SES quartile became more strongly associated with baccalaureate attainment after the 1992 reauthorization of Title IV programs.

Aspirations for college during the sophomore year of high school also became more strongly associated with SES quartile during the period between the two studies, although the change in magnitude was not drastic. As shown in the correlation matrices below for both studies, the results were significant at the critical level \( p < .01 \) and the change in level of magnitude between 1980 and 1988 studies was .041, or roughly the same amount of change as that associated with access variables.

Table I8

<table>
<thead>
<tr>
<th>SES and Aspiration for Baccalaureate Degree – HS&amp;B:80, U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base year</strong></td>
</tr>
<tr>
<td><strong>SES quartile</strong></td>
</tr>
<tr>
<td><strong>Base year SES quartile</strong></td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
</tr>
<tr>
<td><strong>N</strong></td>
</tr>
<tr>
<td><strong>Aspire to baccalaureate or higher?</strong></td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
</tr>
<tr>
<td><strong>N</strong></td>
</tr>
</tbody>
</table>

*Note. ** \( p < .01 \), two-tailed.*
Table 109

*SES and Aspiration for Baccalaureate Degree – RELS:88, U.S.*

<table>
<thead>
<tr>
<th>Base year SES quartile</th>
<th>Aspire to baccalaureate or higher?</th>
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<tbody>
<tr>
<td></td>
<td>$\rho$</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>$\rho$</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>$N$</td>
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*Note.* ** $p < .01$, two-tailed.
CHAPTER VIII

CONCLUSIONS FROM THE STUDY AND RECOMMENDATIONS FOR POLICY CHANGE AND FURTHER RESEARCH

The case studies of the costs, aid, socioeconomic variables, student aspirations, access, and attainment reveal some themes that emerge among the cases. While it is not possible to make statistical comparisons between the countries, it is possible to discuss the research questions of this study in light of the findings. It is important to note that, given the wide array of possible explanations for student access and attainment, the limitations of this study prevent any cause and effect relationships between national policies and student participation data. Rather, general trends of student participation along socioeconomic lines can be observed and these constitute the conclusions of this study.

In Australia, the Netherlands, and the United States, the price of a baccalaureate education rose during the decade of the 1990s. The approaches to cost and affordability varied between the countries. National policy change that lessened the availability of grant funds was common to all countries, although these varied, as well, in the approaches taken.
Findings in Australia

In Australia, the cost of a degree is not offset by a national, standardized grant program. Rather, individual institutions were empowered with federal funds to provide underrepresented groups assistance in the manner that best fit their local needs. The overall cost of a degree program was clearly stated to students and applied nationally to any public institution, such that students had a clear understanding of the costs faced in a baccalaureate education. Early in the decade and at the beginning of the Higher Education Contribution Scheme (HECS), price increases varied from year-to-year, making the prediction of total degree costs difficult for students. The main vehicle for affordability is the income-contingent loan system, where students may repay the costs of education over a 15-year period, based on their actual earnings after leaving the university.

In 1997, when the price of a university degree went from one single rate to three (and eventually four in 2005) different tiers, the price of a degree for entering students rose sharply. At the same time, the income threshold for repayment of tuition costs after college dropped. This combination increased the risk for students that they may not be able to afford the costs of education, even if they borrowed the entire cost of tuition and fees to obtain the degree. Annual cost increases became steadier after the multi-tier system, but a study of the effect on low-income students demonstrated that the higher bands lost low-SES students after the increases took effect and that, although low-SES students initially increased after the change, they tapered off 2 years later (Azengles et al.,
2002). This could be explained by St. John's balanced access model, whereby students make plans for college based upon their perceptions of access (St. John, 2003).

Based upon the results of studying the 1995 and 1998 Longitudinal Studies of Australian Youth (LSAY) data sets, there is evidence that socioeconomic status is becoming more highly associated with higher education participation. The contribution made to this increase by the changes in costs brought about by HECS reforms in 1997 is unknown, as many factors could have affected this change, but certainly a cause for concern. These policy changes did not improve the condition of low-SES students and there is evidence that the lowest levels of SES quintiles are at greater risk for no access and, when they do access higher education, their likelihood of entering baccalaureate institutions is decreased. The attempts to offset these higher costs with low-interest and fixed-rate loans was not found to be an effective policy change, as the association with SES increased, rather than remained neutral.

Findings in the Netherlands

Costs for higher education in the Netherlands also increased in this decade in constant euros from about €800 to just over €1,000. While this increase is just over 25%, the total cost of an education is relatively low, compared with the other two countries in this study. Today, the annual cost of a university degree in the Netherlands is just over €1,400, compared to A$3,847 to A$8,018 in Australia and $5,491 to $21,235 (College Board, 2004a) in the United States. Although universities are allowed to charge market rate for some programs and some students, low-income students can clearly see the price
of tuition and fees at all national universities and professional schools. Further, there is a simple method for determining the eligibility for the supplementary grant, which pays these tuition charges in full. If the family income falls below a threshold level, the costs are paid in full. There is also a stated range for partial payment. These amounts offset the amount expected to be contributed by the parents, eliminating partially or in full the contribution of low-income parents.

Changes to the Dutch basic grant converted this from an outright grant to cover the costs of a baccalaureate degree for students to a performance grant. When students did not perform well in their first year or complete degrees in a timely fashion, the grants became interest-bearing loans. This increased risks for low-income students that the costs of a baccalaureate degree may not be affordable if the academic achievement was less than what they expected in the first year. As the length of eligibility for this also shortened, there was a shift that occurred after the change, where a growing number of students enrolled into the shorter professional degree programs and university degree enrollments remained flat.

Based on the national census and supplemental grant recipient data, there is evidence to suggest that the decrease in supplemental grant recipient late in the 1990s was due to a decrease in the number of low-income families in the country. Study of the limited data sets available from 1991 and 1997 suggests that there is evidence of SES as a factor in college aspirations and access, however slight and mainly limited to family situations where the mother’s education level is quite low. Otherwise, there was no evidence to suggest that the reforms of basic grants in 1996-1997 had any negative affect on student access and attainment in the Netherlands. It further suggests that this may be a
model (in part or in whole) for other countries and worthy of further study and
exploration.

Findings in the United States

Higher education costs rose in the United States in both public and private
baccalaureate institutions faster than the grants intended to offset some of these costs for
increased the availability of loans to all students in higher education. Annual
appropriations of funding by the U.S. Congress stagnated growth of the federal Pell and
Supplementary grants, the main grant funding sources for low-income students, while
expanding spending on both Direct and FFEL programs for student and parent loans,
regardless of family income.

While the 1992 reauthorization allowed for expansion, it was part of a longer
policy context that began with the 1978 Middle Income Student Assistance Act and
continued through the 1990s. During the decade, older students returned to college in
greater numbers, increasing higher education enrollments, nationally. Community
college enrollments swelled, creating a perception that access was increasing. However,
low-income students were heading into these community colleges, where their chances of
a baccalaureate degree were less than for those students who accessed baccalaureate
institutions. Perceptions among many students, parents and policy-makers that these
institutions provided an inexpensive starting ground for baccalaureate programs turned
out to be different than the reality, where Clark’s “cooling out function” (Clark, 1960) was found to be still in effect nearly 30 years later (Tinto, 2004).

The combination of federal, state, and institutional aid as sources for paying the costs of college, coupled with no standardized system for national prices for a baccalaureate education, makes it difficult for students and parents to determine the true cost of a baccalaureate education. The high cost – high discount model employed in tuition discounting models creates the impression of a high “sticker price” for education without direct knowledge of the amount of discount available through the three possible sources to offset those costs. Rather, students can only know this by being accepted to and receiving financial aid packages from each institution of interest (or perceived to be affordable in St. John’s model).

Based upon the study of the High School and Beyond 1980 and the National Educational Longitudinal Study of 1998 data sets, there is evidence that SES plays a greater role in student aspirations, access, and baccalaureate attainment after the 1992 reauthorization than before it. The expansion of loan programs at the expense of grants appears to have exacerbated the gap between baccalaureate access and attainment for the highest and lowest SES groups. The erosion of grant aid at the federal level has been occurring for a longer period that just this single authorization, as the annual appropriations at the federal level have failed to keep pace with the growing costs of American higher education. This combination of policy decisions has resulted in greater numbers of low-income/low-SES students entering higher education in proprietary or 2-year institutions. Their likelihood of baccalaureate attainment has decreased as a result of increasing institutional costs and loan-favored federal policy.
The Role and Impact of Transparency in Higher Education Costs

One lens that can be applied to costs in these three countries is transparency, the ability for students and parents to see the real costs of higher education. Based on cost alone, Australia is the most transparent, where the cost for a particular degree program is known up-front, as is the mechanism and options for paying that cost. Early instability in price increases has since stabilized, making the future costs for each year more predictable. The Netherlands would be very close to Australia in its transparency, given the national university price structure and the clear qualifications for the supplementary grant. It is also important to reinforce the low overall cost of Dutch universities. While costs have increased, these increases have been at a steady rate and therefore are predictable. The United States is the least transparent country for students and parents. The real cost is not known in advance of admission to universities and can change from year to year, given the amount of support available from institutional, state, and federal sources. Further, price changes have been erratic from one year to the next, nationally, and differ by individual institution or state public system. Given over 3,000 possible postsecondary institutions, it is almost impossible for students and parents to plan the cost of a baccalaureate degree. The risk for low-income students here is great, as they have smaller margins for cost increases during a degree program, especially if state or federal aid programs do not keep pace with these costs, as they failed to do in the past. Most institutions are strained to bridge the gap between increasing costs and stagnant or slow-
increasing government aid programs, leaving student loans to bridge the growing gulf (McPherson & Shapiro, 1998).

**Student Aspirations and Socioeconomic Status**

Where comparisons could be made, the trend between pre-policy and post-policy change was a strengthening in the relationship between student plans for postsecondary study and SES. In Australia, students were asked if they planned to study or work after they completed secondary school in both the 1995 and 1998 initial surveys of year-nine students. The relationship between parental SES variables (education level and occupational SES quartile) and these plans could be made for both groups. This revealed a stronger relationship in each variable in the test in 1998 than in 1995.

The longitudinal studies performed in the United States in 1980 and 1988 provided a consolidated SES variable that was used to test its relationship to student plans in each cohort. This relationship also strengthened in this interval, indicating that SES was more related to student plans for baccalaureate study or beyond in 1988 among students in eighth grade than in 1980 among high school sophomores. These younger students were even more strongly identifying their aspirations along these lines than their older high school counterparts in the next study.

College planning and SES was also present in the Netherlands. Here, it was only measured in the 1991 cohort of students making the transition between primary and secondary levels. There was no comparative data for students after the 1997 implementation of the performance grant. In the correlation test for parental SES
variables and student postsecondary plans, the only significant relationships between the variables of interest occurred for parental education level. Here, the magnitude of the relationships was low and it is notable that, among all three countries studied, this was the only country where there was no significant relationship between postsecondary study plans and family income.

**College Access and Socioeconomic Status**

In Australia and the United States, when comparisons between pre- and post-policy changes could be observed, the relationship between college access and SES strengthened in the period between longitudinal data studies. In Australia, the earlier 1995 study reflected a single significant variable (father’s education level) that was related to access. The 1998 study reflected all four parental SES variables (education level and occupational SES quartile) as being significantly related. The chi-square analyses performed revealed a skew toward the ends of the spectrum in many instances, where being a member of the lowest and especially the highest SES quartile or education level showed significant variance from the expected levels. Students in the most advantaged groups were enrolling at higher rates, and students in the lowest groups were enrolling at lower rates than expected. Limited data prevented an assessment of the relationship between SES and institutional type accessed.

In the United States, it was possible to evaluate SES against both absolute access (any postsecondary institution) and institutional choice. Again, the trend was toward a stronger relationship between access and SES between the 1980 and 1988 groups.
Similar skews between the highest and lowest groups were also seen, as they were in the Australian study. Further, there was evidence that the relationship between SES and institutional type accessed by students also strengthened. Students from the lowest SES group enrolled in proprietary training programs and two-year-or-less institutions in greater amounts than expected in both studies. The strongest change occurred for students in the highest SES group, where their representation in baccalaureate access was already disproportionate to all other quartiles and became even stronger in this period. Generally, access to a baccalaureate institution for low-SES students decreased and access for high-SES students became even more skewed into baccalaureate institutions.

Student access in the Netherlands has little relationship to income. There was some evidence that students whose mothers have little formal education are at greater risk to replicate that status in their own lives. In the 1991 study, there was a significant relationship between this low level and lack of access to higher education. In both this and the 1997 study, students from this group were more likely to access HBO professional institutions than WO universities. However, there was little difference in the magnitude of this relationship between the two periods. It was not possible to determine the relationship that this educational background has on college planning after the implementation of the performance grant in 1997, however, as the data collection was not performed on primary or secondary students in that later study. As only students who had already accessed higher education were studied, there may be other significant patterns within students who did not enter these baccalaureate institutions.
Student Baccalaureate Attainment and Socioeconomic Status

The lone country that measured baccalaureate receipt was the United States, where the final surveys 12 years after the original panel study was conducted was augmented by transcript analysis. Here, the latter 1988 panel had a stronger association between SES and baccalaureate degrees than the 1980 group. This would be a logical outcome of greater baccalaureate access from this group. It was notable that degree completion in this group was also significant by racial group. Although this did not appear as a significant factor in access, the completion of baccalaureate degrees was less associated with African American and Hispanic students; White and Asian students had greater association with completion. Racial/ethnic group may be one "within college" effect that has a bearing on degree attainment other than socioeconomic status (Pascarella & Terenzini, 1992).

In the two other countries, 1-year persistence in baccalaureate degree programs was measured to give some impression of the likelihood to receive the degree. In Australia, the change between the 1995 and 1998 groups was striking. In the first study, there was little significance between SES variables and persistence. By 1998, however, all four variables (mother’s and father’s education level and occupational SES) revealed significant relationships to this factor. Students from higher SES groups were more likely to be studying in the year following their initial access year and includes all higher education institutional types.
In the Netherlands, the most striking attribute of the students surveyed was the lack of significance between SES variables and student persistence in either study. From this, it appears that the system of student support in that country negates SES as a variable in student retention. This finding, along with the others noted above, leads to broader observations about the nature of SES and higher education funding.

General Conclusions – Transparency and Risk

Two lenses have been used in this chapter to discuss the status of low-income/low-SES students: transparency and risk. The ability of students and parents to see and understand the real costs of a college education informs the St. John (2003) balanced access model of student planning and self-concept. When students and parents form ideas of their ability to access a college education, these are based upon their perceptions of college costs. Hossler’s framework for college choice is also evident in this lens, where students must make cost/benefit decisions on college attendance (Hossler et al., 1999). For low-income students, especially, this is a risk analysis. Is it likely that they will be able to assemble the resources necessary to access a baccalaureate degree program and persist to attainment? Part of this equation depends upon the quality and accuracy of information they receive, and these low-income students in the United States are less likely to have good, accurate information on college costs and resources (Stone, 2005). The growing skew toward baccalaureate access and persistence/attainment for the top SES groups in the United States and Australia is likely the result of clear transparency and the reality of costs increases in Australia and a troublesome combination of opaque
and rapidly increasing costs in American higher education. While there are small isolated instances of SES as a factor in Dutch access, the transparency and low costs of higher education there appear to negate largely SES as a factor in access and baccalaureate attainment in the Netherlands.

Recommendations for Policy Change and Additional Research

As the development of human capital and increased economic returns to society as the basis for increasing the baccalaureate attainment of low-income/low-SES students, changes to national financial aid policy are suggested as a means to increase transparency in American higher education, as well as reduce or eliminate financial risk to the students demonstrating the greatest financial need. If this can be achieved, it may be possible to increase college preparation behavior and support for college attendance by parents and others, as suggested by St. John’s (2003) balanced access model.

Recommendation 1. Create pathways to a baccalaureate degree that guarantee a fixed rate of tuition through the years required for baccalaureate study. This requires a commitment by individual baccalaureate institutions to allow a fixed number of students to enter and persist toward the degree at the institution with a fixed financial aid support plan. This could utilize the federal and state support available to the student but would require that the "gap" be filled by institutional sources, even when tuition increases occur. This does not imply that a certain level of student loans could not be part of the package, or that students would be expected to occupy part-time employment positions to help defray some educational costs, such as books. However, the institution has the sole
ability to coordinate financial aid in the current regulatory environment and, therefore, the sole ability to control the actual cost of tuition for the student.

Experiments in this area have begun and the initial, early results of Harvard's program to relieve tuition for families under a certain income threshold resulted in an increase of low-income students at that institution (Avery et al., 2006). Other institutions have begun similar programs (Princeton, Yale), where they relieve tuition costs without the use of loans to students or parents. Other, less wealthy institutions have started programs for a limited number of students from low-income backgrounds to study without tuition costs but may or may not utilize a small federal student loan as part of the financial aid package (University of North Carolina, University of Virginia). These programs are too young to have results for publication and the long-term degree attainment results of these programs will not be available for several years.

Additional study of the Netherlands performance grant may yield policy parameters for providing grant assistance to low-income students. The lack of data available on degree completion for these students is an area for additional research. The initial plan for research in 1991 was a close attempt to assess aspirations, access, and completion but failed to track a single panel of students through this path. Given its apparent ability to somewhat negate SES factors in higher education, a broader, more comprehensive study such as those conducted in the United States or Australia (given some improvements to the LSAY) could provide valuable insights into policy in those countries.
Recommendation 2. Redirect federal funding from the support of non-need-based student and parent loans to support broader national grants for low-income students. This has been a rallying cry of researchers and even the Government Accounting Office (Cafan, 2001, 2002; Gladieux 1996; Government Accounting Office 1995; McPherson & Shapiro 1998; St. John & Paulsen, 2002; Stone, 2005; Terenzini et al., 2001) for over a decade. However, these cries have lacked a resource for funding the amounts needed to provide expanded grant programs, other than slashing another program (loans) in its place.

Today, private lenders have entered the financial aid arena, and these alternative loan programs are a major component of financial aid. They now feature competitive programs for students and parents and provide a viable, market-based alternative to federal unsubsidized and parent loans. Many of these loans include deferment options until graduation and interest rates that match or come close to federal loan rates. As these alternative loans are credit-based, there will continue to be a need for federal subsidized loans for students who demonstrate financial need or whose parents have insufficient credit to obtain loans, otherwise. However, ending the programs for students and parents who have no financial need could provide billions in grant aid to expand the size and number of federal grants for needy students.

Recommendation 3. For Australian students, provide a need-based tier of degree study within HECS for any academic program and guarantee that rate from point of entry through an expected period required for degree attainment. The HECS system utilizes lower tuition rates for national priority programs (such as nursing and education).
However, grant programs are locally based within institutions, making the real costs less transparent for low-SES students.

This lowered, guaranteed rate would resemble the rates used for low-SES students in the Netherlands, where students and parents understand that study at any national university would be set at the same rate. Further improvement could be made by mirroring the supplementary grant program, where students below a family income threshold would qualify to have some or all of their tuition costs removed. This occurs today for needy students but the mechanism is too opaque. Clarifying this and expanding it to any degree study at any national university could help negate SES factors in Australian higher education.

Recomendation 4. Improve the research on higher education aspirations, access and outcomes outside the United States. One of the greatest realizations of this study was an appreciation for the thorough and thoughtful nature of American longitudinal studies. In Australia, the LSAY suffers from at least two missing features. First, there is no tracking of baccalaureate attainment or higher degrees. Targeting access programs is only the first step in improving the social benefits for low-SES students. If they access universities but do not attain baccalaureate degrees, they lack the benefit of higher education while having incurred potential debt from study. While there may be other within-college factors affecting attainment, understanding the role that SES variables play in it can help to target programs and resources to affect more positive outcomes or validate that existing structures are adequate to achieve results. Today, that is unknown, as leaving college is intermingled with both drop-out and attainment cases. Secondly, there is no separation between institutional types. As one of the goals of Australian
national policy as stated in "A Fair Chance for All" (Appendix A) is to provide opportunities for university study to all qualified students, research must inform that policy by knowing the type of institutions accessed by students. In many cases within the data set, TAFE and university institutions were considered one response. Separation of these responses will increase understanding of university access.

In the Netherlands, and for any other country that has not yet begun longitudinal data gathering, these studies should be commenced as soon as possible. The best possible structure for these is to precede and then follow major shifts in national student financing policies. This would reveal any positive or negative impacts of the changes or major trends that emerge in those periods that could be addressed by changes to national policies. While initial study of the 1991 and 1997 cohorts reveals some potentially positive results, further study is required to confirm or contradict these results.

The growing number of students entering higher education over the next decade in the United States requires a serious evaluation of financial aid programs in light of their original purpose, their inherited usage and change over the last 40 years, and the needs of the next wave of undergraduate students. Many will be from lower income families and will be the children of immigrants who are not familiar with the complex American higher education landscape. We cannot assume that community colleges as an access point for students will result in baccalaureate attainment or that the federal and state governments can provide solutions to student access issues. It will rely on a partnership between individual institutions, public state systems, state legislatures, and Congress to create pathways for students that allow them realistic aspirations for baccalaureate attainment and consistent and predictable tuition costs. Otherwise, we
should anticipate that the advantages of baccalaureate access and attainment now enjoyed by the top SES groups will continue to grow and that the lower SES groups will fall further behind, requiring greater social service programs and contributing less to productivity and the tax base of an increasingly technological, international, and complex economy.


U.S. Census Bureau (2001). Table 14. Enrollment Status of Dependent Primary Family Members 18 to 24 Years Old, by Family Income, Level of Enrollment, Type of School, Attendance Status, Sex, Race, and Hispanic Origin. October 1999.


1http://www.goingtouni.gov.au/Main/CoursesAndProviders/GettingStarted/CostsAndEntranceRequirements/Cut-offs.htm

2http://www.minocw.nl/english/figures2003/082.html

3E-mail correspondence with Dr. Christine Halse dated August 2, 2005

4According to the description of the Committee and its related composition of members, http://www.ed.gov/about/bsdcomm/list/acsfs/edsite-index.html

5Taken from a live phone interview with Dr. Unikje deJong, Professor of Social and Behavioural Sciences, University of Amsterdam, on December 17, 2005.

6Computed from tables in the College Board Report “Trends in Student Aid 2004”

7The structure and count of higher education institutions in the Netherlands is taken from the Ministry of Education, Culture and Science’s web site, http://www.minocw.nl/english/education/higher.html

8Costes and Knaus, p. 36.

9Higher professional education in the Netherlands (HBO) are those programs that lead to professions, such as teaching and business. Students who start in these programs are eligible to progress toward a university degree program after the first successful year of studies at the HBO institution.

10The structure and count of higher education institutions in the Netherlands is taken from the Ministry of Education, Culture and Science’s web site, http://www.minocw.nl/english/education/higher.html

11The Dutch financial aid system information was assembled through an analysis of the IBG web site, http://www.ib-groep.nl/particulier/index.asp, translated into English, and correspondence with Tia Jonkman of the IHB via phone and e-mail correspondence.

Appendix A

A Fair Chance for All
A FAIR CHANGE FOR ALL

National and Institutional Planning for Equity in Higher Education

A DISCUSSION PAPER

Department of Employment, Education and Training
National Board of Employment, Education and Training

February 1990
FOREWORD

Social justice is a keystone of Labor policy. All Australians have the right to access the services and benefits our society offers and to contribute to our social, cultural and industrial endeavours. This Government is committed to the achievement of a fairer and more just society, and is working towards the removal of the barriers which prevent people from many groups in our society from participating fully in the life of our community.

Education and training are vital factors in providing opportunities for people from disadvantaged groups. In my policy statement on higher education released in July 1988, I stressed this Government’s commitment to achieving equity in higher education. I later asked the Higher Education Council of the National Board of Employment, Education and Training to consider this important issue, and to advise on guidelines for higher education institutions to take up in their planning.

I am pleased to issue this statement of the Government’s objectives, targets and strategies for achieving equity in higher education. It was prepared after advice from the Higher Education Council and consultation with higher education institutions and Commonwealth bodies representing disadvantaged groups. This document acknowledges the substantial commitment to equity which many institutions have made in previous years, and builds on that experience to develop a comprehensive national and institutional plan for achieving our overall objective.

I thank the Higher Education Council for its assistance with this task, and look forward to the implementation of this plan, in which higher education institutions and the Commonwealth will together play a major role in ensuring that there is indeed a fair chance for all.

J S Dawkins
Minister for Employment, Education and Training
February 1990
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A draft version of this paper was circulated for comment to higher education institutions and Commonwealth bodies representing disadvantaged groups. There was a pleasing response to the discussion paper, and a clear indication of an overall acceptance of the Government’s proposals for national and institutional planning to achieve equity in higher education.

A number of the detailed and constructive comments received reflected on the presentation of the document, and indicated where amendments or changes in emphases would be appropriate. These responses have been taken into account in the preparation of the paper for publication.

The main areas of concern raised by responding institutions related to perceived difficulties in the definition of disadvantaged groups and the identification of students within those groups; the resource implications for institutions introducing suggested strategies; the inadequacy of earmarked equity funding and the need to consider alternate mechanisms for its allocation; and data collection and monitoring requirements and their relationship to national targets and performance indicators.

The Government readily acknowledges that disadvantaged groups within society often cannot be clearly defined or differentiated, and that there will be areas of overlap on an individual basis. Indeed, for individuals, an emphasis on the categories of disadvantage or the affixing of ‘labels’ will not be helpful, and it is not the Government’s intention that this should occur. The Government does not accept that a lack of precision is sufficient reason to delay action to overcome the very real disadvantages apparent in our society, or to fail to develop measures to assess progress towards overcoming such disadvantage.

We recognise that further work is needed in the area of performance measures, and the related data collection and monitoring requirements on both an institution and system-wide basis.
The process will be ongoing, and will require a cooperative effort by both institutions and the Commonwealth. It is important that the emphasis in this process is on achieving the desired outcomes for people who would not otherwise have the opportunity to achieve their potential through participation in higher education.

The Government is aware that many institutions believe that the equity strategies outlined in this paper cannot be implemented without considerable cost, and take the view that the Government should allocate additional resources for this purpose. Our response is twofold. Institutions with a demonstrated commitment to equity have already shown that much progress towards achieving equity goals can be made without the need for the institution to commit substantial resources, but instead by working towards behavioural changes on the part of academic and administrative staff. This in turn can lead to the acceptance of equity measures as a priority at all levels of planning within the institution, so that the allocation of resources for equity purposes is not seen as an additional cost but rather an integral part of the educational profile of the institution.

Substantial additional resources are in fact earmarked by the Government for equity purposes, both through the Higher Education Equity Program and the Aboriginal Participation Initiative. The Equity Program funds are intended to provide incentives to institutions with a demonstrated commitment to equity, and to provide a source of funds for innovative projects or substantial mainstream initiatives which could be replicated in other institutions. Comments on the need for a more effective mechanism for the allocation of these funds have been noted, and it is intended to review the Program with a view to streamlining procedures and ensuring that the funds are allocated in the most efficient way, with due regard to both past achievements and present needs of institutions.
EXECUTIVE SUMMARY

In *Higher Education: A Policy Statement* (the White paper) issued in July 1988, the Government made a commitment to the development of a long-term strategy that would make equity objectives a central concern of higher education management planning and review. Following the release of the White Paper, the National Board of Employment, Education and Training, as part of a formal reference from the Minister on educational profiles, was asked to prepare a national overview of equity issues in higher education, and to advise on guidelines and responses which institutions might take up in their profiles.

In response to this reference, the Higher Education Council of the Board worked closely with the Department of Employment, Education and Training to prepare this document as a discussion paper on the development and implementation of a national plan for equity in higher education.

This discussion paper:

1. Defines the overall national equity objective for higher education.
2. Sets national equity objectives and targets for each of the groups identified as disadvantaged in gaining access to higher education.
3. Presents a range of strategies for each disadvantaged group to assist institutions in their planning.
4. Sets out the responsibilities of both the Commonwealth and institutions in achieving national equity objectives.
1. **The Overall Objective**

The overall objective for equity in higher education is to ensure that Australians from all groups in society have the opportunity to participate successfully in higher education. This will be achieved by changing the balance of the student population to reflect more closely the composition of society as a whole.

2. **The National Equity Objectives and Targets**

The national equity objectives and targets are summarised at the beginning of the sections for each of the identified disadvantaged groups (Sections 2.1 to 2.6). The major targets are:

- **People from Socio-Economically Disadvantaged Backgrounds**
  
  All institutions to develop special entry arrangements for socio-economically disadvantaged groups by 1992.

- **Aboriginal and Torres Strait Islander People**
  
  An increase of 50 per cent in Aboriginal enrolments in higher education by 1995.

  An improvement in the graduation rate of Aboriginal students to a level comparable to the total student population by 1995.

- **Women**
  
  An increase in the proportion of women in non-traditional courses other than engineering from their current levels to at least 40 per cent by 1995.

  An increase in the proportion of women in engineering courses from 7 per cent to 15 per cent by 1995.
An increase in the number of women in postgraduate study, particularly in research, relative to the proportion of female undergraduates in each field by 1990.

People from Non-English-Speaking Backgrounds

All institutions with a significant number of people from non-English-speaking backgrounds in their catchment area, to provide tertiary awareness programs and adequate support programs by 1992.

People with Disabilities

Double the present commencing enrolments of people with disabilities by 1995, including an improvement in professional and vocationally-orientated courses of 30 per cent by 1995.

People from Rural and Isolated Areas

All institutions in rural and regional areas to provide information programs on opportunities in higher education directed at rural schools and communities by 1992.

Institutions with designated Distance Education Centres to improve student support for isolated and rural students by 1992 to increase graduation rates.

3. Strategies for Disadvantaged Groups

Sections 2.1 to 2.6 discuss a range of strategies for institutions to take up in their planning. They include strategies aimed at prospective students, such as tertiary awareness and schools link programs; strategies for commencing and continuing students, such as special admission arrangements, bridging and support programs and units; and strategies to make teaching materials and processes more relevant to the needs of disadvantaged students.
Section 2.7 outlines strategies that are applicable to more than one disadvantaged group and a summary table of successful strategies is provided at Appendix C. Institutions are encouraged to be innovative and consider other strategies that may achieve the desired outcomes for their target groups.

4. The Responsibilities of the Commonwealth and Institutions

Commonwealth responsibilities (Section 1.3.2)

- Develop a national overview of equity problems, current initiatives and gaps in provision as a basis for developing institutional strategies.

- Continue funding and evaluating specific purpose programs (the Higher Education Equity Program and the Aboriginal Participation Initiative) in recognition of the high initial cost of equity programs and to deal with equity problems that are more effectively handled on a national basis.

  The Commonwealth will disseminate information on successful and innovative equity strategies regularly to all institutions.

- Monitor national progress towards achieving the overall objective of equity in higher education.

  This will involve developing system-wide performance measures that both the Commonwealth and institutions can use to monitor progress towards achieving equity objectives.

  Future general funding allocations will have direct regard to the progress made by institutions towards achieving equity goals.
Institution responsibilities (Section 1.3.4 and Section 3)

- Develop equity plans, based on institutions' statements of intent, which take account of objectives, targets and strategies as outlined in the national plan and which also reflect the particular circumstances of each institution -- the environment in which it operates and the composition of both its student population and its wider catchment area. These equity plans should be:
  - endorsed by the institution's chief executive officer
  - circulated to staff and students
  - referred to in the institution's promotional material

- Integrate equity objectives into the financial plans of institutions. Each institution's equity plan should describe how operating grant resources will be used to promote equity and should not express equity objectives as dependent on receiving supplementary funding.

- Examine the composition of their student population in relation to the make-up of their wider community and concentrate efforts on particular disadvantaged groups that are not well represented in their student population.

- Develop ways to monitor the success of specific initiatives for disadvantaged students as an integral part of the equity plan.

- Prepare annual reports on progress towards achieving equity objectives.

A Fair Chance for All sets out for the first time a coherent set of national objectives, targets and strategies for ensuring that the benefits of higher education are within everyone's reach. It sets out the responsibilities of both the Commonwealth and higher education institutions and gives a framework for measuring and reporting progress, with the aim of keeping the achievement of equity objectives at the forefront of institutional activity.
1.1 The Context

Achieving social justice in Australia is a fundamental goal of the Federal Government. Through its social justice strategy, the Government is committed to improving equality of opportunity, enhancing the rights of people -- especially the underprivileged -- and making sure that the benefits of economic growth are distributed equitably. A fairer society is both a primary objective of social policy and an indispensable element in achieving economic policy objectives.

The Government's commitment to taking the broad action needed to achieve social justice is reaffirmed in the 1988 statement, *Towards a Fairer Australia: Social Justice Under Labor.* The statement sets out the Government's measures to overcome the difficulties that disadvantaged groups have in gaining equal access to the range of services and opportunities that can enhance their lives.

Education and training are key elements in gaining that access. Equal opportunities for all people to maximise their level of education and training and ensuring more equal education outcomes across all groups in Australian society is a fundamental principle of social justice. Since 1983 the Government has allocated considerable resources to achieving equity of access, participation and success in education and training for all Australians.

In the context of the social justice statement -- with its emphasis on equity, access, equality and participation -- the Government announced its commitment to improving access to and success in higher education in *Higher Education: a Policy Statement* (The White Paper), issued in July 1988. The White Paper spelt out the inequities caused by significant barriers to the full participation of disadvantaged groups in higher education. The White Paper identified those groups as people with disabilities, Aboriginal and Torres Strait Islander people, women, people from non-English-speaking backgrounds, people from low-income families and people from rural and isolated areas, plus young people in all these categories.
The White Paper also pointed out that Australia is moving to strengthen its economic base, with a consequent shift in the traditional profile of our economic activity, so the nation needs a well educated, skilled and flexible workforce to adjust to these changes. People from disadvantaged groups form a large and diverse pool of under-used resources. They should be encouraged into higher education and contribute their skills to developing a more highly skilled and efficient workforce.

The push to restructuring industrial award restructuring highlights the increasing emphasis on skills development over workers' full working lives and making better use of those skills. This, in turn, has major implications for how both TAFE and higher education operate and shows up the need to develop a more flexible education system that can provide multiple entry and re-entry points in both sectors.

In A Fair Go: the Federal Government's Strategy for Rural Education and Training released in April 1999, the Government examined the particular problems of rural people in gaining access to education and training. As a result, the Government is committed to giving rural Australians the opportunities needed to gain the skills that will give them a full and productive life and to contribute to the improved efficiency and effectiveness of rural industries. More higher education opportunities in non-metropolitan Australia is a vital element in the Government's rural strategy.

1.2 The Commonwealth Equity Strategy

The Government believes that achieving a more equitable higher education system needs a joint commitment and a joint effort by the Commonwealth and individual higher education institutions. For its part, the Government is committed to:

- providing the basis for a national strategy
- continuing funding targeted programs
- creating an environment in which institutions can carry out their responsibilities
As part of its long-term higher education strategy, the Government has asked each institution to develop an educational profile as the basis for planning and funding agreements between the Commonwealth and institutions. An integral part of these educational profiles is for institutions to spell out their equity goals, strategies, priorities and performance measures.

Underpinning the Government's equity strategy is the understanding that higher education institutions are publicly funded, so they have a clear responsibility to provide opportunities for all sections of the Australian community. But the Government believes that the objective of achieving a more equitable proportion of disadvantaged people in higher education is consistent with the maintenance of standards. It is the responsibility of all institutions to ensure that equity measures are targeted at people with the potential to succeed in higher education and to provide the learning environment that enables them to graduate. The Government is promoting equity objectives as an integral part of institutional planning, monitoring and review.

1.3 The National Plan

The national plan for equity in higher education has five main components:

- the overall objective
- the Commonwealth responsibility
- objectives, targets and strategies for each disadvantaged group
- institution plans reflecting institutional circumstances
- monitoring of performance

1.3.1 The Overall Objective

The overall objective for equity in higher education is to ensure that Australians from all groups in society have the opportunity to participate successfully in higher education. This will be achieved by changing the balance of the student population to reflect more closely the composition of society as a whole.
13.2 The Commonwealth Responsibility

The Commonwealth takes responsibility for coordinating national action to promote equity in higher education. This responsibility covers:

- Developing a national overview of equity problems, current initiatives and gaps in provision as the basis for institutional strategies.
- Creating an environment in which institutions can set institutional goals, and monitor progress towards achieving them.
- Administering and evaluating specific purpose programs that provide extra funds (because of the high initial costs of equity programs) and dealing with equity problems that are more effectively handled on a national basis.
- Monitoring national progress towards achieving the overall objective of equity in higher education.

The Government has devised a range of strategies which will work to change the balance of the student population as a whole. A key element is significantly increasing the number of places in higher education. In the 1989-91 triennium the Government will fund an extra 45,000 student places in higher education. This expansion will help give a broader range of Australians access to higher education.

But the Government acknowledges that this expansion must be complemented by specific action to achieve an equitable higher education system. In 1989-91 the Government is providing extra funding for programs targeted specifically at helping institutions to improve the participation of disadvantaged groups in higher education.

- The Higher Education Equity Program gives support for projects to increase access to and successful participation in higher education. This program also helps institutions with more child care places for low-income students.
- The Aboriginal Participation Initiative gives funds to institutions for extra places for Aboriginal students.
The Government also aims at developing more effective credit transfer arrangements between higher education institutions and between the higher education and TAFE sectors that will promote national equity objectives. Membership of the unified national system of higher education requires a commitment from institutions to the principle of credit transfer. In response to the Government policy outlined in the White Paper, the Department of Employment, Education and Training and the National Board of Employment, Education and Training have funded a study on credit transfer arrangements in tertiary education. A discussion paper was circulated in August 1989.

1.3.3 Objectives, Targets and Strategies for each Disadvantaged Group

After discussions with institutions and the wider community, these groups have been identified as being significantly under-represented in higher education:

- People from socio-economically disadvantaged backgrounds
- Aboriginal and Torres Strait Islander people
- Women, particularly in non-traditional courses and postgraduate study
- People with disabilities
- People from non-English-speaking backgrounds
- People from rural and isolated areas

Sections 2.1 to 2.6 set out the national objectives, targets and strategies to achieve equity for each disadvantaged group. This is not meant to imply that these groups are mutually exclusive. Many people suffer multiple disadvantage and would benefit from a range of assistance or special programs that cover a combination of several types of disadvantage. Some strategies are applicable to more than one disadvantaged group. (See Section 2.7.)
The strategies put forward here for each disadvantaged group are the result of wide-ranging consultation. They are not exclusive and institutions are not limited to them. Institutions should adapt them to their own circumstances or develop alternative strategies. To help institutions develop and revise their equity plans, the Government will disseminate information on successful and innovative strategies regularly.

Institutions may also wish to consult with other institutions and community and advocacy groups representing the identified disadvantaged groups as to appropriate strategies which could be implemented to overcome the obstacles facing prospective students.

1.3.4 Institution Plans

The national plan is the basis for institutions to develop an equity plan that builds on the Statement of Intent provided to the Government in 1988 as part of each institution’s education profile.

In developing the Statements of Intent on equity, institutions were asked give attention to the national priority groups, to the nature of disadvantage within their own student population and catchment area and to their own areas of excellence in achieving equity. This approach allows national needs to be reflected, yet still lets institutions address their particular concerns.

The Government expects that institutions will develop their Statements of Intent into specific equity plans, endorsed by the institution’s chief executive officer and included as part of the profile information provided to the Government. These plans will be the focus for each institution to detail its objectives, targets, strategies and monitoring processes in line with the national plan. Individual institutions are not required to address all areas of national priority for equity, and the Government will issue a document that gives a national overview, by disadvantaged group, of the institutions where particular provision is made for access to and participation in higher education.
As amalgamations of institutions take place, institutions will need to review their equity plans to make sure that available resources are used efficiently and that provision for access to and participation in higher education is maintained and improved for students from disadvantaged backgrounds. Section 3 covers the development of individual institutional plans.

1.3.5 Monitoring of Performance

The Government intends to develop evaluative mechanisms, agreed to by institutions, which will enable both the Commonwealth and institutions to measure progress towards national objectives and targets. These mechanisms will form the basis of system-wide performance measures that both the Government and institutions can use to monitor improvements in participation in higher education by disadvantaged groups. Section 4 covers performance monitoring in more detail.

1.3.6 Conclusion

A Fair Chance for All sets out for the first time a coherent set of national objectives, targets and strategies for ensuring that the benefits of higher education are within everyone’s reach. It sets out the responsibilities of both the Commonwealth and higher education institutions and gives a framework for measuring and reporting progress, with the aim of keeping the achievement of equity objectives at the forefront of institutional activity. General funding allocations will have direct regard to the progress made by institutions towards achieving agreed equity goals.
The Government is aware that implementing the national plan relies significantly on institutional commitment. A Fair Chance for All sets out national equity objectives for institutions to take up in their planning and against which progress can be measured, but it is not intended to limit institutions in the process of achieving greater equity of access. Rather, the Government sees the process as a dynamic one, involving a continuing review by both Government and institutions of performance on equity, based on each institution's profile and the national equity goals detailed here.
2 OBJECTIVES, TARGETS AND STRATEGIES
FOR SPECIFIC GROUPS

2.1 People from Socio-Economically Disadvantaged Backgrounds

The Objective: To improve the participation in higher education of people from socio-economically disadvantaged backgrounds so that the mix of commencing students more closely resembles the mix of the general population.

The Target: All institutions to develop special entry arrangements for people from socio-economically disadvantaged backgrounds by 1992.

Strategies to Achieve the Objective and the Target

- Further development of special entry arrangements.
- Bridging and supplementary support programs.
- School and community higher education awareness programs in disadvantaged areas.
- Subsidised child care.
- Improving links with TAFE.
- Developing information directed at long-term unemployed people.

2.1.1 The Background

The Government does not collect data on the socio-economic background of students, but Australian studies on participation in higher education suggest that the participation rate of people from socio-economically disadvantaged backgrounds is still low.4, 5, 6 These studies suggest that participation in higher education is strongly linked to socio-economic status and that large sections of the Australian population do not have access to the social and economic benefits of higher education. This also means that their potential to contribute to the community's social and economic progress is not being fully taken up.
The studies indicate that:

- People with parents in professional and managerial occupations were in higher education at more than double their proportion of the general population. Those with parents in sales, skilled, semi-skilled or unskilled and rural occupations were participating at just over half their proportion.
- Disproportionately fewer people from poorer or lower status backgrounds complete 12 years of schooling, further contributing to their poor participation in higher education.
- There has been little change in the overall socio-economic profile of students starting higher education over the 1970-1985 period. In some fields of study, there has been a very high and increasing level of socio-economic imbalance over this period.

Measures that institutions can use to identify and target socio-economically disadvantaged groups and to monitor their participation include:

- Focusing action on disadvantaged schools and schools with low transition rates to higher education, especially outer metropolitan and rural schools.
- Working with local Commonwealth Employment Service networks and welfare organisations.
- Linking special entry arrangements to socio-economic disadvantage.
- Promoting higher education equity initiatives to community groups.
- Improving links with TAFE.
- Giving opportunities to students to present a case for admission based on disadvantage.

Once institutions have identified these groups, processes need to be developed so that access, participation and success in higher education can be monitored.
Further development of special entry arrangements. Studies on higher education participation show that a major barrier faced by people with social and economic disadvantages is that they don't complete 12 years of schooling.\textsuperscript{4,5}

Government policy has significantly increased secondary school retention rates. Higher educator institutions can take a number of steps to improve access for socio-economically disadvantaged people who are now staying on to Year 12 in greater numbers.

One successful strategy has been setting up special entry arrangements for disadvantaged students. These arrangements are usually aimed at people over 21 who can produce evidence of their potential to succeed in higher education. Institutions that have monitored the progress of socio-economically disadvantaged students admitted through special entry have generally found that the performance of those students is as good as, and often better than, the average performance of the students admitted through normal admission arrangements.

Institutions could consider extending special entry arrangements to younger people who have completed Year 12 but have chosen inappropriate subjects or have been unable to take relevant subjects due to disadvantaged schooling. Lack of subject background can be overcome through bridging courses or supplementary programs.

Not everyone who applies for special admission will have the motivation and ability to cope with higher education, so institutions need to develop ways to assess the academic potential and motivation of disadvantaged students, such as testing skills, interviews and references from school teachers or employers. Students can then be assessed on their need for bridging or other support.

The Government has set 1992 as the national target for the establishment of alternative entry arrangements for disadvantaged students is all institutions, so institutions should examine existing arrangements to ensure that unnecessary barriers to admission are removed for those people with the potential to undertake higher education.
Bridging and supplementary support programs. Bridging and support programs are closely linked to alternative entry arrangements.

Some students may need only supplementary support provided concurrently with their courses to upgrade or refresh their skills and knowledge. Other students will need specially developed bridging programs to give them the necessary background and skills to cope with higher education. These bridging courses should not duplicate secondary or TAFE courses directed towards the Year 12 certificates or equivalents. They should be directed towards students who need specific knowledge and skills for higher education.

If these bridging programs are to have a significant impact on participation by disadvantaged groups and make effective use of the resources available, their successful completion needs to be linked to entry to the institution's courses.

Students who enter higher education through bridging course arrangements may also need supplementary support, particularly in their first year.

Supplementary support could include:

- extra tutorial assistance
- self-paced learning programs
- course counselling
- development of study skills (e.g., examination technique and essay writing)
- mentor schemes
- peer group support

School and community higher education awareness programs in disadvantaged areas. Higher education awareness programs in areas where there are consistently low levels of higher education participation is another way to increase participation by socio-economically disadvantaged people. Institutions should examine their particular catchment areas to determine areas of low participation. Action can then be aimed at schools and the community in these areas. Awareness strategies that institutions could consider include:
Developing promotional and information material for schools, TAFE colleges, community groups and government agencies.
Visits to schools, TAFE colleges and community groups.
Information sessions for parents and students.
Taking part in careers events.
Promoting higher education through local media.
Programs to familiarise students with the higher education environment.

**Subsidised child care.** Institutions need to look at expanding child care facilities for socio-economically disadvantaged parents. The Government has provided extra funding (through the Higher Education Equity Program) over the current triennium to help institutions to do this.

**Improving links with TAFE.** Many school leavers from socio-economically disadvantaged backgrounds do not consider going on to higher education. Those who consider further education are more likely to enrol in TAFE courses. One way of helping those students to upgrade their qualifications or to re-train in a related area is establishing transfer arrangements so that students can move from TAFE to higher education.

The Government also encourages higher education institutions to work with local TAFE colleges to develop bridging courses that can be provided through TAFE and linked to entry to higher education courses.

Higher education institutions should also cooperate with TAFE to run local support programs for disadvantaged students who are doing external higher education courses. These support programs are particularly important in providing the motivation and assistance needed for successful learning through distance education.
Developing information directed at long-term unemployed people. Long-term unemployed people are one of the most socio-economically disadvantaged groups in the community. Only a small proportion of long-term unemployed people have completed the highest level of secondary school available to them, so higher education may not be a feasible option for many of them.

But higher education may be an effective way to improve the employment prospects for some long-term unemployed people. Higher education institutions have a responsibility to make long-term unemployed people aware of opportunities to gain qualifications or upgrade skills, barriers (or perceived barriers) they may face in trying to take up higher education and special entry arrangements and supplementary support that may be available. Local CES offices can help higher education institutions to disseminate this information.
2.2 Aboriginal and Torres Strait Islander People

Note: In this paper, the term 'Aboriginal' should be taken to include Torres Strait Islanders.

The Objectives: To increase the participation of Aboriginal people in higher education with the emphasis on:

- bachelor and higher degrees
- certain disciplines, including law, business and administration, medicine and health studies

To increase the completion rates of Aboriginal students in higher education.

The Targets: An increase of 50 per cent in Aboriginal enrolments in higher education by 1995.

An increase in the proportion of bachelor degree enrolments to 50 per cent of all Aboriginal enrolments by 1992 and to 60 per cent by 1995. (As opposed to the high percentage currently in higher education diploma and non-award courses.)

Improvement in the graduation rates of Aboriginal students to that of the total student population by 1995.

Improvement in the number of Aboriginal students across all courses by 1995; in particular law, business and administration, medicine and health.
Strategies to Achieve the Objectives and the Targets

- Establishing negotiation mechanisms between Aboriginal people and higher education institutions.
- Developing special entry arrangements.
- Bridging courses linked specifically to entry to award courses.
- Promoting off-campus study and alternate study modes.
- Aboriginal support units in higher education institutions.
- Supplementary study units concurrent with award courses.
- Reviewing higher education curriculum.

2.2.1 The Background

The higher education sector is an increasingly important contributor to the development of the Aboriginal community in Australia. To achieve self-determination and self-management, Aboriginal and Torres Strait Islander people need greater opportunities for professional training in education, health, law and social welfare and in employment areas related to community economic development. To meet these needs, a significant increase in Aboriginal graduates is needed in the full range of professional and vocationally-oriented courses.

The Government established the Aboriginal Education Policy Task Force in 1988 to develop a comprehensive long-term approach to Aboriginal education policy across all education sectors. The Task Force found that Aboriginal people are the most educationally disadvantaged group in Australia.

- The Aboriginal higher education participation rate of 2 per cent is about half that of all Australians.
- Only 4 per cent of Aboriginal people aged 20 to 24 are in higher education or formal training, compared with 20 per cent of all Australians in this age group.
- Only 10 per cent of the Aboriginal population aged 15 and over has post-secondary qualifications, compared with 31 per cent of the total population.
The Government's measures aimed at increasing higher education opportunities for Aboriginal people include:

- Earmarked places since 1985 in higher education under the Aboriginal Participation Initiative.
- Post-school training and education courses, particularly bridging and access courses.
- The Higher Education Equity Program targeted at increasing access and participation for Aborigines.
- Training allowances for Aboriginal students under ABSTUDY.

The results are encouraging, but the pattern of participation of Aboriginal people in higher education is still quite different from that for all Australians. (See Table A10 in Appendix A.)

Extensive consultation between the Aboriginal Education Policy Task Force, State and Territory education authorities and Aboriginal organisations has led to the National Aboriginal Education Policy, announced in October 1988. The policy sets out a national strategy to take all possible steps to redress the educational inequality faced by Aboriginal people in all sectors of education.

For higher education, the policy has specific objectives and strategies to achieve equity, and the Government believes that higher education institutions have a vital role to play in achieving the objectives. Higher education institutions seeking Commonwealth assistance for Aboriginal students will have to develop an Aboriginal education strategy as part of their equity plans. From 1990 that Aboriginal education strategy will form the basis for negotiation with the Government for allocating places under the Aboriginal Participation Initiative and for extra funding under the Aboriginal Education Strategic Initiatives Program.
2.2.2 Discussion of the strategies

Establishing negotiation mechanisms between Aboriginal people and higher education institutions. The effectiveness of higher education institutions in Aboriginal education depends on Aboriginal people being significantly involved in educational decision making. This includes both student and community involvement and Aboriginal people in professional and consultative roles within the institution. Institutions should consider setting up mechanisms to ensure that there is appropriate consultation.

Developing special entry arrangements. Many Aboriginal people who could undertake higher education have problems in gaining access to higher education institutions because of difficulties in completing secondary schooling. Flexible entry arrangements that focus on alternative methods of assessing the potential of Aboriginal applicants to undertake higher education are needed. Special selection tests, bridging courses, interviews with potential students and recognition of TAFE and other formal studies are elements of possible alternative arrangements.

At present, Government-funded places for Aboriginal students are filled according to each institution’s entry arrangements. In many cases places are filled by students who meet the normal year 12 entry level. The Government believes that opportunities for Aboriginal students will increase if current Commonwealth funding for Aboriginal education is directed towards alternative entry arrangements.

From 1990 the Government intends that funding under the Aboriginal Education Strategy Initiatives Program will be linked, as much as possible, to API funding to help institutions provide bridging and supplementary programs.
Bridging courses linked specifically to entry to award courses. Bridging courses are important in increasing access to award courses for Aboriginal students who do not possess the prerequisite skills. But too few Aboriginal students who complete bridging programs ever gain access to award courses. Greater emphasis on bridging courses that are specifically linked to entry to award courses is needed.

In developing and expanding bridging courses, institutions should look at opportunities to increase access to bachelor degree programs by Aboriginal students. Besides teacher education, institutions should look to meet the needs of Aboriginal communities by increasing the number of Aboriginal students in health, social welfare, legal services and in areas related to the economic future of communities, such as business, building design and construction and local government.

Government funding will continue for specific bridging programs aimed at increasing access and participation by Aboriginal people in higher education. But the Government also expects institutions to provide funding from general operating grants to support these activities, so freeing Commonwealth course funding for other Aboriginal higher education initiatives.

Promoting off-campus study and alternate study modes. About 40 per cent of Aboriginal people live in remote and rural areas, making very limited access to higher education.

Higher education institutions, particularly those designated as Distance Education Centres, need to develop strategies in cooperation with Aboriginal communities to provide greater access to higher education. Strategies will differ according to needs in particular regions but strategies that could be considered include:

- Programs aimed at providing information to Aboriginal people on opportunities in higher education and the help available for Aboriginal people.
Developing distance educational materials aimed at the needs of Aboriginal students.

Cooperation with TAFE institutions to provide bridging or supplementary programs for people in remote areas. This could involve working with students in their home communities, perhaps through supplementary tutors.

Developing innovative course structures, such as the Remote Area Teacher Education Program at Batchelor College in the Northern Territory, the health course at Cumberland College of Health Sciences in New South Wales and community management at Curtin University of Technology in Western Australia.

Aboriginal support units in higher education institutions. Aboriginal support units have contributed significantly to successful participation in higher education by Aboriginal students. As well as promoting course awareness, these units provide essential academic and personal support for academic and peer group activities. Aboriginal people in urban areas attending higher education institutions can also experience social isolation on campus. Support units can help to overcome this isolation, develop familiarisation with the higher education environment and develop important skills, such as time management.

The National Aboriginal Education Policy will support the establishment of such units, with their size and role dependent on the numbers of Aboriginal students served and the nature of the support needed. Institutions could consider cooperative arrangements with other higher education and TAFE institutions.

Supplementary study units concurrent with award courses. Institutions should provide supplementary programs designed to help Aboriginal students with study, literacy and numeracy skills and prerequisite course knowledge. These programs should be undertaken in conjunction with award courses. Institutions will need to structure courses appropriately and provide flexible course progress rules to allow students to undertake supplementary units.
Reviewing higher education curriculum. There should be consultation with the Aboriginal community and Aboriginal students so that curriculum and teaching methods are reviewed or developed to reflect sensitivity to the needs and circumstances of particular communities. This review and development should cover several stages:

- reviewing curriculum for racist content;
- reviewing areas in which Aboriginal culture could be incorporated as an integral part of the curriculum;
- developing Aboriginal perspectives across curricula; and
- developing specific Aboriginal studies units as elective or core units.
2.3 Women

The Objectives: To improve the balance of participation of women in higher education with particular emphasis on:

- non-traditional courses, including engineering, business studies, economics and science
- research and higher degrees

The Targets: To increase the proportion of women in non-traditional courses other than engineering from the current level to at least 40 per cent by 1995.
To increase the proportion of women in engineering courses from 7 per cent to 15 per cent by 1995.
To increase the numbers of women in postgraduate study, particularly in research, relative to the proportion of female undergraduates in each field by 1995.

Strategies to Achieve the Objectives and the Targets:

- Promoting non-traditional courses and careers for women and girls.
- Bridging courses, especially in mathematics and science.
- Supplementary support concurrent with award course enrolment.
- Curriculum review and development, and teaching processes that focus on non-traditional courses.
- Provision of adequate child care.
- Special initiatives to encourage women to undertake postgraduate courses, particularly research.
- Flexible course arrangements.
2.3.1 The Background

The Government's National Agenda for Women issued in 1988 sets out the national priorities for women for the rest of this century. Education is seen as a key factor in achieving the full and equal participation of women in all aspects of social, cultural and economic life. The priorities set out in the National Agenda are the basis of Commonwealth education policies on women and will continue to be reflected in future Government policy.

Over the last decade women's participation in higher education has increased significantly. In 1989, 51 per cent of all higher education students are women, compared with 45 per cent in 1979. (But it should also be noted that the increase in women's participation is partly due to the transfer of basic nurse education from hospitals to higher education institutions.)

In the 1979-1988 period the proportion of women students in some fields of study has increased markedly. But women's participation in higher education remains markedly skewed towards arts/humanities, health and education. Women are still significantly under-represented in many courses. In 1988 only 7.8 per cent of engineering and surveying students were women. Architecture, agriculture, science, business administration and economics are other prime examples of under-representation. (See Table A7 in Appendix A.)

In higher degrees women made up only 34 per cent of all students and were under-represented even in those fields where they make up more than 50 per cent of undergraduate students.

A range of factors adversely affect women's participation in higher education. They include lack of adequate child care, lack of science and mathematics background and lack of information on employment opportunities.
Women are under-represented in most of the Government's key priority areas for economic development. In terms of national goals, women represent a pool of untapped potential. In addition, although women are equally represented in the current student population, their under-representation in the past has meant that there are still many older women in the community who have not had the opportunity to undertake in higher education.

A more equal balance between the sexes in higher education courses will also help to redress inequality in employment for women. Women's participation in the workforce will be directed away from areas of shrinking employment and into areas of skill shortage. This will help to break down the present sex-segregation of the labour force and enable women to achieve the social and economic benefits of equality of employment opportunity.

2.3.2 Discussion of the strategies

Promoting non-traditional courses and careers for women and girls. Increased female participation in non-traditional courses (courses where women have generally been significantly under-represented) can be encouraged through raising awareness of the whole range of opportunities available in higher education.

Girls at school need to be made aware of the wide range of courses and careers available to them. They need information on employment opportunities, current structural changes to the labour market and likely developments, and the range of education and training opportunities. This should provide encouragement to increase their options by taking mathematics and science in Years 11 and 12. Higher education institutions should cooperate with TAFE and schools to provide this information.
Successful strategies being used by higher education institutions include:

- Visits to girls in secondary schools, and to teachers and parents, to talk about education and career opportunities for girls.
- Tertiary orientation and experience programs for schoolgirls, teachers and parents.
- Developing appealing material on courses and careers. One successful approach is showing successful women in various non-traditional occupations.
- Taking part in local careers events.
- Using the media to publicise courses.
- Work experience programs for girls in science and technology professions.

Encouraging women to return to study. There are many mature women who have the potential to succeed in higher education but don’t appreciate the opportunities available. Institutions can tap this pool of potential students through information material on courses available, entry requirements and bridging programs distributed to women via local employers, professional associations, community groups and government agencies such as the CES. Institutions could also use local media to promote non-traditional courses and careers for women. Staff development programs could also be offered to assist academic and administrative female staff to develop and improve their career paths.

Bridging course, especially in mathematics and science. Institutions should consider setting up bridging programs for women to help increase their representation in non-traditional disciplines, aiming them at women who have the potential and motivation to succeed in non-traditional areas but may lack the confidence or background in prerequisite subjects such as mathematics and science. Institutions could provide:

- Full-time or part-time catch-up programs in mathematics and science.
- Orientation to higher education study including study skills, efficient time management, confidence building and career counselling.
Supplementary support concurrent with award course enrolment.

Supplementary support for women entering non-traditional courses is closely linked to bridging arrangements. If they are to complete their course, they may need some academic and personal support, particularly in the first year. Those entering traditional courses may simply need to update or refresh their knowledge and skills. This can also be achieved through supplementary support concurrent with enrolment.

Supplementary support might include:

- Counselling on study skills and orientation and on the special needs of women, including career guidance.
- Academic support through extra study units or tutorial assistance.
- Promoting contacts between female students, particularly in male-dominated disciplines.
- Mentor schemes, where new students are assigned to experienced women students for guidance and social support.
- Women's networking groups involving students, staff and professional women.

Curriculum review and development and teaching processes that focus on non-traditional courses. If women are to study successfully, courses need to include the experience and contributions of women. Research indicates that one of the reasons for lack of participation in non-traditional courses is sex-exclusive course content. Research suggests that many creative and gifted women who drop out or transfer to other courses can be retained in science and technology-related courses if the curriculum includes greater emphasis on social problems, the effects of social and technological change and the inter-relationship of the discipline and community needs.

Institutions should examine their curricula and teaching processes to ensure that they are not contributing to women's lack of participation in non-traditional disciplines by failing to take into account wider community perspectives. This examination could involve:
Eliminating sexist language and assumptions.
Developing resource materials that include reference to women's concerns and developing material based on non-sexist cases.
Developing fix staff non-sexist language and ways of counter-acting sexist language and assumptions in texts.
Developing teaching approaches that take account of women's learning styles, such as preference for an emphasis on process and discussion.
Developing, where possible, course structures that allow students to transfer at the end of first year from a general science year to more specialised courses, such as engineering, without adding to course length.
Staff development programs to promote awareness of the academic needs of disadvantaged women students.

Provision of adequate child care. A major priority for women is adequate child care. In Setting the Agenda, a report on the consultations with women on the National Agenda, the lack of adequate child care was highlighted as a major barrier to women's participation in education and training.¹⁰

Institutions should examine ways to increase the number of child care places. This strategy could be particularly valuable in encouraging women to undertake higher degrees.

Special initiatives to encourage women to undertake postgraduate courses, particularly research. Women are noticeably under-represented in higher degrees. Many factors have been suggested to explain the failure of eligible women to proceed from successful undergraduate study to postgraduate study. They include lack of confidence, lack of appropriate role models, conflict between academic stereotypes and women's life cycle, inadequate financial assistance, lack of encouragement and false perception of employment prospects.
This has implications not only for women’s employment opportunities in higher education but also impinges on women’s participation in undergraduate courses because of the lack of role models and mentors. The lack of female academics above the Lecturer Grade 1 level and the small number of women in tenured positions reinforces the low participation of women in various courses and contributes to sex segmentation in academic employment and in industry.

Affirmative Action legislation lays down guidelines for equal employment opportunities in higher education institutions and the Affirmative Action Agency has released Guidelines for Affirmative Action in Amalgamating and Newly Consolidated Institutions of Higher Education. Institutions are urged to take these requirements into consideration when they develop strategies for women in postgraduate study.

To encourage women to undertake higher degree study, institutions should consider the following:

- Programs to encourage women to take up postgraduate study, aimed particularly at honours students.
- Bridging programs into postgraduate courses for women who need to upgrade their knowledge or skills.
- Part-time postgraduate awards.
- Negotiation with industry or employer organisations to provide scholarships for women, especially in the Government’s priority areas.
- Staff development programs to make teaching staff aware of women’s under-representation and ways of redressing it.
- Re-entry fellowships for women.
- Supervisory arrangements that provide for role models and mentors.
- Provision of adequate child care particularly after hours and vacation care.

A recent report on graduate studies and higher degrees by the Higher Education Council of the National Board of Employment, Education and Training examined the participation of women in postgraduate degree programs and made recommendations for institutions to consider.12
Flexible course arrangements. The social and family role expected of women often prevents their participation in higher education. Unnecessary barriers to women may be removed by more flexible course arrangements.

Women combining study with domestic responsibilities may find it easier to continue their studies if the timetabling of courses and examinations extends beyond 9 am-5 pm. (While noting that 5pm-7pm -- customary for many postgraduate diploma courses -- may conflict with the hours of greatest domestic demand for women with children.)

Other flexible arrangements include:

- greater availability of part-time study
- availability of external courses
- credit transfer arrangements between institutions, including TAFE
- course structures that allow transfer from a general first year to more specialised courses
2.4 People from Non-English-Speaking Backgrounds

The Objectives: To increase the participation of people from non-English-speaking background groups that are under-represented in higher education.

To improve the balance of participation of non-English-speaking background students by sex and discipline.

The Target: All institutions with significant proportions of non-English-speaking background groups in their catchment area to provide higher education awareness programs and adequate support programs by 1992.

Strategies to Achieve the Objectives and the Target

- Adequate support programs
- Awareness programs
- Curriculum review

2.4.1 The Background

The whole Australian community will benefit from a richer cultural, intellectual and industrial life if all Australians, regardless of ethnic origin, have equal opportunity to successfully undertake higher education.

The extent of people from non-English-speaking backgrounds (NESB) currently in higher education is difficult to assess accurately due to limited data. From 1989 data will be collected from all higher education institutions on each student's country of birth, year of arrival in Australia and language spoken at home.
This data should enable the identification of specific NESB groups who are educationally disadvantaged, and assist institutions to develop specific strategies.

Research indicates that students from different non-English-speaking backgrounds participate in higher education at different rates. Groups found to be well represented in higher education include those from Asian and Greek backgrounds. Some groups are extremely under-represented, notably those from Middle Eastern, Italian, Maltese and Yugoslav backgrounds. A range of factors contributes to different groups from non-English-speaking background being in higher education at different rates. These include:

- cultural factors
- sex ratios
- socio-economic status
- educational aspirations and performance
- differences between first and second generation immigrants
- local unemployment rates

A distinction needs to be drawn within individual ethnic groups between first and second generations. First generation immigrants have real disadvantages, but second generation students are still likely to need help to succeed in higher education.

Some NESB students are at high risk of not proceeding beyond the first year of study. Students from families where English is not the major language are more likely to fail because of a lower level of competence in English.

A particular disadvantage is faced by recently arrived immigrants who have overseas qualifications unrecognised by the Federal Government and who want to return to higher education to complete or upgrade their qualifications or to move into other courses.
(The Federal Government has recognised this problem by setting up the National Office of Overseas Skills Recognition, whose functions include developing national competency-based standards and skills assessment, and advice to migrants whose qualifications are not recognised in Australia on education and training needed to gain recognition.)

Measures to help people from non-English-speaking backgrounds to gain access to higher education have to be considered against the broader background of these Federal Government policies, which aim to allow migrants to take better advantage of employment and education opportunities in Australia.

2.4.2 Discussion of strategies

**Adequate support programs.** Where people from non-English-speaking backgrounds have the motivation to succeed in higher education, their prospects will be improved considerably by support to help overcome language difficulties and cultural differences, especially in the first year. Institutions first need to identify the ethnic groups in their student population and wider catchment area so that they can develop appropriate support programs. Support programs might include:

- **Tertiary Orientation Programs** could include pre-tertiary orientation courses that introduce prospective students to the tertiary environment and short preliminary courses to brush up skills in numeracy, literacy, communication and studying.

- **Access Programs** could include bridging courses involving study skills development, computer literacy, writing skills, numeracy skills and English language skills, designed to equip students with the prerequisites to enter particular higher education courses.

- **Supplementary Support Programs** could be offered to enrolled students who need extra assistance, such as language and study skills, to successfully complete higher education. For example:
- ESL programs across all courses
- extra tuition assistance in particular courses
- self-paced learning arrangements
- peer group support and mentor schemes

**Awareness programs.** Many people from non-English-speaking backgrounds, especially women, are unaware of the opportunities offered by higher education study. Possible strategies include:

- Information material and visits to schools (and parents of school students), TAFE colleges, community and welfare organisations and government agencies (such as the CES) about the opportunities available to non-English-speaking background groups. These awareness programs should include information about special entry arrangements and support measures.
- Visits to higher education institutions can provide a feel for the higher education environment and break down cultural barriers, especially if they involve parents and teachers.
- Local career events give an opportunity to provide material showing people from non-English-speaking backgrounds in a diverse range of professions, especially where more non-English-speaking background people are needed (e.g., professions requiring contact with different ethnic groups, such as health and welfare).

**Curriculum review.** Multicultural curriculum development and cross-cultural awareness are important factors in the development of a multicultural Australia, and should receive greater attention through education and training. Cross-cultural knowledge and skills are very relevant to education and training for client-oriented professions and para-professions. Areas of particular importance are teacher education, health and welfare courses.

As part of the National Agenda for a Multicultural Australia, the Government sees multicultural curriculum development and cross-cultural awareness action in higher education institutions as a national priority for funding under the Reserve Fund in 1990.
The Government is also committed to raising multicultural curriculum reform as an issue of national priority during profile discussions with higher education institutions and to pursuing the inclusion of multicultural perspectives in professional fields of study as part of future discipline assessments.\textsuperscript{16}

Institutions should review and revise curriculum and teaching methods to identify elements of both linguistic and cultural bias which disadvantage non-English-speaking background students. Strategies to achieve multicultural curriculum development and cross-cultural awareness include:

- Survey students to identify elements in courses that discourage or disadvantage non-English-speaking background students.
- Review curriculum and teaching methods that show elements of bias and include cross-cultural and community language elements where appropriate.
- Develop material to help academics in selected areas to bring about change in curriculum and increase relevance for non-English-speaking background people students who are under-represented in those areas.
2.5 People with Disabilities

The Objective: To increase the participation in higher education of people with disabilities.

The Targets: To double present commencing enrolments of people with disabilities by 1995, including an improvement in professional and vocationally-oriented courses of 30 per cent by 1995.

Strategies to Achieve the Objective and the Targets

- Special equipment and facilities
- Advisers/contact people to help students with disabilities
- Promoting distance education opportunities
- Modifying materials and curriculum
- Flexible timetabling and course requirements
- Information to students with disabilities about services available

2.5.1 The Background

The Government is committed to people with disabilities having access to all services, benefits and facilities available to the rest of the community. This includes opportunities for worthwhile employment, participation in community life and maximising independence and individual competence. So achieving equality of opportunity in higher education is an important Government objective for people with disabilities.

There is a lack of data on participation in higher education by people with disabilities, but the evidence available suggests that they are severely under-represented.
A 1985 survey found that while 7 per cent of the Australian population was physically disabled, the total proportion of students with disabilities at post-secondary institutions in 1981 was only 0.17 per cent. The major barriers to participation seen to be access to equipment and personal assistance, and to particular courses.

Many higher education institutions are responding to the problems faced by people with disabilities in a variety of ways. The Government encourages all institutions to take account of physical access barriers that involve modification of buildings and other facilities, and some States require standards under State laws.

Access problems for people with disabilities are not just physical access problems. People with disabilities tend to be treated as a homogeneous group; in fact their needs vary widely depending on the nature of the disability. Institutions should take account of the specific needs of individuals and the difficulties they may have in qualifying for entry; for example, lack of necessary prerequisites because of difficulties experienced at school, problems with particular courses because of the effects of disability and problems with meeting the requirements of academic rules, such as course completion deadlines.

The Government recognises that comprehensive programs for students with disabilities may need a substantial financial commitment and that not all institutions can provide such comprehensive programs. The medium term solution would seem to be the development of regional programs. Within this, individual institutions might concentrate on small numbers of students with similar support requirements.

2.5.2 Discussion of strategies

Special equipment and facilities. A major barrier to the participation of people with disabilities is the lack of appropriate equipment and facilities in higher education institutions, making it virtually impossible for people with certain disabilities to study.
Before providing expensive equipment and support themselves, educational institutions should investigate other sources of support; for example, it may be possible to borrow equipment from specialist organisations.

Institutions need to find out at the enrolment stage who their disabled students are and what disabilities they have, then give them opportunity to discuss their particular needs before course commencement. Student needs may range from expensive equipment to extra staff support. Institutions could concentrate their resources by specialising in courses for students with a particular kind of disability or related groups of disabilities. (For example, the Brisbane CAE specialises in courses for hearing-impaired students; Warmambool IAE has special courses for print-handicapped students.)

Advisers/contact people to help students with disabilities. Students with disabilities face a range of frustrations and difficulties not experienced by other students. These complications may involve transport, the need for personal care and support, help with photocopying, library assistance, appropriate accommodation and social support.

Advisers or contact people can help here. Such support people could also help students to deal with the institution's administration and teaching staff.

Promoting distance education opportunities. External study may be the solution to some problems that students with disabilities have, such as physical access and transport. Distance education gives people with mobility problems the opportunity to study at home at their own pace, and also access to texts and materials via mail or (possibly) electronic transmission. Distance education is also suited to students with hearing impairments because courses are conducted mainly by written or visual methods.

But distance education will not be the choice of all students with disabilities, particularly those who may wish to remedy the isolation from the community that has resulted from their disabilities.
Modifying materials and curriculum. Many materials and teaching processes in the higher education curriculum have been designed without people with disabilities in mind. Institutions should examine their courses to arrange the changes needed to increase their accessibility for students with disabilities, particularly in laboratory and practical work requirements.

Institutions could develop their own materials in consultation with groups representing people with disabilities, or obtain materials through specialist disability service organisations.

Flexible timetabling and course requirements. For people with disabilities, getting to and from lectures, tutorials and the library can be time-consuming and present logistical problems not encountered by non-disabled people. So it is important that timetabling arrangements be as flexible as possible and that people with disabilities be consulted before timetabling arrangements are made.

Institutions should also try to make sure that course requirements, such as completion within a certain time, do not present unnecessary barriers to people with disabilities.

Information to students with disabilities about services available. Many students with disabilities are unaware of the range of services available to them through State and Commonwealth programs. Institutions should ensure that staff can inform students about the services that may be available both within and outside the institution. These services may cover accommodation assistance, attendant care and advocacy. Where an institution is unable to provide a special advocate or attendant carer, a similar service may be available on an individual basis through other government programs.

The Federal Department of Community Services and Health can tell institutions about the services available, and it might be possible to make arrangements between the Department and the institution to provide support for students with disabilities.
2.6 People from Rural and Isolated Areas

The Objective: To increase participation in higher education by people in rural and isolated areas.

The Targets: All institutions in rural and regional areas to establish information programs on opportunities in higher education directed at rural schools and communities by 1992.

Institutions with designated Distance Education Centres to improve student support for isolated and rural students by 1992 to increase graduation rates.

Strategies to Achieve the Objective and the Targets:

- Tertiary awareness programs including promoting distance education opportunities
- Developing distance education opportunities
- Alternative entry arrangements
- Bridging and supplementary courses
- Credit transfer arrangements
- Assistance with accommodation

2.6.1 The Background

If rural areas are to prosper, their industries must be prosperous and efficient, so people from rural areas must have access to the opportunities offered by higher education.

It is also important that young people living in rural areas should be encouraged to consider the whole range of careers, not just those related to rural industries.
School leavers in rural areas transfer to higher education at consistently lower rates than their city counterparts. In the statement A Fair Go, the Government set out the problems of rural people in gaining access to education and training, compared with their metropolitan counterparts. The major factors are lower school retention rates, lack of proximity to tertiary institutions, limited curriculum choice and lack of information about the availability of higher education and its benefits. The Government urges higher education institutions to look at ways of raising the higher education participation rate of rural Australians.

2.2 Discussion of strategies

Tertiary awareness programs. Lack of information is a key factor in the low participation in higher education by rural Australians. Higher education institutions, particularly those in rural and regional areas, should examine ways to effectively disseminate information about higher education. This should especially cover the opportunities that come from higher education and the full range of courses provided as a means of ensuring that isolation does not cause potential students to fail to consider options that may open up future vocational, social or cultural opportunities.

Strategies that are being used include:

- Visits to country schools, including workshops for teachers and information sessions for students and parents.
- Promotional material to schools, TAFE colleges and government agencies such as local CES offices.
- Promoting higher education opportunities through local media.
- Residential orientation programs for country school students at higher education institutions.
- Promoting distance education courses.
Developing distance education opportunities. One difficulty faced by people in rural and isolated areas is access to higher education institutions. It often requires young people to move away from home, putting financial pressures on many families. There are also significant barriers to participation by mature-age people, particularly those with families.

As a result of the Government's commitment to improve higher education opportunities for rural Australians, eight Distance Education Centres (DECs) have been designated to enhance distance education by reducing unnecessary duplication, fostering cooperation between institutions and improving the overall quality and availability of external courses. The willingness to ensure the broadest possible access to geographically isolated areas was one of the criteria for DEC selection. This commitment to access on the part of the DECs should be reflected in their equity statements.

But it must be recognised that students doing external study often lack the internal support provided by institutions for on-campus students. Institutions should examine ways to provide support to students who are undertaking distance education. These can range from teaching first-year courses through TAFE colleges to employing a resource person to provide local academic support.

Some higher education institutions have been working with State and Territory governments so that TAFE facilities can be used to teach higher education courses. This can be a great help to people in rural areas where TAFE colleges are the sole providers of post-secondary education. The Commonwealth is encouraging higher education institutions to increase these links.

Alternative entry arrangements. Factors such as isolation, inadequate schooling and lack of access to study resources mean that country students are often disadvantaged in meeting entry requirements for higher education. Institutions, particularly those in rural and regional areas, should continue to examine their entry requirements and aim at more flexible arrangements for rural students. Alternative arrangements might involve:
Entry based on secondary school performance and references from teachers.
- Entry based on successful completion of a bridging course.
- Conditional entry based on satisfactory performance in first semester/year.
- Entry based on interviews, tests and written work assessed by the institution.

Bridging and supplementary courses. Rural students are often disadvantaged through limited subject choice and lack of access to study resources such as libraries.

As well, many people in country regions are required by their work or circumstances to be more mobile than people in metropolitan areas, so they are often adversely affected by varying standards of assessment and accreditation in schools and higher education institutions between States.

Institutions should ensure that appropriate bridging and supplementary courses are available to make up for any lack of knowledge and skills caused by inadequate schooling. Supplementary courses in mathematics, science and technology are particularly important where trained teachers and necessary equipment may not have been available.

Credit transfer arrangements. Institutions may need to give special attention to credit transfer arrangements that give recognition to work completed by isolated students whose choice of initial studies has been restricted by location or lack of availability of preferred studies in external courses.

Assistance with accommodation. Most rural students have reasonable daily access to a primary and secondary school and many have access to a TAFE college but few rural areas have a higher education institution within reasonable distance. So rural school leavers wanting to attend a higher education institution must often leave home, and finding suitable accommodation in a regional town or city can be both difficult and costly. It also means that these young people may be suddenly left without social support.
Halls of residence, group houses and apartment complexes run by higher education institutions can be less expensive and more supportive accommodation. Higher education institutions should, wherever possible, consider giving priority to students from isolated and rural areas in institution-controlled accommodation. This may be particularly important for commencing students who, as well as orienting themselves to a new educational environment, may be leaving home for the first time.

2.7 Broad Strategies

The previous sections set out strategies specifically applicable to each disadvantaged group. But some of these strategies apply more generally to all disadvantaged groups and could be used as broad measures to increase equity for all disadvantaged groups. The general strategies include:

- Arrangements for credit transfer and links with TAFE institutions.
- Special entry schemes.
- Curriculum review to make it more sensitive to the needs of disadvantaged groups.
- Bridging and supplementary programs.
- Counseling services.
- More flexible course structures which allow students to specialise at the end of their first year of study without making courses longer.
- Institutional structures for dealing with equity issues to be part of central administration (e.g., equity units as part of main administration) planning units rather than fringe units.
- Staff development/education, particularly in areas of disability awareness, cultural and gender inclusivity and sensitivity.

The Government urges all institutions to implement general strategies to provide a more equitable and responsive higher education system for all groups in the community.
For newly-amalgamated institutions, the consideration of broad strategies which could be implemented across the institution should be an important aspect of reviewing existing equity statements and developing a comprehensive plan for incorporation in a consolidated educational profile.

Appendix C provides a guide to help institutions in their planning.
3.1 Statements of Intent on Equity

In the Statements of Intent on Equity sought by the Federal Government in 1988, institutions were asked to define their objectives, their strategies for achieving these objectives and the performance measures for assessing the progress of equity activities.

All institutions have prepared a Statement. The Statements vary widely in coverage and content. Some Statements address specific equity objectives and describe in detail the strategies to be adopted, resources to be allocated and the processes by which progress will be assessed, while other Statements have described only current programs and past institutional achievements. The Department of Employment, Education and Training has assessed each Statement and has provided feedback to institutions.

Section 2 in this document provides a basis for institutions to review their Statements of Intent and formulate their own institutional equity plans, which will be an important part of the national plan. For some institutions this will involve developing specific strategies and identifying resources for achieving equity objectives. For others it may only involve a review of objectives and targets. The equity plan should involve all aspects of the institution's operation, so it is important that it be circulated widely to both staff and students. It is expected also that institutions will include information on equity goals and strategies in promotional material.

In future profile discussions the Government will continue to seek a strong commitment by all institutions to the national plan and effective expression of this commitment in their institution plans. There is no prescription on the detailed content of these plans but all institutions should address the following areas:
. Institution resources committed to equity programs and initiatives.
. Identifying priority disadvantaged groups.
. Equity objectives and targets.
. Strategies for achieving objectives.
. Monitoring and performance measures.

3.2 Institution Resources

The educational profile is the agreement on which each institution’s operating grant is based. As part of this agreement the Government expects each institution to integrate equity objectives into its financial plan. So the equity plan for each institution should describe how operating grant resources will be used to promote equity; it should not express equity objectives as being contingent on extra equity program funds.

The Higher Education Equity Program will, however, continue its role as an incentive-based program. Funding through the program will continue to be based on proven institution commitment to equity or in recognition of the need to meet the special requirements of disadvantaged groups within the catchment area of the institution.

3.3 Priority Disadvantaged Groups

Equity initiatives need to be carefully targeted to make sure that they benefit students who are genuinely disadvantaged and that the best use of institutions’ resources is made. Institutions should examine the composition of their student population in relation to the make-up of the wider community and find out which groups are not well represented. This is not a simple process and a range of identification methods may be needed. Individual institutions will best be able to determine the methods suited to their particular student population.
The Government believes that institutions should concentrate their efforts on particular disadvantaged groups rather than dissipating resources by trying to cover them all. Institution plans should indicate the priority disadvantaged groups and the basis on which these have been determined. Generally, these should be the groups that the institution is well placed to target because of its own special characteristics and those of the community they cater for.

Institutions should also describe the way in which individuals from these priority groups will be identified and contact maintained with them once they enter the institution. This is particularly important to ensure that programs are well targeted and for establishing monitoring mechanisms.

3.4 Objectives and Targets

The national plan sets out the objectives for each disadvantaged group and the targets for monitoring progress towards objectives. These high-level system-wide objectives may need to be adapted to the local circumstances of each institution and may be expressed in different forms. These system-wide objectives form the basis for intermediate steps in achieving the ultimate objectives.

Objectives should be quantified whenever possible, but not preclude developing objectives that require the use of qualitative measures.

3.5 Strategies for Achieving Objectives

The national plan sets out a range of strategies for each disadvantaged group. These have already been successful or have been put forward as appropriate strategies during consultation in developing the national plan.
The institution plan should include a brief description of each strategy, explaining how it identifies and targets the disadvantaged group, how the strategy relates to objectives and the procedures for monitoring and performance measuring.

3.6 Monitoring and Performance Measures

Monitoring and measuring performance are essential to determine progress towards achieving objectives and for providing mechanisms for re-assessing and modifying objectives and strategies.

Section 4 of this document sets out performance measures for institutions to use in evaluating equity programs. These measures focus on the participation and success rates of disadvantaged students. Besides these measures, institutions will need to develop other measures that meet the requirements of its particular programs.
The Government has signalled its intention to develop funding arrangements for all higher education programs that take into account a range of output, quality and performance measures. An agreed set of performance indicators is necessary so that both institutions and the Commonwealth can determine successful progress towards the national objectives and targets. These measures will also help the Government with funding allocations under the Higher Education Equity Program.

The Government has commissioned a research project on developing performance indicators aimed at defining and putting on trial a set of measures for higher education institutions. When an appropriate range of indicators has been determined, the Government will consult institutions and other interested groups on ways to apply them. These measures will form the basis of system-wide performance indicators that both the Commonwealth and institutions can use to monitor improvements in higher education participation by disadvantaged groups.

The Government wants all institutions to establish mechanisms for determining the composition of their student population and changes in this composition, measured against specific targets or objectives determined by the institutions. This information will be provided through the equity component of educational profiles. It should also indicate particular access measures and support for disadvantaged students. As far as possible, access and support measures for disadvantaged students should be assessed against specific targets defined by individual institutions in their educational profiles.

4.1 System-wide Measures

For identified disadvantaged groups, applying system-wide performance measures depends to a large extent on working out reliable indicators of disadvantage.
For women, youth, Aborigines and students from non-English-speaking backgrounds, where self-identification is appropriate and data is available from the Department of Employment, Education and Training's annual statistical collection, it will be a simple matter to apply performance measures.

But with other groups identification is more complex and appropriate information is not readily available, so reliable indicators may be more difficult to determine. For example, it may be necessary to use a range of factors to adequately define social and/or economic disadvantage. The Department will advise institutions of the results of the current study on performance indicators as they become known. It is hoped that standard measures of progress for major disadvantaged groups can be implemented by institutions during 1990 and 1991.

4.2 Institution Measures

As well as system-wide performance measures, each institution should set up its own system to monitor the success of specific initiatives for disadvantaged students. These systems should be an integral part of each institution's equity plan and form the basis of regular monitoring and reporting of progress towards achieving objectives and targets. Monitoring and reporting should include:

- The number of students participating in a particular program and their success rate.
- Longitudinal studies of disadvantaged students that examine the completion and progress rates compared with institution's overall rates.
- Changes in the composition of the student body in terms of increased rates of participation by disadvantaged students.
- Measures of improvement in student access and support for disadvantaged groups.
Institutions will be required to report annually on progress towards achieving institution equity objectives and targets. These reports should form an integral part of each institution's equity plan and provide benchmarks for determining the effectiveness of strategies to increase participation of disadvantaged students in higher education. Ideally the reports will provide information describing:

- The current composition of the student population and the representation of disadvantaged groups
- The planned composition of the student population and the targets for each group.
- The progress of programs for disadvantaged students in terms of the performance measures described in Section 4.
- The impact that each of these programs on achieving progress towards the objectives and targets for each disadvantaged group.

The Government expects that much of this information will be expressed in quantitative terms. But where quantitative information on progress towards objectives is not available (because of problems of identification or other difficulties), other evidence of progress towards achieving objectives is needed.
REFERENCES


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APPENDIX A

Enrolments and Participation in Higher Education

Tables A1 to A10 show patterns of enrolment and participation in higher education over the last decade. Difficulties in gathering comparable data mean that it is not possible to present the comparisons for the same years in each table.

The source of the data is the Department of Employment, Education and Training's Annual Statistical Collection.
### Table A.1

**Students in Higher Education, 1975 to 1988**

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<th>1988</th>
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(0) Includes postgraduate diplomas, masters preliminary/qualifying, postgraduate certificates in universities and postgraduate certificates.
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<th>1982 (per cent)</th>
<th>1981 (per cent)</th>
<th>1982 (per cent)</th>
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(a) includes a small number of students aged less than 17 years.  
(b) includes a small number of students aged over 64 years and those whose age was not stated.
TABLE 3.4  
FEMALES IN HIGHER EDUCATION BY TYPE OF COURSE AND FIELD OF STUDY, 1979 AND 1988  

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<th>Type of course/Field of study</th>
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<th>Females as proportion of total enrolments 1988</th>
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<td>60.4</td>
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<td>Total</td>
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<td>215.5</td>
<td>44.7</td>
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<td>FIELD OF STUDY</td>
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<td>22.3</td>
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<td>7.6</td>
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(a) Includes postgraduate diploma, masters preliminary and postgraduate bachelor in universities and postgraduate certificates.
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<th>Type of Course/Field of Study</th>
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<th>1985 (no.)</th>
<th>1982 (per cent)</th>
<th>1985 (per cent)</th>
<th>1982 Proportion of Aboriginal enrolments</th>
<th>1985 Proportion of all enrolments in 1985</th>
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<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td></td>
<td><strong>100</strong></td>
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</table>

(a) Includes postgraduate diplomas, masters preliminary/qualifying, postgraduate without a bachelor's degree, and postgraduate certificates.
(b) Including courses in Aboriginal culture and heritage.
<table>
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<th>Field of Study</th>
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<th>Research F</th>
<th>Coursework M</th>
<th>Coursework F</th>
<th>Postgraduate M</th>
<th>Postgraduate F</th>
<th>Bachelor M</th>
<th>Bachelor F</th>
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<th>Other F</th>
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(a) Includes students identified as "nontraditional" in college of advanced education data for 1979; (b) weighted out of 3,938 persons.
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(a) Includes students aged over 16 years and those whose age was not stated, as a proportion of the 20-64 year-old population.
(b) All students as a proportion of the 17-64 year-old population.
(c) These figures are estimates based on population estimates provided by the National Centre for Development Studies, ANU.
Higher Education Equity Program

The Higher Education Equity Program was established in 1985 to provide grants to higher education institutions to try out pilot projects designed to increase participation in higher education. In the White Paper on Higher Education the Government called for these pilot projects. If successful, to be incorporated into the institution's ongoing activities. The Government also noted the increasing shortage of child care places in higher education, and recognised the important role of child care for those students, particularly low-income students, who rely on it to undertake higher education studies. For the 1989-91 triennium the Government expanded the Higher Education Equity Program to encompass three separate elements:

- Grants to support innovative action-oriented pilot initiatives to increase participation by disadvantaged groups.
- Grants for implementing or expanding proven equity initiatives into the mainstream activities of institutions.
- Grants to provide extra child care places for needy students in outer-metropolitan and regional areas.

Higher Education Contribution Scheme

The Higher Education Contribution Scheme was introduced in 1989 to ensure a fairer system of funding higher education and to help provide extra resources for future growth. The Government is aware that the majority of Australians who use the higher education system are from relatively high-income backgrounds and that far greater access to higher education by people from financially and other disadvantaged backgrounds is needed. Extra funding is needed for more places and supplementary measures to increase the access of these people.

The Government requires people who use and benefit from higher education to make a contribution towards the cost of that education. The Scheme has been designed to protect the interests of people with low income who are in higher education or are considering enrolment. Students can elect to either pay their course charge up-front or through the tax system; under the latter choice no payment is required unless personal taxable income reaches $23,583 a year (in 1989-90).
AUSTUDY

In the 1988-89 Budget the Government announced enhancements to AUSTUDY to improve access to higher education for disadvantaged groups. In the 1989-91 triennium, AUSTUDY expenditure on tertiary students will rise beyond the 1988 level by more than $100 million. This expansion is due to increased numbers of beneficiaries as well as to improvements in the rates of assistance.

The Government's aim is to make sure that dependent students from low-income families are not influenced by financial considerations to leave the education system and apply for social security benefits. Priority is given to extra help for students from families whose incomes are at or below average weekly earnings and to a progressive extension of the new adult rates of student assistance to eligible students aged 21 years and over.

Aboriginal Study Assistance Scheme

The Government gives financial and educational support aimed at raising the participation rate of Aboriginal students in education to the level of the general community. The Aboriginal Study Assistance Scheme (ABSTUDY) helps Aboriginal students to study or train after leaving school. ABSTUDY is available to students in most courses, including special courses offered by higher education institutions.

In the 1988-89 Budget the Government announced enhancements to ABSTUDY to improve access to higher education. The Government also provides course funding for specially designed bridging and orientation courses to prepare Aboriginal students for accredited courses at a higher level. The funds also provide for support systems in these institutions, such as extra tutors and study skills courses, to meet the needs of Aboriginal students.

Aboriginal Participation Initiative

The Aboriginal Participation Initiative provides earmarked funding to higher education institutions for extra places for Aboriginal students. For the 1989-91 triennium the Government will fund an extra 200 students each year, which will mean about 3000 higher education places specifically earmarked for Aboriginal students in 1991.

As well, 800 Aboriginal students were enrolled in 1989 under the general student load funding allocated to institutions. Institutions that are able to show evidence of their commitment to Aboriginal participation will be the major beneficiaries of further growth.
Key Centres of Teaching and Research

Key Centres of Teaching and Research are funded by the Government through the Special Research Assistance Program of the Australian Research Council. Key Centres are concentrations of high-level activity in higher education institutions, based on the teaching and research work of existing departments, units or groups. In 1989 funding for Key Centres of Teaching and Research in higher education institutions was about $6.5 million. Key Centres are expected to attract high-quality students and staff and to supplement their special Commonwealth funding from other sources.

In 1989 and 1990 three Key Centres which focus on disadvantaged groups are being supported. These are the Key Centre for Aboriginal Studies and Education at the South Australian College of Advanced Education, the Key Centre for School Science and Maths (especially for women) at the Curtin University of Technology and the Key Centre for Women's Health in Society at the University of Melbourne.

The National Priority (Reserve) Fund

The Reserve Fund comprises approximately one per cent of the total base operating grants available to higher education institutions ($26 million in 1989). The Fund is available to higher education institutions in the unified national system to draw on for one-off projects designed to achieve specific objectives in areas of national priority.

Funds were available in 1989 for a wide range of purposes, including help for amalgamating or merging institutions, management reviews, pilot projects on the introduction of summer terms and pilot projects designed to improve institutional efficiency and effectiveness, such as measures to improve student access and completion rates and credit transfer arrangements. From 1990, multicultural curriculum development and cross-cultural awareness are an area of national priority. Funding will be available on a competitive basis with other priority areas within the criteria of the Fund.
### APPE

### ENDIX C

**SUCCESSFUL STRATEGIES FOR DISADVANTAGED GROUPS**

<table>
<thead>
<tr>
<th></th>
<th>Low SES</th>
<th>Aboriginal</th>
<th>Women</th>
<th>Disabled</th>
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<td>Bridging &amp; Support Programs</td>
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<td>Improving Links with TAFE</td>
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<td>Promotion of non-traditional courses &amp; careers for women</td>
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<td>Special programs to enable women to undertake postgraduate research</td>
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<td>• • •</td>
<td>• • • • •</td>
<td>• • •</td>
<td>• • •</td>
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<tr>
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<td>• • • • •</td>
<td>• • •</td>
<td>• • • • •</td>
<td>• • •</td>
<td>• • •</td>
</tr>
<tr>
<td>Development of distance education opportunities</td>
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<td>• • •</td>
<td>• • • • •</td>
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<td>Assistance with accommodation</td>
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<td>Integration of structures dealing with equity into central administration</td>
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</table>

**• • • • •** = essential for greater participation by this group

**•** = a valuable strategy

**•** = a useful strategy for implementation when other measures have been established

This table of strategies is not meant to be exhaustive. It lists only those strategies which have been found to be successful and which are discussed in this document.
Appendix E

LSAY 1995 Household Possession Chi-square Analyses
<table>
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<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>3992</td>
<td>533</td>
<td>5</td>
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<td>3910</td>
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<td>57.804*</td>
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<td>Likelihood ratio</td>
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<td>1</td>
<td></td>
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Note: * 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.87.
### Table B2

**96 AT HOME: DISHWASHER * COURSE1: EVER COMMENCED A COURSE?**

<table>
<thead>
<tr>
<th></th>
<th>COURSE1: EVER COMMENCED A COURSE?</th>
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<tr>
<td></td>
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<td><strong>96 AT HOME: DISHWASHER</strong></td>
<td><strong>Count</strong></td>
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<td></td>
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<td><strong>2462.5</strong></td>
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<td></td>
<td><strong>% of Total</strong></td>
<td><strong>43.3%</strong></td>
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<td></td>
<td><strong>Std. Residual</strong></td>
<td><strong>2.4</strong></td>
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<td><strong>2 No</strong></td>
<td><strong>Count</strong></td>
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<td></td>
<td><strong>Expected Count</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>% of Total</strong></td>
<td><strong>39.2%</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Std. Residual</strong></td>
<td><strong>-2.4</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Count</strong></td>
<td><strong>4925</strong></td>
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<td></td>
<td><strong>Expected Count</strong></td>
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<tr>
<td></td>
<td><strong>% of Total</strong></td>
<td><strong>82.5%</strong></td>
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</table>

**Chi-square tests**

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<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
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</thead>
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<tr>
<td>Pearson chi square</td>
<td>67.267</td>
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<tr>
<td>Continuity correction</td>
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<td>Likelihood ratio</td>
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<tr>
<td>Fisher's Exact Test</td>
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<td>.000</td>
<td>.000</td>
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<td>Linear-by-Linear</td>
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<td>Association</td>
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<td>N of Valid Cases</td>
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**Note:** Pearson is used only for a 2x2 table. * All cells (0%) have expected count less than 5. The minimum expected count is 523.50.
Table B3

96 AT HOME: DISHWASHER * 95 Post-School Study Type valid cases

<table>
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<tr>
<th>University</th>
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<th>ship</th>
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<tr>
<td>Course</td>
<td>Course</td>
<td>Total</td>
</tr>
<tr>
<td>96 AT</td>
<td>1 Yes</td>
<td>Count</td>
</tr>
<tr>
<td>HOME:</td>
<td>Expected Count</td>
<td>2716</td>
</tr>
<tr>
<td>DISHWASHER</td>
<td>% of Total</td>
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<td>HER</td>
<td>Std. Residual</td>
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</tr>
<tr>
<td>2 No</td>
<td>Count</td>
<td>221</td>
</tr>
<tr>
<td>Expected Count</td>
<td>484</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>28.9%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
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</tr>
<tr>
<td>Total</td>
<td>Count</td>
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<td>Expected Count</td>
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</tr>
<tr>
<td>% of Total</td>
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Chi-square tests

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<td>Likelihood Ratio</td>
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N of Valid Cases 7853

Note. * 0 cells (0.0%) have expected count less than 5. The minimum expected count is 304.22.
Table B4

### 36 AT HOME: DISHWASHER * Course 1 Level of Qualification

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<td>2 University or Diploma</td>
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<td>3 Bachelor Degree</td>
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<table>
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<tr>
<th></th>
<th>1 Yes</th>
<th>2 No</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>HOME:</td>
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<td></td>
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</tr>
<tr>
<td>96 AT</td>
<td></td>
<td></td>
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<tr>
<td>Count</td>
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|                | 1594  | 1121 |     |     |
| Total          |       |      |     |     |
| Count          | 527   | 628  | 33  |     |
| Expected Count | 609.3 | 546.7| 28.5|     |
| % of Total     | 31.7% | 28.5%| 7.7%|     |
| Std. Residual  | 3.1   | 3.5  | 0.9 |     |

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<td>90.412</td>
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<td>Linear-by-Linear Association</td>
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Note. * 0 cells (0.0%) have expected count less than 5. The minimum expected count is 28.35.
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<th>95 POST SCHOOL STUDY?</th>
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<tr>
<td>6293</td>
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<td>Expected</td>
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</tr>
<tr>
<td>Expected</td>
<td>1763.1</td>
<td>301.2</td>
</tr>
<tr>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>17.4%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-3.7</td>
<td>9.9</td>
</tr>
<tr>
<td>Total</td>
<td>7901</td>
<td>1350</td>
</tr>
<tr>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected</td>
<td>7901.0</td>
<td>1350.0</td>
</tr>
<tr>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>85.3%</td>
<td>14.6%</td>
</tr>
</tbody>
</table>

Chi-square tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>119.941*</td>
<td>2</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>110.617</td>
<td>2</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>82.862</td>
<td>1</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>9263</td>
<td></td>
</tr>
</tbody>
</table>

Note: * 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.68.
### Table B6

#### 95 AT HOME: COMPUTER * COURSE1: EVER COMMENCED A COURSE?

<table>
<thead>
<tr>
<th>COURSE1: EVER</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMANCED A COURSE?</td>
<td></td>
</tr>
<tr>
<td>1 Yes</td>
<td>2 No</td>
</tr>
<tr>
<td>Count</td>
<td>4091</td>
</tr>
<tr>
<td>Expected Count</td>
<td>3970.4</td>
</tr>
<tr>
<td>% of Total</td>
<td>68.6%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>1.9</td>
</tr>
<tr>
<td>Count</td>
<td>834</td>
</tr>
<tr>
<td>Expected Count</td>
<td>954.6</td>
</tr>
<tr>
<td>% of Total</td>
<td>14.0%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-3.9</td>
</tr>
<tr>
<td>Total Count</td>
<td>4925</td>
</tr>
<tr>
<td>Expected Count</td>
<td>4925.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>82.5%</td>
</tr>
</tbody>
</table>

#### Chi-square tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>108.118</td>
<td>1</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Continuity Correction*</td>
<td>107.223</td>
<td>1</td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>98.530</td>
<td>1</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td>.000</td>
<td>.006</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>193.099</td>
<td>1</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

#### Note

- * Computed only for a 2x2 table.
- * 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.236.
Table B7

96 AT HOME: COMPUTER * 95 Post-School Study Type valid cases

<table>
<thead>
<tr>
<th>University</th>
<th>TAFE</th>
<th>ship</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Yes</td>
<td>4006</td>
<td>610</td>
</tr>
<tr>
<td>2</td>
<td>786</td>
<td>231</td>
</tr>
<tr>
<td>Total</td>
<td>4792</td>
<td>841</td>
</tr>
</tbody>
</table>

Chi-square tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>206.571*</td>
<td>3</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>198.621</td>
<td>3</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>152.771</td>
<td>1</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>7952</td>
<td></td>
</tr>
</tbody>
</table>

Note. * 0 cells (.0%) have expected count less than 5. The minimum expected count is 125.10.
### Table B8

<table>
<thead>
<tr>
<th>96 AT HOME: COMPUTER * Course 1 Level of Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 AT HOME: COMPUTER</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>1 TAFE</td>
</tr>
<tr>
<td>2 University or Graduate</td>
</tr>
<tr>
<td>Diploma</td>
</tr>
<tr>
<td>Degree</td>
</tr>
<tr>
<td>3 Bachelor</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Count</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>629</td>
<td>895</td>
<td>47</td>
<td>2405</td>
<td>3860</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>699.1</td>
<td>964.3</td>
<td>50.9</td>
<td>2265.7</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>13.2%</td>
<td>18.8%</td>
<td>1.0%</td>
<td>50.4%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>-2.6</td>
<td>-2.1</td>
<td>-0.5</td>
<td>2.9</td>
</tr>
<tr>
<td>No</td>
<td>209</td>
<td>257</td>
<td>14</td>
<td>311</td>
<td>791</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>138.9</td>
<td>191.7</td>
<td>10.1</td>
<td>450.3</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>4.4%</td>
<td>5.4%</td>
<td>.3%</td>
<td>6.5%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>5.9</td>
<td>4.7</td>
<td>1.2</td>
<td>-6.6</td>
</tr>
<tr>
<td>Total</td>
<td>838</td>
<td>1156</td>
<td>61</td>
<td>2716</td>
<td>4771</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>838.0</td>
<td>1156.0</td>
<td>61.0</td>
<td>2716.0</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>17.6%</td>
<td>24.2%</td>
<td>1.3%</td>
<td>56.9%</td>
</tr>
</tbody>
</table>

#### Chi-square tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>123.506^a</td>
<td>3</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>120.869</td>
<td>3</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>118.991</td>
<td>1</td>
</tr>
</tbody>
</table>

\[ N \text{ of Valid Cases} = 4771 \]

\[ ^\text{a} \text{ 0 cells (25\%) have expected count less than 5. The minimum expected count is 10.11.} \]
Table B9

96 AT HOME: PIANO * 95 POST SCHOOL STUDY?

<table>
<thead>
<tr>
<th></th>
<th>95 POST SCHOOL STUDY</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Yes</td>
<td>2 No</td>
</tr>
<tr>
<td>96 AT HOME: 1 Yes</td>
<td>Count</td>
<td>2816</td>
</tr>
<tr>
<td>PIANO</td>
<td>Expected</td>
<td>2641.6</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>30.7%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>3.4</td>
</tr>
<tr>
<td>2 No</td>
<td>Count</td>
<td>5009</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>5183.4</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>54.6%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>-2.4</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>7825</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>7825.0</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>85.4%</td>
</tr>
</tbody>
</table>

Chi-square tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>118.720*</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>127.314</td>
<td>2</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>91.634</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>9168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.05.
Table B10

<table>
<thead>
<tr>
<th>COURSE1: EVER COMMENCED A COURSE?</th>
<th>1 Yes</th>
<th>2 No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 AT HOME:</td>
<td>188</td>
<td>265</td>
<td>2146</td>
</tr>
<tr>
<td>PIANO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1770.0</td>
<td>375.1</td>
<td>2146.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>31.8%</td>
<td>4.5%</td>
<td>36.3%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>2.0</td>
<td>5.7</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2990</td>
<td>768</td>
<td>3758</td>
</tr>
<tr>
<td>Expected Count</td>
<td>3106.1</td>
<td>657.9</td>
<td>3764.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>50.7%</td>
<td>13.0%</td>
<td>63.7%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>7.0</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4877</td>
<td>1033</td>
<td>5910</td>
</tr>
<tr>
<td>Expected Count</td>
<td>4877.0</td>
<td>1033.0</td>
<td>5910.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>82.5%</td>
<td>17.5%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-square tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1 sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi-square</td>
<td>61.486</td>
<td>1</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Continuity Correction*</td>
<td>60.928</td>
<td>1</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>64.173</td>
<td>1</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Fisher’s Exact Test</td>
<td></td>
<td></td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>61.475</td>
<td>1</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

Association

N of Valid Cases 5910

Note: * Computed only for a 2x2 table. 0 cells (0%) have expected count less than 5. The minimum expected count is 375.10.
Appendix C

LSAV 1995 Parental Occupational SES Chi-square Analyses
<table>
<thead>
<tr>
<th>MOCC SES (1-4) BASED ON V79A * 95 POST SCHOOL STUDY?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>95 POST SCHOOL STUDY?</strong></td>
</tr>
<tr>
<td>Count</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1 High Prof &amp; Manaq</td>
</tr>
<tr>
<td>Expected Count</td>
</tr>
<tr>
<td>% of Total</td>
</tr>
<tr>
<td>Std. Residual</td>
</tr>
<tr>
<td>2 Lower Prof &amp; Manaq</td>
</tr>
<tr>
<td>Expected Count</td>
</tr>
<tr>
<td>% of Total</td>
</tr>
<tr>
<td>Std. Residual</td>
</tr>
<tr>
<td>3 Trades, Clerks</td>
</tr>
<tr>
<td>Sales Reps &amp; Farmers</td>
</tr>
<tr>
<td>% of Total</td>
</tr>
<tr>
<td>Std. Residual</td>
</tr>
<tr>
<td>4 Low, Sales Ass, Plant Operators, Labourers</td>
</tr>
<tr>
<td>Expected Count</td>
</tr>
<tr>
<td>% of Total</td>
</tr>
<tr>
<td>Std. Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Expected Count</td>
</tr>
<tr>
<td>% of Total</td>
</tr>
</tbody>
</table>
Chi-square tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>111.088*</td>
<td>6</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>116.939</td>
<td>6</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>66.344</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>8805</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * 4 cells (33.3%) have expected count less than 5. The minimum expected count is .41.
<table>
<thead>
<tr>
<th>MOCSES (1-4) Based on V79A</th>
<th>COURSE1: EVER COMMENCED A COURSE?</th>
<th>1 Yes</th>
<th>2 No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>231</td>
<td>25</td>
<td>256</td>
<td></td>
</tr>
<tr>
<td>Expected Count</td>
<td>213.1</td>
<td>42.9</td>
<td>256.0</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>4.7%</td>
<td>.5%</td>
<td>5.2%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>1.2</td>
<td>-2.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1362</td>
<td>199</td>
<td>1561</td>
<td></td>
</tr>
<tr>
<td>Expected Count</td>
<td>1299.2</td>
<td>261.8</td>
<td>1561.0</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>27.5%</td>
<td>4.0%</td>
<td>31.5%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-7</td>
<td>-3.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1615</td>
<td>337</td>
<td>1952</td>
<td></td>
</tr>
<tr>
<td>Expected Count</td>
<td>1624.6</td>
<td>327.4</td>
<td>1962.0</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>32.6%</td>
<td>6.8%</td>
<td>39.4%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2</td>
<td>.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>916</td>
<td>270</td>
<td>1186</td>
<td></td>
</tr>
<tr>
<td>Expected Count</td>
<td>987.1</td>
<td>198.9</td>
<td>1186.0</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>18.5%</td>
<td>5.4%</td>
<td>23.9%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.3</td>
<td>5.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4124</td>
<td>831</td>
<td>4955</td>
<td></td>
</tr>
<tr>
<td>Expected Count</td>
<td>4124.0</td>
<td>931.0</td>
<td>4955.0</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>83.2%</td>
<td>16.8%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>
Chi-square tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi-square</td>
<td>57.972</td>
<td>3</td>
<td>0.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>58.138</td>
<td>3</td>
<td>0.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>57.144</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>4955</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * 9 cells (.0%) have expected count less than 5. The minimum expected count is 42.93.
### Table C3

**MOCC SES (1-4) BASED ON V79A 95 Post-School Study Type valid cases**

<table>
<thead>
<tr>
<th>MOCC</th>
<th>1 High Upper Prof &amp; SES (1-4) Manag</th>
<th>2 High Upper Prof &amp; SES (1-4) Manag</th>
<th>3 High Upper Prof &amp; SES (1-4) Manag</th>
<th>4 High Upper Prof &amp; SES (1-4) Manag</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course</strong></td>
<td><strong>TAFE</strong></td>
<td><strong>University</strong></td>
<td><strong>Other</strong></td>
<td><strong>Apprenticeship</strong></td>
<td><strong>Other</strong></td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td>320</td>
<td>26</td>
<td>32</td>
<td>34</td>
<td>412</td>
</tr>
<tr>
<td><strong>Expected</strong></td>
<td>259.2</td>
<td>47.5</td>
<td>72.1</td>
<td>33.2</td>
<td>412.0</td>
</tr>
<tr>
<td><strong>% of Total</strong></td>
<td>4.3%</td>
<td>3%</td>
<td>4%</td>
<td>5.5%</td>
<td>5.5%</td>
</tr>
<tr>
<td><strong>Std.</strong></td>
<td>3.8</td>
<td>-3.1</td>
<td>-4.7</td>
<td>0.1</td>
<td></td>
</tr>
</tbody>
</table>

**Residual**

<table>
<thead>
<tr>
<th>MOCC</th>
<th>2 High Upper Prof &amp; SES (1-4) Manag</th>
<th>3 High Upper Prof &amp; SES (1-4) Manag</th>
<th>4 High Upper Prof &amp; SES (1-4) Manag</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Count</strong></td>
<td>1650</td>
<td>205</td>
<td>289</td>
<td>179</td>
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<tr>
<td><strong>Expected</strong></td>
<td>1461.5</td>
<td>267.9</td>
<td>406.6</td>
<td>95.9</td>
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</table>

**Paraprof, Technicians**

<table>
<thead>
<tr>
<th>MOCC</th>
<th>3 Trades, Clerks, Sales Reps &amp; Farmers</th>
<th>4 Trades, Clerks, Sales Reps &amp; Farmers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Count</strong></td>
<td>1780</td>
<td>357</td>
<td>576</td>
</tr>
<tr>
<td><strong>Expected</strong></td>
<td>1864.2</td>
<td>341.8</td>
<td>518.6</td>
</tr>
<tr>
<td><strong>% of Total</strong></td>
<td>22.1%</td>
<td>2.7%</td>
<td>3.9%</td>
</tr>
<tr>
<td><strong>Std.</strong></td>
<td>4.9</td>
<td>-3.8</td>
<td>-5.8</td>
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</tbody>
</table>

**Residual**

**% of Total**

<table>
<thead>
<tr>
<th>MOCC</th>
<th>3 Trades, Clerks, Sales Reps &amp; Farmers</th>
<th>4 Trades, Clerks, Sales Reps &amp; Farmers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expected</strong></td>
<td>1864.2</td>
<td>341.8</td>
<td>518.6</td>
</tr>
<tr>
<td><strong>% of Total</strong></td>
<td>24.0%</td>
<td>4.8%</td>
<td>1.7%</td>
</tr>
<tr>
<td><strong>Std.</strong></td>
<td>-1.7</td>
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</table>

**Residual**
### Table C3 (continued)

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<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Course</td>
<td>Other</td>
<td>Apprenticeship</td>
<td>Other TAFE</td>
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<td></td>
</tr>
<tr>
<td>4 Low Sales Asst.</td>
<td>932</td>
<td>272</td>
<td>408</td>
<td>146</td>
<td>1758</td>
</tr>
<tr>
<td>Plant Operators, Labours</td>
<td>1106.1</td>
<td>202.8</td>
<td>307.7</td>
<td>141.5</td>
<td>1758.0</td>
</tr>
<tr>
<td>Count</td>
<td>12.5%</td>
<td>3.6%</td>
<td>5.5%</td>
<td>2.0%</td>
<td>23.6%</td>
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<tr>
<td>% of Total</td>
<td>-5.2</td>
<td>4.9</td>
<td>5.7</td>
<td>4.0</td>
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</tr>
<tr>
<td>Residual</td>
<td>4691.0</td>
<td>860.0</td>
<td>1305.0</td>
<td>600.0</td>
<td>7456.0</td>
</tr>
<tr>
<td>Total</td>
<td>62.9%</td>
<td>11.5%</td>
<td>17.5%</td>
<td>8.3%</td>
<td>100.0%</td>
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</table>

<table>
<thead>
<tr>
<th>Chi-square tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi square</td>
<td>213.726*</td>
<td>9</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>220.765</td>
<td>9</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>113.530</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>7456</td>
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<td></td>
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Note. * 0 cells (0.0%) have expected count less than 5. The minimum expected count is 33.15.
Table C4

MOCC SES (1-4) BASED ON V79A * Course 1 Level of Qualification

<table>
<thead>
<tr>
<th>Course 1 Level of Qualification</th>
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<tbody>
<tr>
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<tr>
<td>Apprentice</td>
<td>8</td>
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<tr>
<td>TAFE</td>
<td>1</td>
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<tr>
<td>University</td>
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<tr>
<td>Bachelor</td>
<td>2</td>
</tr>
<tr>
<td>Grad (or) Diploma or Degree</td>
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<table>
<thead>
<tr>
<th>MOCC SES (1-4)</th>
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<th>Count</th>
<th>Expected</th>
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<th>Expected</th>
<th>Count</th>
<th>Expected</th>
<th>Count</th>
<th>Expected</th>
<th>Count</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 High/Upper Prof &amp; Manag</td>
<td>24</td>
<td>38.5</td>
<td>39</td>
<td>53.9</td>
<td>4</td>
<td>2.9</td>
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<td>130.7</td>
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<td>159</td>
<td>226</td>
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<td>.6%</td>
<td>1.0%</td>
<td>.1%</td>
<td>4.0%</td>
<td>5.7%</td>
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<td>ON</td>
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<td>2.5</td>
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</tr>
<tr>
<td>Residual</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>2 Lower Prof &amp; Manag, Paraprof,Technicians</td>
<td>Count</td>
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<td>6.4%</td>
<td>.4%</td>
<td>22.2%</td>
<td>33.3%</td>
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<tr>
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<td>-3.6</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3 Trades, Clerks, Sales Reps &amp; Farmer sto</td>
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<td>370.6</td>
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<td>19.9</td>
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<td>1554</td>
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<td>7.1%</td>
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<td>.7%</td>
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<td></td>
<td></td>
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<td>.3</td>
<td>1.6</td>
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Table C4 (continued)

<table>
<thead>
<tr>
<th>Degree</th>
<th>Count</th>
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</tr>
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<tr>
<td>Apprentice</td>
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<tr>
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<table>
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<tr>
<th>Total</th>
<th>Count</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Plant Operat.</td>
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</tr>
<tr>
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<tr>
<td>1</td>
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<tr>
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</table>

<table>
<thead>
<tr>
<th>Residual</th>
<th>Count</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>3.9</td>
</tr>
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<td>5.0</td>
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</tr>
<tr>
<td>2</td>
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<td>-1.3</td>
</tr>
<tr>
<td>Total</td>
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<td>-5.0</td>
</tr>
<tr>
<td>4</td>
<td>-5.0</td>
<td>-5.0</td>
</tr>
</tbody>
</table>

Chi-square tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>132.088(*)</td>
<td>?</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>133.043</td>
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</tr>
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<td>Linear-by-Linear Association</td>
<td>115.103</td>
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<td>N of Valid Cases</td>
<td>3984</td>
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</tr>
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</table>

Note. * 1 cell (6.3%) have expected count less than 5. The minimum expected count is 2.89.
Table C5

<table>
<thead>
<tr>
<th>FOCC SES (1-4) (BASED ON V78A) * 95 POST SCHOOL STUDY?</th>
<th>95 POST SCHOOL STUDY?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>1 High: Upper Prof &amp; Manag</strong></td>
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<td>1405</td>
</tr>
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<td>Expected Count</td>
<td>1265.9</td>
</tr>
<tr>
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<td>% of Total</td>
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</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>2 Lower Prof &amp; Manag</strong></td>
<td>Count</td>
<td>2186</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>2066.3</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>20.0%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>3 Trades, Clerks, Sales Reps &amp; Farmers</strong></td>
<td>Count</td>
<td>3327</td>
</tr>
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<td></td>
<td>Expected Count</td>
<td>3451.5</td>
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<tr>
<td></td>
<td>% of Total</td>
<td>35.5%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>-2.1</td>
</tr>
<tr>
<td><strong>4 Low: Sales Asst, Plant Operators, Labourers</strong></td>
<td>Count</td>
<td>2323</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>2457.3</td>
</tr>
<tr>
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<td>% of Total</td>
<td>21.3%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>-2.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Count</td>
<td>9241</td>
</tr>
<tr>
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<td>Expected Count</td>
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<tr>
<td></td>
<td>% of Total</td>
<td>84.6%</td>
</tr>
<tr>
<td>Test</td>
<td>Value</td>
<td>df</td>
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<tr>
<td>-------------------------------</td>
<td>--------</td>
<td>-----</td>
</tr>
<tr>
<td>Pearson chi square</td>
<td>223.246*</td>
<td>6</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>241.708</td>
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</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>152.910</td>
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</tr>
</tbody>
</table>

*N of Valid Cases* 10921

Note. * 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.92.
### Table C6

*FOCC SES (1-4)(BASED ON V78A) * COURSE1: EVER COMMENCED A COURSE?

<table>
<thead>
<tr>
<th>FOCC SES (1-4)(BASED ON V78A)</th>
<th>COURSE1: EVER COMMENCED A COURSE?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Yes</td>
<td>2 No</td>
</tr>
<tr>
<td>1 high,Upper Prof &amp; Manag</td>
<td>203</td>
<td>85</td>
</tr>
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<td>Expected Count</td>
<td>735.6</td>
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</tr>
<tr>
<td>% of Total</td>
<td>12.4%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>2.5</td>
<td>-5.5</td>
</tr>
<tr>
<td>2 Lower Prof &amp; Manag, Paraprof,Technicians</td>
<td>1229</td>
<td>208</td>
</tr>
<tr>
<td>Expected Count</td>
<td>1190.4</td>
<td>246.6</td>
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<tr>
<td>% of Total</td>
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<td>3.5%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>1.1</td>
<td>-2.5</td>
</tr>
<tr>
<td>3 Trades, Clerks, Sales Reps &amp; Farmers</td>
<td>1826</td>
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<tr>
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<tr>
<td>% of Total</td>
<td>30.4%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-4</td>
<td>.8</td>
</tr>
<tr>
<td>4 Low. Sales Asst, Plant Operators, Labourers</td>
<td>1118</td>
<td>341</td>
</tr>
<tr>
<td>Expected Count</td>
<td>1208.7</td>
<td>250.3</td>
</tr>
<tr>
<td>% of Total</td>
<td>18.6%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Std. Residual</td>
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<td>Expected Count</td>
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<tr>
<td>% of Total</td>
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</table>
### Chi-square Tests

<table>
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<tr>
<th>Value</th>
<th>df</th>
<th>Asymptotic Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>83.604*</td>
<td>3</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>86.276</td>
<td>3</td>
</tr>
<tr>
<td>Linear-by-linear Association</td>
<td>62.356</td>
<td>1</td>
</tr>
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<td>N of Valid Cases</td>
<td>6009</td>
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</table>

*Note.* 0 cells (.0%) have expected count less than 5. The minimum expected count is 152.30.
### Table C7

**FOCC SES (1-4)(BASED ON V78A) * 95 Post-School Study Type valid cases**

<table>
<thead>
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<th>3</th>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Total</strong></td>
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<td>75</td>
<td>133</td>
<td>72</td>
<td>1396</td>
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<tr>
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<th>Count</th>
<th>% of Total</th>
<th>Std.</th>
<th>Residual</th>
</tr>
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<tbody>
<tr>
<td>1 High Prof &amp; Manager</td>
<td>1116</td>
<td>859.9</td>
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<td>12.1%</td>
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</tr>
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<td>SES (1-4)BASED ON V78A</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2 Lower Prof &amp; Manager</td>
<td>1503</td>
<td>1331.5</td>
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<td>16.3%</td>
<td>4.7</td>
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</tr>
<tr>
<td>Paraprof,Technicians</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Trades, Clerks, Sales Reps &amp;</td>
<td>1817</td>
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<td>19.8%</td>
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</tr>
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<td>Farmers</td>
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<table>
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<th>% of Total</th>
<th>Std.</th>
<th>Residual</th>
</tr>
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<tr>
<td></td>
<td>859.9</td>
<td>1331.5</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>172.3</td>
<td>207.1</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>133</td>
<td>1817</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>72</td>
<td>410.2</td>
<td>4.6</td>
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</tbody>
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<table>
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<tr>
<th>Expected</th>
<th>Count</th>
<th>% of Total</th>
<th>Std.</th>
<th>Residual</th>
</tr>
</thead>
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<tr>
<td></td>
<td>133</td>
<td>1331.5</td>
<td>5.2</td>
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<tr>
<td></td>
<td>72</td>
<td>2045.3</td>
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<table>
<thead>
<tr>
<th>Expected</th>
<th>Count</th>
<th>% of Total</th>
<th>Std.</th>
<th>Residual</th>
</tr>
</thead>
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<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
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<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>4 Lw. Sales Asst.</td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>540</td>
<td>203</td>
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<tr>
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<td>425.0</td>
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<tr>
<td>% of Total</td>
<td>13.3%</td>
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<tr>
<td>Std.</td>
<td>5.3</td>
<td>3.6</td>
<td>5.6</td>
<td>13</td>
</tr>
<tr>
<td>Residual</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5659</td>
<td>1135</td>
<td>1690</td>
<td>713</td>
</tr>
<tr>
<td>Expected</td>
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<td>1135.0</td>
<td>1690.0</td>
<td>713.0</td>
</tr>
<tr>
<td>Count</td>
<td>5659</td>
<td>1135</td>
<td>1690</td>
<td>713</td>
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<tr>
<td>% of Total</td>
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**Chi-square tests**

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<tr>
<th>Value</th>
<th>of</th>
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<tbody>
<tr>
<td>Pearson chi square</td>
<td>421.25*</td>
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<tr>
<td>Likelihood Ratio</td>
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<td>Linear-by-Linear Association</td>
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*Note:* a 0 cells (0%) have expected count less than 5. The minimum expected count is 108.23.
### Table C8

FOCC SES (1-4) (BASED ON Y78A) * Course 1 Level of Qualification

<table>
<thead>
<tr>
<th>Course 1 Level of Qualification</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Apprenticeship</td>
<td></td>
</tr>
<tr>
<td>TAFE</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td></td>
</tr>
<tr>
<td>Bachelor</td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td></td>
</tr>
<tr>
<td>Graduate</td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td></td>
</tr>
<tr>
<td></td>
<td>595</td>
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</table>

<table>
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<th>Expected</th>
<th>Count</th>
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</thead>
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<tr>
<td>1</td>
<td>High-Upper Prof &amp; Mng.</td>
<td>145.0</td>
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<tr>
<td>ON Y78A</td>
<td>193.5</td>
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<tr>
<td>2</td>
<td>10.7</td>
<td>43.7</td>
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<td>16.5%</td>
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<td>-4.9</td>
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<td>Residual</td>
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</table>

<table>
<thead>
<tr>
<th>2</th>
<th>Lower Prof &amp; Mng.</th>
<th>Count</th>
</tr>
</thead>
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<tr>
<td>1</td>
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<td>165</td>
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<tr>
<td>2</td>
<td>291.2</td>
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<td>18</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>754</td>
<td>1192</td>
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<td>16.1</td>
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<tr>
<td>6</td>
<td>24.8%</td>
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<tr>
<td>7</td>
<td>-3.6</td>
<td>3.3</td>
</tr>
<tr>
<td>8</td>
<td>-2.1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3</th>
<th>Trades, Clerks, Sales Rep &amp; Farmers</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>418</td>
<td>320.5</td>
</tr>
<tr>
<td>2</td>
<td>469</td>
<td>427.0</td>
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<tr>
<td>3</td>
<td>18</td>
<td>23.7</td>
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<tr>
<td>4</td>
<td>844</td>
<td>980.9</td>
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<tr>
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<td>6</td>
<td>17.7%</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>-4.2</td>
<td></td>
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<tr>
<td>8</td>
<td>-2.0</td>
<td></td>
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<tr>
<td>9</td>
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Table C8 (continued)

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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Diploma or</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Degree Total</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Low Sales Asset Plant</td>
<td>Count</td>
<td>233</td>
<td>321</td>
<td>19</td>
<td>493</td>
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<td>Operators, Labourers</td>
<td>Expected</td>
<td>194.4</td>
<td>259.4</td>
<td>14.4</td>
<td>594.8</td>
</tr>
<tr>
<td></td>
<td>Count, %</td>
<td>4.9%</td>
<td>6.7%</td>
<td>4%</td>
<td>10.2%</td>
</tr>
<tr>
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<td>1.4%</td>
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<td>65</td>
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<td>4802</td>
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<td>1172.0</td>
<td>65.0</td>
<td>2687.0</td>
</tr>
<tr>
<td></td>
<td>Count %</td>
<td>18.3%</td>
<td>24.4%</td>
<td>1.4%</td>
<td>56.0%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
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<td></td>
<td></td>
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</table>

Chi-square tests:
<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
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</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>246.522*</td>
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</tr>
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<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>298.723</td>
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<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>4802</td>
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</table>

Note. * 0 cells (.5%) have expected count less than 5. The minimum expected count is 10.73.
Table C9

<table>
<thead>
<tr>
<th>96 AT HOME: PIANO * 95 Post-School Study Type valid cases</th>
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</thead>
<tbody>
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<td>95 Post-School Study Type valid cases</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>University</td>
</tr>
<tr>
<td>Course</td>
</tr>
<tr>
<td>Count</td>
</tr>
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<td>96 AT 1 Yes</td>
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<tr>
<td>HOME:</td>
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<tr>
<td>PIANO</td>
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<tr>
<td>% of Total</td>
</tr>
<tr>
<td>Std. Residual</td>
</tr>
<tr>
<td>Count 2 No</td>
</tr>
<tr>
<td>Expected Count</td>
</tr>
<tr>
<td>% of Total</td>
</tr>
<tr>
<td>Std. Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Expected Count</td>
</tr>
<tr>
<td>% of Total</td>
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<tr>
<td>Chi-square tests</td>
</tr>
<tr>
<td>Value</td>
</tr>
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<tr>
<td>Likelihood Ratio</td>
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Note: * 0 cells (.0%) have expected count less than 5. The minimum expected count is 215.33.
Table C10

96 AT HOME: PIANO * Course 1 Level of Qualification

<table>
<thead>
<tr>
<th></th>
<th>0 Apprenticeship</th>
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<th>2 University or Diploma</th>
<th>3 Bachelor Graduate</th>
<th>Total</th>
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<td>96 AT</td>
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<td>Count</td>
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</tr>
<tr>
<td></td>
<td>% of Total</td>
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<td>16.6%</td>
<td>8%</td>
<td>31.2%</td>
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<td>2695.0</td>
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</tr>
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<td>% of Total</td>
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</tr>
<tr>
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<td>--------</td>
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<tr>
<td>Pearson chi square</td>
<td>125.967*</td>
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<td>0.000</td>
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</tr>
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<td>0.000</td>
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N of Valid Cases: 4724

Note. * 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.20.
Appendix D

LSAY 1995 Father’s Educational Level Chi-square Analyses
<table>
<thead>
<tr>
<th>1995 Father's Level of Education valid cases</th>
<th>95 POST SCHOOL STUDY?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Yes</td>
<td>2 No</td>
</tr>
<tr>
<td>1 No Secondary School</td>
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<td></td>
</tr>
<tr>
<td>Count</td>
<td>241</td>
<td>80</td>
</tr>
<tr>
<td>Expected Count</td>
<td>277.2</td>
<td>44.5</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.7%</td>
<td>.9%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.2</td>
<td>5.3</td>
</tr>
<tr>
<td>2 Some Secondary School</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2050</td>
<td>504</td>
</tr>
<tr>
<td>Expected Count</td>
<td>2201.3</td>
<td>353.1</td>
</tr>
<tr>
<td>% of Total</td>
<td>23.2%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-3.2</td>
<td>8.0</td>
</tr>
<tr>
<td>3 All Years of Secondary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1272</td>
<td>265</td>
</tr>
<tr>
<td>Expected Count</td>
<td>1323.2</td>
<td>212.3</td>
</tr>
<tr>
<td>% of Total</td>
<td>14.4%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-1.4</td>
<td>3.6</td>
</tr>
<tr>
<td>4 Trade or Technical Qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1758</td>
<td>255</td>
</tr>
<tr>
<td>Expected Count</td>
<td>1735.0</td>
<td>278.4</td>
</tr>
<tr>
<td>% of Total</td>
<td>19.9%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>.5</td>
<td>-1.4</td>
</tr>
<tr>
<td>5 University</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2284</td>
<td>116</td>
</tr>
<tr>
<td>Expected Count</td>
<td>2067.8</td>
<td>331.7</td>
</tr>
<tr>
<td>% of Total</td>
<td>25.9%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>4.8</td>
<td>-11.8</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>7605</td>
<td>1220</td>
</tr>
<tr>
<td>Expected Count</td>
<td>7605.0</td>
<td>1220.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>86.1%</td>
<td>13.8%</td>
</tr>
</tbody>
</table>
### Chi-square tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>291.716$^a$</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>325.961</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>203.070</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>8834</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * 5 cells (33.3%) have expected count less than 5. The minimum expected count is .33.
<table>
<thead>
<tr>
<th>1995 Father's Level of Education valid cases</th>
<th>COURSE1: EVER COMMENCED A COURSE?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>COURSE1: EVER</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>1 No Secondary School</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>122</td>
</tr>
<tr>
<td>Expected Count</td>
<td>136.1</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.5%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-1.2</td>
</tr>
<tr>
<td>2 Some Secondary School</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1026</td>
</tr>
<tr>
<td>Expected Count</td>
<td>1110.1</td>
</tr>
<tr>
<td>% of Total</td>
<td>21.0%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.5</td>
</tr>
<tr>
<td>3 All Years of Secondary School</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>676</td>
</tr>
<tr>
<td>Expected Count</td>
<td>690.3</td>
</tr>
<tr>
<td>% of Total</td>
<td>13.8%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-.5</td>
</tr>
<tr>
<td>4 Trade or Qualification</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>950</td>
</tr>
<tr>
<td>Expected Count</td>
<td>957.4</td>
</tr>
<tr>
<td>% of Total</td>
<td>19.4%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-.2</td>
</tr>
<tr>
<td>5 University Degree or Diploma</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1305</td>
</tr>
<tr>
<td>Expected Count</td>
<td>1185.2</td>
</tr>
<tr>
<td>% of Total</td>
<td>26.7%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>3.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>4079</td>
</tr>
<tr>
<td>Expected Count</td>
<td>4079.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>83.5%</td>
</tr>
</tbody>
</table>
### Chi-square tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>122.652*</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>132.249</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>111.641</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>4887</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.95.
Table D3
1995 Father's Level of Education valid cases * 95 Post-School Study Type Valid

<table>
<thead>
<tr>
<th>Cases</th>
<th>95 Post-School Study Type valid cases</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 University Course</td>
<td>2 Other Course</td>
</tr>
<tr>
<td>1995</td>
<td>102</td>
<td>41</td>
</tr>
<tr>
<td>Father's Secondary School Level of Education valid cases</td>
<td>% of Total</td>
<td>Std. Residual</td>
</tr>
<tr>
<td>2 Some School Count</td>
<td>1050</td>
<td>298</td>
</tr>
<tr>
<td>Secondary School Count</td>
<td>1302.3</td>
<td>244.4</td>
</tr>
<tr>
<td>% of Total</td>
<td>14.4%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-5.9</td>
<td>1.4</td>
</tr>
<tr>
<td>3 All Years of School Count</td>
<td>781</td>
<td>169</td>
</tr>
<tr>
<td>Secondary School Count</td>
<td>766.2</td>
<td>149.4</td>
</tr>
<tr>
<td>% of Total</td>
<td>10.3%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-5</td>
<td>1.1</td>
</tr>
<tr>
<td>4 Trade or Technical Qualification Count</td>
<td>994</td>
<td>271</td>
</tr>
<tr>
<td>Expected</td>
<td>1102.8</td>
<td>206.9</td>
</tr>
<tr>
<td>% of Total</td>
<td>13.1%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-3.2</td>
<td>4.5</td>
</tr>
</tbody>
</table>
Table D3 (continued)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2 Other</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>University</td>
<td>TAFE</td>
<td>Apprenticeship</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td>Count</td>
<td>Course</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 University</td>
<td>1833</td>
<td>128</td>
<td>189</td>
<td>132</td>
<td>2282</td>
</tr>
<tr>
<td>Degree or Diploma</td>
<td>Expected</td>
<td>1445.5</td>
<td>271.2</td>
<td>396.1</td>
<td>169.2</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>% of Total</td>
<td>Std. Residual</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>24.2%</td>
<td>-10.4</td>
<td>1.7%</td>
<td>-2.9</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>4802</td>
<td>1316.0</td>
<td>562.0</td>
<td>7581</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>4802.0</td>
<td>901.0</td>
<td>1316.0</td>
<td>562.0</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>63.3%</td>
<td>17.4%</td>
<td>11.9%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

CHI-square tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>490.289*</td>
<td>12</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>517.224</td>
<td>12</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>259.006</td>
<td>1</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>7581</td>
<td></td>
</tr>
</tbody>
</table>

Note. * 0 cells (0%) have expected count less than 5. The minimum expected count is 18.16.
### Table D4

**1995 Father's Level of Education valid cases * Course 1 Level of Qualification**

<table>
<thead>
<tr>
<th>Course 1 Level of Qualification</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprenticeship</td>
<td>118</td>
</tr>
<tr>
<td>TAFE</td>
<td>18.0</td>
</tr>
<tr>
<td>University</td>
<td>69.6</td>
</tr>
<tr>
<td>Bachelor</td>
<td>51</td>
</tr>
<tr>
<td>Diploma</td>
<td>2</td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>Graduate Degree</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Father's Level of Education</th>
<th>Count</th>
<th>% of Total</th>
<th>Std. Residual</th>
<th>% of Total</th>
<th>Std. Residual</th>
<th>% of Total</th>
<th>Std. Residual</th>
<th>% of Total</th>
<th>Std. Residual</th>
<th>% of Total</th>
<th>Std. Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>1 No</td>
<td>30</td>
<td>0.8%</td>
<td>2.1</td>
<td>0.7%</td>
<td>4.4</td>
<td>3.3%</td>
<td>1.7</td>
<td>4.6%</td>
<td>2.2</td>
<td>4.8%</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>35</td>
<td>0.9%</td>
<td>1.7</td>
<td>7.2%</td>
<td>4.3</td>
<td>3.9%</td>
<td>7</td>
<td>11.6%</td>
<td>-1.0</td>
<td>3.9%</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>School</td>
<td>2</td>
<td>0.1%</td>
<td>4.0</td>
<td>2%</td>
<td>-1.0</td>
<td>9.1%</td>
<td>-1.4</td>
<td>16.7%</td>
<td>-1.4</td>
<td>9.1%</td>
<td>-1.4</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>51</td>
<td>1.3%</td>
<td>-2.2</td>
<td>11.6%</td>
<td>-4.9</td>
<td>12.2%</td>
<td>-2.6</td>
<td>23.2%</td>
<td>-2.6</td>
<td>12.2%</td>
<td>-2.6</td>
</tr>
</tbody>
</table>

### Notes

- The table shows the distribution of father's level of education for different courses and qualifications in the year 1995.
- The data includes counts of valid cases and a percentage of the total cases for each category.
- The table also includes standard residuals for each category.

### Analysis

- The highest count is for Bachelor level qualifications, with 51 cases.
- The lowest count is for Apprentice level qualifications, with only 2 cases.
- The percentage of total cases ranges from 0.1% to 11.6%.
- The standard residuals range from -4.9 to 2.2.
Table D4 (continued)

<table>
<thead>
<tr>
<th>Degree of Graduate</th>
<th>Apprenticeship</th>
<th>TAFE Diploma</th>
<th>University Diploma</th>
<th>Bachelor or Graduate Diploma</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 University</td>
<td>105</td>
<td>174</td>
<td>19</td>
<td>977</td>
<td>1275</td>
</tr>
<tr>
<td>Degree or Diploma</td>
<td>221.5</td>
<td>286.3</td>
<td>16.5</td>
<td>751.8</td>
<td>1275.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.7%</td>
<td>4.4%</td>
<td>0.5%</td>
<td>24.7%</td>
<td>32.3%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-7.8</td>
<td>-6.6</td>
<td>6</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>Total Count</td>
<td>681</td>
<td>887</td>
<td>51</td>
<td>2329</td>
<td>3950</td>
</tr>
<tr>
<td>Expected % of Total</td>
<td>17.3%</td>
<td>22.5%</td>
<td>1.3%</td>
<td>59.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Chi-square tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>271.150*</td>
<td>12</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>284.917</td>
<td>12</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>202.274</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>3950</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * 1 cells (5.0%) have expected count less than 5. The minimum expected count is 1.52.
Appendix E

LSAY 1998 Chi-Square Analyses of Parental SES Variables and Student Plans for College Access in 1998
### Table E1

**98 Post School Study? valid cases * FOCC SES quartile**

<table>
<thead>
<tr>
<th></th>
<th>FOCC SES quartile</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quartile 1 low</td>
<td>Quartile 2 medium low</td>
</tr>
<tr>
<td>98 Post</td>
<td>1 Yes</td>
<td>1737</td>
</tr>
<tr>
<td>School</td>
<td>Expected Count</td>
<td>1866.1</td>
</tr>
<tr>
<td>Study?</td>
<td>% of Total</td>
<td>20.4%</td>
</tr>
<tr>
<td>valid</td>
<td>Std. Residual</td>
<td>-3.0</td>
</tr>
<tr>
<td>cases</td>
<td>2 No</td>
<td>416</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>290.9</td>
</tr>
<tr>
<td>% of Total</td>
<td></td>
<td>4.9%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>7.6</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>2153</td>
</tr>
<tr>
<td></td>
<td>Expected Count</td>
<td>2153.0</td>
</tr>
<tr>
<td>% of Total</td>
<td></td>
<td>25.3%</td>
</tr>
</tbody>
</table>

#### Chi-square tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>182.994*</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>200.054</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>177.988</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>8516</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* 0 cells (0%) have expected count less than 5. The minimum expected count is 275.75.
### Table E2

#### 98 Post School Study? valid cases * MCCC SES quartile

<table>
<thead>
<tr>
<th></th>
<th>MOCC SES quartile</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quartile 1 - low</td>
<td>Quartile 2 - medium</td>
</tr>
<tr>
<td></td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>98 Post School Study? valid cases</td>
<td>1 Yes</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>1304.3</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>19.9%</td>
</tr>
<tr>
<td></td>
<td>Std.</td>
<td>-1.6</td>
</tr>
<tr>
<td></td>
<td>Residual Count</td>
<td></td>
</tr>
<tr>
<td>2 No</td>
<td>Count</td>
<td>234</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>174.7</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>3.7%</td>
</tr>
<tr>
<td></td>
<td>Std.</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>Residual Count</td>
<td></td>
</tr>
<tr>
<td></td>
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**Chi-square tests**

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Note: * 0 cells (0%) have expected count less than 5. The minimum expected count is 129.95.
Table E3

98 Post School Study? valid cases * Fathers education level

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<td>% of cases</td>
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Chi-square tests

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Note. * 0 cells (.0%) have expected count less than 5. The minimum expected count is 144.35.
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Chi-square tests

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Note. * 0 cells (0%) have expected count less than 5. The minimum expected count is 84.58.
Appendix F

LSAY 1998 Chi-Square Analyses of Parental SES Variables and Student Plans for Level of Study in 1998
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<td></td>
<td>Quartile 2</td>
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</tr>
<tr>
<td></td>
<td>Quartile 3 - medium</td>
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<td></td>
<td>Quartile 4 - high</td>
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Chi-square tests

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Note. * 0 cells (0%) have expected count less than 5. The minimum expected count is 188.99.
Table F2

98 Post-School Study Type valid cases * MOCC SES quartile

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<tr>
<th>MOCC SES quartile</th>
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<th>Quartile 4 high</th>
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<td>% of Total</td>
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### Chi-square tests

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Note. * 0 cells (.0%) have expected count less than 5. The minimum expected count is 92.46.
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Chi-square tests

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Note: * 0 cells (.0%) have expected count less than 5. The minimum expected count is 102.30.
### Table F4

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<td>Std.</td>
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<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Std.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Residual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2805</td>
<td>529</td>
<td>1303</td>
<td>2461</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2805.0</td>
<td>529.0</td>
<td>1303.0</td>
<td>2461.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% total</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>39.5%</td>
<td>7.5%</td>
<td>18.4%</td>
<td>34.7%</td>
</tr>
</tbody>
</table>
Chi-square tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>376.402*</td>
<td>6</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>401.870</td>
<td>6</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>272.249</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>7098</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * 0 cells (.0%) have expected count less than 5. The minimum expected count is 55.67.
Appendix G

LSAY 1998 Chi-square Analyses of Parental SES Variables and Student Actual Access in 2002
## Table G1

### Studying since leaving school? *FOCC SES quartile*

<table>
<thead>
<tr>
<th></th>
<th>FOCC SES quartile</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quartile</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 - low</td>
<td>2 -</td>
</tr>
<tr>
<td></td>
<td>medium</td>
<td>high</td>
</tr>
<tr>
<td>1 Yes, Count</td>
<td>455</td>
<td>544</td>
</tr>
<tr>
<td>Expected Count</td>
<td>527.7</td>
<td>614.3</td>
</tr>
<tr>
<td>% of Total</td>
<td>11.1%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-3.2</td>
<td>-2.8</td>
</tr>
<tr>
<td>2 No, Count</td>
<td>416</td>
<td>470</td>
</tr>
<tr>
<td>Expected Count</td>
<td>343.3</td>
<td>399.7</td>
</tr>
<tr>
<td>% of Total</td>
<td>10.2%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>3.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Total</td>
<td>871</td>
<td>1014</td>
</tr>
<tr>
<td>Expected Count</td>
<td>871.0</td>
<td>1014.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>21.3%</td>
<td>24.8%</td>
</tr>
</tbody>
</table>

### Chi-square tests

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>Asymp. Sig (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>4087</td>
<td></td>
</tr>
</tbody>
</table>

Note. * 0 cells (0%) have expected count less than 5. The minimum expected count is 343.33.
Table G2

<table>
<thead>
<tr>
<th>MOCC SES quartile</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartile</td>
<td></td>
</tr>
<tr>
<td>1 - low</td>
<td></td>
</tr>
<tr>
<td>2 - medium</td>
<td></td>
</tr>
<tr>
<td>4 - high</td>
<td></td>
</tr>
<tr>
<td>low</td>
<td></td>
</tr>
<tr>
<td>high</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Studying since leaving school?</th>
<th>MOCC SES quartile</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Yes,</td>
<td>1 - low</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>334</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>10.8%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.4</td>
<td></td>
</tr>
<tr>
<td>2 No, Working or Other</td>
<td>2 - medium</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>499</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>16.1%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.7</td>
<td></td>
</tr>
<tr>
<td>3 4 - high</td>
<td>4 - high</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>725</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>23.4%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>.3</td>
<td></td>
</tr>
<tr>
<td>4 Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1892</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>61.1%</td>
<td></td>
</tr>
<tr>
<td>Std. Residual</td>
<td>4.3</td>
<td></td>
</tr>
</tbody>
</table>

| Count                         | 1266              |       |
| % of Total                    | 38.9%             |       |
| Std. Residual                 | 3.4               |       |
| Total                         |                   |       |
| Count                         | 2069              |       |
| % of Total                    | 100.0%            |       |

Chi-square tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-square</td>
<td>80.849*</td>
<td>3</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>82.262</td>
<td>3</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>73.918</td>
<td>1</td>
</tr>
<tr>
<td>N of valid Cases</td>
<td>3998</td>
<td></td>
</tr>
</tbody>
</table>

Note. * 0 cells (.0%) have expected count less than 5. The minimum expected count is 206.82.
### Table G3

**Studying since leaving school? * Fathers education level**

<table>
<thead>
<tr>
<th>Fathers education level</th>
<th>No postsecondary</th>
<th>Apprenticeship</th>
<th>TAFE</th>
<th>University Degree/Diploma</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>613</td>
<td>626</td>
<td>300</td>
<td>1215</td>
<td>2758</td>
</tr>
<tr>
<td>% of</td>
<td>13.9%</td>
<td>14.2%</td>
<td>6.8%</td>
<td>27.6%</td>
<td>62.4%</td>
</tr>
<tr>
<td>Total Std.</td>
<td>-3.1</td>
<td>-4.0</td>
<td>-1.1</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Count                   | 469              | 550            | 212  | 403                       | 1664  |
| % of                    | 11.3%            | 12.4%          | 4.6% | 9.1%                      | 37.6% |
| Total Std.              | 3.9              | 0.1            | 1.4  | -8.4                      |
| Residual                |                  |                |      |                           |

| Count                   | 1112             | 1176           | 512  | 1622                      | 4422  |
| % of                    | 26.1%            | 26.9%          | 11.6%| 36.7%                     | 100.0%|
| Total                   |                  |                |      |                           |
Chi-square tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>182.771*</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>188.205</td>
<td>5</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>147.743</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>4422</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * 0 cells (3%) have expected count less than 5. The minimum expected count is 192.67.
Table C4

<table>
<thead>
<tr>
<th>Mothers education level</th>
<th>No post-secondary</th>
<th>Apprenticeship</th>
<th>TAFE</th>
<th>University Degree/Diploma</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studying since leaving school?</td>
<td>Count</td>
<td>905</td>
<td>162</td>
<td>414</td>
<td>1083</td>
</tr>
<tr>
<td>Yes</td>
<td>Expected</td>
<td>1028.5</td>
<td>127.7</td>
<td>40.9</td>
<td>923.1</td>
</tr>
<tr>
<td>% of Total</td>
<td>-3.8</td>
<td>-1.5</td>
<td>-0.8</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Count</td>
<td>144</td>
<td>131</td>
<td>291</td>
<td>307</td>
</tr>
<tr>
<td>Working or Other</td>
<td>Expected</td>
<td>620.5</td>
<td>110.3</td>
<td>259.3</td>
<td>556.9</td>
</tr>
<tr>
<td>% of Total</td>
<td>18.1%</td>
<td>3.2%</td>
<td>6.7%</td>
<td>9.7%</td>
<td>37.6%</td>
</tr>
<tr>
<td>Residual</td>
<td>5.0</td>
<td>10.0</td>
<td>-0.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Count | 1649 | 293 | 680 | 1480 | 4111 |
Total Expected | 1646.0 | 290.0 | 665.0 | 1480.0 | 4111.0 |
Total Count | 40.1% | 11.1% | 16.8% | 36.0% | 100.0% |
<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>120.815*</td>
<td>3</td>
<td>0.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>123.509</td>
<td>3</td>
<td>0.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>106.920</td>
<td>1</td>
<td>0.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>4111</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * 0 cells (0%) have expected count less than 5. The minimum expected count is 110.26.
Appendix H

LSAY 1998 Chi-Square Analyses of Parental SES Variables and Student Persistence/Attainment in 2003
<table>
<thead>
<tr>
<th>Study Status</th>
<th>1 University or</th>
<th>Count</th>
<th>375</th>
<th>440</th>
<th>551</th>
<th>901</th>
<th>2172</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Completion</td>
<td></td>
<td>% of Total</td>
<td>9.4%</td>
<td>11.1%</td>
<td>15.8%</td>
<td>20.0%</td>
<td>54.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Std. Residual</td>
<td>-4.8</td>
<td>-3.4</td>
<td>3</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>in 2002</td>
<td></td>
<td>Count</td>
<td>37</td>
<td>27</td>
<td>31</td>
<td>28</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>.3%</td>
<td>.7%</td>
<td>.8%</td>
<td>.7%</td>
<td>3.1%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>1.9</td>
<td>-5</td>
<td>0</td>
<td>-1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Completion</td>
<td></td>
<td>Count</td>
<td>34</td>
<td>42</td>
<td>35</td>
<td>28</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>.8%</td>
<td>1.0%</td>
<td>.9%</td>
<td>.7%</td>
<td>3.3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>.6</td>
<td>1.5</td>
<td>0</td>
<td>-1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in 2003</td>
<td></td>
<td>Count</td>
<td>119</td>
<td>128</td>
<td>98</td>
<td>64</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>2.7%</td>
<td>3.2%</td>
<td>2.4%</td>
<td>1.6%</td>
<td>10.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>2.3</td>
<td>3.2</td>
<td>-3</td>
<td>-4</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

**FOCC GES quartile**

- **1 - low**
- **2 - medium**
- **3 - medium**
- **4 - high**

**Total**

- 2172
Table H1 (continued)

<table>
<thead>
<tr>
<th></th>
<th>Quartile 1 - low</th>
<th>Quartile 2 - medium</th>
<th>Quartile 3 - medium</th>
<th>Quartile 4 - high</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low</td>
<td>high</td>
<td>low</td>
<td>high</td>
<td></td>
</tr>
<tr>
<td>5 Deferred</td>
<td>Count</td>
<td>19</td>
<td>23</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>22.5</td>
<td>24.6</td>
<td>25.7</td>
<td>26.3</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>.5%</td>
<td>.6%</td>
<td>.7%</td>
<td>.8%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>-.7</td>
<td>-.3</td>
<td>.5</td>
<td>.5</td>
</tr>
<tr>
<td>6 No study</td>
<td>Count</td>
<td>309</td>
<td>299</td>
<td>264</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>Expected</td>
<td>235.8</td>
<td>257.0</td>
<td>268.4</td>
<td>306.0</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>7.7%</td>
<td>7.5%</td>
<td>6.6%</td>
<td>4.9%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>4.6</td>
<td>2.6</td>
<td>-.3</td>
<td>-.3</td>
</tr>
<tr>
<td></td>
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<td>884</td>
<td>964</td>
<td>1097</td>
<td>1148</td>
</tr>
<tr>
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<td>Expected</td>
<td>884.0</td>
<td>964.0</td>
<td>1097.0</td>
<td>1148.0</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>22.1%</td>
<td>24.1%</td>
<td>25.2%</td>
<td>28.7%</td>
</tr>
</tbody>
</table>

Chi-square tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>206.201*</td>
<td>15</td>
<td>.001</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>210.903</td>
<td>15</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>151.955</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>4003</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * 1 cell (.01%) has expected count less than 5. The minimum expected count is 22.53.
### Table H2

#### Study Status in 2003 * MOCC SES quartile

<table>
<thead>
<tr>
<th>Study Status</th>
<th>MOCC SES quartile</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quartile 1 - low</td>
<td>Quartile 2 - medium</td>
</tr>
<tr>
<td></td>
<td>low</td>
<td>medium</td>
</tr>
<tr>
<td>University or TAFE study in 2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected Court</td>
<td>346.2</td>
<td>510.5</td>
</tr>
<tr>
<td>% of Total</td>
<td>8.6%</td>
<td>14.9%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-4.3</td>
<td>-2.3</td>
</tr>
<tr>
<td>Expected Court</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>% of Total</td>
<td>.6%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Expected Court</td>
<td>15</td>
<td>38</td>
</tr>
<tr>
<td>% of Total</td>
<td>.6%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Apprenticeship in 2003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected Court</td>
<td>55.4</td>
<td>81.7</td>
</tr>
<tr>
<td>% of Total</td>
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CH-square tests

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Note. * 0 cells (.0%) have expected count less than 5. The minimum expected count is 13.85.
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<td>TAFE</td>
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### Chi-square tests

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*N of Valid Cases: 4378

Note. * 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.39.
### Table H4: Study Status in 2003 * Mother's Education Level

<p>| Study Status | TAFE Study in 2003 | | | | Total |
|--------------|-------------------|-----------------|-----------------|-----------------|
|              | Count             | No post-secondary | Apprenticeship | TAFE | University Degree/Diploma |
| 1 University of | Expected          | 916.4           | 156.1          | 400.5 | 921.9 | 295.0 |
| in 2003       | % of Total        | 19.5%           | 3.0%           | 8.8% | 25.2% | 56.6% |
|               | Std Residual      | -4.1            | -2.7           | -2.1 | 6.1   |
| 2 Completion  | Count Expected    | 60              | 18             | 22    | 34    | 134   |
| in 2002       | % of Total        | 1.5%            | 1.1%           | 23.4  | 34.6  | 134.0 |
|               | Std Residual      | .9              | 2.9            | .3    | -2.0  |
| 3 Completion  | Count Expected    | 56              | 12             | 30    | 27    | 125   |
| in 2003       | % of Total        | 1.4%            | 3.3%           | 7.1%  | 7.3%  | 3.1%  |
|               | Std Residual      | .9              | 1.2            | 1.8   | -2.7  |</p>
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<th>Apprenticeship Expected</th>
<th>TAFE Count</th>
<th>TAFE Expected</th>
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<td>% of Total</td>
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<td>2.2%</td>
<td>1.7%</td>
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<td>.2%</td>
<td>.5%</td>
<td>1.1%</td>
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<td>.3</td>
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<td>6.4%</td>
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<td>Total</td>
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<td>1453</td>
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Chi-square tests

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Note. * 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.28.
Appendix I

WSF-2000
The following text was translated from the original Dutch using Microsoft World Lingo software. Contextual editing was performed by the author in selected areas to bridge gaps in translation not performed by the software.

Law study financing 2000 (Stb. 280)
We Beatrice, at the grate god, queen of the The Netherlands, princess of Orange Nassau, etc. etc. etc.
All, that will read these see or, salmll, to do namely know:
Also we have considered, which it desirably the law on study financing is modify as a consequence of the coalition agreement 1996 and of the note flexibility study financing, scheme that is appropriate;
that it is in addition desirable the legibility of the law on study financing to increase;
that it concerning the large number of modifications desirable to withdraw the law on study financing is and repeal by a new law,
Thus it, that we, the Council of State heard, and, is with malicious consultation of the staten-Generaal, have approved and have understood, right We approve and understood at these:

CHAPTER 1. GENERAL PROVISIONS

Article 1.1. Definitions of a concept
1. In this law and then the resting provisions it is understood under:
: at or under general measure inferred of governing board to determine amount, of total of the minimum wage and the minimum holiday pay for a person whose birthday it is,
profession education, profession training meant as in Article 7.2.2 of the law education and profession education, as far as it concerns the beresopleindende leerweg, and as meant in Article 2.14, as far as training is an profession education commented,
person under obligation: the one which itself under Article 5.2 has obliged to repayment,
participant: the one who follows profession education,
more higher profession education: more higher profession education in the sense of the law on the higher education and scientific research,
more higher education: scientific education and higher profession education as in paragraph 2.3 and in Article 2.14, as far as training is as higher education commented,
ib-Group: information management group, called in the law liberation information bank,
loan: interest bearing loan which is not possible are converted into a gift, notwithstanding the fishing out, meant in Article 5.14, and the conversion, meant in Article 10.8,
Our minister: Our minister of Education, culture and sciences,
older: natural parent or adoptive father in the sense of Article 197 up to and including 232 of book 1 of civil Statute book,
partner:
1st. the one with which the studying or person under obligation is married or with he who he a registered partnership has contracted and of he who he durably not separated lives, 2nd. person of different or right slaughtered with aut he who the studying or person under obligation durably a joint household conducts with he who he has not married not a registered partnership has contracted, unless it concerns persons between whom consanguinity in the first or second degree exists,
base year: second year before year in which the study financing period starts,
: interest bearing loan which under conditions can be converted into a gift, where the interest pentheses, are not the interest bearing loan which cannot be converted into a gift,
travel supplies: supplies meant as in Article 3.7 and paragraph 3.7.

student: the one who follows higher education, are not extras, nationals.

study financing: by I.B.-Groep supplied granting concerning following a training in the profession education or in the higher education on which exclusively on the basis of this law reorganisation exists.

study financing period: calendar year or a part of it on which the granting of study financing is related on the understanding that this period at lowest 1 calendar month is, study year.

1. in the higher education: period that starts on 1 September of some calendar year and finishes on 31 Augusts following.

2. in the profession education: period that starts on 1 August of some calendar year and finishes on 31 July following.

: entity in which study charge, meant in Article 7.4, first paragraph, of the law on higher education and scientific research, are expressed.

living at home studying: studying those live on the address of its parents or of them, of them.

uitwonende studying: studying that living at home studying is not.

assumed parental contribution: amount which is assumed by being contributed the parents with which additional grant of studying is reduced.

full-time training: training in the sense of the law on the higher education and scientific research, with exception of part-time education.

: Law education and profession education.

scientific education: scientific education in the sense of the law on the higher education and scientific research.

WHW: Law on the higher education and scientific research.

2. In the definition of a concept "partner" is talk of a joint household, if 2 persons their main residence the same house have and they show to ensure for each other means of studying a contribution on the costs of the household or otherwise. A joint household is considered in any case present if the interested parties have their main residence in the same house and:

a. they with each other married have been or earlier for the granting of study financing as married people has been commented,

b. from their relation a child is born or recognition has taken place of a child of by the other one,

c. she obliges themselves reciprocally have in contribution to the household under an appropriate cohabitation agreement, of they on the basis of a recording become committed as a joint household which to nature and scope corresponds to a joint household as meant in the first volzin.

3. At administrative regulation, on recitation of our minister and ours Minister of Social Affairs and Employment, can closer rules becomes put for the purpose of the second paragraph.

4. Under full-time training it is understood a dual training in the sense of the WHW.

Article 1.2. Qualifying date

For the application of the provisions or under this law determinative the situation on the first day of the month is, unless it has been stipulated differently.

Article 1.3. Conditions on application.

To which conditions must satisfy an application, can be stipulated at ministerial regulation. In any case becomes thereby stipulated that social-fiscal supply the number among which he sit to the applicant the realm Tax and Customs Administration has been registered.
Article 1.4. Minority
A minor is competently the acts of law at to perform that is necessary granting of study financing at to obtain. He is in addition competently perform the acts of law which necessarily is concerning the exercise, onder synthesized, compliance of for him from the granting of study financing resulting straightening and obligations.

Article 1.5. Place of residence
Where studying lives, becomes to circumstances assessed.

CHAPTER 2, SCOPE OF ACTION
Paragraph 2.1.

Article 2.1. Range and conditions study financing
This law regulates study financing and is of application on studeren den which meets the conditions concerning:

a. nationality meant as in Article 2.2,

b. age meant as in Article 2.3, and

c. education type meant as in the paragraphs 2.2 up to and including 2.4.

Article 2.2. Nationality
For study financing is possible studying comment comes that:

a. Dutch nationality has,

b. but not Dutch nationality has in the Netherlands lives and in pursuance of a treaty of a decision of international organisation in the field of the study financing with Dutchman is equated, or

c. but not Dutch nationality has in the Netherlands lives and belongs to at administrative regulation suitable group of persons who for the area of study financing with Dutch are equated.

Article 2.3. Age
1. For study financing a participant can comment comes as of the first day of the trimester on which he age of 18 years has reached.

2. For study financing a student can comment comes which on the first day of the trimester in which he higher education will follow:

a. more youngly than 18 years: as of the first day of the following trimester, or

b. 18 years is or parent: as of the first day of the month in which he is higher education will follow.

3. For study financing is possible studying comment comes up to and including the month in which he has the age of 30 years reaches.

4. Contrary to the third paragraph preserves studying at reaching age of 30 years's revendication as long as he without discontinuance: study financing enjoys.

Paragraph 2.2.

Article 2.4. profession education
For study financing a participant can comment comes that has been registered to:

a. an institution meant as in Article 1.3.1 of the WEB, as far as it a's realm paid for fund profession training concerns, or

b. an institution which with respect to profession training it in Article 1.4.1 of the WEB meant right has obtained.

Article 2.5. Revendication
1. A participant is not entitled study financing if he has been registered to a training of which expensive, included highly 12 holiday weeks, shorter is than 1 year.

2. The revendication on study financing of participant meant as in Article 2.3, to I.B.-Group have notified. The period of 8 weeks is extended with the weeks in which because of holiday or education was looked after.

3. A participant is entitled only study financing if the profession education satisfies to the following conditions:
a. training has a study charge of at least 650 bell hours per study year which is spent on following lessons, training periods or professional practice shaping, in accordance with the education - and examination regulation for training concerned, and
b. training has per study year total study charge of a such scope that moreover no complete working environment possibly is.

**Article 2.6. Disclosure at does not satisfy to Article 2.5, third paragraph, and revendication on study financing**

1. If our minister has decided that training does not meet the conditions, called in Article 2.5, third paragraph, he this makes confesss to the institution. The disclosure has legal consequence 2 successive study years. If the disclosure is done for 1 March, training does not satisfy during the 2 study years which follow at the time of the disclosure. If the disclosure has been done on or after 1 March satisfies the training not during the second and third study year which follows on time of the disclosure.
2. For the participant who over the month in which it decision to disclosure, meant in the first paragraph, was taken, study financing received for following that training, applies in deviation of Article 2.5, third paragraph, who he are revendication on study financing preserves:
   a. to the end of the calendar year, if disclosure has been done for 1 March, and
   b. to the end of the study year which succeeds the time of the disclosure, if the disclosure has been done on or after 1 March.

**Article 2.7. Revendication at end study profession education**

1. The revendication on study financing expires with entrance of the month which follows on the day on which the participant the last study year of a training with success has concluded.
2. If the participant connecting to study year that as a last study year had been comment4, again that last study year starts, arises revendication on study financing for remaining part of the calendar year.
3. If the participant after the concluding examination within 4 months another training in the sense of the law will follow, contrary to the first paragraph, on its application the revendication becomes study financing with highly 4 months extended up to September of the latest of that calendar year. He becomes in between both training the located period commented as a participant to first training. Contrary to Article 3.21, second paragraph, that claim is submitted before the end of the period of 4 months.

Paragraph 2.3. More higher education

**Article 2.8. Paid for full-time training higher education**

For study financing a student can come to that has been registered for following full-time training an institution paid for to:

a. to in the appendix at the WHV laid down university or college, or
b. by an institution which looks after a training at look of which Article 6.5, third paragraph, or 6.10, third paragraph, of the WHV has been applied.

**Article 2.9. Designated full-time training higher education**

1. For study financing a student in comment can to come that has been registered for following full-time designated training which is looked after by:
   a. under Article 6.9 of the WHV suitable institution,
   b. an institution which looks after a training at to consider of which Article 6.5, third paragraph, or 6.10, third paragraph, of the WHV have been applied, or
   c. an institution which under Article 16.14 of the WHV it has been designated.
2. For study financing the student can only qualify if the education concerns:
   a. means as in Article 1.1, component e, of WHV, or
   b. meant as in Article 7.4, fourth paragraph, first volzin, or fifth paragraph, first or third volzin, of the WHV.
Article 2.10 Paid for full-time ecclesiastical training higher education
For study financing a student can count on costs that have been registered for following full-time scientifically theological training at behove of which no herengede-chap concerned because of a contribution is granted richly.

Article 2.11. At implementing regulation higher education designated
For study financing a student can count on costs that have been registered for following at general measures of governing board articulation higher designated that differently than on the basis of the WWhV, complete and from the public fund is paid for directly.

Article 2.12. More higher education in E.E.A Countries
For a loan during highly 36 months a student can qualify who:
  a. the concluding examination with success has gained, performance grant has enjoyed, and
  b. education follows to at ministerial regulation designated training for higher education in a state The Netherlands which party is at the agreement concerning European economic Space.

Article 2.13 No revendication or no more revendication
A student is not entitled study financing:
  a. if he after expirations revendication on the performance grant during 36 months a loan has enjoyed,
  b. if 10 years have expired with entrance of the month about which study funding has been for the first time allocated for fellow of higher education,
  c. as of the month next on the month in which he has reached the age of 34 years, or
  d. if he has been registered to a training of which the duration, included highly 12 holiday weeks, shorter are than 1 year.

Paragraph 2.4. Remaining provisions

Article 2.14 Foreign training
1. For study financing is possible studying comment comes that has been registered for following education to at ministerial regulation designated training which leads to testimonials or diplomas at look of which within the framework of the agreement concerning European Economic Area specific regulations has become binding concerning mutual recognition or comparability.
2. Our minister indicates only training outside The Netherlands of which is the duration similar with corresponding Dutch training in the sense of the WEB or the WWhV. He indicates thereby or training to the profession education or the higher education belongs.

Additionally, puts he the duration of training fixed.

Article 2.15 No revendication study financing as a participant at coincidence profession education and higher education
The studying that money is chargeable on ground of Article 5, second paragraph, of the lesson - and course fee law and levies as a student if extraneous stand registered in the higher education, applies to granting of study financing not as a participant.

Article 2.16 No revendication for profession education after higher education
Studying is not entitled study financing for following a training in the profession education, if he has years already 4 study financing enjoy for following a training in the higher education.

CHAPTER 3. Study FINANCING

Paragraph 3.1. Composition study financing

Article 3.1. Study financing
Study financing exists from basic grant, from basis loan and from additional grant or additional loan.

1. study financing is possible entirely or partially are granted in the form of:
  a. gift,
b. performance grant, or
c. loan.
3. The level of study insancing becomes determined on the basis of a budget for a calendar month.

Article 3.2. Composition month budget
1. The budget for a calendar month is total of:
   a. standard amount for the costs of insancing,
   b. a standard amount for books and educational tools,
   c. an allowance in the costs of education contribution, and
   d. travel supplies.
2. This budget can be raised with:
   a. a standard amount for the health insurance,
   b. an allowance for a partner in pursuance of Article 3.
   c. an allowance for a one-parent family in pursuance of Article 3.5.
3. The allowance in the costs of education contribution is determined for studying in:
   a. the profession education on a twelfth part of under Article 5, second paragraph, of the lesson and course fee law determined or revised amount of the money, and
   b. the higher education on a twelfth part of in Article 7.43 of the WHW amount meant.
4. Studying is possible only for the standard amount for the health insurance qualify, if the against risk of medical expenses has been insured at an insurer as meant in Article 1, component f, of the Medical Insurance (Access) Act 1998.

The amounts have been incorporated in Article 3.18

Article 3.3. standard amount health insurance
1. For the application of Article 3.2, fourth paragraph, determinative the situation on the first day of the study financing period is.
2. At or under administrative regulation closer rules are adopted intended for the standard amount, in Article 3.2, second paragraph, component a.

Article 3.4. Allowance partner
1. To studying with a partner who financially of him dependent is and that in comment does not occur study funding, is allocated an allowance for a partner.
2. Exclusively as financially-dependent becomes commented the partner who has an income amount to more than it full-time amount for the cost of living for unwedone studying, meant in Article 3.18. and the that care has of one or more children that younger is than. 12 years for which on the basis of the National Child Benefits Act revenue allocation on child benefit exist. Under-income it is understood it on the foot of Article 3.17 calculated net income.
3. The amount, meant in the first paragraph, is incorporated in Article 3.

Article 3.5. Allowance one-parent family
1. To studying without partner who or more children has of younger than 18 years which not to the household of other one belongings, for he who these on the basis of the National Child Benefits Act on child benefit is entitled a one-parent family, becomes an allowance for granted
2. The amount has been incorporated in Article 3.18

Paragraph 3.2. Contribution government
6. Basic grant
1. The altitude of the basic grant is differing for from - and studenten living at home and for profession education and higher education. The amounts have been incorporated in Article 3.18
2. Of the basic grant travel supplies make part from, unless it has been stipulated differently.
3. Of the basic grant are possible the allowances, meant in Article 3.4 and 3.5, determine part.

Article 3.7. Form granting travel supplies
1. Travel supplies can exist from:
   a. a card for travelling for which studying to the public transport company no amount or an amount with discount chargeable is, a card for travelling for which studying to private transport company no amount or a low tariff chargeable is, or a card in which 2 or more of these elements has been combined;
   b. supplies in money, or
   c. a combination of the component a and b.
   At ministerial regulation it is stipulated which of in the first paragraph applies given possibilities.
2. When travel supplies entirely or partially money exists, becomes the altitude of the amounts which for several groups differing from studentendelt can be, stipulated administrative regulation. The previous volzin does not apply to amount, meant in Article 3.25.

Paragraph 3.3. Contribution, parents
Article 3.8. Additional grant
1. The level of additional grant is depending on of parental income and it is calculated in pursuance of Article 3.19 up to and including 3.13
2. The maximum amount of additional grant is incorporated in Article 3.18

Article 3.9. Qualifying salary pension assumed parental contribution
1. Criterion for the provision of assumed parental contribution is taxable entering the separate parents of studying in the sense of the law on the income tax 1964 in base year. As far as a parent not internal taxpayer is in sense of the law on the income tax 1964, is considered as a criterion for assumed parental contribution taxable entering for the case he for all income components internal taxpayer are has been. If a part of earning was from income tax is exempted meant in pursuance of provisions from international tax as Article 40 of the general law concerning realm taxes, is considered as a criterion it taxable entering for the case he had obtained no exemption.
2. If in pursuance of Article 64 of the law on income tax 1964 no attack is determined if a parent becomes determined where setoff of the salaries tax remains in default, steps the pure remunerations, meant in Article 9 of the law on the salaries tax 1964, the place of taxable entering.
3. Taxable entering in the base year becomes, if it a negative amount has been put, on nil. Then becomes then decrease brought the free foot. This foot is to the criterion of 2001 right to 12 937.76. If of the parents has died, applies to the other order a double free foot. If is not adopted studying that and that as a resident in the municipal municipal population registers is registered, blijktens that basis administration only one parent has or Article 3.14 has been employed, is the previous volzin of corresponding application. If a parent for the income tax has been classified in tax code 4 or 5, and for him no double free foot applies, applies to him contrary to the third volzin a free foot which to the criterion of 2001 equal is to 16 634.26.
4. Gross the discount amount on an annual basis is 26% of the difference between taxable entering in the base year and the free foot that year.
5. Meant on gross the discount amount, in fourth paragraph, is deducted:
   a. the periods set in pursuance of chapter 6 over a year or, if this is less, the calculated draagkracht if older tevens person under obligation is, and
   b. [363], - for every child that in the study year that starts in the year before the study financing period, under the functioning of the chapters if or III of the law allowance study costs falls.
6. The fifth paragraph, component b, is not of application if on the child article 16, second paragraph, under 3°, of the law allowance and that applies study costs up to 100 special education or follows continued special education. The amount that after the application of the fifth and the sixth paragraph remains, is the qualifying salary pension for a parent of assumed parental contribution on an annual basis.

8. If a child for which the calculation, meant the fifth paragraph, component b, has taken place, under the functioning of these law will fail, becomes as of the time on which this child under functioning of this law will fall, the assumed parental contribution, meant calculated in the seventh paragraph, again.

9. The qualifying salary pension for a parent of assumed parental contribution on month basis is the contribution, meant in seventh paragraph, shared by 12.

**Article 3.10 Base year deflection of trade at decline in income**

1. On application of the parents or of them or on application of studying becomes at application of Article 3.9, if the second year is after of a decline in income concerning the first or base year, assumed that year.

2. For the purpose of the first paragraph becomes under a decline in income understand a reduction of the sum of taxable incomes of the two parents with at least 15% with respect to base year on the understanding first:
   a. the reduction cannot be counted to incomenschommeigenen which it can be in general considered commonly normal at chosen wise of income far recruitment, and
   b. plausibly is made that during at lowest 3 calendar years will be met the requirements called in openings words, as well as in component a.

**Article 3.11. Not yet determined if not yet confessed enter**

For the application of Article 3.9 and 3.10 becomes as long as taxable entering concerning the base year, the first or the second year after the base year it has been not yet determined or pure remunerations concerning year concerned the parent is not yet confessed, by Hb-Groep for that in the place put an amount which it taxable income to determine of if pure remunerations as well as possible approach.

**Article 3.12.**

If a parent has been classified after the base year in another tax code, becomes on application of that parent or studying attitude of the free foot, meant in Article 3.

**Article 3.13 Assumed parental contribution**

1. The assumed parental contribution is the sum meant of the month amounts, in Article 3.9, ninth paragraph. Assumed parental contribution can amount to never more than maximum additional grant for studying.

2. The additional grant of studying becomes diminished with in the first paragraph meant assumed parental contribution. The reduction is ni. if assumed parental contribution negatively is.

3. If a parent has more than one child that right has to study financing and that concerning concerned month, becomes the month amount has requested an additional grant, meant divided in the first paragraph, concerning these children.

**Article 3.14 Unwilling or untraceable parents**

1. On application of studying is possible to him granted additional loan is supplied in the form of additional grant, if there is talk of a long-term institutions seriously disturbed proportion between parent and studying or of orinindbathcheid of the parent. Under long-term seriously disturbed proportion is not understood in any case conflicts of a financial nature is related that to the study.

2. If the first paragraph is employed, is Article 3.9, third paragraph, fourth violin, of corresponding application and are Article 3.13, third paragraph, not of application.
3. At administrative regulation become every case criteria given to assess the question if
talk is of:
   a. application meant as in the first paragraph, and
   b. the conditions among which the granting of application occurs.

Paragraph 3.4. Contribution studying

Article 3.15
The basis loan is a loan. The altitude of basis loan has been taken out in Article 3.18

Article 3.16 Additional loan
The difference between the maximum amount of additional grant and for a studying
calculated additional grant becomes granted to him on application as an additional loan.

Article 3.17 Progress because of own income studying
1. If studying in a calendar year meerinkomen have, lead this to a progress, of lb-Groep
   on studying. Meerinkomen are the test income, diminished with a free foot towards the
criterion of 1 January 2000 of 8,849,-. At the calculation of test income is Article 3.9,
   first paragraph, second and third volzin, and second member, of corresponding
   application.
2. The test income is total of:
   a. the remunerations in the sense of the law on salaries tax 1964, reduced with the
      ingerbouden salaries tax and premiums social insurances and the premium chargeable
      by the employer and the employee for the insurance in pursuance of the Health
      Insurance Act,
   b. the profit from enterprise, meant in department 2 chapter II the law on the income tax
      1964, enjoyed in calendar year concerned, and
   c. not as remuneration the employment enjoy pure income, meant in section 3 of
      chapter II of the law on income tax 1964.
3. To the test income do not belong:
   a. a benefit on the basis of general Social Assistance Act, the Social Security
      Supplements Act or the law income scheme older and partially incapable of work
      unemployed employees of the law income scheme older and partially incapable of work
      indicated self-employed persons, and
   b. study financing supplies on the basis of this law and as far as in this income
      understood.
4. For every month that studying a benefit receives in the sense of Surviving
   Dependents Act, remains of it an amount for the size of the amount for, an individual
   living at home participant insured, meant in Article 3.6, outside consideration.
5. At the calculation of the test income continues enter outside consideration of which
   shows studying that it is acquired over the period in the calendar year in which he
   without discontinues, none studying was in the sense of this law or in which he
   apart from to be reindication on study financing. This can concern only the period:
   a. those start at the start of the calendar year, or
   b. those finish at the end of the calendar year.
6. When studying the company exercised, , for the purpose of the 5th paragraph, the
   profit from enterprise becomes, meant in section 2 of chapter II of the law on the income
   tax 1964, which gained in the calendar year concerned, on its application it is reduced to
   month amounts by sharing that profit by 12.
7. If studying in a calendar year meerinkomen have, are that studying to lb-Groep
   chargeable:
   a. as much for the size of the meerinkomen, with verstande do not serve that this
      amount larger can be than the amount of with relation up to that calendar year which
      receives studying grant, and
for every month in which he had at some moment the card, meant in Article 3.7, the amount right to a twelfth part of the value of travel supplies, meant in Article 5.3, second paragraph, multiplied with number of months about which taking into account the fifth paragraph it test income has been calculated.

9. Mean concerning the chargeable amounts, in seventh paragraph, interest is calculated on the foot of Article 6.3 and 6.4, with entrance of the first day of the calendar month next on the day on which arrangement has been to the point given.

9. If studying for 1 June of calendar year to lb-Groep the in writing task strikes as of the amount meerkomen in to that calendar year preceding calendar year, it is eighth paragraph on these studying not of application, insofar amount that date by him has been paid.

An application of studying to lb-Groep to study financing to conclude has to for the application of fifth paragraph exclusively functioning concerning calendar months after the date of tender of this application.

Paragraph 3.5. standard amounts

Article 3.18 Overview standard amounts

The amounts in overview mentioned below sound by month and has been expressed in euro to the criterion of 1 January 2000:

Overview 1.

<table>
<thead>
<tr>
<th></th>
<th>More higher education</th>
<th>profession education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
<td>297.06</td>
<td>297.05</td>
</tr>
<tr>
<td>a. living at home</td>
<td>448.07</td>
<td>449.07</td>
</tr>
<tr>
<td>b. uitwonend</td>
<td>449.81</td>
<td>39.20</td>
</tr>
<tr>
<td>Books and educational tools</td>
<td>32.42</td>
<td>32.42</td>
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<tr>
<td>standard amount health insurance</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overview 2. financing sources

<table>
<thead>
<tr>
<th></th>
<th>More higher education</th>
<th>profession education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic grant (excl. toeslagen)</td>
<td>65.46</td>
<td>49.33</td>
</tr>
<tr>
<td>a. living at home</td>
<td>201.59</td>
<td>185.46</td>
</tr>
<tr>
<td>b. uitwonend</td>
<td>191.56</td>
<td>264.09</td>
</tr>
<tr>
<td>(or assumed parental contribution)</td>
<td>159.15</td>
<td>231.67</td>
</tr>
<tr>
<td>a. living at home, individual insured</td>
<td>175.03</td>
<td>247.56</td>
</tr>
<tr>
<td>b. health insurance fund living at home insured</td>
<td>223.74</td>
<td>122.37</td>
</tr>
<tr>
<td>c. uitwonend, individual insured</td>
<td>444.61</td>
<td>444.61</td>
</tr>
<tr>
<td>uitwonend, health insurance fund insured basis loan</td>
<td>355.79</td>
<td>355.79</td>
</tr>
</tbody>
</table>

Allowance partner

Paragraph 3.6. Granting

Article 3.19 Granting study financing

1. lb-Groep know study financing satisfy the one who has submitted to this eno a claim and those to regulations given at or under this law

2. lb-Groep decide on an application for study financing:

if the claim has been submitted by 1 November of the year before the calendar year on which study financing is related by 31 December of that preceding year, and
b. If the claim has been submitted after in component a meant time: within 8 weeks after the tender of the application.

Article 3.20 Partial granting
If the data supplied on the basis of impossible the amount of additional grant is determined, knows fbg-Groep the requested amount in the form of a loan.

Article 3.21 Granting period
1. Study funding is allocated by study financing period, study funding is not allocated for period which is lain for the date of tender of the application.
2. To studying that already study financing receives and an application has submitted to qualify for:
   a. The standard amount for uitvondende studying,
   b. The standard amount for the health insurance,
   c. An allowance for a partner, or
   d. An allowance for a one-parent family.
   The increase of study financing does not become granted lain for a period before the month in which the application has been submitted.
3. On application of studying interrupts or fbg-Groep conclude study financing as of the calendar month which studying in its application indicates. Discontinuance includes at least 1 month.

Article 3. To interrupt training because of sickness
If a studying because of sickness its training interrupts and on its application study financing has been interrupted, he applies connecting to the moment of to interrupt exclusively still as study financing beneficiary studying for itself as studying medical expenses or to ensure to the time on which he insured or jointly insured is in pursuance of the Health Insurance Act, or on him health insurance scheme for public servants for civil servants applies, yet at the latest 6 months after study financing has been interrupted.

Paragraph 3.7 Granting travel supplies
Article 3.23. Rules granting travel supplies as a card
When travel supplies entirely or partial it is supplied in the form of a card, is Article 3.24 up to and including 3.30 of application.

Article 3.24. Legal person who supplies the card
1. Contrary to Article 3, first paragraph, component a, of the law liberation informa"ringbank comes ours Minister with a legal person that the this supply of the card carries out.
2. At purpose of the first paragraph is possible at ministerial regulation is stipulated that the application for the card for reasons of efficiency at fbg-Groep are submitted.
Article 3. Training the Netherlands: no card but money
1. The training that right has study financing for following a training, receives the Netherlands meant such as travel supplies instead of a card the amount, Article 5.3, second paragraph.
2. Contrary to the first paragraph is possible studying meant as in the first paragraph, on its application as travel supplies a card to receive.

Article 3.26. Period of validity; scope of rights
1. At ministerial regulation rules are given concerning the period of validity of the cards and the manner of supply, lengthening or renewal, and concerning the scope of rights which are linked to these cards. At that regulation are possible supplements on the Article closer regulations is given with relation a card choice turned into the choice between cards and to revision of.
2. A studying that right has to travel supplies, are possible in the period of validity of the card made card choice a time seconders or the understanding that the revision is not possible start in the months of May up to and including August and either it is possible as from the time which a rejoinder has been requested.
3. The revision, meant in the second paragraph, has relation on the period which remains for the validity of the card.
4. At ministerial regulation becomes cost-recovery amount determined that to studying in count becomes brought at the application of the revision of the choice.

Article 3.27. Swift inneverplicht
1. Studying obliged is card is in a supply on by the supplier of the card to give up wise at the latest the fifth working day after: a. to be right to study financing has been concluded,
b. the student a loan for following training meant as in Article 2.12. has been supplied, or
c. to be right to a card under Article 3.25 or meant on the basis of the ministerial regulation in Article 3.7, Second member, has been replaced by travel supplies in the form of money.
2. Studying that the card which wrongfully him has been granted, takes away, has been obliged this hand in card for the first day on which the card has become wrongfully for him valid.
3. At swift do not hand in of the card is the one to he who a card has been supplied as meant in the first and second paragraph, to supplier of the card for the part still remaining of the validity of it, an amount of 0.3. - by half calendar month or a part of half calendar month chargeable, irrespective of or has been used the card first half of a calendar month runs up to and including the fifteenth day of month. Second half runs up to and including the end of that month.
4. The first and second paragraph is not of application concerning a period at look of which the one to which card has been granted, shows that not swift handing in the card him on absolutely no manner can be attributed. The supplier of the card can rules give concerning the way in which and the time for which, this must be shown.
5. At ministerial regulation rules are given concerning the conditions among which are exempted studying from in the first and second paragraph meant duty the card hand in if meant in case of robber stable or lose no rejoinder as in Article 3.29. Is supplies. Thereby a cost-recovery amount is determined that to studying for administrative costs is charged.

Article 3.28. Duplicaten van de kaart
1. At ministerial regulation rules are given concerning the conditions among which and the way in which rejoinders of the card is able be supplied. Thereby is possible a cost-recovery amount becomes determined that studying for the rejoinder chargeable is.
To in the first paragraph rejoiner meant for the studying the same has been linked ngrits and duties as to card, unless provisions given at or under the law the opposite prove to be.

3. A rejoiner is always of the same card choice as the last card which was concerning that card year to studying supplies.

Article 3.25. Compensation at no card or rejoiner
1. When studying wrongfully concerning period, has he receives no card over that period towards the supplier meant of the card revindicition on compensation for the size of the amount, Article 3.27 third paragraph, subject to no more than 3 months for the beginning of calendar month concerned, both study financing has requested and all required data for can grant of study financing has supplies. If it concerns a card as meant in Article 3. Studying as compensation, at the latest within 2 weeks after the day on which he which application for the first time study financing has granted got or, if this later is, at the latest within 2 weeks after the moment on which is for the first time right study financing discussed.

2. Over the period for which studying at once the no rejoiner meant as in Article 3.25 or no other card as consequence of a revised choice meant as in Article 3.26, has he receives towards the supplier of the card by half calendar month a part of half calendar month right to compensation meant for the size of the amount, in Article 3.27 third paragraph. Studying the compensation requests, at the latest within 2 weeks after the day on which he which application for the first time study financing has granted got or, if this is later, external within 2 weeks after the moment on which had supplied the rejoiner must be.

3. During the period which meant in the regulation, in Article 3.28, it has been put for the supply of a rejoiner, as well as meant during the period which in the regulation, in Article 3.26 it has been put for supplying another card in case of revision of the choice of the card, the studying no right to compensation for the fact has that he no use has been possible make of the card.

4. Studying has, as far as at or under this law has not been differently stipulated, no right to only compensation if of card none or only partially is used.

Article 3.30 Closer rules for travel of and to waddenlanden
For travelling between waddenlanden and the fixed country can our minister with the municipalities of these islands agreement closer concerning additional supplies which these municipalities certain groups studeranden supply.

CHAPTER 4. Profession EDUCATION

Article 4.1. Range profession education
This chapter applies exclusively to participants who have been registered to an institution as meant in Article 2.4.

Article 4.2. Form in which study financing is supplied
The study financing is supplied in the form of a gift or a loan.

3. Long-term absence in the profession education
1. The study financing of the participant who without valid reason in the education has not taken part during unbroken period of at least 5 weeks, exists with exception of travel supplies entered from a loan as of the first day of the month next on the month in which the absence without valid reason started, period of 5 weeks is extended with the weeks in which because of holiday none education was looked after.

2. Contrary to the first paragraph is possible ministerial regulation is stipulated that for types of profession education if first paragraph of corresponding application is, if a participant in or more education entities without valid reason to the education does not have taken part.
3. Under absence with valid reason becomes exclusively understand absence because of sickness of the participant, which weakness exclusively can be shown by means of a gedagtekenende declaration of a doctor, of absence because of particular family circumstances.

Article 4.4. Presently within 8 weeks
Article 4.3 does not apply as of the first day of the month next on the month in which the participant to education in will take part, as far as that study financing not already on the basis of another provision then this Article, the form of a loan had. Condition for the application of the previous volzin is that the participant to education is will take part within 8 weeks after the commencement of the period of 5 weeks. The periods of 5 and 8 weeks are extended with the weeks in which because of holiday no education was looked after.

5. Long-term absence not paid for in the profession education
1. The governing board of the legal person of which institution, meant in Article 2.4, component 5, goes out or natural person who keeps this institution in score, puts as the latest on the third working day after a period of absence of 5 weeks the participant in knowledge that of it in the administration of the institution a note has been made and the participant requests for statement of the reason for the absence.
2. Uiterlijk op de vijfde werkdag na de periode van 8 weken stelt het bestuur van de rechtsperson of de natuurlijke persoon vast:
a. or the reason which the participant 8 weeks the commencement of the period of 5 weeks gave for its absence, valid is, or
b. that the participant 8 weeks after the commencement of the period of 5 weeks no reason has given up for its absence.

The governing board of the legal person or natural person puts tevens at the latest on the fifth working day after the period of 8 weeks permanently or the participant before the end of that period to the education is will take part.

4. The governing board of the legal person or natural person communicates at the latest the fifth working day after a period of 8 weeks to lb-Groep that the participant who during unbroken period of at least 5 weeks without task of valid reason not to education has taken part. Also he communicates, if that participant for end of that period of 8 weeks to the education is will take part, date of it.

5. The periods of 5 and 8 weeks are extended with the weeks in which because of holiday no education was looked after.

6. The governing board of the legal person or natural person sends simultaneously with the communications, meant in fourth paragraph, a duplicate of the data which concerning the person concerned to lb-Groep have tevens been supplied, to this person concerned and indicate thereby that absence meant as in Article 4.3, has impact for study financing of person concerned, as well as which profession pace for person concerned open state meant against the communications, in the fourth paragraph.

CHAPTER 5. MORE HIGHER EDUCATION; Performance GRANT
1. General

Article 5.1. Reikwijdte hoger onderwijs
This chapter applies exclusively to students who after 31 August 1996 for following higher education for received firstly study financing.

Article 5.2. Form in which study financing is supplied
1. study financing, with exception of basis loan and the additional loan, becomes, during 4 years or the number years called in Article 5.6, supplies in the form of a performance grant, with verstande serve that the additional grant in the first 12 months for which revendication on study financing exists it is supplied in the form of gift.
2. If meant to the conditions, in this chapter, is satisfied performance grant is converted into a gift. This conversion only one time is possible.

study financing becomes during 36 months the period, meant in the first paragraph, supplies in the form of a loan. Amount that per month can be lent, amounts to contrary to Article 3.1, third paragraph, 3.2, 3.13 and 3.18 towards the criterion of 1 January 2000. Also travel supplies can be supplied.

Article 5.3. Form in which travel supplies are supplied

1. Contrary to Article 5.2, first paragraph, becomes the study financing in the form of travel supplies supplies in the form of a performance grant during in that member meant number of years, multiplied with 3 years.

2. The part of performance grant which relation has on the right to travel supplies, is to a twelfth part equal of value which for that by studying by the transport company to our minister account is brought. The value is calculated by the provisional compensation for the current calender year to correct to the correction which provisional compensation for the preceding calender year underwent. This part of performance grant is not paid or is not settled.

3. If performance grant is converted loan, the exchange-value of travel supplies is acuallified concerning month about which the card has been handed in or has not been distributed. Contrary to Article 1.2 determinative the situation at some moment of the month is. Concerning to said amount built interest perishes then. The remission is not of application on a month in which the travel supplies in the form of amount in money has been supplied or compensation such as has been meant in Article 3.25. is granted.

Article 5.4.

1. A loan for following a training as meant in Article 2.12 becomes on application during highly 36 months exclusively study financing supplies in the form of for the number of months a loan on which the student has not done still.

2. The amount that per month can be lent, amounts to contrary to Article 3.1, third paragraph, 3.2, 3.13 and 3.18 towards the criterion of 1 January 2000. Also travel supplies in Article 3.17 does not apply.

Article 5.5. Diploma period

The diploma period is a period of 16 years. These period catches to on the first day of the month about which for the first time study funding has been allocated for following higher education.

Article 5.6. Expensive of performance grant

1. If a student with success if concluding examination has gained of a training of which is the study charge based on a period of less than 4 years in accordance with Article 5.2, first paragraph, is reduced the number of to put months with this difference. If a student has gained with success the concluding examination of training at lock of which Article 7.31a of the WHV has been applied, becomes it number to put months reduced with 12.

2. Performance grant becomes during 5 years supplies, if it concerns a training with a study charge of 210 credits:

a. called in Article 7.4, third paragraph, first volzin, of the WHW, and

b. called in Article 7.4, such paragraph, of the WHW.

3. Performance grant becomes during 6 years supplies, if it concerns a training called in Article 7.4, third paragraph, second volzin, of the WHW with a study charge of 252 credits. The number to put months are reduced with the difference between 252 credits and the study charge which has been based on a smaller number of months, if student

4. Performance grant becomes during 6.6 years supplies, if it concerns:
a. a training gedelegeerd to public university which, blikken the education - and
examination programme, is followed combination with the education within the
framework of a training because of kerkgenootschap to teacher or office holder of that
kerkgenootschap, and
b. a training of 252 credits aimed a religious or philosophical office to a particular
institution scientific education or to under Article 6.
The period of 4 years, calated in Article 5.2, first paragraph, and the period of 5 years,
called in the second paragraph, as far as it concerns a training as called in Article 7.4,
sixth paragraph, of the WHW, with 1 year it is extended, if the student follows a training
as meant to:
a. Article 7.4, fourth paragraph, first volzin, of WHW.
b. Article 7.4, fifth paragraph, first volzin of WHW, and
c. Article 7.4, fifth paragraph, third volzin, of WHW.
6. Ib-Groep extend on application of the student the number of years performance grant,
meant in this Article, one-off with 1 year, if the student blijkters gedagtekeende
declarations of a doctor and of the governing board of the education institution where he
has been registered, as a result of physical, sensual or other function impairment not
able is it concluding examination with success to wind up within that number of years
performance grant.
2. Conversion at concluding examination or B.A. examination
Article 5.7. Conversion in gift at to graduate within diploma period
1. If a student within the diploma period it concluding examination of a training with
success has concluded, becomes performance grant granted to him converted into a
gift. The previous volzin is not of application on the first 12 months performance grant
which under Article 5.12 can be converted.
2. If a student within the diploma period it concluding examination of a training with
success has concluded, becomes remaining period of its performance grant supplied in
the form of a gift if the another training starts in the sense of the law.
3. With examination it is a concluding equated the examination of a part-time training or
a training of open University, as far as these examinations by the WHW with that right
becomes put.
Article 5.8. Conversion in gift at to conclude B.A. examination
If our minister has designated a training meant of what with success concluding the B.A.
examination, Article 7.5a, second paragraphs, of the WHW, can introduce to conversion
as meant Article 5.7, and a student within the diploma period this B.A. examination with
well, becomes performance grant granted to him has concluded consequence converted
into a gift.
Paragraph 5.3. conversion procedure
Article 5.9, bulletin flow between institution, Ib-Groep and student.
The conversion, meant in Article 5.7 or 5.8, takes place on 1 January of the calendar
year next on the sending meant of the communication, in Article 7.9d of the WHW, or the
communication, meant in Article 9.5, fifth paragraph. As soon as possible after the
conversion puts Ib-Groep the student of it in knowledge.
2. A student who the examination, meant in Article 5.7 or 5.8, with success has taken off
to an institution on which Article 7.9d of the WHW does not apply, sends after at the
latest 3 months expiring the diploma period, by the institution concerned of more higher
education stamped copy of that examination linked diploma Ib-Groep and submit thereby
a claim to conversion of performance grant. On that copy the institution mentions the
date on which the examination with success has been concluded. The conversion takes
place on 1 January of calendar year next on the application.
Paragraph 5.4. conversion procedure at stoppers or changes for 1 February in first study year

Article 5.10 Stoppers for 1 February
If a student in the study year for which he at some moment for the first time performance grant enjoys, stops study financing to enjoy by 1 February, and he not over datzellide study year again study financing for following higher education gets granted, becomes on 1 January of the calendar year next that study year in that study year granted performance grant converted into a gift.

Article 5.11. Change for 1 February
If a student in the first study year why he enjoys study financing at some moment for following training meant as in Article 2.8, 2.9 or 2.10 by 1 February training will follow to a training such as is meant in Article 2.11 and 2. Article 5.7, third paragraph, applies.

Paragraph 5.5. conversion procedure first 12 months

Article 5.12. Conversion first 12 months performance grant
1. If a student for a training as meant in Article 2.8, 2.9 or 2.10 has at least 21 credits gained in a study year in which he at some moment for the first time study financing has enjoy, becomes the first 12 months of to him granted performance grant converted into a gift. For a student who has himself registered after 31 January of a study year, applies, contrary to first volzin, a standard of 14 credits.
2. At the appraisal of in the first paragraph meant performance counts credits which have been gained for yes or no full-time training meant to an institution as in Article 2.9 or 2.10 As the appraisal of in the first paragraph meant performance counts not the credits which have been gained as a result of an exemption as meant in Article 7.10, second paragraph, component r, and 7.31a, of the VHW.
3. If the student already in the study year, meant in the first paragraph, satisfies to Article 5.7, he satisfies it to first paragraph.
4. Contrary to the first and second paragraph, is possible Our minister on application of an institution permits that instead of credits another standard for the appraisal of study progress becomes used. This other standard has been expressed equivalently to the standard in credits. Training has as such arranged that a student in a redeliktied can satisfy to in the previous volzin meant standard. This application is possible exclusively are done by an institution as meant in.
   a. Article 2.10, and
   b. Article 2.8 and 2.9, as far as it concerns of a particular institution going out training gogeleerorded or of such institution going out training aimed at religious or philosophical office.
5. The performance grant, meant in the first paragraph, of the student for whom Ib-Groep the communication as meant in Article 9.5, fourth paragraph, or meant in Article 7.9b, second paragraphs, of the VHW, have to receive, becomes on 1 January of the calendar year next on study year concerned by right converted into a gift. Ib-Groep make the conversion as soon as possible confessed to the student.

Article 5.13 Insufficient study performances in first 12 months
If the student insufficient study performances blijken the communication to Ib-Groep have gained, meant in Article 9.5, fourth paragraph, or meant in Article 7.9b, second paragraphs, of the VHW, become with entrance of 1 January of the calendar year next on the first study year performance grant, meant in Article 5.12, first paragraph, with exception of additional grant, by right determined as a loan. Contrary to the first volzin becomes for the student who has registered himself after 31 January in that study year allocated study funding with exception of additional grant by right determined as a loan.
Paragraph 5.6. Fishing out for conversion first 12 months

Article 5. Fishing out for conversion first 12 months performance grant
1. If a student, meant as in Article 5.12, first paragraph, does not have the three required
21, onderscheidenlijk 14 credits gained, but within the diploma period with success ½
concluding examination, has gained, becomes converted performance grant concerning
in Article 5.12, first paragraph, meant months still converted into a gift. Article 5.7, third
paragraph, applies.
2. The conversion finds on application of the student place, simultaneously with the
conversion, meant in Article 5.3, second paragraph, in that member meant disclosure by
lb-group are related to both conversions together.

Paragraph 5.7. Conversion at particular circumstances

Article 5.15. Incapacity for work
1. A student at some moment within diploma period 80% or more incapable of work
becomes in the sense of the law invalidity insurance young disabled people, becomes to
him granted performance grant converted into a gift.

Article 5.16. Particular circumstances
1. If a student as direct consequence of particular circumstances of a temporary nature
not able are within diploma period with success the concluding examination to gain,
these become period extended with the duration of those particular circumstances.
2. If a student as direct consequence of particular circumstances of a structural nature
not able are with success the concluding examination to gain, performance grant
granted to him becomes converted into a gift.
3. If a student as direct consequence of particular circumstances not able are required
the number of credits at to gain, meant in Article 5.12, first paragraph, becomes the first
12 months of performance grant granted to him converted into a gift.
4. If a student acquired as direct consequence of during the study hand-cap as a result
of itself during the study a worsening handicap or as a result of itself a manifesting
sickness or condition during the study forced a training has already started conclude,
receives the student at choice 1½ a more appropriate training new revendication on
study financing.
5. lb-Group put on application of the student permanently or triere talk is of particular
circumstances of this Article. The particular circumstances can be exclusively shown
gedagtekendes declarations of a doctor and the natural person or the governing board of
the legal person of the education institution where he has been registered. If particular
circumstances exclusively of a not-medical nature are, are enough gedagtekende
declaration of the natural person or the governing board of legal person of the education
institution where the student has been registered.

Paragraph 5.8. To perish interest

Article 5.17. To perish interest
At conversion of a performance grant or a part of it in a gift the interest built concerning
the amount will to put.

CHAPTER 6. ADVANCEMENT AND REPAYMENT STUDIESCHULD

Article 6.1. Loan
In this chapter under loan it is understood performance grant.

Article 6.2. Obligation person under obligation repayment study debt
1. Reception of a loan or conversion in loan, or conversion meant as in Article 6.19, the
one oblige which study financing has received to repayment of the loan multiplied with
according to this chapter interest calculated.
2. As from the annual bonus for which after study year 2000-2001 revendication on study financing exists in pursuance of chapter 5 is possible granted and additional grant converted into loan an application of the person under obligation are acquitted.

3. At administrative regulation becomes stipulated:
   a. to which taxable income of the person under obligation and to be partner remission possible is,
   b. or is distinguished for a person under obligation with partner and a person under obligation without partner who is presence or absence of studying in sense of this law, and
   c. to which time an application can become submitted.

4. Concerning to scold the amount built interest perishes at the time of remission.

5. Article 6.11. first and seventh paragraph, is of corresponding application. Article 6.12 and 6.

6. If the person under obligation tevens a debt from loan has meant such as in chapter III of the law allowance study costs, that debt for the application of this chapter is commented as a debt in the sense of this chapter.

7. An adopted regulation, administrative under the third paragraph, becomes discussed to the two chambers of the Staten-Generaal. He acts in functioning, a time that after celebrate week after the submission has expired at Royal Deedes is determined, unless which period by or on behalf of of the chambers or by at least a fifteenth of the constitutional number members of of the chambers know the wish are given that the subject law is regulated. In that case a proposal of law becomes as soon as possible submitted. If the proposal of law is withdrawn or if of the two chambers of Staten-Generaal the proposal does not decide to adopt, the administrative regulation is revoked.

Article 6.3. Observation interest percentage

Our minister puts annually at the latest in December an interest percentage permanently that equal is to over the month of October of that year by the central office for statistics announced average effective output of public loans, floated by the state of the The Netherlands and allowed to the quotation to the official market for the beurze of Amsterdam, with an average remaining duration of 3 up to 5 years.

Article 6.4.

1. Concerning the contracted loans is, as far as it debt still due does not concern as meant in Article 6.8, interest chargeable 'n accordance with the second and third paragraph. Interest calculation enters on the first day of the month which follows on the day on which the amount to loan at the supplier of that loan it has been written down.

2. The interest concerning by studying in study financing period taken out loan is calculated per day on the basis of composed interest and is chargeable concerning the amount of every repayment separate on the understanding that in case the repayment not within 2 weeks after the due date it has been received, on foot of these provision calculated interest is added at the principal sum.

3. In the period which to the repayment period in advance goes, at the calculation of the interest, it is meant in the first and second paragraph, for each calendar year the interest percentage used that on ground of Article 6.3 at the latest in December of to that year is preceding year determined. In the repayment period becomes at the calculation of the interest, intended in the first and second paragraph, for each period of 5 calendar years commencement of the repayment period, the interest percentage used that on ground of Article 6.3 at the latest in December of that period preceding year has been determined.

4. For the calculation of the interest on the foot of the second paragraph is put a month on 39 days and a year put on 360 to summon.
5. If under Article 10.7, third paragraph, study funding loan allocated over a study year becomes, goes interest calculation on 1 January of the calendar year next on the date on which the form of a studying study funding allocated to unconditionally it has been determined.

6. At administrative regulation are possible closer to regulate concerning the Second up to and including the fifth paragraph is put.

Article 6.5, repayment period
1. The repayment period starts on 1 January of the year next on the year in which someone has been stopped studying at to be.
2. The repayment period exists from run-up phase and afoosase.
3. If the person under obligation again becomes studying, the repayment period is suspended.
4. The suspension, meant in the third paragraph, becomes concluded if the person under obligation not within 8 weeks after the sending of request of In-Groep or person under obligation still studying is, then has answered. The suspension reacts up to the date of sending of request, or as much rather as the person under obligation stopped studying at to be. An application to suspend the repayment again does not become permitted for a period which is lain by the date of tender of application.

Article 6.6, run-up phase
1. The run-up phase covers the first 2 calendar years after commencement of the repayment period.
2. During the run-up phase exists none obligation to repayment.

Article 6.7, Afoosase
1. The afoosase cover subject to application of Article 6.9, third paragraph, 15 calendar years next on the run-up phase or so much less months if monthly periods have been calculated on the basis of second paragraph. This period is extended if Article 6.15, second paragraph, of application is.
2. At the beginning of the afoosase becomes original monthly repayment period calculated application of Article 6.9, second paragraph, component a, on the basis of the amount to built study debt multiplied at the start of the run-up phase, with in run-up phase concerning that amount calculated interest. Thereby no account becomes kept within the afoosase, without openbaar to be, has been paid back in run-up phase. The duration of the afoosase is calculated by the amount which in run-up phase has been paid back share by the outcome of the first votin. Thus obtained number is down wound up and gives to the number original monthly periods that at the run-up stage have been paid back. The afoosase are reduced with the number original monthly periods.

Article 6.8, Debt still due
1. Under deal still due it is understood an amount of the obligatory repayment on account of this chapter or from account of Article 7.4 that 2 weeks after the due date not yet has been received.

Concerning the debt still due interest is chargeable. As an interest percentage the percentage of the legal interest becomes used. This interest is calculated per day on the basis of compound interest, where is put a month on 30 days and a year is put on 360 days.

3. If the person under obligation is still due at payment becomes with this debt still due at the duration of the afoosase, meant in Article 6.7, at the determination of the monthly period, meant in Article 6.9 and 6.17 as well as at persist of the debt, meant in Article 6.18, no taken into account.

4. Article 6.4 does not apply.
Article 6.9. Observation and payment repayment periods
1. Interest and relay of the loan expire during the aflasfaase in monthly periods.
2. The altitude of the monthly periods becomes basis of the number of months of the aflasfaase. If still remaining number of months from the aflasfaase to equal amounts determined the commencement of:
   a. the first year of the aflasfaase,
   b. the fourth year of the aflasfaase, and
   c. every fifth year after the fourth year of aflasfaase.
3. Notwithstanding Article 6. At ministerial regulation is possible amount this paid attention to the remuneration development to become recenonters.
4. Interest and relay of the loan of person under obligation who lives abroad, expires, contrary to the first member, during the aflasfaase in annual periods. If that person under obligation itself before the end of a year period, becomes he establishes mietwerk in the Netherlands during the end of that year period as a person under obligation who in foreign country lives, Article 6.4 and 6.6 is in that case of corresponding application.
   On application of in the first volzin mean person under obligation decides Ibi-Groep that the interest and relay of the loan do not expire in annual periods but in monthly periods.
5. At ministerial regulation can regulate oser are put for the observation and payment of the repayment periods.

Article 6.10 Observation draagkracht person under obligation
1. If the person under obligation is not able set period to satisfy, is possible he during the aflasfaase at Ibi-Groep a claim to submit to determine its draagkracht for remaining aflasfaase.
2. The draagkracht of the person under obligation is its draagkracht enters.
3. If the person under obligation for 1 October of some year its draagkracht for the following calendar year has asked fixed at couples, pay he during that calendar year the amount of its draagkracht. If a claim has been submitted for draagkrachtvaststelling after 30 September of the calendar year before the calendar year on which that application is related yet for 1 January of the calendar year on which that application is not related, pays the person under obligation earlier than over the month February of the latter calendar year the amount of its draagkracht. If the person under obligation on or after 1 January of some year has asked be draagkracht for that calendar year to determine, the person under obligation pays with entrance of the first day of the month next on the month in which he are application, during the remaining part of that calendar year it has submitted amount of its draagkracht on the understanding that in this case the amount of its draagkracht is shared by 12 and afterwards is multiplied with remaining number of calendar months of that calendar year.
4. Ibi-Groep decide on an application for draagkrachtvaststelling:
a. if the claim has been submitted by 1 October of the year before the calendar year on which that application relation has by 1 January of that calendar year.
b. if the claim has been submitted after 30 September and by 1 December of the year before the calendar year on which that application is related: by 1 February of that calendar year, and
   c. if the claim has been submitted after under a meant time: within 8 weeks after the tender of the application.
5. If the amount of the draagkracht is higher then the amount of the set period, pays the person under obligation the amount of the set period.

Article 6.11. Draagkracht person under obligation enters on an annual basis
1. Criterion for the determination of the draagkracht of the person under obligation enter is income taxable is in the sense of the law on the income tax 1964 in the second year preceding the year for which the draagkracht is determined. Article 3.9, first paragraph,
second and third volzin, and second paragraph, are thereby of corresponding application. Thus certain income is the draagkrachtinkomen.

2. On the draagkrachtinkomen becomes in practice brought the draagkrachtvrije loot. This foot is equal to taxable minimum wage in the second year preceding the year for which draagkracht is determined, if the person under obligation for the income tax is classified in tax code 3, 4 or 5. If the person under obligation has been classified in tax code 1 or 2, is the draagkrachtvrije loot 0%, onderscheidenlijk 50% of the foot which would apply at classification in tax code 3.

3. Remaining entering is divided in 2 disks for the size of half of in the second paragraph meant draagkrachtvrije loot as well as a third disk for the size of 260% of taxable minimum wage in the second year preceding the year for which draagkracht is determined, with the draagkrachtvrije loot reduced and first and the second disk.

4. If the person under obligation is or partner taxable entering has that smaller is than the sum of in the second paragraph meant draagkrachtvrije loot and the first 3 full disks, meant in third paragraph, becomes the part of the draagkrachtvrije loot and the first 3 disks that not yet is exploit, transferred to the other one. Thereby becomes onbenutte part of a disk added to the corresponding disk of the other one and the onbenutte part of the draagkrachtvrije loot to the draagkrachtvrije loot of the other one.

5. If the person under obligation is and partner draagkrachtinkomen have that smaller is than the sum of in the second paragraph meant draagkrachtvrije loot and the first 3 full disks, meant in third paragraph, the fourth paragraph is applied in the sense that the person under obligation or to be partner with the lowest draagkrachtinkomen the onbenutte part of draagkrachtvrije loot and the first 3 disks are transferred to the other one.

6. The draagkracht of the person under obligation enters is 7.9% of the first disk plus 15.8% of the second disk plus 23.7% of third disk plus 30% of superior.

7. For the application of this Article becomes if taxable entering or pure remunerations in the second year preceding the year for which the draagkracht is determined, is not yet confessed, by Ib-Groep for that put in the place an amount which it to determine taxable entering or pure remunerations as well as possible approaches.

**Article 6.12. Decline in income**

1. On application of the person under obligation becomes at application of Article 6.11 assumed entering a another year then entering over the second year preceding the year for which draagkracht is determined, if: a. talk is of a decline in income concerning year preceding the year for which the draagkracht is determined, which case is assumed the year preceding the year for which draagkracht is determined, or

b. talk is of a decline in income concerning year for which the draagkracht is determined, which case is gone out of the year for which the draagkracht is determined.

2. For the purpose of the first paragraph, becomes under a decline in income understand a reduction of taxable incomes of the person under obligation of at least 15% with respect to the second year preceding the year for which the draagkracht is determined, with serve verstande that:

a. the reduction cannot be counted to inkomensschommelingen which it can be in general considered commonly normal at chosen wise of income far recruitment, and

b. plausible is made that during at least 3 calendar years will we meet the conditions, called in openings words as well as in component a.

3. For the purpose of the first paragraph becomes as long as the taxable minimum wage over the second year preceding year for which the draagkracht is determined, the year preceding year for which the draagkracht is determined, of the year for which draagkracht is determined not yet is definitely confessed, for that in put that to the
judgement of I&-Groep place the amount it eventual tax-free minimum wage as well as possible approaches.

Article 6.13 Other adaptation of draagkracht person under obligation
If the person under obligation after the second year preceding to the year for which the draagkracht becomes n determined it has been classified in other tax code, becomes on application of the person under obligation the attitude of its draagkracht accordingly adapted.

Article 6.14 Draagkracht partner of person under obligation
1. If the person under obligation on the basis of its draagkracht not able is the set pay period, becomes the draagkracht of the partner calculated in accordance with Article 6.10 up to and including 6.13
2. If the draagkracht of the person under obligation not sufficiently is for paying the period, mean in Article 6.9, Second member, the draagkracht of the partner is applied for remaining part.

Article 6.15 On application draagkracht does not count partner
1. At the provision of the draagkracht of person under obligation is not taken into account entering the partner is of a both for that purpose application submit.
2. For every year that on the basis of the application of the first paragraph it is not taken into account entering the partner of the person under obligation the atofasfase are extended with a year.

Article 6.16 Partner of person under obligation also person under obligation
If the partner of the person under obligation also a person under obligation, its draagkracht is is applied firstly for its own period. At look of the amount which remains to draagkracht Article 6.9.14. second paragraph, of corresponding application.

Article 6.17
1. If a person under obligation during a calendar year on the basis of its draagkracht less has paid than the period, mean Article 6.9, second paragraph, its period is again set by 1 January of the year following. The modified period is set on basis of the remaining number of months of the atofasfase.
2. If during the atofasfase modifications actions in the attitude of original monthly repayment periods, mean in Article 6. The modified period is set on the basis of remaining number of months of the atofasfase.

15 guarantee provisions
1. The debt which remains at the end of atofasfase, peiseh on that moment.
2. The debt which remains at dying person under obligation, perishes on that moment.

Article 6.19 Conversion of no longer computable debts in loan
1. On the moment of suspension of the right study financing of studying becomes its debt, onttsaat in the framework converted of the application of this law, by right into a loan.
2. If after suspension of the right study financing of studying by an arrangement under Article 7.1 a progress arises of I&-Groep, that progress is converted into loan on the first day of the month after the revision. At the calculation of interest for that progress the interest percentage is used that applies with entrance of 1 January next on the calendar year in which is studying to have stopped studying. If the conversion takes place in calendar year in which stops studying studying to be, it becomes interest percentage used that applies as of 1 January of that calendar year. Article 6.4, third paragraph, last volzin, are at the calculation of interest of corresponding application.
3. Contrary to the first and second paragraph becomes a debt from a loan and a debt, onttsaat application of Article 3.27, third paragraph, not converted.
4. In the first or second paragraph loan mean becomes rentedragend as of the time of the there mean conversion.
CHAPTER 7. REVISION
1. Revision tb-Groep
   1. tb-Groep can reconsider an arrangement where:
      a. study funding has been allocated,
      b. the form of study financing has been fixed,
      c. the period is set or is modified,
      d. the draagkracht of the person under obligation becomes determined,
      e. the altitude of the loan is determined or modified, or
      f. the attitude of assumed parental contribution is determined or is modified.
   2. Revision takes place on the basis of the fact that:
      an arrangement is taken of which studying knew or reasonably could have known that
      these incorrect was,
      b. the situation of long-term absence, meant in Article 4.3, has not occurred bijkens a
         revision of communication, meant in Article 4.5, sixth paragraph,
      c. too much or too little study financing is granted, the form of study financing it has been
         incorrectly fixed differently than meant in component b, the form of the study financing
         under Article 106, seventh paragraph, is again determined, the period too high or too low
         is determined if the draagkracht of the person under obligation is too high or too low
         determined, the attitude of the assumed parental contribution too high or at layer has
         been determined on the basis of incorrect if incorrectly processed data differently then
         meant under a.
      d. person concerned has acted in fight with provisions at or under this law,
      e. has not been obeyed the application of parents or of then, or of studying under Article
         3.10 or application of the person under obligation under Article 6.12, because could not
         become met the condition called in Article 3.10. second paragraph, component b, and
         has proven to be that it has been met during 3 calendar years the conditions called in
         Article 3.10. second paragraph, openings words as well as component a,
         onderdeeldenlijk Article 6.12, second paragraph, openings words as well as the
         components a and b,
      f. has been obeyed the application of the parents or of them, or of studying of Article
         3.10 or the application of the person under obligation under Article 6.10. Second
         opened as openings words as well as component a, onderdeeldenlijk Article 6.12. second paragraph,
         openings words as well as the components a and b, or
      g. other, closer proven to be facts or circumstances, that, they had been rather
         confessed, to another arrangement conducted.
   3. A revision meant as in the second paragraph components a, b, c, as far as it concerns
      the form of study financing, e if i is possible, subject to the case of fraud, only occurs,
      within 5 years the end of the study financing period concerned, the calendar year why
      the period has been set or the calendar year for which the draagkracht of the person
      under obligation it has been determined. Subject to in case of fraud, is possible revision
      differently than meant in the first volzin, only occurs within 18 months after the end of
      the study financing period concerned, it calendar year for which the period has been set or
      the calendar year for which draagkracht of the person under obligation has been
      determined.
   4. The first paragraph does not apply to arrangement where the form of the study
      financing under Article 107, seventh paragraph, has been unconditionally determined.

Article 7.2. Revision supplier of the card
1. The supplier of the card, meant in Article 3.7, an arrangement reconsider where, can:
   a. a revision of the choice of the card is refused,
   b. concerning by studying not swift handing in the card an amount chargeable by him
      has been determined,
c. a rejoinder meant as in Article 3.28, of that card has been granted or has been refused;
d. if it has been determined that the studying that card or a rejoinder of it, wrongfully has not received, or
e. the application of studying, mean Article 3.25, for as travel supplies a card to receive, it has been granted or refused.
Revision takes place on the basis of the fact that:
a. a decision is taken of which the one towards which the decision was taken, knew or reasonably could have known that these incorrectly was,
b. an incorrect decision was taken on the basis of incorrect or incorrectly processed data differently than meant under a.
c. person concerned has acted in fight with provisions at or under this law, or
d. other, closer proven to be facts or circumstances that, they had been rather confessed, to another arrangement conducted.
3. A revision meant as in the second paragraph, component a, is possible, subject to the case of fraud, only occurs within 5 years after the end of the period on which the supplies in money or the card is related. Subject to the case of fraud is possible a revision differently than meant in the second paragraph, component a, only occur within 18 months the end of the period on which the supplies in money or the card relation has.

Article 7.3. objection procedure
Article 7.2 up to and including 7.9 of the general law administrative law does not apply.

Article 7.4. Setoff too much allocated and paid study funding
1. if a revision arrangement meant as Article 7.1, first and second paragraph, or Article 7.2, or a decision on objection to this end, becomes the amount of the basic grant gives reason or additional grant that surplus has been paid, by the person concerned paid back or with him settled. Also setoff takes place of the amounts, meant in Article 3.27.
2. third paragraph, and 3.29, first and second paragraph;
2. If a revision arrangement meant as Article 7.1, first and second paragraph, or a decision on objection to this end reason gives, becomes as far as the amount for which the right for a loan to conclude too high has been granted, the part which has been granted too high and paid paid back by the person concerned or settled with him.
3. If a revision arrangement meant as Article 59 of the law allowance study costs, or a decision on objection to this end reason gives, becomes the amount to allowance that surplus is paid, paid back by the person concerned or settled with him.
If meant after provisional supplies as in title 8.3 of the General Act on Administrative Law, the decision mainly to this end, becomes the amount that gives reason on the basis of provisional supplies surplus have been paid, by the person concerned paid back or with him settled.
5. If the agreement, mean in Article 3.24. with another legal person then lb-Groep it has been decided, become ministerial regulation closer rules given concerning the procedure with relation to the setoff.
6. In the first up to and including fifth paragraph meant repayment, as far as Article 6.19, and setoff does not apply to occur in accordance with of ministerial regulation to determine reasonable repayment rules.

CHAPTER 5. DISBURSEMENT, SETOFF AND COVERING

Article 8. Disbursement and setoff
1. Concerning the disbursement of study financing and the setoff of the granted amount study financing with to lb-Groep the chargeable education contribution, become at administrative regulation regular keen
2. If a granted amount study financing 12 months after the end of the calendar year in which arrangement concerned has been given, cannot be paid as a consequence of
Article 8.2. Education contribution
1. If by I.Groep for studying that at the start of a study year still no revindicatory study financing had, concerning that study year an allowance the costs of the education contribution for following the professor, education as well as continued education, special education or continued special education has been supplied and to studying over one or more months of that study year study financing is granted, becomes to the end of that study year monthly a twelfth part of that allowance commented as an advance on the study financing of studying, with serves verstande that no longer amounts to this advance than the amount that per month it has been granted.
2. At administrative regulation are possible rules are determined concerning giving an advance on allowance in the education contribution.

Article 8.3. Covering
1. Is at or under this law chargeable amount for whole or the part swiftly not satisfied, then reminds I.Groep negligent at letter to for still within 2 weeks after reception of that letter in this the mentioned amount to him belong to to do. Follows on this summons, then I.Groep do not waardig payment within the set period wrt execution. The wrt of execution produces executoriaal title, which with application of the regulations of the statute book of civil Right progress in the Country can be executed.
2. In applying the first paragraph become beside the debt still due also the amount of judicial or buitengerechtelijke costing and the legal interest ingeworpen.
3. Within 4 weeks after the pronouncement displeases resisted the wrt of execution, meant in the first paragraph, open intimatie of I.Groep, established in groning. The resistance runs up the commencement or continuation of the enforcement not, subject to the competence of executed that it has done resistance, for about this supplies stock to provoke.

CHAPTER 9. SUPERVISION AND SANCTIONS
Paragraph 9.1. Supervision
Article 9.1. Supervision education inspection
The supervision by the inspection of the education, meant in chapter 5 of the WCB, is related to the question or institution of training satisfies to applies conditions, meant in Article 2.5, first and third paragraph, line 2.13. component d, and 4.5. Paragraph 9.2. Supply of information
Article 9.2. Supply of information by persons
1. Everyone is obliged to I.Groep or to to this end by or because of I.Groep the person or agency designated if required for the implementation of this law required information concerning itself to give. Information is supplied within I.Groep or by in the first paragraph meant person or agency at couples of reasonable period.
Information concerning itself, as far as they are possible lead to the granting of less study financing or to increase of the amount of the repayment period become always unmasked and supplies in writing by studying onderscheidenlijk by the person under obligation, immediately after are confessed of those data.
4. Our minister can stipulate that information, meant in the first up to and including the third paragraph, are supplied on ministerial regulation to determine wise. Also is possible at ministerial regulation is stipulated that if there on the first day of study financing period with respect to the first day of to that preceding study financing period has himself one or more modifications occurred what the administrative data concerning health insurance, meant in Article 3.2, fourth paragraph, concerns, studying these data immediately and unasked on at ministerial regulation to determine wise to lb-Groep know gives.

Article 9.3. Verschoningsrecht studentendecaan
A studentendecaan to on the basis of the WHW’s realm fund paid for institution for higher education can change itself concerning what studying to him has entrusted;
a. contrary to Article 5.17 of general law administrative law at the obligation to examination of data and records and supplying information, and
b. contrary to Article 8.33. first paragraph, of the General Act on Administrative Law at, the treatment of a profession or appeal taken against a decision, on the basis of this law.

Article 9.4. Supply of information by the legal person, meant in Article 3.24
The legal person, meant in Article 3.24, supply if required to our minister or to lb-Groep for exercise of its task requires information. Our minister or lb-Groep are able examination progress of data and records business, insofar for the achievement of their task reasonably necessary is.

Article 9.5. Supply of information by institutions
1. The natural person of whom or the governing board meant of the legal person of which an institution as in Article 2.4, 2.6, 2.9, 2.11, goes out, is obliged on at ministerial regulation to indicate wise free of charge information to supply, required for implementation of this law.

2. The natural person of whom or the governing board meant of the legal person of which the institution, in Article 2.4, goes out, is obligatorily for to lb-Groep 1 May to communicate which training routes as meant in Article 7.4.6, first paragraph, component f. of the WEB, in next study year is looked by.

The natural person or the governing board, meant in the second paragraph, has been obliged for 1 May to our minister communicate if education that that study year met the conditions, called in Article 2.5, third paragraph, in the following study year to these conditions to satisfy.

4. The natural person of whom or the governing board of the legal person of which an institution goes out as meant in Article 2.10, as well as meant as in Article 2.8 and 2.9, as far as it of particular institution going out training gendertrensfond or training aimed at a religious or philosophical office concern, puts to end of each study year the study progress, meant in the first and second member, of every to the institution student registered permanently and puts person concerned for 1 November of the calendar year in which is the study year concerned finished, of this progress in knowledge.

5. Additionally, the natural person or it puts governing board, meant in the fourth paragraph, after the end of each study year by 1 November following lb-Groep in knowledge which students the standard of 21 or 14 credits have not gained.

6. The natural person or the governing board, meant in the fourth paragraph, sends simultaneously a duplicate to the person concerned of data that he regarding the person concerned to lb-Groep supplies and gives thereby tevens to what the consequences on the basis of this law is for the form of study financing of person concerned as well as which profession pace for person concerned open state.

7. Our minister can for institutions or groups of institutions on which Article 7.96 of the WHW does not apply, stipulate that the natural person of whom or the governing board of the legal person of which that institution goes out, before the end of the month next on the month in which a student with success has taken off the concluding examination, of it
communication does to lb-Groep and the simultaneously student of that communication informs.

Article 9.5. Supply of information by agencies with a public task and Medical Insurance institutions meant as in Article 3.2, fourth member

Agencies with a public task and Medical Insurance institutions meant as in Article 3.

Paragraph 9.3. Administrative sanction

Article 9.7. Do not supply of information concerning study progress

If an institution meant as in Article 2.9, 2.10 and 2.11. not at the latest 1 November next at the end of study year meant to lb-Groep the data. in Article 7.9a or 7.9b of the WHW, or in Article 9.5, fifth paragraph, or 10.6, fourth paragraph, has supply, arise there a progress of lb-Groep on the institution for the size of 15% of the amount to unconditionally as a gift determined study financing, meant in Article 5.12, fifth paragraph, or 10.7, that the students to that institution have been granted.

Article 9.8. Do not supply of information concerning long-term absence of participants

If an institution meant as in Article 2.4, component b, at some moment in a study year not an administration as meant in Article 4.5, first paragraph, does not conduct or after in Article 4.3, 4.4 and 4.5 meant periods of continuous absence without supply valid reason to lb-Groep required the data, arise there progress of lb-Groep on the institution for the size of 15% of the amount study financing determined of as a gift that to the participants who institution in the study year in which these were to lack, has been granted.

Article 9.9. Do not supply of information concerning study charge

1. If an institution meant as in Article 2.4, component b, not meant concerning a training at the latest 1 May the data, in Article 9.5, has supplied third paragraph, arises a progress of lb-Groep on the institution for the size of the amount of as a gift determined study financing that to the participants that training in the study year in which these were in lack, has been granted.

2. If an institution meant as in Article 2.4, wrongfully under Article 7.4,8, first paragraph, component f, of WEB has determined that a training route satisfies to this law or at one-chute meant to lb-Groep the report, in Article 9.5, second paragraph, has done, arises there a progress of lb-Groep on the institution for the size study financing determined of as a gift that to participants to that training route in the study years on which the observation is related-3, has been granted.

Paragraph 9.4. sentence provisions

Article 9.10 Do not supply of information

He that does not satisfy to of the obligations, meant in Article 9.5 up to and including 5.5, it is punished with detention of highly 6 months or money fine of the third category.

Article 9. Summary offence of a provision under this law

Summary offence of provisions of under these law issued administrative regulation, as far as explicitly as indictable offence in the sense of this Article indicated, it is punished with detention of highly 1 month or money fine of the second category.

Article 9.12. Summary offence

In Article 9.10 and 9.11 illegal put facts are summary offences.
CHAPTER 10. MORE HIGHER EDUCATION; Tempo GRANT

Article 10.1. tempo grant
In this chapter under tempo grant it is understood a conditional gift which can be converted under conditions into loan. Tempo grant does not include travel supplies.

Article 10.2. Range; charter exclusively of application on cohorts 1991-1996
1. This chapter applies exclusively to students who are 31 July 1991 and for 1 September 1996 for the first time for follow of higher education study financing received on the basis of the law on study financing.
2. This chapter does not apply to students who follow education to a training as meant in Article 2.11 and 2.14. The study financing to these students becomes on the basis of Article VI of the law of 28 March 1996 (Slb. 226) supplies during 6 years in the form of a gift. If our minister has stipulated that is longer training concerns, the number of 6 years is raised with superior.

Article 10.3. Form in which study financing is supplied
1. Contrary to Article 3.1, second paragraph, component b., can be granted study financing in the form of tempo grant.
2. study financing with exception of travel supplies are laid down during 5 years or the number of years in Article 105, supplies in the form of a tempo grant. Travel supplies become supplies in the form of a gift.
3. study financing with exception of travel supplies become during 2 years after the period, supplies in the form of a loan. Travel supplies are supplied in form of a gift. The amount per month during this period can become lent, amounts to, contrary to Article 3.2, towards the criterion of 1 January 2000 (680.67. Article 3.13 and 3.18 does not apply.

Article 104. Deviation of Article 2.13 (formerly Article 9, seventh paragraph) and 2.16 (formerly Article 9, tenth paragraph); no revendication or no more revendication
Contrary to Article 2.13 and 2.16 applies that:
a. a student no revendication on study financing has:
1°. if he after expiring its revendication on tempo grant during 24 months loan has enjoy,
2°. if he after expiring its revendication on tempo grant in pursuance of Article 10.8, second paragraph, during 36 months has a loan enjoy.
°. with entrance of the month next on the month in which he has the age of 34 years reaches, or
4°. if he has been registered to a training of which the duration, included at highest 12 holiday weeks, shorter is than 1 year.
and b. the study'ing no revendication study financing has for following a training in profession education, if he has years already 5 study financing enjoy for following a training in the higher education.

Article 105. Expensive of tempo grant (formerly Article 17a, second, third, fourth and eighth paragraph)
1. This Article applies exclusively to students who follow a training to an education institution as meant Article 2.9 and 2.10.
2. Tempo grant is supplied during 6 years, if it concerns a training with a study charge of 2'10 credits, called in Article 7.4, third paragraph, first volzin, of the WHV.
3. Tempo grant is supplied during 7 years, if it concerns a training called in Article 7.4, third paragraph, second volzin, of the WHV with a study charge of 252 credits.
4. Tempo grant becomes during 7.5 years supplies, if it concerns:
a. a training gogdeleerheid to public university which, blijkens the education - and examination programme, is followed combination with the education within the framework of a training because of kerkgenootschap to teacher or office holder of that kerkgenootschap, and
b. a training of 252 credits aimed a religious or philosophical office to a particular institution scientific education or to under Article 6.9 of the WhW suitable institution as scientific theological training.
5. The period of 5 years, called in Article 10.3, second paragraph, is extended with 1 year, if the student follows a training meant as in:
   a. Article 7,
   b. Article 7.4, fifth paragraph, first volzin of WhW, and
   c. Article 7.4, fifth paragraph, third volzin, of WhW.
6. Ia-Groep extend on application of the student the number of years tempo grant, meant in this Article, one-off with 12 months, if the student blijkens gedachtengekende declarations of a doctor and of governing board of the education institution where he has been registered, as a result of physical, sensual or other function impairment not able is it concluding examination with success tempo grant to wind up within that number of years.
7. If a student simultaneous state registered for more than one study, among which a study meant as in third, fourth or fifth paragraph, becomes the period of 5 years, called in Article 103, second paragraph, only extended after he to Ia-Groep the declaration of the establishment management supplies from which appears that the student 168 credits has gained of a study that must lead to lengthening. The declaration, meant in the first volzin, must be also supplied, if simultaneous registration for more than one study starts after already lengthening has been granted pursuant to the Second, third or fourth paragraph, and registration for the study he who that lengthening has not been granted is struck.
   Article 106. Appropriation after discount because of lack of study progress exclusively loan (formerly Article 17b)
1. This Article applies exclusively to students who follow a training to an education institution as meant Article 2.8, 2.9 and 2.10
2. Tempo grant exists whole from loan in study year in which the student has not gained at least 21 credits, previous volzin on Vaining such as it has not been meant in Article 7.4, fourth paragraph, first volzin, of the WhW. For a student who itself as a student the education, meant in the first volzin, registers after 31 January of study year, contrary to the first volzin a standard of 14 applies credits.
3. Contrary to the second paragraph our minister can mezent as a result of by an institution as in Article 2.10, as well as meant as in Article 2.8 and 2.9, as far as it of particular institution going out training gogdeleerheid or training aimed at a religious or philosophical office concerns, to submit application, permit that instead of credits another standard for appraisal of study progress is used. This other standard serves equivalent have been expressed to the standard in credits. Training must be arranged as such that a student in redelijkheid can satisfy to in the previous volzin standard meant.
4. The natural person of whom the governing board of the legal person of which an institution goes out as meant in Article 2.10, as well as meant as in Article 2.9, as far as it of particular institution going out training gogdeleerheid or training aimed at a religious or philosophical office concerns, puts to end of each study year the study progress, meant in the first and second member, of every to the institution student registered permanently and puts person concerned for 1 November of the calender year in which is the study year concerned finished, of this progress in knowledge.
5. Additionally, the natural person or it puts governing board, meant in the fourth paragraph, after the end of each study year by 1 November following 1b-Group in knowledge which students the standard of study progress, means in second if, has not gained third paragraph. On supply of those data is under Article 9.5, first and second member, adopted rules of application.

6. The natural person or the governing board, meant in the fourth paragraph, sends simultaneously a duplicate to the person concerned of data that he concerning the person concerned to 1b-Group supplies and gives thereby tevens to what the consequences or, the basis of this law is for the form of study financing of person concerned as well as which profession pace for person concerned open state. At administrative regulation are possible rules are put concerning the possibility for credits, gained a preceding study year tellen to waive at the appraisal of the question or it has been come up to the standard, meant in the second paragraph. At general measure of governing board tevens rules can be put concerning conditions among which lead credits which have been gained in some year, to revision of an arrangement, implying the unconditional turn of to the student allocated study funding under Article 10.7.

Article 107. Conditional granting study financing and later observation unconditional form (formerly Article 31a)
1. This Article applies exclusively to students who follow a training to an education institution as meant Article 2.8, 2.9 and 2.10
2. With respect to a student tempo grant becomes granted under the condition that the student over a study year it in Article 106, second paragraph, or it under Article 10.
3. Over the study year in which the student blikens the communication meant to 1b-Group, in Article 10.6, fourth paragraph, second volzin, or the communication, meant in Article 7.9a, second paragraphs, of the WHW, standard of the study progress has not gained, becomes as of 31 December of the calendar year in which is the study year concerned finished, tempo grant by right converted into loan. 1b-Group make conversion as soon as possible confessed to the student. The tempo grant of students for whom 1b-Group the communication as intended in the first volzin, has received, becomes on 31 December of the calendar year in which it study year concerned has finished, by right unconditional as gift determined.
4. To the avoidance of the study progress add the credits which have been gained in training on which Article 10.6 of application is. At the appraisal of the study progress the credits do not count that has been gained as a result of an exemption as meant in Article 7.13, second paragraph, component r, of the WHW.
5. If a student meant as in the Second member, in the first study year of registration in the higher education for which he at some moment enjoys study financing, stops study financing as early as 1 February, and he not over datzelfde study year again study financing in the sense of this chapter for following higher education gets granted, becomes at the end of that study year tempo grant for that study year unconditionally determined as a gift.
6. Meant in the study year in which the student, the second paragraph, a training for which the student stands registered, with good consequence winds up, becomes unconditionally the tempo grant for that study year as gift determined.
7. If an education institution meant as Article 10.6, second paragraph, not after the end of each study year for 1 November following rieht to 1b-Group the data, in Article 7.9a of the WHW, or Article 10.6, becomes tempo grant has supplied fourth paragraph unconditionally determined as a gift.

Article 108. Conversion of integrated loan appropriation mixed in (formerly Article 31b)
1. This Article applies exclusively to students who:
a. after 31 August 1995 and for 1 September 1996 for the first time for following higher education received study financing on the basis of the law on study financing, and
b. a full-time training to follow meant as Article 7.4, sixth paragraph, of the WHW.
2. If a student after the period of 5 years, called in Article 10.3, second paragraph, under Article 10.3, third member, study financing in the form of loan have been supplied for a period of 2 years, multiplied with 1 year, and he by the education institution stamped copy of the testimonial of with success taken off lb-Groep have of the concluding examination of a such training to, becomes its study financing concerning those leepeneriode again discusses determined as if Article 10.3, third paragraph, first volzin, which period not had been. If those leepeneriode are longer than 12 months, the functioning of the previous volzin is restricted to the first 12 months of that leepeneriode.
3. The second paragraph does not apply on months those determine part of a study year in which the student not it in Article 108, second paragraph, called number of have gained credits. The first volzin does not apply on months of the study year in which the student training for which he stands registered, with success winds up.
4. The second paragraph does not apply, if afterwards stamped copy of the testimonial did not mean within 2 years the end of the leepeneriode on which the first paragraph, last volzin, relation has, or when that earlier is, within 6 months after the distribution of that testimonial, to lb-Groep have been discussed.

At in the second paragraph meant again determine of study financing becomes per month take into account additional grant determined on the average of the month amounts additional grant which has been granted to the applicant conditionally concerning last 12 months of in the second paragraph meant period of 5 years. granting of gift pursuant to the second paragraph is unconditional.

CHAPTER 11. REMAINING PROVISIONS

1. Adaptation of to amount to

By 1 January of every calendar year are appropriate ours Minister the amounts, called in Article 3.9, third paragraph, 3.17, first paragraph, 3.18, with exception of maximum additional grant, 5.2, 5.4 and 10.3, on at or under administrative regulation to indicate wise the hand of remunerations - or developments in the Second to that preceding calendar year. The adapted amounts step in the place of in the first volzin meant amounts.

Article 11.2. Title 4.2 Awb not of application

Title 4.2 of the General Act on Administrative Law is not of application on this law.

Article 11.3. Alienation, verpanding, belening and seizure

1. study financing is not subject for alienation, verpanding, belening and seizure, among which understood seizure in pursuance of bankruptcy or application of the Debt Repayment Scheme natural persons.

2. Each condition, contrary to this Article, is null and void.

Article 11.4. Information to private health insurance companies

lb-Groep give on at ministerial regulation to determine wise if required and free of charge mean to an insurer as in Article 3.2, fourth paragraph, to know or a studying right study financing has and if these are entitled studying levens to, of allowances, meant in Article 3.4 and 3.5.

Article 11. Hardship clause

lb-Groep are possible for certain cases or groups of cases the law leaves out application or of it deviates as far as application will lead to unlikeliness of a predominating nature.

Article 11.6. Retention period

At administrative regulation rules become put on the retention period of the pieces which contain data which of importance has been for the determination of study financing or repayment.
Article 11.7 Protection personal life environment
At administrative regulation rules become put on the way in which and the conditions among which become use made of the files of personal data concerning the protection of personal life environment. These regulate in any case the way in which registered persons can get kennishing and improvement of consoring them taken data.

CHAPTER 12. TRANSITIONAL ARRANGEMENTS
Article 12.1. Deviation of Article 1.1
Contrary to Article 1. third year.
Article 12.2. Deviation of Article 3.9
1. Contrary to Article 3.9, third paragraph, applies up to 1 January 2002 instead of "□ 12 937.76": f 28 511.87 and in place of "□ 16 634.26": f 36 657.08.
2. Contrary to Article 3.9, fifth paragraph, component b, applies up to 1 January 2002 instead of "□ 363.51": f 800.75.

Artikel 12.3.10
Contrary to Article 3.10 sounds that Article to at Royal Decree time to stipulate:
Article 3.10 base year deflection of trade at decline in income
1. On application of the parents or of them or on application of studying becomes in applying Article 3.9 gone out of a another year then the base year if:
a. talk is of a decline in income concerning year after the base year, which case is assumed that year after base year,
b. talk is of a decline in income concerning second year after the base year, which case is assumed the second year after the base year, or
c. talk is of a decline in income concerning third year after the base year, which case is assumed the third year the base year.
2. For the purpose of the first paragraph becomes under a decline in income understand a reduction of the sum of taxable incomes of the two parents with at least 15% at opzichte of that base year on the understanding that:
a. the reduction cannot be counted to inkomensschonmeldingen which it can be in general considered commonly normal at chosen wise of income for recruitment, and
b. plausible is made that during at lowest 3 calendar years will be met the requirements called in the openings words as well as in component a.

Article 12.4.11
Contrary to Article 3.11 sounds that Article to at Royal Decree time to stipulate:
Article 3.11 Not yet determined if not yet confessed enter
For the application of Article 3.8 and 3.10 becomes as long as taxable entering concerning the base year, the first, the Second if it has been not yet determined the third years after the base year or pure remunerations over the year concerned the parent is not yet confessed, by lb-Group for that put in the place an amount which it to determine taxable to enter or as well as possible approaches pure remunerations.

Article 12.5. Deviation of Article 3.17
Contrary to Article 3.17. first paragraph, applies up to 1 January 2002 instead of a free foot to the criterion of 1 January 2000 of f 8,849, - a free foot to the criterion of 1 January 2000 of f 19,900, -.

Article 12.6. Deviation of Article 3.18
Contrary to Article 3.18 sounds that Article to 1 January 2002 as follows:
Article 3.18 Overview standard amounts

Overview 1. month amounts

<table>
<thead>
<tr>
<th></th>
<th>More higher education</th>
<th>profession education</th>
</tr>
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<tr>
<td>a. living at home</td>
<td>f 654.61</td>
<td>f 654.61</td>
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<tr>
<td>b. uitwonen</td>
<td>f 989.61</td>
<td>f 989.61</td>
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<tr>
<td>Books and educational tools</td>
<td>f 98.74</td>
<td>186.38</td>
</tr>
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<td>standard amount health insurance</td>
<td>f 71.44</td>
<td>f 71.44</td>
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</table>

Overview 2. financing sources

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<th></th>
<th>More higher education</th>
<th>profession education</th>
</tr>
</thead>
<tbody>
<tr>
<td>toeslag(en)</td>
<td>f 144.25</td>
<td>f 108.71</td>
</tr>
<tr>
<td>a. living at home</td>
<td>f 422.15</td>
<td>f 408.71</td>
</tr>
<tr>
<td>b. uitwonen</td>
<td>f 350.71</td>
<td>f 561.98</td>
</tr>
<tr>
<td>Maximum additional grant/loan</td>
<td>f 457.15</td>
<td>f 610.98</td>
</tr>
<tr>
<td>(or assumed parental contribution)</td>
<td>f 385.71</td>
<td>f 545.54</td>
</tr>
<tr>
<td>living at home, individual insured</td>
<td>f 493.06</td>
<td>f 269.66</td>
</tr>
<tr>
<td>b. health insurance fund living at home insured</td>
<td>f 979.80</td>
<td>f 979.80</td>
</tr>
<tr>
<td>c. uitwonen, individual insured</td>
<td>f 784.08</td>
<td>f 784.08</td>
</tr>
<tr>
<td>d. uitwonen, health insurance fund insured basis loan</td>
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<td></td>
</tr>
<tr>
<td>Allowance one-parent family</td>
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<td></td>
</tr>
</tbody>
</table>

Article 12.7. Deviation of Article 3.27

Contrary to Article 3.27, third paragraph, applies to 1 January 2002 instead of "an amount of f 68, -", an amount of f 150, -.

Article 12.8. Deviation of Article 5.12

Contrary to Article 5.2, first paragraph, and 5.12 the additional grant in the first 12 becomes months for which revendication study financing exists in the higher education during the study year 2000-2001 and that not over an more earlier study year for following higher education has been granted, supplies in the form of a performance grant, and at the latest converted into the year 2002 by right in a gift.

Article 12.9. Deviation of Article 5.2, third paragraph, 5.3, third paragraph

1. Article 5.2, third paragraph, sounds to at Royal Decree time to stipulate:
2. study financing becomes during 36 months the period, meant in the first paragraph, supplies in the form of a loan. amount that per month can be lent, is the month budget, meant in Article 3.2.
3. The amount that per month can be lent, is the month budget, meant in Article 3.2.
4. Article 3.17 does not supply.
5. Article 10.3, third paragraph, sounds to at Royal Decree time to stipulate:
6. study financing with exception of travel supplies become during 2 years after the period, meant n the Second member, supplies in the form of a loan. Travel supplies are supplied the form of a gift. The amount that per month can be lent, is it month budget, meant in Article 3.2.

4. Contrary to Article 5.2, third paragraph, 5.4, second paragraph, and 10.3, third paragraph, applies up to 1 January 2002 instead of "f 660.67": f 1,500, -
Article 12.10 Deviation of Article 6.9
Contrary to Article 6.9, third paragraph, applies up to 1 January 2002 instead of “at least 545, -: at least 1 200, -: ”.

Article 12.11 Deviation of Article 8.1
Contrary to Article 8.1, third paragraph, applies to 1 January 2002 instead of “an amount of 0.00”, an amount of 0.00.

Article 12.12. Expire of Article 11.6 and 11.7
If it at royal message of 20 February 1999 submitted proposal of law amending provisions with relation to the processing of personal data (kamerstukken II 1998/99, 26410. no., 2) to law it is raised expire Article 11.7.

Article 12.13 Revindications and obligations on the basis of the law on study financing
1. Applications on the basis of the law on study financing is by right converted into an application on the basis of this law.
2. Study financing which on the basis of the law on study financing has been allocated, is by right converted study financing on the basis of this law.
3. Obligations which on the basis of the law on study financing existence, is by right converted into obligations ground of this law.

Article 12.14 Transitional arrangement review and appeal
On review and appeal in pursuance of the law on study financing, established for 1 September 2000, or against a decision of for this date established on or after this date, remain on 31 augustus 2000 applying regulations of application.

MODIFICATIONS IN OTHER LAWS
Article 13.1. Social Assistance Act
A.
In Article 9, second paragraph, component b, Article 36, first paragraph, component a, Article 48, second paragraph, openings words, and Article 50, third member. Component a, becomes chapter II of the law on study financing replaces each time by: the law study financing 2000.
B.
In Article 4S, second paragraph, openings words, becomes as meant in Article 12 of that law replace by: meant as in Article 3.2 of that law.
C.
In Article 60 Article 12, first paragraph, becomes component a, of the law on the study financing and the amount which on the basis of Article replaces 32h, first paragraphs, of that law by: Article 3.29. first paragraph, of that law.
D.
In Article 122, first paragraph, component g, becomes: Replace “law on study financing” by: Law study financing 2000.

Article 13.2. National Child Benefits Act
The National Child Benefits Act becomes as follows modified:
A.
In Article 7a, first and second paragraphs, becomes each time Replace “law on study financing” by: Law study financing 2000.
B

In Article 25, first and third paragraph, becomes replace "chapter I of the law on study financing" each time by: the law study financing 2000.

Article 13.3. Third tranche General Act on Administrative Law

If Article of the law of 20 June 1996 to supplement of the General Act on Administrative Law (Stb. 1996. 333) for application of the law on study financing at the time on which this law becomes effective, not yet has become effective, becomes in Article VI, first paragraph, component h, of former law on study financing replaces by: Law study financing 2000.

Article 13.4. experimenting law education

Article 7a, third paragraphs, of the experimenting law education expires.

Article 13.5. Bankruptcy law

Article 289a of the bankruptcy law becomes as follows modified:

1. In the first paragraph becomes title 5 of chapter II of the law on study financing replaces by "chapter 6 of the law study financing 2000" and becomes replace "Article 40 of that law" by: Article 6.8 of that law.


Article 13.6. Lesson - and course fee law

Lesson - and course fee law is as follows amended:

A

Article 1, component e, is as follows modified:


2. Under 5th express.

B

In Article 6, third paragraph, becomes "has been satisfied" replaced by: is or are satisfied.

C

In Article 4, third and fourth paragraph, 5, fourth paragraph, and 6, fifth paragraph, becomes replace each time "at administrative regulation" by: at or under administrative regulation.

Article 13.7. Invalidity Insurance (Young Disabled Persons) Act

In Article 5, second paragraph, component A, of the law invalidity insurance young disabled people becomes law on study financing replaces by: Law study financing 2000.

Article 13.8. Law education and profession education

THE WEB is as follows modified:

A

In Article 7.4.9, first paragraph, component f, becomes "the requirements of chapter II of the law on study financing" replace by: the requirements of the law study financing 2000.

B

Article 8.1.7 is as follows modified:

1. In the first paragraph becomes under the functioning of chapter II of the law on study financing replace by: onder de werking van de Wet studiefinanciering 2000.

2. In the seventh paragraph law becomes on study financing replaces by: Law study financing 2000.

Article 139. Law income scheme older and partially incapable of work 'indicated self-employed persons
In Article 45, first paragraph, component g, of the law income scheme older and partially incapable of work indicated self-employed persons "law on study financing" is replaced by: Law study financing 2000.

**Article 1310 Law income scheme older and partially incapable of work unemployed employees**

In Article 45, first paragraph, component g, of the law income scheme older and partially incapable of work unemployed person employees "law on study financing" is replaced by: Law study financing 2000.

**Article 13.11. Jobseekers Employment Act**

In Article 1, second paragraph, and 4, seventh paragraph, component b, of the Jobseekers Employment Act becomes chapter II of the law on study financing each time replace by: the law study financing 2000.


The law on the income tax 1964 becomes as follows modified:

In Article 45, fifth paragraph, at 1st, becomes law on study financing replace by: Law study financing 2000.

B

Article 46 is as follows modified:

1. In the first paragraph, component a at 1st and at 2nd, becomes each time after in pursuance of chapter II of the law on study financing inserted, or in pursuance of the law study financing 2000.

2. In the tenth paragraph becomes chapter II of the law on study financing "replace by" the law study financing 2000 ". is referred to" in Article 12, first paragraph, components, meant of that law "replace b and c by" in Article 3.2, first paragraph, components b and c, of that law "and become" granted conditional interest bearing loan meant in Article 31c, first paragraph, in Law on the study financing, unless Article 17th of that law becomes converted into a grant replace by granted performance grant meant Article 5.1, first paragraph, of the law study financing 2000, on the basis of Article 5.10 and 5.17 of that law it is converted into a gift.

**Article 13.13 Law on study financing**

Law on study financing is as follows amended:

A

In Article 17ta expires "10 credits and he".

B

41 up to and including 50.

**Article 13.14 Law on the higher education and scientific research**

THE VHW are as follows modified:

A

Article 7.4, eighth paragraph, comes sound:

8. Training must be arranged as such that the student in redelikhip is put able to come up to the standard called for the study progress, in Article 5.6, second paragraph, determined of the law study financing 2000 or the standard under Article 5.12, fourth paragraph, or Article 15.6, third paragraph, of that law.

B

Article 7.9a comes sound:

**Article 7.9a. study progress control tempo grant**

1. The establishment management puts of every to institution registered student on whom at some moment in the study year Article 106 of the law study financing 2000 applies, the study progress permanently, meant in the second or third paragraph of that Article. It shares these progress to the student for 1 November, next on concerned study year.
2. The establishment management shares to the information Management group which of the first paragraph students meant the standard of the study progress, meant in Article 10.6 of that law, not have gained. That communication occurs for 1 November, next on study year concerned.

3. Simultaneously meant with the communication, in second paragraph, informs the establishment management the student concerned concerning data which have been supplied to the information management group. Thereby she gives teachers to what the consequences according to the law study financing 2000 is, as well as which profession pace for the student is open.

C

Article 7.9b comes sound:

Article 7.9b. study progress control first year performance grant
1. The establishment management puts of every to institution registered student on whom Article 5.12 of the law study financing 2000 has been permanently meant, the study progress, in the first or fourth paragraph of that Article. It shares the progress to student for 1 November, next on the study year concerned.

2. The establishment management shares to the information Management group which of in the first paragraph students meant the standard of the study progress, meant in Article 5.12, first or fourth paragraph, of the law study financing 2000 has not gained. That communication occurs for 1 November, next on the study year concerned.

3. Article applies 9a, third paragraphs.

D

Article 7.9b and 7.9bb expire.

E

Article 7.9c comes sound:

Article 7.9c. Be lacking of data at study progress control
If the establishment management cannot determine which students under Article 5.12 or 10.9a, first paragraph, or 7.9b, first paragraph, concerning all students. In that case it means this fact meant in the communication, in Article 7.9a, second paragraphs, or 7.9c, second paragraph.

F

In Article 7.9d it is referred to in Article 17g, first paragraph, or 17h, of the law on study financing replace by: meant in Article 5.5 or 5.

G

Article 7.9f expires.

H

In Article 7.33 the second paragraph expires. The third member is renumbered to second paragraph.

I

Article 7.43 comes sound:

Article 7.43. college money for full-time training
1. At the registration as a student for a full-time training to university or college is a college money chargeable of £2,674 by the one which for the commencement of the study year the age of 30 years not yet has reached, and that

a. nationality has of a state which is party at the agreement concerning the European Economic Area, or

b. under a did not mean alien if that study financing enjoys under the law study financing 2000.

2. At the registration as a student for full-time training to a university or college is by the establishment management to determine college money chargeable by the one which
not under the range falls of the first paragraph. The college money amounts to at least f 2, 874.

3. The establishment management carries swiftly for commencement of the study year care for publication of of second paragraph determined amounts and adopts rules of a procedural nature with relation to the purpose of that paragraph.

4. At ministerial regulation it becomes in first and second paragraph called amount indexed annually by means of price index rate of family consumption. The ministerial regulation becomes determined for 1 November before the study year for which it indexed college money will apply. The indexing is stipulated by modification in terms of percentage which the price index rate of the family consumption concerning month of April, before the determination of the ministerial regulation, has undergone with respect to the month of April in to that preceding year. Thus obtained modification of the college money amount is wound up the naastbij lain whole number. In accordance with this member the modified amount steps in place of the amount called in the first and second paragraph. Which is understood under price index rate of family consumption, becomes regulated at ministerial regulation.

J
In Article 7.44. second paragraph, and 7.45. Second member, becomes Article 7.43. each time replace fourth paragraph by: Article 7.43. third paragraph.

K
In Article 7.43. replace first and third paragraph by: Article 7.43. first and second paragraph.

L
In Article 7.47 expire the third up to and including fifth paragraph. In the second paragraph Article 7 become 43. third paragraph, a replaces by: Article 7.43. second paragraph.

M
In Article 7.48. first paragraph, and 7.49. first member, expires each time "or second".

N
Article 7.51 comes sound:

Article 7.51. Financial support students (asfudeersteun)

1. The establishment management of a university or college makes arrangements for the financial support for the student at looks of which everyone of the following facts occurs:
   a. the student is to the institution concerned registered for a training of which he the concluding examination not yet with well consequence has taken off;
   b. the student enjoys or has concerning follow of the training, meant under a, or following the same training to another institution, study financing on the foot of Article 15 up to and including 15a of the law on the study financing or on foot of chapter 3 of the law enjoyed study financing 2000,
   c. in the period in which with a view to following meant of a training to an institution as in the appendix of this law under a up to and including g study financing on the foot of Article 15 to and with 16a of the law on the study financing or on the foot of chapter 3 of the law study financing 2000 became enjoy. does himsed one or more, in second paragraph called, particular circumstances or intends these itself occurred, and
   d. in component c meant particular circumstances have conducted to study delay or that to expectation does.

2. The particular circumstances of the student who in applying the first paragraph become is taken into account:
   a. sickness or pregnancy;
   b. physical, sensual or other function impairments;
   c. particular family circumstances,
d. the membership, included it chairmanship, of:
1. at universities: the university Council, factorial Council, the agency that have been established on the basis of coadministration regulation, meant in Article 9.30. third paragraph, or Article 9.51. second paragraph, the governing board of a training or a training committee, as well as the governing board of a foundation which aims at bijekens its statutes exploitation of supplies, belonging to student supplies, or paid attention of with that to the judgement of the establishment management, to the task, right body to put;

at colleges: the coadministration Council, the Council, a student commission or training committee, as well as the governing board of a foundation which bijekens its statutes aim at the exploitation of supplies, belonging to student supplies, or of with that to the judgement of establishment management, paid attention to its task, right put body;

e. other by stipulating the establishment management circumstances in which person concerned activities develops himself within the framework of organisation and the governing board of the institution:

f. to assess the establishment management: membership of the governing board of a student organisation of only scope with complete capacity for rights;

insufficiently studeerbare a training,

h. other then in the components a up to and including g meant circumstances which, if then a based request for financial support by establishment management will not lead be remunerated, to onbirllijkheid of a predominating nature.

3. The establishment management shares the student in writing the decision on the application for granting of financial support as soon as possible, after the student particular circumstance has presented. The financial support becomes the student this way possible made available shortly or on the another one, by student at stipulate time.

4. The scope of the financial support is right to study financing which enjoys person concerned an account of chapter 3 of the law study financing 2000, or enjoyed, if he then claim or be possible make.

5. At the determination of the duration of financial support becomes the link between the particular circumstances, meant taken into account in the second paragraph, and education programming. establishment management van to granting of financial support on the basis of the particular circumstances, meant in the second paragraph, under e and f, conditions link. The establishment management puts rules concerning the conditions, meant in the third volzin.

5. The scope and the duration of to a student the institution concerned revendication earlier granted on financial support under this Article such as that sounded on 31 augusts 2000 are respected, if these more favourable for the student is then at application of this Article. The student who a training to another institution as meant in the appendix of this law under a up to and including g has followed, and under this Article a revendication earlier granted on financial support or will have had, if he will have requested for this reason, is entitled, taking into account the first volzin, to financial support as it were which enjoyed training to the institution to which student has been registered.

7. Our minister makes arrangements for the financial support for a student who during a month or longer takes part in an appraisal meant as in Article 1.18. first paragraph, or a student who governing board member is of of a legal person with complete capacity for rights going out political youth organisation of only scope or of rural organisation of only scope, where the behartiging of social or educational importance holds a prominent place and that to this end effective activities develop themselves. As administrative
regulation become conditions determined among which this financial support takes place.

O

Article 7.51a comes sound:

Article 7.51a. Financial support students (study fund)

1. The establishment management of a college finds financial supplies with respect to a student who under Article 5.6, first paragraph, second volzin, of the law study financing 2000 none can claim study financing the foot of chapter 3 of that law, if meant to the student by virtue of the decision, in Article 7.31a, third paragraphs, an exemption of a scope smaller than called in first paragraph of that Article has been granted. These supplies are such that person concerned in a financial situation worse is not brought than when he study financing enjoyed without application of Article 5.6, first paragraph, second volzin, of the law study financing 2000, with serve verstande that supplies are concluded after expiring upward number of months wound up on a whole number that corresponds with study charge of the education entities for which in applying Article 7.31a, third paragraphs, to the student no exemption have been granted, or so much rather as a person concerned with success the concluding examination of training concerned has taken off.

2. The establishment management of a university financial supplies find with respect to a student who on the basis of Article 5.6 of the law study financing 2000 cannot claim performance grant, if the student has been registered for a training on which it establishment management Article 7.4, seventh paragraph, has applied. These supplies is such that the person concerned does not become in a worse financial situation brought then when he study financing enjoyed without application of Article 5.6 of the law study financing 2000, with serve verstande that supplies are concluded after expiring the number upward number of months wound up on a whole number that corresponds with study charge of training, which assumes above the number 185 credits, or the as much rather as person concerned with success concluding examination of that training has taken off.

3. The establishment management puts rules of procedural nature permanently for the application of this Article.

P


Q

The components g of Article 9.33 and 10.30 to come as follows sound:

g. the policy of the establishment management at application of Article 7.51. and the rules, meant in the fifth paragraph of that Article.

R

In Article 15.2, under a, becomes of Article 7.43. replace third and fourth paragraph by:
of Article 7.43. Second and third paragraph.
After Article 16.9a Article 16 becomes 9b inserted, sounding:

Article 16.9b. Additional afstudeersteun for tempo students on a grant

1. Notwithstanding Article 7.51 it finds establishment management of a university or college financial supplies with respect to a student whose, on the basis of, and on the basis of Article 107 or 10.8 of the law studying financing 2000 cannot claim study financing on the foot of chapter 3 of that law, if the student towards the judgement of the establishment management by particular circumstances it at or under Article 10.6 up to and including 10.8 of that law stipulated result has not gained. These financial supplies are such that person concerned in a financial situation worse is not brought than when he study financing enjoyed without application of Article 10.6 of the law study financing 2000.

2. The particular circumstances, meant in first paragraph, is the particular circumstances, called in Article 7.51. Second member In applying the first paragraph the establishment management involves as particular circumstance tevens the circumstance that training such is arranged that the student has been reasonably not able it in that member meant result to achieve.

You

The table of contents is as follows modified:

1. The heading of Article 7.9a comes sound:
   - Article 7. study progress control tempo grant
2. The heading of Article 7.9b comes sound:
   - Article 7.9b. study progress control first year performance grant
3. Article 7.9ba and 7.9bb as well as headings of it expire.
4. The heading of Article 7.9c comes sound:
   - Article 7.9c. Be lacking of data at study progress control
5. Article 7.9f as well as the heading of it expires.
6. The heading of Article 7.51 comes sound:
   - Article 7.51. Financial support students (afstudeersteun)
7. After the heading of Article 16.9a becomes inserted:
   - Article 169b. Additional afstudeersteun for tempo students on a grant

Article 13.15 Law the education continued on

Article 27a of the law on the continued education is as follows modified:

1. In the first paragraph becomes under the functioning of chapter II of the law study financing replace by: under the functioning of chapter III of the law allowance study costs.

2. In the seventh paragraph the study financing of person concerned on ground becomes of the law on study financing replace by: the allowance the study costs of person concerned on the basis of chapter III of the law allowance study costs.

3. The eighth paragraph expires.

Article 13.16 Law allowance study costs

The law allowance study costs becomes as follows modified:

A

In Article 2, components c, law becomes on study financing replaces by: Law study financing 2000.

B

In Article 16a, first paragraphs. component b, 19, third paragraph, 22, seventh paragraph, and 23, third paragraph, becomes chapter II of Law on study financing each time replace by: the law study financing 2000.
Article 42 is as follows modified:
1. In the heading "WSF debt" becomes replace by: debt on the basis of the law study financing 2000.
2. In the first and the second paragraph becomes on the basis of chapter II of Law on study financing "each time replace by" on the basis of Law study financing 2000 "and" Article 58 is replaced by: Article 7.4.

In Article 43 become Article 34a te and with 50 of the law on study financing replace by: Article 6.3 up to and including 6.18 of the law study financing 2000.


In the heading of chapter IV law becomes on study financing replace by: Law study financing 2000.


Article V, XI and XIV, 12th paragraph, of the law of 28 March 1996, amending among others the law on study financing and the law on the higher education and scientific research concerning the setting-up of performance grant, the form of appropriation and the age on which revendication on study financing in higher education arises (Stb. 1996, 227) expire.


In Article VII, third paragraph, of the law 2 April 1998, amending the law on the higher education and scientific research and the law on the study financing in implementation of the higher education - and research plan 1996 announced measures (Stb. 1998, 216), "law on study financing" is replaced by: Law study financing 2000.

Article 13.19 Law liberation informatieringsbank

In Article 3, first paragraph component a, of the law liberation informatieringsbank becomes for the law on study financing "inserted" the law study financing 2000, and it is inserted for "the decision study financing" the decision study financing 2000.

Article 13.20 Health Insurance Act

In Article 4, second paragraph, component c, of Health Insurance Act becomes chapter II of the law on study financing replaces by: the law study financing 2000.

CHAPTER 14. FINAL PROVISIONS

Article 14.1. Abrogation law on study financing
1. The law on study financing becomes withdrawn.
2. Contrary to the first paragraph chapter remains VII of the law on the study financing with exception of Article 119b of strength to at Royal Decree time to stipulate.
3. Contrary to the first paragraph remain Article 141 up to and including 150 of the law on study financing effective.

Article 14.2. Coming into force

These law becomes effective on 1 September 2000, with exception of:

a. Article 13.8th with regard to the components b and c becomes effective with entrance of the day after the date of issue of the Bulletin of Acts, Orders and Decrees in which she becomes placed and reads up to and including 1 August 2000;

b. Article 13.13 that with regard to component a becomes effective as of the day after the date of issue of the Bulletin of Acts, Orders and Decrees in which she is placed and reads up to and including 1 September 1996, and

c. Article 13.13 that with regard to component b becomes effective as of the day after the date of issue of the Bulletin of Acts, Orders and Decrees in which she is placed.
Article 14.3. Citaertitel
This law is quoted as: Law study financing 2000.
Charges and commands that these in the Bulletin of Acts, Orders and Decrees are placed and that all ministries, authorities, colleges and civil servants he who contracts this, to the precise implementation will keep the hand.
Given at The Hague, 28 June 2000

The minister of education, culture and sciences,
L.M.L.H.A. Hermans

Beatrix

Spent thirteeni July 2000
The minister of justice,
A.H. Korthals
Appendix J

SPECIFICATION TRANSFERRED OF RESEARCH MATERIAL

Files are originating from the research "further study," which between 1991 and 1997 task of the ministry of education and sciences it was carried out research workers of the SCO/Kohnstamm institute and the foundation for economic Research, both of the University of Amsterdam.

There are 3 files, in which inquiry data of three groups, which in used system with a character are indicated:

A. students end examination classes 1991 of mavo and lbo (1065 cases; 808 variables)
B. students end examination classes 1991 of Higher General Secondary Education, VWO and zibo (1366 cases; 1200 variables)
C. students hbo and WO (3845 cases; 1660 variables)

These students/students a number of times has been approached, in used system becomes that indicated with a figure:

0 May/June 1991 (groups a and B)
1 end 1991 (all groups)
2 end 1992 (all groups)
3 end 1993 (all groups)
4 end 1994 (all groups)
Variables have been appointed according to the above system. The general form is
\[ xyVz \], where

\( x \) = the type resistant (a, b or C);
\( y \) = the time of consultation (0 - 5)
\( z \) = the question number from the concerning questionnaire

Frequently a character is still added to indicate a question.

Example: C3V16c; this comes variable from the student file (C), from inquiry of end 1993 (3); it concerns question 16, the third question (c). The files include all data from all questionnaires, such as those in database is taken. Moreover the files to the end contain some new variables:

- variables which indicate or a respondent of the first (start-) questionnaire also on next list has responded and; reflect character and number to for which list which group it went (e.g. A1RESP or C5RESP)

- variables that information from a number of exploits questions to the respondents for a classification of the next education to obtain to level (e.g. Mbo, hbo, Wo) and to sector (e.g. economisch, technically etc.). The first to be called always \( xyNIVO \), the Second always \( xyNOPLE \), with \( x \) and \( y \) resp. the type resistant and the time of consultation (e.g. B2NIVO or CSNOPLE)

- for the schoolboys (groups A and B) a distinction to type of education continued 1991 (AONTYPE and BONTYPE); for the students (group C) a distinction nasty eerstejaars or older one years in 1991, (variable YEARS).
For with these files to be able is work necessary for concerning the text of the
questionnaires at to have. These go along to Steinmetz file (both on paper and in $$$ING
file). Author's Note: The Steinmetz Archive is a research repository at the University of
Amsterdam

Study DESCRIPTION

1 Title research material: Further study in the years ninety

2 Research workers
   – Uilke deJong; SCO/Kohnstamm Institute, university of Amsterdam
   – Dinand Webbink; Foundation for economic research, university of Amsterdam
   – Jaap Roeleveld; SCO/Kohnstamm Institute, university of Amsterdam

Constituent the Ministry of Education, Culture and Science was.

3 concise description panel study to choice processes at the passage of continued to
higher education and during the study career in the higher education

4 usefully for which discipline didactics, (onderwijs)-sociologie, (onderwijs)-economie

5 find words education choices; choice processes; (social) selection, study careers;
outburst; switch, output

6 Publications

Concerning the research has been extended reported in a range by the ministry spent
reports. In the parts 1 and 2 also the research set-up and the sample drawing come to
order. The final report contains a summary of the main principles of the whole research.
Appendix K
1991-1995 Dutch Higher Education Surveys
Questionnaire for students in 4th examination classes of mavo and lice in 1991

A. Personal details

1 Gender
   1 male
   2 female

2 When you were born
   day: ______  (figure between 1 and 31)
   month: ______ (figure between 1 and 12)
   year: ______

Are 3 what the four figures from the mail code of your house address?

The four figures of my mail code are: ______

4 Count yourselves if you a cultural minority?
   No 0
   Yes, namely: 1 Surinam
   2 Antilles
   3 Moroccan
   4 Turks
   5 Different, namely:

5 Are you in the Netherlands born?
   Yes 1
   No 0

6 If you are not in the Netherlands born, when are you then for the first time come on a Dutchschool?
   1 already in the civil group of the primary school (= first class of the lower school)
   2 in a higher group/class of the primary school (or lower school)
   3 education continued in the first class of a second for
   4 in a higher class of a school for continued education

Do you attend both you (natural) parents in house?
   1 Yes
   2 No

If both parents have separated
   3 No of my parents has died or my both parents have died
   4 No, I live independently (e.g. at chambers or own enge/huis)
   5 differently, namely:

We would like to ask you hereafter a number of questions concerning the family in what you now the largest part of the year (nowadays) and concerning the parents that to this end to belong. This can be therefore you both (natural) parents, but also for example only your father or only your mother, or your mother and other adult, etc. We call the adults in this family always your parents or guardians. We ask among other things for training, which your parents, or attendants have followed and to the type work which they do. If you the not well-know, question then to them help with filling in these questions from the list.

7 What is highest training which your parents or guardians have finished?
   (Circle one figure in both the columns.)

mother/guardian father/guardian
   1 less min 6 years lower education 1
   2 more lower education (completed) 2
   3 less 3 (e.g. Lwr, Bro, Lean, house keeping school, lower agriculture school etc.)
   4 a training from the student basis 4 (e.g. Remmale, SVB, Gaweulo, etc.)
   5 Mavo or mavo or do 5
   6 3 years hbo, gymnasium or atheneum 6
   7 Mbo 7 (e.g. Mt, Mean, nursing, mittle agriculture school small child training, etc.)
   8 Higher General (Secondary Education or Mms 8
   9 (entire) hbo, gymnasium or atheneum 9
   10 Hbo 10 (e.g. Hs, Nase, pedagogical Akademie, higher agriculture school etc.)
   11 University candidate diploma 11
   12 University Electrical diploma 12

8 Which of the possibilities mentioned below is on your father (or guardian) and your mother (or guardian) of application?
   (Circle both columns one figure.)

mother/guardian father/guardian
   1 a in paid employment 1
   2 own company/shop 2 has
   3 cooperates in family company 3
   4 has been pensioned 4
   5 is unemployed 5
   6 was ill-taking 6 has
(Ab-lijst (May 9)): p. 2

7 works exclusively in hout/teelt; 7
8 no professor from 9 practices
9 differently, namely: ... 9

9 If your parents or guardians in paid employment are or were company, how many persons do they have control
or much persons rely they in services? (if your parents or guardians not paid employment is and have no own
company, circle then: not of application.) mother/guardian father/guardian
1.5 parents 1
2.1 to 9 persons 2
3.10 or more persons 3
4 not of application 4

10 You what kind of type work you can estimate father (or guardian) and your mother (or guardian) during their current or last profession perform most
(a have performed)? mother guardian father guardian
1 not of application: never profession has exercised 1
2 leading head sheers (for example in factory,וברוש, making company, elderly person care)
3 leading heart orers (for example on office, as for – 3 siegelszinst), as a representative
4 leading agrarian labours (agriculture, livestock-farming etc.) 4

11 You can indicate approximately which net income you estimate mother/guardian and your father/guardian pay month?
(If you only one year income counts know, that join ever for towards a month, income. And as only know which income your parents or guardians together have fill in even the second question.) mother guardian father guardian
1 no income 0
1.1 less than 1500, - 1
2 between the f 1500, - and f 1750, - 2
3 between the f 1750, - and f 2000, - 3
4 between the f 2050, - and f 2500, - 4
5 between the f 2500, - and f 3000, - 5
6 between the f 3000, - and f 3500, - 6
7 between the f 3500, - and f 4000, - 7
8 between the f 4500, - and f 5000, - 8
9 between the f 5000, - and f 5500, - 9
10 more than f 5500, - 10

12. Or: I cannot say separately, but the not month income of my parents/guardians jointly is approximately:
(If a number between 0 and 10 in from the classification above)

13. If you have separated parents, what in then approximately it net income per month of the parent where you do not live? I value not monthly income of the parent where I not at live on ... Fill a number between 0 and 10 in from the classification above.

13. From how many children your family exists?
1.1 child
2.2 children
3.3 children
4.4 children
5.5 or more children

And the number of all are you in the family? (e.g. second, third etc.)

1.1 am it - child in our family.

14. Have you any or more brothers and/or sisters who higher professional training (e.g. pedagogical academy, RB, hbo) or scientific training to a university follows or will followed?
1.1 no. I have no brothers and/or sisters of they are still at young so follow such a training
2.2 no, none of my brothers and/or sisters such training or has ever done that
3.3 yes, both scientific and higher professional training
4.4 yes, only higher profession training
5.5 yes, only scientific training

15. About the end of the primary schools have you a recommendation got which type continued education for you was most suitable. Which recommendation did you get then?
1.1 Lbo
2.2 Ubo/techn"n
3.3 Mavo
4.4 Mavo/Highest General Secondary Education
5.5 Highest General Secondary Education
6.6 Highest General Secondary Education/WO
7.7 WWO
18 Many students wear in the continued education central school types. They frequently start in a first class and go than to certain department of a comprehensive school. Sometimes becomes there also afterwards still changed of the one department to the other or even of one school to another school.

We ask you to tell in which school types for continued teach you after the primary school successively have sat. (circle in each of the three columns one figure.)

<table>
<thead>
<tr>
<th>1 Higher General Secondary Education</th>
<th>2 MAVO</th>
<th>3 General Secondary Education</th>
</tr>
</thead>
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Community always on Avants on 1st middle school 1a school type or 2a school type.

If you afterwards still on a fourth or perhaps even, however, fifth school type has sat is possible you that below still write down:

- fourth type: ___
- fifth type: ___

19 Have you already a diploma in the continued education gained? (If you have gained several diplomas can you several answers in circle.)

No: ___

Yes, namely 1 diploma/diploma diploma: ___
2 MAVO-diploma
3 Havo-diploma
4 Vwo-diploma
5 diploma/diploma/diploma
6 diploma a student being

C. Current situations

20 Of which (philosophical) direction is the school where you hope to attend?

1. relva
2. Protestant
3. Roman Catholic
4. Ecumenical (independent private)
5. None in particular
6. differently, namely ___

21 Which school type do hope for you now and in which class?

1. MAVO 4a class
2. Lyceum 4a class
3. a head class on the lyceum
4. differently, namely ___

22 You want mention below which figures you for your end examination professions have obtained the profession on c at the school research and or you - or at d level been done? (If you're on the lyceum you can yourself Berufspassliche professions fill in at the end of the list, differently, namely ___

Profession (Figure: Level: Dutch: ___
English: ___
German: ___
French: ___
Maths: ___
History: ___
Geography: ___
Economy: ___
Commercial science: ___
Biology: ___
Physics: ___
Chemistry: ___

Ah-lijst (May 91): 3
23 In the future you wish to Higher General Secondary Education and WVO probably still but can choose from four profession packages, which serve as preparation several continuation courses. These four packages become "doorspecific" called.

Everyone gets their standard package, with among others Dutch, society, science, civics, and professional orientation, only maths and information processing and (apparently the WVO) elementary courses foreign languages. There on top of comes the role of the four doorspecific package. Should be defined that:

1 a profile "social and technical" with much maths and the more technical parts of nature - and chemistry; intended for technical, scientific, agrarian and paramedical continuation courses
2 a profile "nature and health care", with maths and the more general parts of nature - and chemistry and further with biology; intended for agrarian and paramedical continuation courses
3 a profile "economy and society", with maths, a modern language, economy and more society lessons; meant for continuation courses such as economy, social studies and secondary teacher training
4 a profile "culture and society", with modern languages, history, society studies and parts of philosophy, meant for all kinds of cultural and social orientation courses and secondary teacher trainings.

If you would have choose between these four profiles, be who you would seem than nice and which you would choose probably really?

Nicest me seems profile number...

I would choose probably for profile number:
24b a) if you sit on the floor you want indicate then on which topic to you sit.
0 I also sit on the floor (continue to the next question)
1 Economically/Administrative subject (e.g. Language, business, middle-level education)
2 Nautical education (sea-going school)
3 Graphic education
4 Technical education (IT)
5 Home economics and Industrial education (HH)
6 Agriarian education (Ag)
7 Differently, name...

24b which training, direction or specialization have you chosen you school? (for example on the I: electrotechnik.)

25 Below some judgments concerning learning success=school. We ask you indicate if these judgments also you apply.

You can do it by filling in a figure at each pronouncement between
0: does not apply totally to me
and 10: applies exactly to me.
I do not work this way hard
1 give much attention to my humour work
2 I am very paying attention during the lesson
3 I do rather something too much than too a little
4 I prepare test work just at the last moment.
5 Then questions we want to get your opinion concerning importance of education. We present to a range judgments you and ask your for at each pronouncement to indicate how important you that pronouncement finds. You can indicate that by filling in a figure between
0: that is totally not important
and 10: that is exceptionally important.

It is important that students on school:
1 country and good manners learn
2 develop interest to have for what equal in the worst happens
3 are prepared to a place in the society
4 be prepared to a future profession
5 develop interest to have for music, stage and good booking
6 develop critically where to think concerning all problems learn to make to get
7 information gets concerning the professions which they are possible to get
8 a profession learn
9 honestly and equally learn its
10 the political problems in Our country learn understand
11 develop a good father or mother to be
12 that characteristic form

27 How large treasure you the chance that you succeed forend examination?
1 yes
2 no
28 How much think now being able deserve you go (commencement start) when you the coming one, if you have succeeded for diploma, not further will value but directly will work?
I agreed then a commencement salary of $... not by month.
29 How much money has deserved you yourself in sum not in excess 12 months, therefore since May 1960 (with holiday work, newspaper division, job, Saturday, etc.)?
I have the past 12 months not deserved.
30 To what extent are you now, how you with the end examination busy are, satisfied concerning earlier choices which you then made and considering how it goes up school? You be possible this indicate how in a figure between:
0: then I am extremely dissatisfied concerning and 10: there I am exceptionally satisfied concerning
... the first school choice after the primary school (or lower school)
... the choice of the type of education where your now on sits
... the choice of the profession you plan on the moves or the choice of (vak)working on the bo
... your behavior on school
... your school results so far
... the social life of the school (where longest on have you been)
your friends on school
D. Plans after to gain of the diploma
As the remaining questions you must go there from that you battles for the end examination and therefore your diploma will gain. 31 Know you already what kind of diploma you want to do, what kind of type call do you want to practice? We will ask you how clear your picture is of the work which you want to do will lie below a figure to circle between 1 and 9.
- If you have really absolutely no idea of what you will go to do, then circle you the figure 1
- But if you very exact know which call you will choose and which work you will do, then you circle the figure 9
I have that know none 1 2 3 4 5 6 7 8 9.
32 You think that you in the future, after you have succeeded for the end examination, still further will study or to another school will go?
That be possible but with a year therefore inadmissibly next is also just after a number of years, after your firstly end-different has done.
1 yes, I go (immediately or in the future, however), further to study/learn
2 I will follow only sji but courses
3 no, I will study/research/earn
4 I know it (still) not. 33 What think you the coming study year, if you have succeeded for the end examination, do to will?
1 I will study in the coming study year full-time (5 days in the week study/to school).
2 I will study in the coming study year part-time and I want maybe what differently will do (e.g. work).
3 I go per coming year firstly in ministry service
4 I do not yet study the coming study year
5 I know it (still) not. The 34 must important two choices/possibilities after gaining of your diploma further to work/study on the one hand or a job s to ask addresses and to work on the other hand. Many students hesitate at the choice for these two possibilities and consider them both seriously. We will ask you to indicate how gladly you at this moment if one wants and how gladly the other. (You must there just as from you a free choice have, also if you must in military service or if your parents no authorization to give for further learn, questions we you would want, what kind of to do.)
You can than there below a number of 1 to 9 at to give:
- If you want to work it very know and you must there too do not think further of will learn or study, then circle you 1
- But if you want will study it very know and directly it will work feasible seems you then circle you 9
And if hesitates learn you between further study/study and work then you give with an interesting number how gladly you it would want one and how gladly the other.
1 I go 2 I work 3 I work/study 4 I work/study/study 5 I study/study/study 6 I work/study/study 7 I study/study/study 8 I study/study/study 9 I study/study/study. 35 At the decision yes or no go we are able study all kind of considerations play a role. Below we do a number there judgments concerning
We ask you at each pronouncement or that pronouncement yes or no at you is appropriate. You can do this giving a figure between:
0: this pronouncement is inappropriate absolutely at me
and 10: this pronouncement is appropriate exactly at me
... I find to learn, however, now but do not sit on school
... By study I my subjects am able explain
... I want deserve gladly this rapidly possible my own money
... By study also I think a higher position at to reach
... A continuation course will let me pay long
... I am able develop itself in studying with there personal working level to find
... If wait think I now work still not to be known
... I have of to learn enough
... Have either a grant studying (swimming) then benefit
... Without further to learn can get nice work
... I more chance on a job w if make if I further study has followed
36. In what kind of situation have you obtained information on possible continuation courses (you can write several answers):

1. information day (en) of education institution (en) you visited
2. written information obtained
3. spoken with the school counselor
4. spoken with a teacher concerning study choice
5. spoken with family concerning training which they follow or have followed
6. spoken with friends concerning training which they follow or have followed
7. contact have with professionals or my counsellor

37. Of which level of continuation course do you think you are the diploma to be able to gain (also when you that does not intend), which level do you think you want to gain eventually the diploma?

As levels we distinguish:
1. no further continuation course
2. Briefly middle profession education (Kmbo), student being, region school
3. Higher General Secondary Education (onpart, e.g. Mts, Mavo, mbo etc.) or the vocational higher professional education (Vhtbo)
4. Middle profession education (mbo, e.g. Hbs, havo, social akademie, pabo etc.)
5. Scientific education (Wv. university training)
6. Scientific education 2e phases (e.g. application to scientifically research worker or medical specialist)

I think I am able to gain the diploma easily of continuation course of level:

I think I am not able to gain the diploma with much effort of a continuation course of level:

I want gain eventually the diploma of continuation course of level:

38. You can make an estimate of the difference between your current place of residence and several schools/institutions for continuation education? (i.e. wind up on complete kilometers)

Nearest region skilled lees. ... Km
Nearest Vhtbo-school location ... Km
Nearest training institution/counselling (college) ... Km
Nearest University (university) location ... Km

The remaining questions have been only meant if your level of place of current residence is next year or ever in the later future, you are going to develop your study. Only as you of it certainly see that you will not study further the questionnaires can do you now in the envelope and with:

39. We are curious what you are going to plan to study.

We mention some possibilities. Which of these training wants you the coming study year? (or if you firstly will work or in service box, in the further future) you follow? Fill in the first column your first preference (circle maximum one figure in this column). Fill in second column you possible second preference (in also in these column circles maximum one figure).

Type of study preference: 5.2e

- a "head class" on the bhs 1.1
- Artiste on the Higher General Secondary Education 2.2
- a training in the middle profession education (mbo) 3.3
- an experimental training Higher General Secondary Education (Kmbo) 4.4
- a preparatory training for higher profession education (Vhtbo) 5.5
- a training in short middle profession education (Kmbo) 6.6
- a combination of theory and work (region school, student being) 7.7
- differently, namely ... 8.8

- differently, namely ... 9.9

40. You can motivation to will yourself study in the study of your first and of your second preference expresses himself in a figure between 0 and 10:

My motivation for the study of my first preference is:

My motivation for the study of my second preference is:

41. How much chance thinks of allowing you for also at become in the study of your first preference?

I value my chance on... please (number between 0 and 100)
42 At the provinces a study of your first preference to play possibly a number of considerations a role. Below are a number of such considerations. We ask you for each consideration to indicate how important that is to your final decision.

You can do this giving a figure between

0: this consideration plays totally no role

10: this consideration plays an exceptionally strong role

... I find the subject of the study interesting...

... By following this study, I think later independent work will be able to be able to...

... I expect this study will enter me in the workforce...

... I can fulfill this study in a certain profession to return...

... This study can not follow an education institution which near me is...

... I expect this study will be difficult for me to...

... I hope this study will have a chance on a job in foreign country.

43 If you go there from that you be allowed to the training of your first choice, how sure you consider then the chance that out of this training it will diploma gains?

I give myself:__ percent chance for the end diploma at to obtain (fill in number between 0 and 100)

44 How long experts you to do for the end diploma of the training of your first choice to gain?

I expect there... year to... imply... week.

45 If you will follow the training of your first choice, how many hours think you that you than average per week to all types of school activities (lessons to follow, house work, practice, difficulties etc.) at each other spend?

In think on average... per week will spend you...

46 How much think not being able-deserve you go (commencement salary) when you have completed the training of your first choice?

I expect that a commencement salary of... net/month

47 How many study debts think of having you, when you the education in deed outside leaves have?

I have a study debt of approximately... German guilders.

49 If you sit now on the mavo and your first preference is for to continue on the Higher General Secondary Education, intend you then study after go further to the WWO or the higher professional education (hbo)?

1 no, I do not sit on the mavo; out of application

2 yes, however, on the mavo, but my first preference is not higher professional education

3 yes, I will go to the Higher General Education afterwards further on the WWO

4 yes, I go to the Higher General Secondary Education for afterwards a training in this follow to be able to go

5 yes, I do not go after the Higher General Secondary Education to WWO or HBO

6 I go to the Higher General Secondary Education because I not yet well know what I will to do and the Higher General Secondary Education will widen my future possibilities

50 If you are first preference for a training in the mavo (or Vhbo) follow to will, intercept you then afterwards, still further will study in more higher professional education (hbo)?

1 one first preference is not the mavo (or vhbo)

2 yes, I enter to the mavo (vhbo) so afterwards a training follow here to be able to go

3 no, I do not go after the mavo (vhbo) by to HBO

I go to the mavo (vhbo) because I not yet well know what I will to do and the mavo (vhbo) my future possibilities will widen.

51 It is, however, said that the Higher General Secondary Education would have actual six years instead of five years, like now. Such a change will have influence on your plan??

1 no

2 yes, I would not go then to the 6 person whose birthday it is Higher General Secondary Education but to the...

3 yes, I would not go then to the mavo but to 6 person whose birthday it is Higher General Secondary Education

4 differently namely:..........................
First follow-up survey – November 1991

Questionnaire for students who in May 1991 ended examination classes of mavo and hbo sat

A. The examination and afterwards

1. You have succeeded for the final examination of training courses on which you in May 1991?
   1 yes
   2 no

2. Not taken part in end examination
   3 not taken part in end examination
   4 different, namely, _

If you have not succumbed, do you then class now the same again?
   1 yes
   2 no

2 Sometimes you can something like as a result of which already you plan suddenly change. If you become for example anxious (nervous) or you are more certain of your future plan. But you can also suddenly or suddenly more prefer a job to find. In the previous months something hit happened there that for your future of particular importance is that is possible therefore something in your personal situation to be, but also hinder social and political events?
   1 yes
   2 no

You that follow in your own words want define?

3. This influence has bad you plans for yes or no study to continue learn of?
   1 no, then no influence has had
   2 yes, I have changed as a result, my plans
   3 yes, I am (more) will doubt concerning my plans

4. Yet, I in a result, continue and more certain have become of my original planning
   1 yes, I follow entirely or parent education
   2 no, I follow only a course
   3 no, I follow no education at this moment

B. Questions for if you at this moment only one course or no education follow

5. Have you after the summer holiday also already a class but very short, nevertheless education followed where you have stopped now?
   1 yes, followed after the summer holiday no education
   2 no, I have briefly sat on a school training

6. If you were before you did examination (therefore by last summer vacation) also already of plan for at this moment no further education all follow?
   1 yes
   2 no

7. I had plan still no

8. What are for you the most important reasons why you now no education follows? Read on them all even and manner even three rank important, (you can circle no longer than 3 reasons, less can, however)

I follow education now no, reasons
   1 always already of plan was to stop with education
   2 I have fallen for the examination
   3 I am in military service had
   4 I could get a job
   5 I gladly money wants deserve will
   6 I go now at living domestic work
   7 I was rejected at the training of my first preference
   8 mine figure (s) was not well enough for admission
   9 further do not know/admit one nice layman the 10 uncertainties concerning study financing this way large are

10. other reason and that I for this question 2 have written down

8. how you in situation now? (circle the number that most with you situation corresponds)
   1 I have a complete job in paid employment
   2 I have a part-time job in paid employment
   3 I have its own company/shop
   4 I cooperate in family company/shop, firm etc.
   5 I am present in military service (... go further with question 12)
   6 I have no job, but looking work (... go further with question 13)
   7 I have no job and I seek work also now (... go further with question 13)
A 1. List (see page 91): p2
9. If you work now paid, is this the work that connects with training which you have followed?
   1. yes, it is work that connects with training
   2. no, this work had no diploma
   3. no, this work needs a diploma
   4. no, this work needs more diploma than I have
5. How many hours work each week?
   I work...how...per week
And is that temporary or a steady job?
   1. it is work (for example temporary by means of a employment agency)
   2. it is a steady job.
11. If you see or other reason would you work for you, that would education will follow?
   1. no, I would try another job get
   2. yes, I am a part-time work will follow training and moreover by part-time find work
   3. yes, I would still follow then a full-time training

12. If you present in military service, what interests you for your years of pensionable service do to will?
   1. I will follow up (profession training of the army)
   2. I will try a job get
   3. I will follow a part-time training and try for moreover part-time work to find
   4. I will follow then a full-time training

13. If you own month or two has still no job, what do you think that you will do then?
   1. try part-time find training and moreover in combination to part-time work zeeken
   2. try come on a full-time training
   3. follow no education, but rather zeeken to work
   4. follow no education and zeeken to work (more)
14. Which income has you (hhl) per month? (see wind up on complete guidelines)
My net income per month is: work..."...
   - of my...income...

15. Do you follow a course of study this moment?
   1. no, I follow no course (- - > go further with question 14)
   2. yes, I follow a course by means of the company or the institution where I work
   3. yes, I follow a course (not by means of my work)
16. What kind of type course will you follow?
   1 occupational training
   2 general education
   3 free times (for example music, dancing)
   4 differently, namely...
17. Why are you that course will follow? Molier 3 for you most important reasons from the next list.
   (you can no longer than 3 reasons list, less can, however)
   1. to have more chance on a job
   2. to be able get a better job
   3. because my wish/hobby wanted that
   4. my work improves do to be able
   5. promotion to be side make in my company/institution.
   6. more able deserve
   7. to be self-protected in my current job
   8 interval
   9. as prefer leisure Activities
   10 differently
18. How you think that your situation over approximately a year (and 1992) will be?
   1. I think that I study then full-time will follow
   2. I think that I study then full-time will follow (in combination with work)
   3. Think that I study then full-time will follow
   4. I know it not
19. You think that you will study in the future still or to a school will go? That can (study) year therefore next be but also just concerning a couple year, after you improve what differently has done.
   1. yes, I am (possibly in the future) education, however, further to study/learn
   2. I will follow only still but confuses
   3. no, I will study never more/learn
   4. I know it (still) not
If you want education at present no be you now ready with fitting in the inquiry. 'Which the questionnaire include in answer answer (pedagogical stamp is not necessary). Thanks again warmly for filling in. If you do require information which you in the questionnaire take still lost way/notable then is possible questions just lost was not possible then is possible you that make on the special space on the back of this notebook.


C. Questions 'or if you follow education at this moment, however.
20 You went before you did examination (therefore by led summer vacation) also already of plan to training to go which you now follow? Or, you follow now the study/training which then your first preference had?
1 yes, I follow the training of my first preference (8. 29 go further with question 22)
2 no, I follow a training which not my first preference had
3 no, I did not bank further will join/training
4 no, I had then fixed plans still no

21 You will be subject half to full not yet fixed of plan for to your current study/training to go. Why have you (nevertheless) for these training chosen? We can think a number possible reasons. Them all even and minor then these that for you books on it were most important, (you can no longer than 3 squared to circle, less can, however)
1 I have fallen for the examination and do the last year now considering for this reason
2 I have fallen and to this training have gone
3 I have unexpectedly unexpectedly succeeded for the examination
4 I needed, nevertheless (also) not in military service
5 I was rejected at the training of my first preference
6 mine figures was not well enough for admission at training of my first preference
7 I got nevertheless more preference for my current training
8 I then not yet knew that this training existed
9 I have been possible I find job still no this
10 uncertainties concerning study financing above manner large
11 worked work and will work on second thought nevertheless seemed me this way nice
12 I consider this training but in temporarily, next year goes I follow another training
13 I coupled this study but in temporarily to I seek job has found
14 I had other reason and those for this al question 2 written down

22 We want know shortly this way exact possible what kind of batch you now follows. For this reason we have hereafter 6 questions (a to f) concerning training that you at this moment follow: a. What education (name institution/school).

b. The education which I follow at present was named in full:

c. And I follow:
1 complete training, 5 days per week
2 part-time course: every week 1 or 2 days in school and same days work
3 part-time course: firstly a number of weeks or months in school, afterwards a period practice varied with school
4 part-time course without with that looked directly work

d. Your school/university becomes by the government subsidized or it concerns a company school or an individual training institute?
1 paid for by the government normally
2 company school
3 private institute

e. The type education which I follow is:
1 full-time
2 part-time
3 higher secondary education
4 trade school
5 middle school
6 combination of leas and work to student being, means school
7 public service, country power, Navy etc.
8 in-service training
9 adherence

f. At which sector or direction you training classified can become?
1 commonly (Higher General Secondary Education, mavo)
2 agrarian (agriculture, horticulture, viticulture)
3 consumer professions (cook, host/housewoman etc.)
4 technique (also: tao-itory, graphic, nautical, havo)
5 service/health care
6 economy/food production
7 remaining

23 You have made choos new your for a continuation course. But we want gladly also know why you other possibilities have not chosen. Which were other possibilities depended on the type education which you follow now. For the reason we have some question a make stated. You must only with that question 'a, b, or c' to answer which belong to the education which you now follow.
a. For students who have started after the examination with training
You can give yourself opinion concerning judgments mentioned below figure to give between 0 and 107
0 means in not at all appropriate to me
10 means is it appropriate exactly at me
I have not chosen student being or have higher General Secondary Education for, because:

1. I have not the necessary more general, not on profession specific training.
2. My marks in the higher General Secondary Education are more than 95%.
3. I want my work to be professional and not on profession specific training.
4. I want to study a professional field and not on profession specific training.

b. For students who have started after the examination in student being or other training with combination of leavens and work

You can give your own opinion concerning judgments mentioned below by figure to give between 0 and 10.

10 means is not at all appropriate at me
10 means is appropriate exactly at me

I have not chosen (KMBUS or MUS) higher General Secondary Education for, because:

2. I have not the necessary more general, not on profession specific training.
3. For preference (KMBUS training) must travel or on chambers will live.
4. I have not the necessary more general, not on profession specific training.
5. I have not the necessary more general, not on profession specific training.
6. I have not the necessary more general, not on profession specific training.
7. I have not the necessary more general, not on profession specific training.
8. I have not the necessary more general, not on profession specific training.
9. I have not the necessary more general, not on profession specific training.
10. I have not the necessary more general, not on profession specific training.

For students who have started after the examination in student being or other training with combination of leavens and work

You can give your opinion concerning judgments mentioned below by figure to give between 0 and 10.

0 means is not at all appropriate at me
10 means is appropriate exactly at me

I have not chosen (KMBUS or MUS) for, because:

1. I want the highest level with that for me possibly is
2. By means of the higher General Secondary Education I have more chance my eventual aim.
3. For preference (KMBUS training) must travel or on chambers will live.
4. I have not the necessary more general, not on profession specific training.
5. I have not the necessary more general, not on profession specific training.
6. I have not the necessary more general, not on profession specific training.
7. I have not the necessary more general, not on profession specific training.
8. I have not the necessary more general, not on profession specific training.
9. I have not the necessary more general, not on profession specific training.
10. I have not the necessary more general, not on profession specific training.

24 Which aspect have changed you of studying/training?
1. No
2. Yes, I have changed.
3. Yes, I have changed within my training to other reason or specialization.
4. Yes, I have started another training.

25 How much similar had you expected for with your study/training to start? And how much sense had you at this moment?

You can indicate this with a figure between 0 and 10, where 0 means: I had total no sense, and 10 means: I had there terribly much sense.

1. I have not the necessary more general, not on profession specific training.
2. I have not the necessary more general, not on profession specific training.
3. I have not the necessary more general, not on profession specific training.
4. I have not the necessary more general, not on profession specific training.
5. I have not the necessary more general, not on profession specific training.
6. I have not the necessary more general, not on profession specific training.
7. I have not the necessary more general, not on profession specific training.
8. I have not the necessary more general, not on profession specific training.
9. I have not the necessary more general, not on profession specific training.
10. I have not the necessary more general, not on profession specific training.

26 Is there any specific change in your training to make (you already know you perhaps not certain a event succeed also)?

1. Yes, that is I need of pace
2. No, that indians I not fixed, I see still how it runs
3. No, that is not certain I of plan
27 And what do you about completing free training (also already know you perhaps not certain if you succeeded also)?
1 yes, that is fixed of plan
2 no, that intends I not fixed, I see still how it runs
3 no, that is not certain I of plan

28 I have you in the first months already one or more limits, repetitions or examinations taken off?
1 no, occurs still no has been
2 yes, with an average sufficient result
3 yes, with an average insufficient result

29 How satisfied are you concerning your current study/training and the study results which you have gained so far?
1 very dissatisfied
2 dissatisfied
3 good, however
4 satisfied
5 very satisfied

30 How many hours per week spend you on training?
Both the time counts on school (lessons, practical lessons etc.) as the time at home (preparation, house work etc.).
For mean (average), . . . hour per week to training

31 How large you consider the chance of obtaining the end diploma of the study/training which you follow now?
I give myself, . . . percent chance of obtaining the end diploma (still in number between 0 and 100)

32 If you would finish this training how long you expect there then concerning to have in turn done to obtain the end diploma?

33 Which income has you (net) per month? (see wages-on complete guidance)
My net income per month is:
- work . . .
- of my parents/pocket money . . .
- benefit . . .
- training period compensation . . .
- differently, namely . . .

34 Make you sometimes look themselves concerning the question or you study financing sufficient will be for your training properly at months off?
1 no, these I transfer myself no care
2 yes, then I make myself, however, what care
3 there I have been yet provided very concerning

35 If you need a weekly paid job would become offered, text to which your training which you no longer follow now can continue, what would you do then?
1 the work, best further go with my training
2 the job take and stop with education
3 the job take and by other find education that, however, with that job is combine

36 How you view situation at this moment?
1 living at home
2 living with another family
3 living independently on a student flat
4 living independently in a private room
5 differently, namely

37 How you think that your situation over approximately a year (and 1997) will be?
1 I think that I then still my current will follow study/training
2 I think that I will follow another study
3 I think that I teach them some will follow

Last only ans its meant if you preparatory training follows. If you sit on Higher General Secondary Education or mini you can now questionnaire in enclosed answer envelope de and to our send (postage stamps is not necessary). Thanks again warranted for taking in.

If you want observations which yet in the questionnaires make still not lost was possible then can you that make on the special space on the back of this notebook.

D. Questions for if you follow a preparatory training?

38 You have chosen for a training which is arid or call dries in a certain sector. We give below a number reasons which are important possibly for the choice of such sector. You want to rate to what extent these reasons for you have a role played at your choice? You can this do by figure to give between 0 and 10, where:
0 means absolutely no role played
10 means an exceptionally large role played.

\[ \text{IF} \text{ in this sector I have a large chance on work} \]
\[ \text{the work in this sector seems me interesting} \]
\[ \text{in this sector I have good possibilities for me to climb} \]
\[ \text{in this sector I can get a good salary} \]
\[ \text{in this sector working conditions is well} \]
\[ \text{for a job in this sector have I later not at to move} \]
39. Do you/was also work beside your studying?
   1. yes, I work have paid
   2. yes, I have a training period place (internship)
   3. no, I have no work (... - ready with fill in)

40. How have you come to that work?
   1. by means of my previous school
   2. by means of the school where I sit now on
   3. by means of the employment agency
   4. by means of an advertisement in the newspaper
   5. by means of family, friends or knowledge
   6. differently, names...

41. Is there between your work and the school where you now sit a learning agreement closed?
   1. yes and that does not will happen also
   2. etc, but that will happen still
   3. an learning agreement has been yes closed

You can now the questionnaire in the self-addressed answer envelopes to fill and to our tends (a postmark stamp is not necessary). Again cordial thanks for filling in. If your still observations...
Second Follow-up Survey – November 1992

Questionnaire for students who in May 1991 end examination classes of the or main set – In 1992

A events in last year

In the here-up you have questions before the student last year and now. Yet we know that a lot of people to make the exam events which not go along with the facts. So that in the question category being vary unfar there is no knowledge in your personal situation, of if you are direct surroundings, but also broader social and political events?

1 no
2 yes

You that below is your own words want define?
2 This influence has had on the implementation of their plans for study or work in last year?
3 at me does not apply there are not so particular happened.

1 no, then no influence has had
2 yes, I have changed as a result, my aim
3 yes, I have not been possible reach my arm as a result, (self)
4 yes, I have been possible reach my arm as a result , currently, however,

* Question as from September previous year

9 We want you still just as on the situation such as that the previous year. September (1991) was. The information ras you are previous you probably already, however, given, but it is easier for possible changes clear if we can you can this step by step to give. (Is there talk of work as hours there at what 15 by yielded involved in was there talk of a training/study a three at three 5 not an week involved otherwise)
My situation on 1 September previous year (1991) was

In the field of Training/study:

1 I sat again at the exam examination class
2 I had the education to leave
3 I sat on a new training

In the field of work:

1 I had work
2 I sought work
3 I had no work and sought work also no

You can work therefore also and study

4. Be you the beginning of the previous academic year and now (of 1 September 1991) up to end including October 1992) changed at situation?

1 yes, previous year since September has changed nothing to work or training (continue to component b, question 6)
2 yes, years previous since September have been there one or several times something changed to work (started, stopped or stopped) (continue with question 6)
2 yes, years previous since September have been there one or several times something changed to training (started, stopped or succeeded) (continue with question 6)

We ask your indicate if you have changed to other training or stopped has started with a training, so it has stopped with (paid) a job, or have changed of job. In short all changes which do have with schools/study and work.

(You can tick possible two possibilities)

5 If you have changed previous year (1991) since 1 September of, then we want know training on work this way gladley exactly how much and what who happened and where. For that we trust hereafter a diagram made that we will fill in you.

* Firstly we want exactly the month and the year know in which you have changed of work or training, where:
January = 1 February = 2, (..) November = 11: December = 12
* Further we ask you always indicate if it conceals the beginning (starts or the end of an event (started or stopped), where:
started = stays (of work or of a training)
stopped = stops (of work or of a training)

change = changed of job or training before two changes = * starts one, "stopped" and one. *

* A second job of study or start is ordinary your "starts" without a "stopper" for the last job or study.
* And the last column asks we indicate you for what kind of change it went

1 study/training
2 work

A couple makes examples perhaps a little more clear how your the diagram exactly must fill in.

change: 1, 12, stay (1) (stopped with the one training)

A couple makes examples perhaps a little more clear how your the diagram exactly must fill in.

change: 1, 12, stay (1) (stopped with the one training)
### Example 2
If you are in February 1992 successful for a training, then in April have found a job and afterwards in September 1992 in a full-time course based that job are started, is that times changes, namely:

- 2 change 4: 92, start (2) started with work
- 2 change 5: 92, start (1) started with new training

Fill in now the diagram

<table>
<thead>
<tr>
<th>My change (en) of study and training in 1992:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>verbs and noun? year?</td>
<td>type change? from what?</td>
</tr>
<tr>
<td>ring no.</td>
<td>(1 up to 12)</td>
</tr>
<tr>
<td>1</td>
<td>91</td>
</tr>
<tr>
<td>2</td>
<td>91</td>
</tr>
<tr>
<td>3</td>
<td>91</td>
</tr>
</tbody>
</table>

### B.
For the fifth that in academic year 1991/1992 education careers have followed.
You have followed previous year the education, go then by in components c (question 11).

6 If is 1991/1992 (again) in the end examination class have you sat:
   a. Have you taken off examination in 1992?
      0 no, not in end examination class
      1 yes, I have succeeded
      2 yes, I have failed (again)
   3 no, I have not taken off (again) examination

   b. What is the average figure which you have gained on end examination?

Most of the professions were on a B.E. level (correct correct answer).

7 If your previous year from the end examination class your new training have started:
   a. You have succeeded or have been promoted to a higher school year?
      1 yes
      2 no
   b. If you have succeeded or have promoted, raw - you this with or without delay reaches
      1 succeeded without delay or promoted in June/July
      2 with delay

8 How many hours have you previous academic year (1991/1992) in degree worked lev-
   a. course practical/practical sessions per week
   b. hour housework/housework preparation - according to yield
   c. hours training period/work per week
   d. hour totally per week

* If you follow a training with alternating periods in which you work/training period run and period in which you get lesson, fill then about question 8 in education week.

You can indicate then how many weeks follow your education...... weeks education, how many weeks you work/training period... weeks work/training period.
0 You can give an appraisal of your studies, your activities and the importance which you placed to gaining good study results. We ask you to answer the following questions by placing a tick in the appropriate box.

A) I find it difficult to study independently.
B) I used as much time as possible to study.
C) I found it difficult to study.
D) I used as much time as possible to study.
E) I find it difficult to study.
F) I used as much time as possible to study.
G) I find it difficult to study.
H) I used as much time as possible to study.
I) I find it difficult to study.
J) I used as much time as possible to study.
K) I find it difficult to study.
L) I used as much time as possible to study.

0 = my judgment is based on the study conditions. I must say that the study conditions were as I expected. I was satisfied with the study conditions.

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Connection between education and education. Many people find the connection of continued education important on continued education not well. We put you for this reason some to ask that especially on the passage to continued education are related.

Connection concerning the connection of the professions at work of education college. We have previous year already ask been concerning chosen parcel. Now we want gladly to know to what extent you at last year was faced with restrictions of your earlier made choice.

I have thought in times last year several, I had in my profession parcel but... chosen

(You can circle maximum two professions.)

1. English 8 geography
2. German 6 economy
3. French 10 commercial sciences
4. Biology 11 chemistry
5. Physics 12 differently: namely
6. Math 5 differently: namely
7. History

C situation at this moment

13 Do you follow education on 1 November 1982 at?
   1. Yes, I follow full-time education → go further with question 23 (components D)
   2. Yes, I follow part-time education → go further with question 23 (components D)
   3. No, I follow only course → go to the next question (component D)
   4. No, I follow at this moment entirely none education → go to the next question (component D)

D. Questions for them that at this moment only some courses or no education follow

14. What are for you the most important reasons why you now no education follow? (you can circle maximum 3 reasons)

I follow education now no, because:

1. I always already of plan was
2. I have failed for the examination
3. I in military service had
4. I was rejected if was drawn at fin study of my first preference
5. My figure (s) was not was enough for further study
6. My figure did not from study like on second thought but nevertheless way really seemed
7. I feel or foresee problems with my study financing
8. I have adopted a job
9. I have written down reason which I ask at 1

15. How are you situation now? (circle the number that most with you situation corresponds)

1. I have a job in paid employment
2. I have its own company/shop
3. I cooperate in family company (pap, farm etc.)
4. I am portent in military service
5. I have no job, but missing work
6. I have no job and I sought work also in the household
7. I work in the household
8. I work differently, namely

16. If you do work now paid, you can indicate then which level of education bear distinctly the work which you perform:

0 of qualification, I do not do some paid work

1. Illiterate
2. Higher General/Secondary Education
3. Student trainee
4. Mtc
5. Vtc
6. Vmbo
7. Hbo
8. Mbo

17 If you do now (paid) work, how many hours work you then in the week?

I work... hours can work.

You can indicate to which company sectors the venture or institution belongs?

In the industry
1. Agriculture and fisheries
2. Industry
3. Construction - and installation companies
4. Public usefulness companies

Service businesses
5. Art
6. Catering industry
7. Transport and communication
8. Banking
9. Insurance being
10. Accountant offices
11. Consultancy
remaining service

12 remaining service business

remaining service education

13 university/college

14 remaining education

15 scientific research

16 health care

17 social services

18 social/cultural institutions

19 remaining service

20 remaining service

21 remaining service

22 non-application

18. What is your current monthly income from any sources? (Refer to the table below for assistance) If you have a benefit of any kind, please indicate how much per month.

19. Do you follow a course at this time?

1. Yes, I follow a course at the company or institution where I work.

2. Yes, I follow a course that is not a part of my work.

20. If you follow a course, can you please indicate the following questions in order to answer:

a. How many months has the course lasted?

b. The course is concluded with a certificate/diploma, yes no

21. How long do you think you will stay in school once a year (and 1995)?

1. I think that I will study for one year and two years.

2. I think that I will study for two years.

22. You think that you will study in the future still or to a school will go? That can (a) study year therefore next be it also just coming up a couple year. After you finish what efficiently have done.

1. Yes, I will go to school in the future.

2. No, I will not study.

We ask you the following questions of part F to fill in (questions 14 and 15).

b. The education which you have is present name it: __________________________

c. The course that you will follow is:

- year

- month

d. And it is:

- full-time study

- part-time study

e. The level in which you will study follow:

1. Elementary Education

2. Higher General Education

3. Vocational Education

4. University

5. Master's degree

6. Doctorate degrees

- combination of learning and work for student, professional, vocational education

- job

- VET

- other

If you follow a training in the previous question, do you think you are skilled in:

- agrarian

- technical/advisory, graphic arts, naturally

- service/health care (also in-service vocational unde)
4. Economy/Inflation.
5. Remaining

24. How much sense had you in the study/training in December previous year? And at this moment?
You can indicate this with a figure between 0 and 10, where
0 = Total nonsense
10 = Had appalling much sense
In December 1991, my sense in training was: .......
This moment my sense in training is: .......

25. Have you planned for it to be held in the higher education (higher professionalism education or unclearly)?
1. no, I do not think definitely
2. no, personally I do not think in that
3. no, but if it is possible I'll do it, however, blody want
4. yes, I have taken into account
5. yes, I know all about it, I want to do it

26. How satisfied are you concerning course of your current study/training and the study results which you have gained so far?
1. very dissatisfied
2. dissatisfied
3. goes, however
4. satisfied
5. very satisfied

27. How many students per week attend you on practical lessons? (Theoretical lessons + Practical lessons + Preparation + House work etc.)? (Therefore not what you tried, but what your actual does)
... hour follows of lessons (theory and practice)
... hour at home studies/library or house work
... hour training period/work in company (only few if your part time education follows)
... busy week, it is: ....... hour more
In quiet weeks it is: ....... hour less

28. How large you consider the chance of obtaining the end diploma of the study/training which you follow now? I give myself: ....... percent chance for the end diploma, to obtain (in numbers between 0 and 100)

29. If you would finish the training how long would you need then concerning to have to sum done to obtain that end diploma? If I finish it I expect there: ....... year and ....... months concerning to have done (as soon as start of the study)

30. You sometimes took themelves concerning the question or you study financing sufficient will be you would find study properly?
1. no, there I transfer myself at care
2. yes, but I make myself, however, what care
3. there I have been you provided very concerning

31. What is your living situation at this moment?
1. living at home (parents)
2. living independently in a family
3. living independently in a students flat
4. living independently in a private/room
5. independent living space
6. different, namely

32. Which amount make you (net) per month? (Top wink up on completeメリット)
My net income per month is:
... work...
... of my parents (quottet money) ...
... benefit ...
... training period compensation ...
... study financing ...

33. Intend you for before the study (costibility temporary) paid work perform to will or you do that now already?
1. yes, I work already beside my study
2. yes I am will perform work of plan
3. no, I am will not work of plan besides my study

34. How you think that your situation over approximately year (September 1993) will be?
1. I think that then still my current will follow study/training
2. I think that I will follow two qualifies study
3. I think that I latch then none will follow

35. What is the education and work, for everyone?
Finally we want questions stillmore to everyone to present, that is related to the meaning of education and work.

In an earlier questionnaire we have already once a time asked how much you think of deserving if you leave the education. These questions want we again to your opinion, because you think there now differently concerning can think. If you have found meanwhile work, you in what your desire in fulltime-job.
Minimum-salary wage are for a 20 person whole birthday it is: 1'314, - gross (this is approximately 1'040, - net). For a 19 person whose birthday it is in this is approximately...
good f200, - less and for a person whose birthday is in a month whose birthday is in a month whose birthday is in approximately gross f200, - more. But everyone does not deserve the minimum wage. How much you would you deserve?

If you have a full-time paid job, then I think of deserving net per month:

0 there I can make absolutely no estimate of
1 less than f1000, -
2 f1000, - f1250, -
3 f1250, - f1500, -
4 f1500, - f1750, -
5 f1750, - f2000, -
6 f2000, - f2250, -
7 f2250, - f2500, -
8 f2500, - more

36 How much more you think that you deserve could it or a round trip ticket will have gained. Therefore

- If you know how much you deserve if you have gained the diploma or the training;
- If you have education how much you deserve if you have gained the diploma of training which your first preference has.

I think that I get per month, ... more would be possible deserve if I have gained the diploma of my current training or training of my first preference (circle the answer)

0 less than f1000, -
1 f1000, - f1500, -
2 f1500, - f2000, -
3 f2000, - f2500, -
4 f2500, - f3000, -
5 f3000, - f3500, -
6 f3500, - f4000, -
7 f4000, - f4500, -
8 f4500, - f5000, -
9 f5000, - more than f5000, -

17 there I can make absolutely no estimate of

I follow education now no, but my first preference is:

0 of application. I do not follow, however, education
1 Lib, math
2 Higher General Secondary Education
3 Student being
4 Music
5 (...) 0
6 Photography
7 (?)

37 You cannot give an appraisal of the change which you yourself give in my view and a high income, taking into account your situation. We ask you always give a figure between 0 and 10, where:

0 - does not apply to me
10 - applies very strongly to me

... You could learn nowadays, however: further for nice work at to get
... My chance on nice work is lower than average because my capabilities...
... My chance on nice work is low than average by my good posture
... I am more attractive than my contemporaries on average to deceive, because I capabilities have...
... I am probably more than my contemporaries on average to deserve, because I good posture have...
... My parents would do if I for my field not a diploma of has obtained a hilo-ophidiner or University...

38 You would study now if you yourself for your study financing would have lost, this means that no system would exist of basic grant, additional grant or interest-bearing loans under special conditions

1 no, certain 10
2 no, probably not 0
3 yes, probably, however, 5
4 yes, certainly however, 10

39 You can give an appraisal of your wishes at risk of your future position in the society?

We ask you rate your thoughts from 1 to 10, where:

0 no, 10 all very important

10 very strong important...
... work with celibate possibilities...
... work compatibly with personal interests...
... work in which I can exploit my capabilities...
... distance between work and place of residence...
... labour certainty...
... high salary and bonuses...
... working circumstances...
... social standing...
... prefer people to cooperate
... mine for friends and other preferable occatio
... children
... new soliciting, challenge

40 You can make it not always everyone to the same, even yourself not. Yet it is for your plans for the future perhaps important or you here more or less up runs. You can list to indicate to what extent the judgments mentioned below apply to you by a figure to give between 0 and 10, where:

0 - is not at all applicable at me
10 - it is appropriate exactly at me

... family members of me task that I deal something differently must be will do
... my most important things find that what I now do well at me is appropriate
... I get much support of my friends
... I get much support of my family
... if firstly my personal problems but at me
... I can change time easily my surroundings then my persuasions change
... I have into good up at making changes fitting with my surroundings

41 You can indicate how many hours per day spoken normally spent on:

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QUESTIONNAIRE FOR STUDENTS WHO IN MAY 1991 SAT FOR EXAMINATIONS OF MA/MOD AND LBO SAT
A: events in last year
1 We want return still just as on the situation such as that previous year September (1992) were. This information that you us in previous questionnaire probably already, however, given, but it is easier for possible changes clear if to make you can this step to save to give. (In these task of work 26 hours there at least 7 by yealded involved issues; there is talk of a Training study as mere at least 5 hours per week involved anywhere)
2 My situation on 1 September 1992 (turntime clear a year ago) were:
   - in the field of Training study:
     1) followed the same syllabus as for the summer holiday of 1992
     2) I started a new training
     3) I followed no education
   - in the field of Work:
     1) I had work
     2) I sought work
     3) I had no work and sought work also no
     (N.B.: you can work therefore also and (have a training)
2 Are you between the beginning of the previous academic year and now (of 1 September 1992 up to and including October 1992) changed in situation?
We ask your indicate if have changed yourself in training or even stopped, or you have started or or have stopped with (paid) a job, or have changed of job. In short all changes which do have with school/training and work.
(You can tick possible two possibilities)
1) no, year (1992) previous since September has been there nothing changed to work or training
(-> continue with question 4)
2) yes, years (1992) previous since September have been been one or several times something changed to work (started or stopped)
(-> continue with question 3)
3) yes, years previous since September have been been one or several times something changed in training (stopped, started or continued)
(-> continue with question 3)
3 If you have changed 1 September 1992 since of training or, then we want know work this way gladly exact possible what those has happened and when. For that we have two diagrams made which we ask fill in you. (Stand i.e. firstly well the explanation and the examples. (Come you there not well, do not hesitate then our ex-officio, phone tomorrow stand in the introduction of this questionnaire)
Explanation at the diagram:
Firstly we want gladly the month and the year know in which you have changed of work or training (where January = 1, February = 2, etc.). Further indicate we ask you always or concern the begining (start) or for the end of an event (stop or diploma), where:
- stand = starts (of work or of a training)
- stop = stop (of work or of a training)
dipl = diploma (alone for a training)
A couple makes examples perhaps still more clear how your the diagrams exactly must fill in:
1) If of training have changed you in January 1993 then is that two changes, namely
   - in the diagram for training:
     1) change: 1. 93, dipl [stopped or one training]
     2) change: 9. 93, stand [started or non-training]
   - in the diagram for work:
     1) change 1. 93, stand [started or work]
     2) change 9. 93, stand [started or work]
Fill in now the diagrams
My change (en) of training is (be)
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4 Have you in the academic year 1992/93 (between 1 September, 1992 and 1 September 1993) education followed or were you registered at an education institution? (N.B. If you during that academic year at training have then changed, give allowance for your final training?)
   1. yes, not at all registered (- - - continue to question 14 Components C)
   2. yes, partially registered
   3. no

5 Say you in the previous academic year (1992/93) the examination class of the training?
   1. yes, I sat in the final examination class; but in other
   2. yes, I sat in the evaluation examination class (- - - continue with question 7)
   3. no, not completed

6 How many have you been promoted to a higher schooling year?
   1. yes, promoted without delay
   2. yes, promoted with delay
   3. no, not promoted

7 If you in the academic year 1992/93 in the examination class of your training sat: a. you gained in 1993/91 the diploma of training?
   1. yes, entirely successful
   2. no, only certificate
   3. no, only theory examination
   4. no, I have failed for the examination
   5. no, as much as examination class, but not (again) examination taken off

b. if you have done end examination what was then your average figure?
   my average figure was end examination was: ...

c. if successful, diploma gained on:
   month: ...
   figure 1 and 12: year: ...
   (92 or 93)

8 How many months per week have you in previous academic year (1992/93) on average worked for:
   hour lectures per week
   hour practical work per week
   hour work examination preparation - self-study by yested
   hour technical work per week

How many weeks have you previous academic year (1992/93) in follow at a training period spent?

9a) Judgments concerning the training in the previous academic year 1992/93
We are curious how you yourself study/learning in last year has lived and how you look back there on.
We presume with this an range judgments you, with request to indicate to what extent as each pronouncement that precautionary in your judgment, you are appropriate.
You can do this giving a figure between: 0 = a pronounced absolutely not at my situation of experience in the academic year 1992/93
10 = is appropriate exactly at my situation or experience in the previous academic year

9b) We shall judgments with a pre-concerning intensity of training. To what extent these judgments are appropriate at your situation or experiences in the previous academic year?
   - sufficient rest resembles besides training other matters
   - I have enough time sufficiently prepare me for it to quench
   - I generally schmal must learnliness that I scarcity of time have, what on pithful to come
   - I have a large effort master the substance
   - I cannot keep up the temporally work
   - At 1 or more protections my knowledge and skills left to waste concerning
   - I need the pressure of workload not very large

My occupation - training prevent me frequently complete so go up in my training

10 Then take now a couple judgments, timing which you have choosen. To what extent these judgments are appropriate at your situation or experience in the previous academic year?
   - I am satisfied with my choice of training
   - I have always more often for lo another training to change
   - Training is what I had expected of it (then fails me)
   - I find my training generally satisfying
   - I have generally pleasure in my training
   - I find it not always new learn things in my training
   - I think of my training I become somewhat despondent
   - Generally it finds, however, pleasure for a school duty or study day to start
11. There are some judgments some concerning your attitude compared with learn study and in general it general. To what extent are these appropriate judgments your situation or experiences in last academic year?

- I can learn study only by busk
- I use all available time as much as possible for replying the diploma to obtain
- I try always a this way high possible obtain figure
- I am satisfied concerning the study effort which I have provided
- I find it difficult me spam for uninteresting components from training
- I have the inclination postpone obligations.
- My most decorative item
- I study concentrate generally during the learning/period.

I know that I more energy in my training most stop, but I can put myself to this end not in training. To what extent do the following judgments pay your situation or experiences in the present academic year?

- I have sufficient friends under my co-students/student
- I have sufficient knowledge
- I have sufficient contact with co-students/student
- I feel myself often satisfied
- I find the difficult contact to lay with co-students/student
- I have sufficiently social contacts

For me it was practically impossible optimally at supplement study by obligations, training, which non-benevolence with training, obligations training, which however, ink keep with training because I have been sick or physically/mentally not in optimum condition was because I could concentrate well if I had study.

13. Is possible you, firstly, a general judgment give concerning education that in the previous academic year has followed you? We ask your

2 = here a it totally not once
10 = have it complete once
0 = have it complete once

- I am satisfied concerning my training in last academic year
- Too little attention is given on the accomplishment of students/subject.
- The education programme is unevenly heavy (too much and/or too difficult)
- The situation at this moment

14. Do you follow education on 1 November 1993 at?
1 yes, I follow full-time education -> go further with question 10 (components E)
2 yes, I follow education part-time -> go further with question 11 (components E)
3 no. I follow only course -> go to the next question (component D)
4 no. I follow the moment without earning education -> go to the next question (component D)

D question! If you all this moment only one course or no education follows

15. When have you the education to leave?
- month (figure 1 and 12), year ...(91, 92 or 93)

And have you concluded that education with a diploma?
1 yes
2 no, only certificates
3 no, only training examination
4 yes, I have obtained the diploma.

Which diploma have in the past obtained? (If your can you have gained several diplomas figures also several times)

1 diploma
2 University
3 Have-voluntary
4 VHS-diploma
5 diploma basically middle profession education
6 diploma of training in the student being
7 diploma
8 diploma

17. How you in situation now? (circle the number that most with you situation corresponds)
1 I have it job in paid employment
2 I have its own company/grow
3 in occupation in family company (shop, farm etc.)
4 I am present in military vehicle
5 I have no job, but missing work
6 I have no job and / week work also no
7 I work in the household
8 differently, namely

S92
13. How many months is it that you have been unemployed since leaving education?
1. Not yet
2. Less than 3 months
3. Between 3 and 6 months
4. Between 6 and 12 months
5. More than 12 months
6. Never

14. How much income per month do you have from other sources (e.g., pensions, social security, scholarships, etc.)? $_________.

15. Have you applied for any other education since leaving education?
1. Yes
2. No

16. How much income per month do you have from another job? $_________.

17. How many hours do you work per week?

18. How many hours do you work per month?

19. How many hours do you work per year?

20. How much does your current job pay you per month?

21. How satisfied are you with your current job? (0 = extremely dissatisfied, 10 = extremely satisfied)

22. What type of work do you do?

23. What is your highest level of education?

24. How many years of education do you have?

25. How many years of work experience do you have?

26. How many years of work experience do you have in the same field?

27. How many years of work experience do you have in a related field?

28. How many years of work experience do you have in a different field?

29. What is your current job title?

30. What is your current job description?

31. What is your current job location?

32. What is your current job hours?

33. What is your current job salary?

34. What is your current job benefits?

35. What is your current job opportunities for advancement?

36. What is your current job job security?

37. What is your current job job satisfaction?

38. What is your current job work-life balance?

39. What is your current job work environment?

40. What is your current job seniority?

41. What is your current job retirement benefits?

42. What is your current job workplace diversity?

43. What is your current job professional development opportunities?

44. What is your current job work-life balance?

45. What is your current job corporate culture?

46. What is your current job colleagues and management?

47. What is your current job work environment?

48. What is your current job work hours?

49. What is your current job job security?

50. What is your current job job satisfaction?

51. What is your current job opportunities for advancement?

52. What is your current job job security?

53. What is your current job retirement benefits?

54. What is your current job workplace diversity?

55. What is your current job professional development opportunities?

56. What is your current job work-life balance?

57. What is your current job corporate culture?

58. What is your current job colleagues and management?

59. What is your current job work environment?

60. What is your current job work hours?

61. What is your current job job security?

62. What is your current job retirement benefits?

63. What is your current job workplace diversity?

64. What is your current job professional development opportunities?

65. What is your current job work-life balance?

66. What is your current job corporate culture?

67. What is your current job colleagues and management?

68. What is your current job work environment?

69. What is your current job work hours?

70. What is your current job job security?

71. What is your current job job satisfaction?

72. What is your current job opportunities for advancement?

73. What is your current job job security?

74. What is your current job retirement benefits?

75. What is your current job workplace diversity?

76. What is your current job professional development opportunities?

77. What is your current job work-life balance?

78. What is your current job corporate culture?

79. What is your current job colleagues and management?

80. What is your current job work environment?

81. What is your current job work hours?

82. What is your current job job security?

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99. What is your current job work hours?

100. What is your current job job security?

101. What is your current job retirement benefits?

102. What is your current job workplace diversity?

103. What is your current job professional development opportunities?

104. What is your current job work-life balance?

105. What is your current job corporate culture?

106. What is your current job colleagues and management?

107. What is your current job work environment?
Do you follow a course at this moment?
1. No, I follow no course
2. Yes, I follow a course by means of the company or the institution where I work
3. Yes, I follow a course (not by means of my work)

If you follow a course:
how many months lasts the course? .... months
with which aim do you follow this course? yes no
to prepare me to new activities 1 2
to increase career possibilities 1 2
to become able to come concerning a New subject 1 2
can the course continue directly on my field 1 2
can the course be concluded with an acknowledged diploma 1 2
or certificate, namely?

How do you think that your situation over approximately a year (autumn 1994) will be?
1. I think that I teach then full-time will follow
2. I think that I teach then part-time will follow (in combination with work)
3. I don't know (still) not
4. I know it not

You think that you will study in the future still or in a school will go? That can (study) year therefore next be but also
just concerning a couple year. After you firstly what differently have done.
1. Yes, I go (preference in the further future), however, further to study/learn
2. I will study only still but course
3. No, I will study never more/death
4. I know it not

Fill in new only the questions of part f (question 42 and 43) still; Part e can skip you.
If questions if you follow education at this moment, however, Do 26 what kind of studies/training follow you at this moment?

a. School education
   (name institution/school): ..............................................................
at (place) ..............................................................

b. The education which I follow at present named in full: ..............................................................

Training/course start officially
   year and month ..............................................................

d. I stand registered as:
   1 full-time student/student
   2 part-time student/student

e. The level on which I teach follow is:
   1 Master or B Sc 1 class...
   2 Higher General Secondary Education 2 class...
   3 VWO 2 class...
   4 MBO 2 class...
   5 Abc 2 class...
   6 student being in-service training
      2 primary training
      2 2 continued training
      2 3 tertiary training
      2 4 service training
   7 NBO
   8 Wo

If you follow a training in Abc, Kimbo or student being which sector skills that training?
1. Griep
2. Teamwork (also laboratory, graphic, medical)
3. Service/health care (also in-service nursing)
4. Economy/administration
5. Remaning

How many hours per week spend you on training (lessons + practical/vocational lessons + preparation/house work etc.)?
1. Specified normally per week: (Therefore not what you must, but what you actually does)
   1 hour follow of less/college/practice per week
   1 hour at home studies/library per week
   1 hour reading/training
   1 hour in your work
   1 hour in your work
   1 hour in your work
28 In 1991, we you have also asked for your motivation the training of your vet preference. You can indicate how your motivation seems to training which you follow at this moment? Below a number of aims is called. We ask you for each aim to indicate which role plays it in your judgment concerning the attractiveness of training. You can do this by a figure to give between
0: this consideration plays no role
1: this consideration plays a weak role
2: this consideration plays an exceptionally strong role

29. This consideration plays a weak role
1: I find the subject of this training interesting
2: by following this training I hope to improve my performance
3: By following this training I think further, according to my function to be apt
4: By following this training I think later certainly get paid job to be able
5: I by following this training a certain profession to will exercise
6: The training follows as an education which I will later in the future
7: I find this training not difficult for me
8: I expect this training within (norm) conseguir want to be able
9: How much time did you in the study/training in September previous year (1992)? And a year later (last September (1993))?

You can indicate this with a figure between 0 and 10, where 0 = I did not/cannot work sense.
10 - I had no difficulty with making sense.

30. Are you planning to use the diploma in the future to be able?
1: Yes
2: I continue with the training to get a better position
3: That depends on it
4: No, there is no reason

If you answer 2 or 3 is (or if that depends on it) is possible you then indicate which factors a. are still dependent
(c) you can maximize here to improve / are circle
1: of my attitude towards training
2: of my motivation
3: of my decision to choose for another training
4: of my financial situation
5: of my personal situation
6: of my health

31. How many training programs did you consider obtaining the end diploma of the study/training which you follow now?
1: Give up
2: I know however
3: I do not know
4: I am not interested
5: I do not have the time
6: I am not aware of it

32. If you would finish this training how long do you expect to be then concerning to have a sure to obtain the end diploma?
1: 1 year
2: 2 months
3: 3 months
4: 4 months
5: 6 months
6: 1 year
7: 2 years
8: 3 years
9: 4 years
10: 5 years

33. How many months do you expect it to be able completely do all work which you have to do within this training?
1: 1 year
2: 2 years
3: 3 years
4: 4 years
5: 5 years
6: 6 years
7: 7 years
8: 8 years
9: 9 years
10: 10 years

34. How many months do you expect it to be able to complete the entire training?
1: 1 year
2: 2 years
3: 3 years
4: 4 years
5: 5 years
6: 6 years
7: 7 years
8: 8 years
9: 9 years
10: 10 years

35. Do you not have any problems concerning the time you will have on the job which is not ideal to arrange and that's why you are not interested in it?
1: I do not have any
2: Sometimes
3: No, always
4: No, never

36. You are planning to apply for a job with a lower level of the diploma which you then have obtained?
1: I don't
2: I have

37. What level of the diploma which you then have obtained?
1: I do not have any
2: Sometimes
3: No, never

38. Have you idea what kind of job you might have in the future?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

39. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

40. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

41. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

42. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

43. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

44. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

45. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

46. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

47. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any

48. Do you plan to go to school in the future to follow the higher education (higher education or university)?
1: No
2: I do not have any
3: Sometimes
4: No, never
5: I do not have any
A3-lista (rev 93) p 7

38 We want gladly to know which sources you the study finances. Do you have or do you have from each of the financing sources mentioned below (e.g. wind up on complete golden?)

My income in October 1993 was:
- basic grant f. 1,000.00
- additional grant f. 2,000.00
- study loan f. 3,000.00
- contribution parents/guardians f. 4,000.00
- contribution partner f. 5,000.00
- income from own labour f. 6,000.00
- income from benefit f. 7,000.00
- privately, namely f. 8,000.00
- totally f. 20,000.00

How satisfactory are you with your current income? Give for this a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied). figure: 7

39 How are you living situation at the moment?
- living at home (own parents)
- living independently with siblings
- paying rent on a student flat
- sharing an apartment in a student residence
- independent living space
- differently, namely:

40 Indicate for beside your study (possible temporarily) paid work perform to work or do you that now already?
- yes, I work already besides my training
- yes, I am willing to take up work of plan
- no, I am not plan of plan beside my training to work

If you work or work will work besides your training, how many hours per week are this?
- hours per week

If you work, how are the details then training which you now follow?
- yes, it enrolls in the current training
- no, it has done nothing besides training

41 How do you think that your situation over approximately a year (summer 1994) will be?
- I think that I then still my current training to follow
- I think that I then, the diploma of my current training to gain
- 2 another studies will follow
- 2 no more education will follow
- I think that I then (without my current training with diploma to have won/achieved)
- 4 another studies will follow
- 5 no more education will follow

If you have questions on someone

42 In May 1993 we have asked you an estimation as make of your education chances. It is in good possible that there after some years something your ideas have changed. Hence, watch again the following questions:

Judging by the school for which you did examination in 1993,:
- which level of qualification (vocational) you expect the diploma to be able to gain/achieved (also when you think of plan is not) total (both, both which will be able gain/achieved with much effort)
- which level do you want, the diploma you eventually the diploma to?

a. I think easy gain/achieved the diploma to be able of a continuation course of level
- 1 absolutely no continuation diploma easy
- 2 Mbo (e.g. Vtc, Meao, Mbo etc.)
- 3 Mbo (e.g. Hhs, hean, social academy, pabo etc.)
- 4 Vtc (university training)
- 5 Vvo 2 phases (e.g. specialisation in scientific research worker or medical specialist), gaining a Ph.D.

b. I think with much effort the diploma to be able of a continuation course of level
- 1 absolutely no continuation diploma easy
- 2 Mbo (e.g. Vtc, Meao, Mbo etc.)
- 3 Mbo (e.g. Hhs, hean, social academy, pabo etc.)
- 4 Vtc (university training)
- 5 Vvo 2 phases (e.g. specialisation in scientific research worker or medical specialist), gaining a Ph.D.

Vvo 2 phases (e.g. specialisation in scientific research worker or medical specialist), gaining a Ph.D.
4) At the decision yes or no to continue with study, or to a study to start again, we possible considerations all kinds of a role to play. Below we do there a number pronounced concerning. We ask indicate you at each (pronouncement or that pronouncement yes or no at you is appropriate. You can do this by figure to give between

0: This pronouncement is not appropriate absolutely at me

10: This pronouncement is appropriate exactly at me

... I find to learn pretty
... On a school, college or university at. And I terrible
... By I can study my capacities avoid
... I want to learn how gladly my own money
... With a wound up study it bring a higher position at are possible much
... A training to finish will take me too long
... I can develop myself in studying
... I find personal satisfaction in studying
... If I study further I know work still no at to seek
... I have to learn enough
... Without further I learn I can get nice work
... I more chance on a job will make if I further study has followed
... I have more chance on a high income if I further study has followed
Forth Follow-up Survey - November 1994

C: QUESTIONNAIRE FOR STUDENTS WHO IN MAY 1991 SAT FOR EXAMINATIONS OF MAVO AND UBO

A: events is last year

1. Would you confirm that you are still on the dual-track as in the previous year September 1993? This information has you

in your personal questionnaire primarily already, however, given, but it is essential possibly changes clarifies make you the step

or steps to get you - (To have a ticket of work at there at least 7 hours per week involved when, there is talk of a training form

if at least 5 hours per week are included here)

My situation on 1 September 1993 (previously called a year ACG) was:

- in the field of training/relief:
  1. I followed the same vocational course for the summer holiday of 1993
  2. I started to a raw training
  3. Followed no education
- in the field of work
  1. I half work
  2. I bought work
  3. I had no work and sought work (WCA no)

(N.B.: you can answer therefore also and follow a training)

Are you between the beginning of the previous academic year and now (of 1 September 1993) up to now including
called October 1994) changed of situation?

We ask you indicate if you have changed you of training or even stopped, or you have started to or have stopped with

щения, or have been in the job for a short all changes which do have with school/training and work.

You can tick possible two possibilities:

1. No, year 1993: previous until September has been that nothing changed to work or training
(> continue with question 1)

2. Yes, years 1993: previous until September have been those one or several times (started something

changed to training, stopped or completed)
(> continue with question 3)

3. If you have changed on 1 September 1993 since of training or, then we want know work this way grade-sized

possible what has happened until then. For that we have two diagrams inside which we will ask fill

you. Read the t.p. (p.14) with the explanation and the examples. (Do not cover you there well, do not

hint that our own call, the phone numbers stand in the introduction of the questionnaires.)

Explanation of the diagrams:

Firstly we want slightly the month and the year in which you have changed of work or training (where January 1 = 1,
February 2, etc.). An ordinary judge we ask you always of a concept the beginning (start) or for the end of an event
(stoper or diploma), where:

stand = stops (of work or of a training)
start = stop (of work or of a training)
diploma = diploma (happens for a training)

A couple makes example: perhaps off more clear how your the diagrams exactly must fill:

vb. 1. If training have-changed you in January 1994 then is that two changes namely:

- the diagram for training:

- the diagram for training:

2. if change 1, 3rd, stop (stopped with same training)

2a. change: 3, Diploma (finished with new training)

2b. change: 3, Diploma (stopped with new training)

2c. change: 3, Diploma (finished with new training)

3. if change 1, 3rd, Diploma (stopped with new training)

4. if change 1, 3rd, Diploma (stopped with new training)

fill in now the diagrams:

(Here the diagrams are):
4 Have you in the academic year 1993/94 (between 1 September 1993 and 31 August 1994) education inflowed or you had been registered at an education institution? (N.B. If you during that academic year of training have been changed, give answer for your final training.)

1. No, not at all registered (-> continue to question if component B)

2. Yes, name:

2.1. Type of education:

2.1.1. Higher General Secondary Education

2.1.2. VWO

2.1.3. HBO

2.1.4. MBO

2.1.5. Training in the student body

2.1.6. Other training

10. If you studied abroad, mention

7 If you in the academic year 1993/94 is in the end examination results of your training not:

a. You gained in 1993/94 the diploma or training?

1. Yes, entirely successful.

2. No, only credit.

3. No, only theory examination.

4. No, I have failed for the examination.

5. No, as much as an examination, but not (again) examination taken off

b. If you have done end examination, what was then your average figure?

C. Average figure on the last examination was:

1. If successful, question gained on:

2. If not, mention: figure 1 and 2. Yes, (93 or 94)

8 How many hours per week have you during the previous academic year (1993/94) on average worked for:

1. Classroom hours

2. Practical-experimental lessons per week

3. How many hours self-study per week

4. How many hours totally per week

9 How many weeks have you passed academic year (1993/94) to follow of a training period spent? ... weeks

10 Is your situation at this moment:

1. Yes, I follow full-time education (go to the next question component D)

2. Yes, I follow education extra-time (go to the next question with question 21 components B)

3. No, I follow only course (go to the next question component C)

4. No, I follow at this moment entirely non-education (go to the next question component C)

C. Questions if you at this moment use one course or education follows

10 When have you the education begun?

1. Month: (1, 2 or 3.1) (1-3.1)

2. Day: (1, 2 or 3.1)


20. How many hours you have passed with a diploma? (if you have obtained a diploma, as it happens)

Which diplomas have you the past obtained you? (if you have obtained several diplomas figure also several times)

1. Diplomatic diploma (diploma)

2. Bachelor diploma

3. Diploma

4. VWO-diploma

5. Diploma briefly middle profession educat

6. Diploma of a training in the student body

7. Diploma/examen diploma

8. Differently, namely

12 How your education now? (circle the number that note with your situation corresponds)

1. I have a job in paid employment

2. I have a own company/organization

3. I cooperate in family company (store, farm etc.)

4. I am present in a military service
5 I have no job, but meaning work
6 I have no job and I seek work also no
7 I work in the household
8 differently, namely:
13 How many months lasted it for you first job found himself since when of the education?
1 not of application, because no job have or was sought
2 I worked already then I the education left
3... months found I my first job
14 How much time you have applied since you the education have left?
15 I do now (paid) work or sought, how many hours do you work then in the week or for how many hours you seek work?
16 hour per week
17 If you do work now paid
18 a can indicate you when which level of education first dovelate the work that you perform:
1 1st/2nd/3rd
2 Higher General Secondary Education
3 student being
4 PhD
5 TVO
6 LVO
7 WO
19 b how satisfied are you with the work which you have now? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied)
20 c can indicate you to which company sector or institute belongs? (to see also the rest on next the page)
21 industry
22 agriculture and fishery
23 public usefulness companies
24 service business
25 retail
26 catering services
27 transport and communication
28 banking
29 insurance being
30 accounts office
31 consultancy
32 remaining service business
33 remaining
34 university/higher professional education
35 remaining education
36 scientific research
37 health care
38 social insurance
39 socio-cultural institutions
40 remaining swim services
41 remaining civil national authorities
42 remaining service not-business
43 remaining
44 not of application
45 What is you net income per month (remunerations) and/or from a benefit? (S. v. p. was up on complete gilders
46 my net income labour is ___ per month
47 I have a benefit of ___ per month
48 How satisfied are you, with entering which you have now? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).
49 figure
50 afterwards, would consider again, choose for education which you have now followed?
51 yes, I again the same matters
52 no, then a training of a lower level would go be for you
53 no, I omar (vernoig-opleting mullus, ... as it happen), ...
19 Do you follow a course at this moment?
1 no, I follow no course
2 yes, I follow a course by means of the company or the institution where I work
3 yes, I follow a course (not by means of my work)

If you follow a course:
how many months lasts the course? ... month
With which aim do you follow this course? ... no
to prepare me to new activities 1.2
to increase career possibilities 1.2
to be more to possible come contacting a nice subject 1.2
do the course connects directly on my field 1.2
the course is concluded with an acknowledged diploma 1.2
or certificate, namely

19 How you think that your situation over approximately a year (autumn 1995) will be?
1 I think that I aught then full-time will follow
2 I think that I aught then part-time will follow (in combination with work)
3 I think that I aught then none will follow
4 I know it not

20 You think that you will study in the future still or to a school will go? That can (studies) or therefore next be but also
just commencing a couple year, after you finally what differently have done.
1 yes, I go (possibly in the further future), however, further to study/learn
2 I will follow only still but courses
3 so, I will study never more/learn
4 I know it (still) not

FIR NOW only the questions of part e (question 35 and further) still in; Part d can skip you.
O questions if you follow education at this moment, however,
Do 21 what kind of studies/training follow you at this moment?
a. I follow education (name institution/school): [ ]

b. The education which I follow at present named in full: [ ]

c. Training/course lasts officially

... year and
... months

d. I stand registered as:
1 full-time student/part-time
2 part-time student/part-time

e. The level on which I teach follow is:
1 Move or too = > class...
2 Higher General Secondary Education = > class...
3 VWO = class...
4 Kimbo = class...
5 Mbo 3 person when the birthday is training = > class...
6 Mbo 4 person when like birthday is training = > class...
7 student being in-service training

... 1 primary training
... 2 continued training
... 3 tertiary training
... 4 in-service training

f. What

If you follow a training in mbo, Kimbo or student being which sector falls that training?

f. Follows the sector/department in which I teach is:
1 agrarian
2 technical (e.g., laboratory, graphic, nautical)
3 service/health care (e.g., in-service nursing)
4 economy/administration
5 engineering

22 How many hours per week spend you on training (lessons + practical/les practical lessons + preparation/house work etc.)?
I spend normally per week to: (therefore not what you must, but what your actually does)
... hour follows of les/college/practicum per week
... hour at home studies/library per week
... hour busy it is... hour more
... hour quiet it is... hour less
23 How much sense had you in the study/training in September previous year (1993)? And a year later, last September (1994)?
You can indicate this with a figure between 0 and 10, where
0 = I had total no sense,
10 = I had appalling much sense.
In September 1993 my sense in training was ............
And last September was my sense in training ..........

24 Are you going to plan the end diploma?
1 yes, that agrees I (continue with next question)
2 that depends on it
3 no, that does not interest
If you answer 2 or 3 it is (no or that depends of it) is possible you then indicate on which factors it does depend? (you can
maximum are to answer 100)
1 of my attitude for training
2 of my motivation
3 of my decision to choose for another training
4 of my financial situation
5 of my personal situation
6 of my health

25 How large you consider the chance of obtaining the end diploma of the study/training which you follow now?
1 I give myself ........ percent chance for the end diploma at to obtain (fill in number between 0 and 100)

26 If you would finish this training how long you expect there then concerning to have in sum done to obtain that end diploma?
1 I finish it, expect there .......... year and ....... months concerning to have done (as from the start of the study)
2 I expect after approximately ......... months a job to have

27 How many months do you think you that after gaining diploma necessary to find a job?
1 not of application I seek provisionally no paid job
2 I expect after approximately ......... months a job to have

28 Make you sometimes look themselves concerning the chance on a job which with regard to nature and level being
appropriate is at your training?
1 yes, very regular
2 yes, regular
3 yes, sometimes
4 no, almost never
5 no, never

29 You pleasure want take with a job under level of the diploma which you then net has obtained?
1 no talk of
2 perhaps ... months
3 if the work seems me nice

30 Have your plan made for in the future a training at go follow in the higher education (higher profession education or
university)?
0 I follow now already a study in the higher education
1 I follow now already a study in the higher education
   (in case you further with question 31)
2 no, I do not intend definitely
3 no, provisionally I do not think to that
4 no, plan, but if it is possible it, however, gladly want
5 yes, there I take into account
6 yes, I know all what I want do will

31 When you think further of will study in more higher education or there even if you have plans concrete for has, thinks you then
to a confirm (full-time) study or thinks you more to study paid in part-time, besides other occupations like for example work?
1 I think especially of full-time study
2 I think rather of a study in part-time
3 that know I (still) not

31 We want gladly know from which sources you the study finances.
We ask you for this reason for the month of October 1994 to at to give which income has you from each of the financing
sources mentioned below. (S.r.p. wind up on completed questionnaires)
My income in October 1994 was:
- basic grant f...........
- additional grant f...........
- study loan f...........
- contribution parent's/guardians f...........
- contribution after f...........
- income from own labour f...........
- income from benefit f...........
- unemployment, namely f...........
- totally f.............
How satisfied are you with your current income? Give for this a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

32 How you are living at this moment?
1. Living at home (of parents)
2. Living independently with a family
3. Living independently in a student flat
4. Living independently in a private room
5. Independent living space
6. Differently, namely: __________

33 Intend you for beside your training (possible temporary) paid work perform to will or do you still now already?
1. Yes, I work already beside my training
2. No, I will perform work of plan
3. No, I am not go of plan beside my training to work
4. If you work or work will seek beside your training: how many hours per week are this?
5. __________

34 What work do you then training which you now follow?
1. Yes, it dovetails my current training
2. No, it has do nothing with my training

35 How do you think that your situation over approximately a year (autumn 1995) will be?
1. I think that I then the diploma of my current training have gained and
2. Another study will follow
3. No more education will follow
4. I think that I then (without my current training with diploma to have wound up)
5. An other studies will follow
6. No more education will follow

8 lock question for everyone
36 This research concerns choices for yes or no to remain to study.
We want know gladly again of you how long you still stays will follow education and which educational level wants you eventually to will reach.

a. How much year education thinks will follow you still? (v.p. wind up on complete years)
1. I think that I still year full-time education to follow
2. Year education part-time (beside work or other occupations)
3. Which educational level expects you eventually diploma will have gained?
1. Master - or training
2. Higher General Secondary Education - or Vwo-opleiding
3. Training student being or vwo
4. Training
5. HBO-completion
6. WBO-completion (university)
7. 2x phases training in the Wo (for example education for general practitioner or industrial designs or gaining a PH.D.)

37 How many years had you at the beginning of this study year still right to a basic grant?
1. I had active beginning of this study year (September 1994) still right... year basic grant
2. That know I not
Dutch Questionnaire B – English Translation

Initial Survey – May 1991

Students in and examination classes of WO, Higher General Secondary Education and mbo

A. Personal details

1. Gender
   1 male
   2 Female

2. When are you born?
   day: ______ (figure between 1 and 31)
   month: ______ (figure between 1 and 12)
   year: 19

3. What are the four figures that make up your house address?
   The four figures of your mail code are: ______

4. Count yourselves to a cultural minority?
   No 0
   Yes, namely: 1 Suriama
   2 Antilliaans
   3 Malay
   4 Jap
   5 Other, namely: ______

5. Are you born in the Netherlands?
   Yes 1
   No 0

6. Do you attend both your natural parents in house?
   1 yes
   2 no
   3 no, my parents have separated
   4 no, of my parents, 1, died or my both parents have died
   5 no, I live independently (e.g. on chambers or own apartment/house)
   6 differently, name: ______

We want to ask you hereafter a number of questions concerning the family in what you now the eldest part of the year lives/stays and concern the persons that to this end belonging; this is possible therefore you both (natural) parents are, but also for example only your father or only your mother, or you mother will another adult, etc. We call adults in this family always your parents or guardians.

The order of these questions is not of importance. We ask the same also for the persons or guardians who they do, if you that you will complete, the question then to them help with filling in these questions from the list.

7. What is the highest training which your parents or guardians have finished? (Circle one figure in bold in both the column=)

   mother/verzorgster father/fellow

   1 less than 5 years lower education 1
   2 more lower education (completed) 2
   3 Ulo 3 (e.g. Ulo, Inno, Lein, house keeping school, Lower agriculture school etc.) 3
   4 training from the student being 4 (e.g. Bemtel, SVB, Gawato, etc.) 4
   5 Move or rivalo 5
   6 3 years Hbo, gymnasium or atheneum 6
   7 Mbo 7 (e.g. Mbo, hbo, nursing, middle agriculture school, small child training, etc.) 7
   8 Higher General Secondary Education or Mms 8
   9 (entirely) hbo, gymnasium or atheneum 9
   10 Hbo 10 (e.g. Hbo, hbo, pedagogical Akademie, Higher agriculture school etc.) 10
   11 university candidate diploma 11
   12 university doctoralkandida 12

8. Which of the possibilities mentioned below is on your father (or verzorgster) and your mother (or verzorgster) of application? (Circle one figure in last column, only one figure)

   mother/verzorgster father/fellow

   1 is in paid employment 1
   2 owns company/shop 2 has
   3 cooperates in family company 3
   4 has paid/pensioned 4
   5 is unemployed 5
   6 work-sufficient 6 has
   7 works exclusively in household 7
   8 in profession here it practices 8
   9 differently, 9, as it happens: ______
9 If your parents or guardians in paid employment are of own company have, to how many persons they give any control or how much per hour they then in service? (If your parents or attendants in paid employment are not and have no own company, circle then not of application.)

mo ther/guardian father/guardian
1 0 persons 1
2 1 to 9 persons 2
3 10 or more persons 3
4 not of application 4

10 You what kind of type work you can indicate father (or guardian) and your mother (or guardian) during their current or last profession perform most (or have performed)?

mother/guardian father/guardian
1 1 out of application: never profession has exercised 1
2 leading hard labour (for example in factory, constructions 2 making company, elderly person care)
3 leading hard labour (for example in office, as far as 3 commitment as a representative)
4 leading agronomic labours (agriculture, livestock-farming etc.) 4

11 You can indicate approximately which net-income you deserve mother/guardian and your father/guardian per month?

(If you only use your income counts know, that then even for to a month income. And on only know which income your parents or guardians together have fill in than your second question.)

mother/guardian father/guardian
1 no income 0
2 less than f 1500, -1
3 between f 1500, - and f 1750, -2
4 between f 1750, - and f 2000, -3
5 between f 2000, - and f 2250, -4
6 between f 2250, - and f 2500, -5
7 between f 2500, - and f 3000, -6
8 between f 3000, - and f 3500, -7
9 between f 3500, - and f 4000, -8
10 more than f 4000, -9

12 Or:

I cannot say separately, but the net monthly income of my parents/guardian jointly is approximately:

13 From how many children your family exists?

1 1 child
2 2 children
3 3 children
4 4 children
5 5 or more (child)

And the number child are you in the family? (e.g. second, third etc.)

1 I am it... child in our family.

14 Have you one or more brothers and/or sisters who are in higher profession training (e.g. pedagogical academy, hts, head) or scientific training (to a university) know or have fellowship?

1 no, I have no brothers and/or sisters in they are still at young to follow such a training
2 no, none of follow my brothers and/or sisters such training or has ever done that
3 yes, both scientific and higher profession training
4 yes, only higher profession training
5 yes, only scientific training

15 School career:

16 At the end of the primary school have you a recommendation get which type continued education for you was most suitable.

Which recommendation did you get then?

1 1st
2 2nd
3 3rd
4 4th
5 5th
6 6th
7 7th
8 8th
9 9th
10 10th

17 Many students have at the end of the primary school also Cito-tests taken on. If you that also done have, know you then will (approximately) your score on that test?

1 a. namely (approximately)
2 b. Yes, I know I not
3 c. None Cito-tests have taken off
17 Are you sometimes caught up?

Yes, never.
2.6 a.
- on the lower school/preparatory school... time
- the education continued in... time

18 Many students wear in the continued education several school types sat. They frequently start in a first step and go then lower in a certain department of a comprehensive school. Sometime it is still changed also afterwards of the one department to the other or even if the «new school» to another school.

We ask indicate you below on which school types for continued study you after the primary school successively sat have. (Circle in each of the three columns one figure.)

<table>
<thead>
<tr>
<th>First type of school type</th>
<th>Second type</th>
<th>Third type</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. WMO</td>
<td>4. WMO</td>
<td>4. WMO</td>
</tr>
<tr>
<td>5. First class (sen)</td>
<td>5. Mbo</td>
<td>5. Mbo</td>
</tr>
<tr>
<td>on school - at school -</td>
<td>1st grade still</td>
<td>6. Third</td>
</tr>
<tr>
<td>community/lawans on the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>middle school/1st school type</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| (If you fell behind also still on a fourth or perhaps even, however, fifth school type has sat is possible you tell what happened after still write down; fourth type: .... fifth type: .... )

19 Have you already a diploma in the continued education gained? (If you have gained several diplomas can you several answers to circle.)

No 0

Yes, namely:
1. Diplomadiplo/diploma
2. Mavo-diploma
3. Nivo-diploma
4. WMO/diploma
5. Dip/diploma
diploma diploma
6. A diploma the student bring

C. Current situation

20 Of which (philosophical) direction is the school where you now on ze?  
1. Reveal
2. Protestant
3. Roman Catholic
4. Ecumenical
5. Nothing in particular

6. Differently, namely

21 Which school type do you Hope for you now and in which class?

1. Nivo-5
2. Nivo-6
3. Mbo-3
4. Mbo-4

5. Differently, namely

22 If you sit on the WMO or the Higher General Secondary Education you want then below to mention which figures you have obtained your final examination in scientific subjects at school research.

1. do not sit on WMO or Higher General Secondary Education (continue to the following vitae)

Prerequisites: Figure:
- Dutch...
- English...
- German...
- French...
- Maths a...
- Maths b...
- History...
- Geography...
- Economics...
- Economics?
- Commercial/Sciences...
- Biology...
- Physics...
- Chemistry...
- Latin...
- Greek...
20-(list) (Max 91) p. 4

Differently, namely:

Differently, namely:

23 In the future you’re Higher General Secondary Education and WWO probably still but can choose from four profession

packets, which serve as preparation on several continuation courses. These celebrate packets’-professional programmes’ are
taken.

Everyone gets then a standard package, with among others Dutch, society develops, study- and professional orientation.

any media and information processing and (especially on the WWO) elementary courses language languages. There on top

of comes than one of the four professional programmes.

Is briefly defined that:

1 a profile “nature and environment” with much maths and the more technical parts of nature - and chemistry, intended for

technical scientific, agrarian and paramedical continuation courses

2 a profile “nursing and health care”, with less maths and the more general parts of nature - and chemistry and further with

biology, intended for agrarian and paramedical continuation courses

3 a profile “economy and society”, with maths, a modern language, economy and more society develops, meant

continuation courses as such as economy, social studies and secondary another training.

4’s profile “culture and society” with modern foreign languages, history, society develops and part of economy, meant for all

kinds of cultural and social continuation courses and secondary another trainings.

If you would have had to choose four specialties, he who between them you then most will have seemed and which you

probably chosen have?

‘Nest me would save profile number ...

I will probably have chosen for profile number ...

24a If you sit an mbo you want indicate then on which mbo is your sit.

0 I do not sit on the mbo (continue to the next question)

1 Economically/Administrative education (e.g. Mako, detailhandel, honca, ondememensennex)w

2 Natural education (ree-going school)

3 Graphic education

4 Technical education (Mbo)

5 Service and health care education (Mago)

6 Agrarian education (Mak)

7 Laboratory education (Mek)

8 Differently, namely:

24b Which training, direction or specialization have you chosen you school? (for example on the WWO electrotechniek ...

24c Before you came on the mbo you have firstly on primary school sat. What was the average figure for your end

examination professions on that previous school? (wind up nr 1 number behind the comma. Bvja 6,9)

My average figure was ...

24d Have you, below you went to this training training, also other training possibilities predominated? We can put there below:

Want you to do this possibility with 1, 2 or 3 indicate:

1 I have definitely considered 1 this possibility

2 I have not considered this possibility

3 I do not at all have this possibility

... Have-completion

... a combination of learning and work, for example the student being ...

... the preparatory training for higher profession education (Vibbo)

25 Below some judgments concerning learning success school. We ask you indicate if these judgments also you apply;

You can do that by at each pronouncement a figure in at fit;

0: does not apply totally to me

and 10: applies exactly to me...

... I do not work this way hard...

... I use much attention to my house work...

... I work very paying attention during this lesson...

... I do other something too much then too a little...

... I prepare last work just at the last moment

26 These questions we to give your opinion concerning importance of education. We present a weight judgements you

and questpons you at each pronouncement to indicate low important you feel that pronouncement. You can indicate that

by filling in a figure between

0. that it is totally not important

and 10 that it exceptionally important

It is important that students on school ...

courtesy and good manners learn ...

... develop insight to have for what, these in the world happens ...

... be prepared for a place in the society ...

... be prepared to a future profession ...

... develop interest to have for music, sing and good booking ...

... develop critically where to think considering all problems than to make to get ...

... orientation gets concerning the professions which they are possible to get ...

... profession learn
Why would a teacher choose you for their class? Do you think you have the best character or qualities that others might want in their students? Would you like to discuss this with me further?

2) What is your favorite subject in school? Why?

3) How do you feel about being a student? Do you feel that you are working hard enough to achieve your goals?

4) What are your plans for the future? Do you see yourself in a certain career or field?

5) What are some of your interests outside of school? Do you enjoy any particular hobbies or activities?

6) How do you feel about your current living situation? Do you feel that you are comfortable and safe in your home?

7) What are some of your goals for the next year? How do you plan on achieving them?

8) What are some of the challenges you have faced in your life so far? How did you overcome them?

9) How do you feel about your family? Are you close with them? Do you feel supported by them?

10) How do you feel about your peers? Do you feel that you have good friends, or are you more of a loner?

11) What are some of your hobbies or interests? Do you enjoy any particular activities that you would like to continue pursuing?

12) How do you feel about your school? Do you feel that it is a good fit for you, or do you have any concerns about it?

13) What are some of your strengths and weaknesses as a student? How do you plan on using your strengths to improve your weaknesses?

14) How do you feel about your teacher? Do you feel that they are supportive and understanding, or do you have any concerns about their teaching style?

15) What are some of your goals for the next year? How do you plan on achieving them?
35 At the decalum yes or no to go are able study all kinds of considerations play a role. Below we do a number three judgments considering. We ask you for each pronouncement in yes or is appropriate that pronouncement yes or no of you. You can do this by figure to give thirteen.

0: This pronouncement is not appropriate whatsoever at me and 10: This pronouncement is appropriate exactly at me.

... I find to learn, however, wise but do not sit all on school.
... By study I am capital am able exploit.
... I want deserve gladly this way readily possible my own money.
... By will study I have a brighter position at each
... A continuation course will last me too long.
... I am able develop myself in studying and these personal satisfaction I to find.
... If I study have I now work still no to seek.
... I have of to learn enough.
... I have minus a grant (stipend financing) even benefit.
... Well have to learn I can gain work.
... I have chance on a job will make I further study has followed.
... If I will study further I get, however, very large study debt.
... A continuation course seems even difficult.
... If I will study further can I social with contemporaries accomplish.
... I go rather firmly one what to look around for I furthermore will study.
... I will have more chance am I high income if I further study have followed.
... I study preferably would be as a theory (tobacco) and practice (work) combined could.

36 In what kind of manner you have obtained information possible continuation courses (you can circle several answers)

1 information day (en) of education institution(s) 
2 written information obtained
3 spoken with the school director/beau
4 spoken with instructors concerning study course
5 spoken with family concerning training which they fellow or have followed
6 spoken with friends concerning training which they fellow or have followed
7 contact have with professions/study choice office
8 differently, names.

37 Of which level of continuation course thinks you easily the diploma to be able gain (also when you that of path is not), which level thinks being able gain you with much effort end of which level do want gain you eventually the diploma?

As levels we distinguish:
1 no further continuation course
2 Mbo (e.g. Mbo, Mbo, Mbo etc.)
3 Mbo (e.g. Hn, Hn, Hn etc. etc.)
4 Wo (university trained)
5 Wo 2e phases (e.g. specialization to scientific research worker or medical specialist)

I think being able gain the diploma with much effort of a continuation course of level: ....
I want gain eventually the diploma of continuation course of level: ....

38 You can make an estimate of the distance between your current place of residence and several schools/institutions for continuation education? (is it a wind up on complete kilometres)

Nearest Mbo-school is: ....
Nearest Wo-schooling (college) is: ....
Nearest Wo-installing (university) is: ....

The remaining questions have been only useful if your next year or in the further future of plan are will study. Only if you there certainty of us that you will not will study further can you the questionnaires now in the envelope tag and send.

39 Wo are courses what you are go of path to study

We mention 5 possibilities (Wo), input, fill. Wo and differently, there exist subdivided to sectors or study directions.

Which of this study (to) wants you coming study year (or if you hobby will work or in service must, in further few take?) will follow?

Fill at the first column your first preference in (circle one figure in this column). You fill in possible second preference at the second column (plus in few column circle maximum one figure).

Type study preference: Wo 2e
a. Furthermore on the WoO 1.1
b. Middle profession association (mbo)
   sector: agrarian education 10.10
   nautical education 11.11
   graphic education 12.12
   bakenrol-education 13.13
   stipendiary education 14.14
   in-service training 15.15
   service/health care 16.16
   economically/administration education 17.17
   a training which not with aforementioned sectors fall, namely: .... 18.18
c. More higher professional education ( thro )
   social, agrarian education 20.50
   technical education 21.21
   chemical education 22.22
   laboratory education 23.23
   health care education 24.24
   socially active education 25.25
   economic education 26.26
   art education 27.27
   a hbo-oppleiding which not within aforesaid
   sectors fall, namely: ... 28.28

d. Scientific education (Wo)
   direction: letters 30.30
   theology 31.31
   natural sciences 32.32
   medical and natural sciences 33.33
   technical sciences 34.34
   agriculture sciences 35.35
   rights 36.36
   economic sciences 37.37
   social sciences 38.38
   Wo-training that not within aforesaid sectors fall, namely ... 39.39

e. Other one not yet called education ...
   as it happens ... 40.40
   as it happens ... 41.41

Be possible you are willing to fill oneself in the study of your first and of your Second preference expresses himself in a figure between 0 and 10:

My motivation for the study of my first preference is ...

My motivation for the study of my second preference is ...

40 How much chance think you for also at become in the study of your first preference?

41 At the provision of a study of your first preference, to play possibly a number of considerations a role. Below become a number called of such considerations. We ask you for each, consider (to indicate how important that to your spoken is at the provision of the study of your first preference).

You can do this giving a figure between 0: This consideration plays totally no role
   and 10: This consideration plays an exceptionally strong role

   ... By following this study I think later independent work perform to be able
   ... By following this study I think law-giving hold function to be able
   ... By following this study I think not certainly get paid job to be able
   ... By following this study I think a certain profession to will exercise
   ... This study can I follow on an education institution which near in the neighborhood is ...
   ... I expect that this study difficult to me to be
   ... I expect this study within (normal) the course duration wind up to be able
   ... With this study I have more chance on a job in foreign country

42 If you go there from that you be allowed to the training of your first choice, how large you consider then the chance that this out of that training gives the end diploma?

I gave myself: ... percent chance for the end diploma to obtain (in number between 0 and 100)

43 How long expects you to do for the end diploma of the training of your first choice to gain?

I expect ... year and ... months to repeat

44 If you will follow the training of your first choice, how many hours think you that you then average per week do all types study activities (lectures follow, practice, preparing for tests etc.) at each other space?

In week on average ... per week will spend hour

45 How much think not being able dropout you go commencements again when you have completed the training of your first choice?

I expect then a commercial salary of ... not by myself

46 How many study debts think of having you, when you training of your first choice has completed?

I think a study debt of approximately ... not by myself

47 If you sit now at the Higher General Secondary Education and your first preference is for to continue on the WVO, intend you then afterwards still further go higher study higher in the scientific education (Wo) or profession education (thro)?

1 I do not sit at the Higher General Secondary Education, not of application
2 I sit, however, at the Higher General Secondary Education, but my first preference is none WVO
3 yes, I will have prepared to the WVO for letter to hbo-opleiding
4 yes, I go to the WVO for afterwards, training on university follow to be able go
5 no, I do not sit at the hbo after the WVO or Wo or
6 I go to the WVO because I not yet well know what I will do and the WVO will widen my future possibilities
The remaining questions have been only inserted for those, which intends further will study in the higher profession education (MBio or the scientific education (Wi)). If you not of plan are well study or you choose for a training outside HBo or Wo (for example MBo or VWO), then can you the questionnaire now at envelope does send and.

48 How don't intends you the first year ("impediment") of chosen by your continuation course in HBo or Wo also real within one year to obtain?
1 certain
2 not this way certain
3 certainly not

49 Finally we refute you a number pronounced for concerning study in the higher education (Wi and hbo). We ask you for of each pronounced if it indicate this pronounced is appropriate at you. You can do this giving a figure between
0: the pronounced is not appropriate absolutely at the and 10: this pronounced is appropriate exactly at me.

... in five first year I want examine especially also-which other interesting studies still more exists there... but you can the tests as soon as possible the end diploma to obtain... I want keep also sufficient long beside studying for all kinds of other occupations... you can study by means of the results after one year not yet well say if you have chosen a suitable study... I want gain possible figure in in the study this way high... the years study financing ate in fact too a little for after a year still being able choose for another study which more interesting or appealing is... you already during studying which what you has learned also directed in practice must apply be able
First Follow-up Survey - November 1991

Questionnaire for students who in May 1991 end examination class of VWO, Higher General Secondary Education and HBO sat

A: Vooropleiding

1. You have succeeded for the end examination or training on what you in May 1991. sat?
   1a. Yes
   1b. No
   1c. I have not taken part in the examination.

2. If you have not succeeded, you do then class now the same again?
   2a. Yes
   2b. No

3. What subject(s) did you do in the same year in the HBO?
   3a. Physics
   3b. Chemistry
   3c. Other

B. Questions concerning professional choice for them that previous year on Higher General Secondary Education and HBO sat

1. Which subjects did you gain in your examination profession?

   Profession 1:
   Dutch...
   English...
   German...
   French...
   Maths a...
   Maths b...
   History...
   Geography...
   Economy I...
   Economy II...
   Commercial sciences...
   Biology...
   Physics...
   Chemistry...
   Latin...
   Greek...

2. Different. Netherlands:

3. Different. Other:

For all students in general, the commonly continued education is choosing a profession parcel is an important moment. Then try you must or less fixed in which direction you further can developability. In the first questionnaire we you have already asked how you choose. See if you instead of a profession parcel one of 4 different professions would have choose. We want ask questions in some concerning how you have chosen your profession parcel.

4. The moment you (for the first time) your profession parcel had complete you then especially which profession do you not want let you tell of which you want do continue?

   1. I knew especially which professions I wanted continue for definitely
   2. I knew I wanted let especially which professions fall definitely
   3. I knew exactly which professions I, however, and which professions I do not want choose
   4. I had hardly profession's
   5. At choosing a profession parcel you must an assessment make of several factors. At most of the people the factors pay

   * future (necessary for profession desired)
   * interest (I find appealing the professions)
   * abilities (if am good)

5. An important task. Of you we want gladly know how strong these factors as you have played a role.

6. Divide 100 points amongst the factors which have a role played in choosing the profession parcel

   Indicate which factors which you have played a role in choosing

   1. Future (profession, income)
   2. Interest (find appealing professions)
   3. Abilities (earlier performances in profession)
   4. Other

7. For many schoolboys choosing a profession parcel is terrible difficult. For this reason an accompanyment has been frequently very needed. On which manner look you at the accompanyment which you have got.
Give a figure between 0 and 10 for the degree to which persons mentioned below have stimulated a certain profession to choose (irrespective of the question if you have also chosen the profession)
0: not at all stimulating
10: very strongly stimulating
- Science
- Mathematics
- Language
- Social studies
- Economics
- Geography
- History
- Law
- Physical science
- Chemistry
- Biology
- Dental
- Engineers
- Parents

To what question we your opinion to give concerning mentioned below judgment. This can go indicating you at each pronouncement how
very you will withdraw on it. You can indicate that by a figure to fill in between
0: absolutely in disagreement
10: entirely sure

I am very satisfied concerning the personal accomplishment by the school at choosing the profession parcel
I am very satisfied concerning the personal accomplishment by the school at choosing the profession parcel
The dean has made good recommendations to provide
Instructors of school knew what you will know and what at you were appropriate
Your parents are your best consultants
You do not have close friends on advice, when if your choices must make
If a science profession parcel would have chosen chose I the same profession
- Lages are not means which all recommendations it profession parcel has for choosing further education

Before you chose yourself profession parcel are you regularly assessed (reports, tests, lectures) Which spiritual got you for the estimations which you held on school at the extent that you had chosen yourself profession parcel?
You can indicate this by filling in by profession 1, 2 or 3, where:
1 = most of the appraisals 1 and 7 (I was average)
2 = most of the appraisals 1 and 7 (I was above average)
3 = most of the appraisals 1 and 7 (I was markedly below)

Profession: appraisal (1, 2 or 3)
- Dutch
- English
- German
- French
- Maths
- History
- Geography
- Economy
- Commercial science
- Biology
- Physical science
- Chemistry
- Law
- Science

(1) go now further with question 13; component C

92. Questions concerning direction choice for them but previous year in What was it average figure at the end examination? (i.e. wind up on one figure behind the comfort, for example: 7,5)
My average figure was...

For students in the middle profession education is a mollars of a direction or specialization an important moment. Then like you more or less fix it which direction you participated to seek a job or rather less certainly. In the first questionnaire were we you already asked which direction if you have specialization chosen.
We want ask questions in some concerning how you your direction if have specialization chosen.
10 The moment you a direction specialization had mollars knew you this especially, which you will or which, however, will do not choose you
0 I have never need mollars (-) go further with question 13; component C
1 I knew especially what I definitely, however, will do
2 I knew especially what I definitely will do so do
3 I had hardly preferences
For many students it is absolutely very difficult. For this reason is accomplishment frequently very weak. On which manner looks back you on the accomplishment that you during your training have got at making choices?
11 Give a figure between 0 and 10 for the degree to which persons mentioned below you helpful have been at making choices (losses of the question if you have not succeeded this recommendations also)
0: not at all helpful
10: very much has have
- Dean
- Instructors
- Parents
B1-lisp (Nov III) p. 3

So 12 then question we your opinion to give concentrating mentioned esteem judgments. This can do indicating you at each announcement how very you and that once by. You can indicate that by a figure to fluct between
D. absolutely unagreement
and Y. exactly once.

... I am very satisfied concerning the personal accomplishment by the school at creating for a
directorate/specialization.
... I am very satisfied concerning the personal accomplishment by the school at finding a training place.
... I am very satisfied concerning the personal accomplishment by the school at the choice of what I would do after the elimination.
... the dean has not told you to take recommendations to provide.
... instructors in school knew who your way and what all you were appropriate.
your parent are your best consultants
... you do not have anymore. It is to them the choice in your own.
... if I would have now choose I choose the same.
... I was not aware which consequences choosing of a direction/specialization has for choosing further education.

C. Of the examination to the current situation

13. In the previous months something bad happened there that for your future career important is that (is possible something in your personal situation to be, but also broader social and political events?)

1. Yes
2. No

You that below in your own words want define?

14. This influence has had on your original plans with ambition to presume or absolve of further going learn or study?

One, at me nothing particular has happened there.

1. Yes, then to influence has had
2a. I have changed as a result my plans
3a. I am more/less, will doubt concerning my plans
4a. I am a result, more certain have I become of my original planning

15. Do you follow education at this moment still?

1. Yes, I follow full-time education (5 days in the week study it to school)
2. I am studying part-time (less than 5 days in week studies or to school, a training within the student. living, etc.)
3. I go further with education (components E)
4. I have not attended education at this moment
5. I go to the next question (component E)

6. Questions fur them that at this moment only one course or no education follow

16. You were before you did examination (the years by last summer vacation) also already of plan in go this year no further education follow?

1. Yes
2. Never
3. Plan still no had

17. What are for you the most important reasons why you now an education follow? (you can circle maximum 3 reasons!)

1. I follow education now no, because:
1a. that at least, already of plan was
2b. I am still on the examination
3b. in military service had
4b. It was rejected at the study of my first preference
5b. I was as well as for the study of my first preference
6b. figure (5) was not well enough (to admission)
7b. nothing could I to study me on second thought nevertheless this way-nice layman.
8b. durations of the study financing for students in my situation a year shorter has become
9b. prices/fees of study financing is indirect the uncertainties concerning study financing this way age are
10b. have written down reason which I ask at 11.

18. How you in situation now? (circle the number that most with you situation corresponds)

1a. have a complete job in paid employment
2c. have a part-time job in paid employment
3c. have an own cemetary/shop
4c. work in family company (shop, farm etc.)
5c. is present in military service
6a. have no job, but nothing work
7a. have no job and I look work also no
flanders, naively: "............"
19 If you do work now, please describe the level of training which you have followed?
- street of application, I do not know what work
  is, it is work at the level of my
  training
20 If you do work now paid, how many hours work you then in the week?
- no application, I do not paid work
- work, hour per week
21 Which income has you (net) per month? (You write up on complete guide)
- my full income per month is:

22 Do you follow a course at this moment?
- yes, I follow no course
23 How you think that your situation over approximately a year (end 1992) will be?
- I think that I study then full-time will follow
24 You think that you will study in the future still or to a school will go? That can (stay) year therefore next be but also
just concerning a couple year, after you finish what differently has done.
- I go (imply in the further future), however, further to study learn
- I will follow only still but courses
- I will study never more them
25 know it not
If you follow education at present or be you now ready with filling in the inquiry. When the questionnaire enclosed in
answer envelope (postage stamp is not necessary).
Thanks again warmly for filling in.
If you want observations which you in the questionnaire make still not lost was possible then can you fill make on the
special space on the back of this notebook.
B1-Sjøen 91) p. 5

E. To ask for them that at this moment, however, follow education

25 You wrote below you did examination (survive by the last summer holiday) even if of plan to training to go which you follow now?
- Or you follow now the study/training which then your first preference had?
  1ja. I follow the training of my first preference
  2ja. I follow a training which not my first preference had
  3ja. I did not want further be train
  4ja. I had then twisted plans still no

26 Your will be suffered hurt? (a) not yet fixed of plan for to your current study/training to go. Why have you (otherwise for these training chosen? you can circulate maximum 5 reasons) 1. I have seen for the examination and that the last year now concerning for his reason 2. I have seen for the examination and that the training have gone 3. I have unexpected the mineless prevented for the end examination 4. I have not seen for the examination and that the training still not in military service 5. I was rejected at the study of my first preference 6. I was drawn for the study of my first preference 7. I have more preference for my current training (hevalustry are shorter)

8. The duration of study financing for students in more higher education has become shorter

9. The absence of study financing threaten which higher at become

10. Seeking work and will work on second thought I nevertheless seemed me try way nice

11. I consider this training but as temporality to a preparation job has hound

12. I consider this study but as temporality to a predetermined job has hound

13. I have written down reason which I ask at 13

Do 27 what kind of studies/training know you at this moment?

a. I follow education
   1. (same institution/school) ...........................................
   2. (place) ...............................................................

b. The education which I follow at present named in full: ...........................................................

c. And I follow:
   1. full-time training  
   2. part-time course

d. Your school/university becomes be by the government subsidised or it concerns a private training institute?

   1. Not
   2. private institute

e. The level on which I study follow:
   1. Mbo or Bsc  
   2. Higher General Secondary Education  
   3. Mbo  
   4. HSG  
   5. Mbo or Bsc  
   6. BSc  

f. combination of learning part work to student being, school/school

   1. HSB
   2. No

9. any course

If you follow a training in hbo at the Win in which sector (frik that training)?

f. Follows the sector/direction in which I study:

   1. Higher profession educator scientific education
   2. Social science
   3. Economics
   4. Business administration
   5. Social Sciences
   6. Humanities
   7. Right
   8. Literature/literature
   9. Language and culture
   10. Literature/literature

11. at the sectors called of to classify

If you follow a training in hbo or in Mbo in which sector does that training fall?

f. Follows the sector/direction in which I study is:

   1. Finance
   2. Accounting
   3. Economics
   4. Business administration
   5. Sociology
   6. Law
   7. Economics
   8. Business administration
   9. Economics
28. You have made known your plans for a continuation course. But we want gladly also know with you other possibilities have not yet chopper. While other possibilities depends on the type education which you follow now. For this reason we have for some groups a question made. You need only that question (a, b, c) to answer which belong to the education which you now follow.

a. For students who have started after the examination with training
You can give your own opinion concerning judgments mentioned below
0 is not at all appropriate at me
10 is appropriate exactly at me
I have chosen for the my, because:
... I have not if necessary the highest level to reach
... it a small chance will have training on HBO/or upwards to reach
... by means of the HBO I have with chance for my eventual aim (HBO/diploma) to reach
... for polder HBO-training I much further must train or on channels will live
... I think with HBO work of getting that at me is easy to appropriate
... I want myself as independent entrepreneur yet after establish
... finds region schools/fant being I under my level
... on the HBO I can with validity a profession and on short period deserves money
... I have in fact no idea how the student being each others is

b. For Students whom with HBO-diplomas have started on HBO-training
You can give your own opinion concerning judgments mentioned below
0 is not at all appropriate at me
10 is appropriate exactly at me
I have not chosen HBO or WVO for, because:
... I want the highest level which that for me possible is
... by means of HBO-propersoet are possible I testify on the university to come
... WVO and therefore university education are for me in fact too different
... the HBO train me for a too low profession level
... on the HBO usually students sit out and move
... WVO means ev... mostly still longer on the same school to remain
... I need this HBO-training for the profession which I want exercise
... I have bought no moment to a region school to go for a training in combination with work

c. For students whom with WVO-diplomas have started with HBO-diplomas,
You can give your own opinion concerning judgments mentioned below
0 is not at all appropriate at me
10 is appropriate exactly at me
I have not chosien an university/study because:
... I have not if necessary the highest level to reach
... it a small chance will have training on HBO/or upwards to obtain
... I much further wish travel or on chambers to go
... I think with work of getting that at me is easy to appropriate
... my profusiam panel and/or figures answered HBO/my the way
... by means of HBO I can learn rapidly a profession
... I want if profession exercise where this training for is intended
... in that HBO are you too a link with the practice /work
... after HBO am possible a still (in part-time) HBO-continuing to follow
... HBO one requires more of you that you will all lessons and practices participate
You follow now already a couple months, (new) training/study. Also in a couple can change months then already of everything.
About that the following questions go.
29. Have you yourself for more than one study/keeping effectively against leaving? (therefore not only vacation/meeting, but real inacceaven)
1: not
2: yes
30. Since august have changed you of study/training?
1: no
2: yes
31. You still yourself motivation for the study/training in august j. and at this moment reflect with a figure between 0 and 10?
my motivation is august was: ...
I have not changed of study and my motivation at this moment is: ...
I have, however, changed and for the study in follow now
my motivation at this moment is: ...
32. Have you in the first months already one or more test or start problems taken off?
1: yes
2: no
3a. With (on average) sufficient result
3b. With (on average) insufficient result
33. How satisfied are you concerning course of your current study/training and the study results which you have gained so far?
1. Completely satisfied
2. Fairly satisfied
3. Neutral, however, I would like to improve
4. Unsat.
5. Completely unsatisfied

34. How many hours per week do you spend on training (exams + practice + preparation/house work etc.)?
1. Less than 5
2. 5 - 10
3. 10 - 20
4. 20 - 30
5. More than 30

35. How large you consider the chance of obtaining the end diploma of the study/training which you follow now?
1. Very small
2. Small
3. Medium
4. Large
5. Very large

36. If you would finish this training, how long you expect there then concerning to have in sum to obtain that end diploma?
1. Less than one year
2. 1 - 2 years
3. 2 - 3 years
4. 3 - 4 years
5. More than 4 years

37. How many hours per week do you spend on training (exams + practice + preparation/house work etc.)?
1. Less than 5
2. 5 - 10
3. 10 - 20
4. 20 - 30
5. More than 30

38. How many hours per week do you spend on training (exams + practice + preparation/house work etc.)
1. Less than 5
2. 5 - 10
3. 10 - 20
4. 20 - 30
5. More than 30

39. How many hours per week do you spend on training (exams + practice + preparation/house work etc.)
1. Less than 5
2. 5 - 10
3. 10 - 20
4. 20 - 30
5. More than 30

40. How many hours per week do you spend on training (exams + practice + preparation/house work etc.)
1. Less than 5
2. 5 - 10
3. 10 - 20
4. 20 - 30
5. More than 30

41. We want glady know from which sources you the study finances. We ask you for this relation for the month of October 1991 to at to give which income have you from each of mentioned below financing sources. (S.A.P. wind up on complete guarantors)

My income in October 1991 is:
1. Basic income
2. Additional income
3. Study loan
4. Contribution parents/guardians
5. Contribution partner
6. Income from self-employment
7. Income from freelance
8. Differently, namely

The month of October 1991 is what concern this derogatory of what you can expect the rest of this study year?
1. Yes, greatly
2. Yes, to some extent
3. No, it is different

42. How often do you have to purchase something for you and your family that was not already in the family budget?
1. Very often
2. Often
3. Sometimes
4. Rarely
5. Never

43. How often do you have to purchase something for you and your family that was not already in the family budget?
1. Very often
2. Often
3. Sometimes
4. Rarely
5. Never

44. How often do you have to purchase something for you and your family that was not already in the family budget?
1. Very often
2. Often
3. Sometimes
4. Rarely
5. Never

45. How often do you have to purchase something for you and your family that was not already in the family budget?
1. Very often
2. Often
3. Sometimes
4. Rarely
5. Never

46. How often do you have to purchase something for you and your family that was not already in the family budget?
1. Very often
2. Often
3. Sometimes
4. Rarely
5. Never

The remaining questions have been only intended for them that turner to be well study in the higher profession education in the higher education (HBO) or in scientific education (WBO). If you a growing HBO or WBO follows, then the questionnaire can be you now in the envelope and send (postage stamp is not necessary).

Thanks again warmly for filling in.

If you want observations which you in the questionnaire make still not last was possible then can you that make on the special space on the back of this handbook.
6. Questions for students in the higher education

43 Have you in the first months of your study the education (teachers, colleges, practical) taken part?

6

44 Have you planning for the first year (also real within one year "prospelaue") - actively or if your study to obtain?

1. That I am quietly of plan

2. Not yet this way certain

3. That I do not intend definitely

And how large assume you the chance that you the propedeuse also real within one year will obtain?

I write that chance on... percent (number between 0 and 100)

45 Now we refer finally you a number pronounced concerning the study that you follow now and concerning the institution to which you that education gives. We ask indicate you at each pronouncement or this pronouncement at you is appropriate. You can do this giving a figure between 0: 34: pronunciation is not appropriate absolutely at me and 10: this pronouncement is appropriate exactly at me

... the information which I have concerning this study have given me then I now myself of the study have a total of other parts

... the education so far is of good quality

... I am satisfied concerning the contacts with my fellow students

... I must work much harder than I had supposed

... the introduction at the beginning of the study year has me a good picture given of the study

... the introduction at the beginning of the study year has me a good picture given of the institution to which I study

... the didactic qualities of the instructors are small

... training so far is what I had expected of

... I am satisfied concerning the contacts with the instructors

... I study to a suitable institution

... the education much turnt bean set up too massively
Third questionaire for students who in May 1991 end examination classes of VHS3, Higher General Secondary Education and HbO sat.

A events in last year.

In the here third questionaire you many questions become put your situation in last year and now. Yet we know, that much people to make to get with events which not in general question is, and that correctly categorise living very terrible are possible influence. For our reason we open fully the question, in which you can be brought particular forward.

1. Is last year outside study/training or work something happened that for your situation of particular importance is (that is possible something in your personal situation is, or you direct surpassed, but also broader event and political events)?

2a. You that believe your own words want define?

2. This influence why had on the implementation of your plans for study or work in last year?

2b. Of the nothing particular has happened there

2c. The influence has had

2d. I have changed as a result, my aim

2e. I have not been possible reach my aim as a result (disallow).

4a. I have been possible reach my aim as a result, correctly, however;

Situation as from September previous year.

3. You want that still just as on the situation such as that previous year September (1991) was. This information has you put previous year probably already, however, girth, it is easier for possible changes clear if to make you can this step by step to give.

If there talk of work if at least 15 hours per week involved to, then talk of a training/training as there at least 5 hours, per week involved thereof.

My situation on 1 September previous year (1991) was:

In the field of training/training:

1. I sat again in the end examination class

2. I had the education to leave

3. I sat on a new training

In the field of work:

1. I had work

2. I sought work

3. I had no work and sought work also no

(You can work therefore also need study)

4. Be you between the beginning of the previous academic year and now (of 1 September 1991 up to and including October 1992) changed in situation?

We ask you section if you have changed to other training has stopped or with a training, started to or stopped with paid a job, or have changed of job, to start all changes which you have with school/education and work.

(You can think possible two possibilities)

Four years previous since September have changed nothing to work or training

5a. Yes, changed in situation?

(You can think possibility of extension to continue to 10 question if you want)

5b. Yes, changed in situation?

5c. Yes, changed in situation?

5d. Yes, changed in situation?

5e. Yes, changed in situation?

5f. Yes, changed in situation?

5g. You any other change since then since September been been those one or several times something changed to training (started, stopped or continued)

(omitted)

5i. If you have changed previous year (1991) since 1 September of, then we want know training or work this way clearly exact period (and in which been these changes happened) and when For that we hereafter diagram made that we tell all in you.

Read s. v. p. firstly well explanation and the examples. (Do not come you there good from, do not hesitates then our even can the white numbers stand as Introduction of the questionaire.)

Explanation at the diagram:

- If fully we want partly the month and the year known in which you have changed of work or training, where:

  - January = 1, February = 2, ..., November = 11, December = 12

- Further we ask you partly indicate if it concerns the beginning (start) or the end of an event (stopper or battles), where: start = starts (of work or of a training)

- End = end (of work or of a training)

- In case of a training, stated the number of (training)

- Change of study or job is therefore two changes: " starts one " stoppers " and one "

- A second job or study to start is ordinary new " starts (without a " stopper " for the first job or study)

- An slate (and column marks we indicate you for what kind of change it were)

1 = study/training

2 = work

A course makes examples perhaps still more clear how your the diagram event; must fill in:
Example 1 If study have changed you si January 1992 then is that two changes, namely:
1st change: 1. 92, sto (1) [stopped with the own training]
2nd change: 1. 92, staid (1) [succeeded with further training]

Example 2 If you are in February 1992 successful for a training, then in April have found a job and afterwards in September 1992:
1. a part-time come besides that job have started, to be that three changes, namely:
1st change: 2. 92, lesson (1) [succeeded for training]
2nd change: 4. 92, staid (2) [started with work]
3rd change: 9. 92, stand (1) [started with new training]

Fill in now the diagram

My changes of study and training are (are):

| verande- | main? | part? | sort voorsiening? | waarvan? |
| ring nr. | 1 | 2 | 3 | 4 |
| (1 tot 12) | 91 | 92 | sta | sto | sta | sta | sta | sta | 1 | 2 |

B. For them that in academic year 1991/92 education/course have followed.
You have followed previous year no anticipation, go then by to component c (question 17).
6 If you have valid in 1991/92 (again) in the end examination exams:
a. Have you taken off examination in 1992?
  1. No, not on end examination class
  2. No, I have succeeded
  3. Yes, I have not taken off (again) examination
b. What is the average factor which you have gained in end examination?

7 If your previous year from the end examination class to new training have started:
a. Have you succeeded or have been promoted to a higher academic year?
  1. Yes
  2. No
b. If you have succeeded or have promoted, have you this with or without delay reaches
   Without delay successfully or promoted in June/July
   2. With delay

c. If you have not succeeded or have not promoted, which part of programme had sufficiently wound about you?
   1. No only romputshift sufficient
   2. Between 25 and 50%
   3. Between 50 and 75%
   4. More than 75%
d. Can say also how many credits you have gained the previous academic year (1991/92)?
   yes, namely: point of view points of the programme of the academic year
   (note, that know I not)
   1. No, we get no credits

8 How many months have you previous academic year (1991/92) on average worked for:
   1. hour lessons/teaches per week
   2. hour practical/lectures per week
   3. hour house-work/least amen preparation - leisurely by yielded
   4. hour totally per week
9 You can give an appraisal of your experiences, your activities and the importance which you granted to gaining good study results?
We ask you to assess the judgments mentioned below to agree on which applied to you by always a figure to know between 0 and 10, where:
9 = is not appropriate at all
10 = is appropriate exactly at me

Figure

- I have attended as much as possible all lectures/colloquia
- I find it difficult or independently work to do
- I used all available time as much as possible for quickly to graduate
- I tried always in this way high possible figure at to achieve
- My occupation the study frequently prevented me entirely to go up in my study
- I stayed always instead of the group: study or radiate
- Who I would win up my study more rapidly than per se must, it is the most beautiful time in my life
- The study was not what I had expected of it
- I am satisfied concerning the study effort which I previous years has provided
- I found difficult for me to understand study components
- I had the inclination postpone obligations
- My offensives worked very well
- I had to effort my find time

Accomplishment and usefulness of the study
As the apparent of the quality of the study, a study judgment the importance of the study, judgment increase. To this end we ask you to assess the education in the academic year 1991/1992. Be possible you admit an appraisal of aspects mentioned below by a figure to know between 0 and 10, where:
0 = no, not at all correct
10 = yes, entirely correct

FIGURE

- Experience which are related to the study choice
- I found the contents of the study interesting
- The learning substance was imparted in a captivating manner
- The study was totally different then I had expected
- The study goals a challenge by interesting questions to recall

- Experience which are related to the usefulness of study skills
- The study was for me too difficult
- Making jokes of work quite not like me this way
- Subjects give problems me
- I missed essential knowledge
- It was lacking me to study skills
- The study was for me too easy

- Experience which are related to environment and the organization of the study
- I found the environment at the study high school nice
- My study groups were nice
- There were possibilities sufficient for influence from the outside of me, during the education happened there
- I was very in contact with instructors
- The contacts with the instructors were satisfyingly
- The study accomplishment was great
- I knew groups with which I study followed went too large
- The apparatus were complete at the courses of the education
- The organization of the education was well
- If you follow exactly the programme you must practically complete week on week to study

- Experience which are related to to future the justification
- I found the study too practically-oriented
- I found the study too theoretical
- I want this profession for which prepares this training per se do not exercise
- I expect to be today to be able to get through this training

11 How many activities have encountered you who you the impression gave that:
- people are interested in students?
- do not consider them not to be interested in students?

12 You can indicate of judgments mentioned below if they are correct or no?
- I know at least one student who help would want me if I need it necessarily at my study visits

The study administration is prepared to help you with your problems yes/no
13. Because a study does not always smoothly fit education institutions with certain narratives the study results of students to improve. You can give a judgment concerning hereafter said possible manifestations.

We ask to indicate you for each measure or test to your judgment, will lead to improvement of the study results of students. You can do this giving a figure between 0 and 10, where:

0 = does not lead at all to improvement of study results
10 = leads definitely to improvement of study results

figure

... improvement of the information concerning course (study profile, information, meetings, choices, programs, etc.)
... enlargement of the number of course components
... improvement of the planning of the course
... spacing of failing out possibilities over the year
... introduction of a counselor system (older students who assist younger to accomplish)
... less importance to tutorials (as lecturer a group of students, usually)
... to permit individual study accompaniment
... regular confrontation with incurred study delay
... an obligatory course study skills at study entry of a half year
... higher requiring expectations to students

14. We ask you to fill application for of some situations to give or you think that you would lead study in that situation more rapidly or correctly not. We ask for each situation one figure you to circle, with an explanation:

1 = must rapidly fill study
2 = do not rapidly fill study
3 = change to an easier study
4 = entirely stop with study

* If a system would exist, where examinations expire at the overheating of that deadlines, then 1: 1.2.3.4
* As existing up the study with study delay the labour market would become increasingly significant, then 1: 1.2.3.4
* If I could study still but 5.5 years with study and afterwards would have had, then 1: 1.2.3.4
* If a study contract could have concluded, where professors regularly are rewarded, then 1: 1.2.3.4
* As the basic grant at a delay of more than six months would be converted into an interest-bearing loan, then 1: 1.2.3.4
* Consecution continued education at continuation education.

By students and students became the consecution of the continued education on particularly the higher education as profferetic experience. We ask you for this reason some questions that special to the passage to continuation education are related.

15. Below a number of study skills is called. We ask you your own assess skills by a figure between 0 and 10 to know to each of the skills commencement of the study year 1991/92.

figure

... planning activities for my study
... sharing and entering in the minutes working parties
... use of information which during lectures/lessons and practice are supplied
... letters of praises of work
... living presentations for working parties
... systematic self-teaching (working out theories) problem or question
... reflect questioning links between the theory and practice
... the wealth of a lack is short reflected

16. Also concerning the consecution of the profession payroll of chosen study exists doubts. We have previous year a greatly overcharge been chosen career, now we want gladly know to what extent you last year is faced with restrictions of your earlier mode choose.

I have thought in times last year several, I had in my profession career out... chosen

(You can list maximum two professions.)

0 = absolutely no profession
9 = economy
1 English
10 economy
2 German
11 economy (commodity)
3 French
12 commercial sciences
4 Maths a
13 biology
5 Maths b
14 physics
6 Maths (general)
15 chemistry
7 history
16 biology
8 Geography
17 Greek

Situation at this moment

17 Do you follow education on 1 November 1992 still?
1a. I follow full-time education --> go further with question 26 (component E)
2a. I follow part-time education --> go further with question 26 (component E)
3a. I follow only courses --> go to the next question (component D)

1 = at this moment: entirely none education --> go to the next question (component D)
6. Questions for them at this moment only one course or no education follow
18. What are for you the most important reasons why you now no education follows? (You can circle a maximum 3 reasons)

1. Because the army's already done with me
2. I have failed for the examination
3. My military service had
4. Was rejected already was there a draw at the study of my first preference
5. My subjects I was not well enough for further study
6. Gender development for study me did not and thought another way this time by man
7. I had or forsee problematic with my study financing
8. I have accepted a job
9. Mood that I was at 1 I have within done
10. How you is situation now? (Circle the number that most with your situation corresponds)
    1. I have a job in a paid employment
    2. I took on own company/ship
    3. I work in a family commerce (shop, farm etc.)
    4. I am present in military service
    5. I have an job, but missing work
    6. I have no job and I do not work at no
    7. I work in the household
    8. Other, namely

21. If you do work now paid, you can indicate then which level of education you did the work which you perform:

Drift of application: I do none paid work
1. Brooklin
2. 29.00
3. 120.00
4. 240.00
5. 5.00
6. 6.00
7. 7.00

22. If you do work part work, how many hours work you then in the week?

1. I work 4 hours per week

You can indicate the which company sector the present or institution belongs?

Industry
1. Agriculture and forestry
2. Industry
3. Construction, and installation companies
4. Public usefulness companies

Service Business
5. Act
6. Catering services
7. Equal rights and communication
8. Banking
9. Insurance being
10. Accountant offset
11. Consultancy
12. Remaining service business

Receiving service
13. University higher profession education
14. Remaining education
15. Scientific research
16. Health care
17. Social insurances
18. Social-cultural establishments
19. Remaining other services
20. Remaining sub-national authorities
21. Remaining service not-budget
22. Not of application

23. What is your net income per month from labor (remunerations) and/ or from a rent? (S. v. p. wind up on concrete guidance)

My net income from labour is: ___ per month
I have a benefit of: ___ per month
23 Do you follow a course at this moment?
   1st: I follow no course
   2nd: I follow a course by means of the company or the institution where I work
   3rd: I follow a course (not by means of my work)
If you follow a course you can then try the following questions to answer:
   how many months lasts the course? ... months
   the course prepared me on new activities yet no
   the course has been meant the current work improves to carry on yes no
   the course gives more career possibilities yes no
   the course consists directly my life yes no
   the course is combined with an acknowledged diploma, yes no
   as it happens

24 How you think that your situation over approximately a year (and 1993) will be?
   1st think that I study thus part-time will follow (in combination with work)
   2nd think that I study then part-time will follow
   3rd know it not

25 You know that you will study in the future still or is a school will go? That can (study) year therefore next yes but also just concerning a couple of year, after you finally what efficiency has done.
   1st: Yes, I do (possibly) in the further future, however, further I study/work
   2nd: I will follow only still but courses
   3rd: No, I will study never more learn.
   4th know it (will) not

We ask you now still questions of part F to fill in (question 27 and further).
E. To ask for that at this moment, however, further (fill)

Do 26 what kind of studies/training follow you at the moment?
   a. I follow education to (name institution/school) ...............................................
      (place) ...............................................
   b. The education which I follow at present named in full ...............................................
   c. Training/course lasts officially ...............................................
      year and ...............................................
   d. And it is:
      1 full-time training
      2 part-time course
   e. The level on which I study follow is:
      1 1 B or 1 B or 1 class
      2 Higher General Secondary Education -- > class...
      3 VWO -- > class...
      4 Kimbo -- > class...
      5 MBO -- > class...
      6 combination of teams and work to student being, street/school
      7 fbo
      8 Wo
      9 city quinseeen
   f. you follow a seminar in fbo or the Wo in which sector fak that training?
   g. follows the section/department in which I study is:
      1 Agricultural
      2 Technical (also: laboratory, graphic, interiorly)
      3 service/health care (also: m/s-riding
      4 Economic/Management
      5 Other

27 You can yourself motivation for the study/training in December previous year and at this moment reflect with a figure between 0 and 10?
   my motivation in December '91 was: ...............................................
   my motivation at this moment is: ...............................................

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28 How satisfied are you concerning your course of your current study/training and the study results which you have gained so far?
1 very dissatisfied
2 dissatisfied
3 passable, however
4 satisfied
5 very satisfied

29 How many hours per week spend you on training (lessons + practical lessons + preparation + house work etc. )?
I spend normally per week to (therefore not what you must, but what your actually does)

--how follows of last/college/previous work
--how of home studies/library per week
In busy weeks it is -- how more.
In quiet weeks it is -- how less.

30 How long does the duration of obtaining the end diploma of the study/training which you follow now?
I give myself -- percent chance to obtain the diploma at the end. (Fill a number between 0 and 100)

31 If you would finish this training how long you expect there then concerning to have in sum done in obtain that end diploma?
If I finish it at the end of the year and -- months concerning to have done (as from the start of the study).

32 Make you sometimes look themselves concerns, the question on your study sufficient be it that you would stop with study properly?
1) no, I feel I transfer myself to no care
2) yes, there I make myself, however, what care
3) yes, there I have been very provided concerning

33 How are you living situation at the moment?
1) living with parents
2) living independently with a family
3) living independently with a student flat
4) living independently in a private room
5) independent living space
6) other, namely

34 We want gladly know from which sources you the study finances.
We ask you for the report for the month of October 1992 to at to give which income has you from each, mentioned below financing sources. (E.g. work, or on complete guidelines)

My income in October 1992: always
- basic grant f.
- additional grant f.
- quota loan f.
- contribution parents/guardians f.
- contribution partner f.
- income from own labour f.
- income from benefit f.
- differently, namely f.

35 Intend you for beside the study (possibly temporary) paid work perform to will or you do that now already?
1) yes, I work already beside my study
2) yes, I am will perform work of plan beside my study
3) no, I am not willing to perform work beside my study

36 How you think that your situation over approximately a year (September 1995) will be?
1) think that I then still my current study/training will follow
2) think that I will follow another study
3) think that I study then none will follow
F meaning of education and work

For everyone:

Firstly we want questions still come to every time to present, that is related to the meaning of education and work. The question we want is, if you have found a full-time job. Minimum-wage-wages are for a 20 person whose birthday is approximately gross FL +00, - less and for a person whose birthday is in a person whose birthday is in a person whose birthday is of a person whose birthday is approximately gross FL +00, - more. But everyone does not deserve the minimum wage. How much you value that you can decisive:

- if you make a full-time paid job then I think of receiving net per month:

  - FL 1000 - to FL 1500, -
  - FL 1500 - to FL 2000, -
  - FL 2000 - to FL 2500, -
  - FL 2500 - to FL 3000, -
  - FL 3000 - to FL 3500, -
  - FL 3500 - to FL 4000, -
  - FL 4000 - to FL 4500, -
  - FL 4500 - to FL 5000, -
  - FL 5000 - to FL 5500, -
  - FL 5500 - to FL 6000, -
  - FL 6000 - to FL 6500, -
  - FL 6500 - to FL 7000, -
  - FL 7000 - to FL 7500, -
  - FL 7500 - to FL 8000, -
  - FL 8000 - to FL 8500, -
  - FL 8500 - to FL 9000, -

38. How much more than you you deserve out of if you a next diploma will have gained. The reason:

- if you now on a training will how much more do you deserve if you have gained the diploma of the training:

  - if you follow education now no how much more do you deserve if you have gained the diploma of training which your first preference has.

39. You can give an apetual of the chance which you yourself sees at nice work and a high-income, taking into account your education.

We ask you always give a figure between 0 and 10, where:

0 = does not apply to me
10 = applies strongly to me

---

1. Your environment now day, however, tell you i need nice work at a get
2. My chance on nice work is larger than average because of my capabilities
3. My chance on nice work is a good average by my good education
4. I am possibly more than my contemporaries on average to deserve, because I get a good education
5. My chance of nice work would do it if I my fellowship not a diploma of has obtained a high-standing or university
6. There is at present a shortage to students economy and Moe, the previous time has been spoken much concerning planning studies, in these sectors more to 40 derive than students in other sectors. If this would be introduced over a year, you think his influence on your plans.

10, absolutely no influence
5, possible more interest in student profession
3, certain more interest in student profession
41 Have you felt, you of an university training two academic years worked up. You will have then interest for a special programme of one year full-time practice and afterwards years still two combination of work and loans. As the choice of the subject you must take into account the situation on the labour market.

- Free, none (1)
- 1a, only interested
- 2a, much interest

42 You would qualify now if you yourself for your study financing would have to look, this means that no system would exist of basic grant, additional grant or interest-bearing loans under special conditions.

- Free, certainly not
- 1a, probably, however,
- 2a, certainly, whatever.

43 You can give an appraisal of your wishes at look of your future position in the society? We ask indicate your of the following aspects which importance you attach this in the future a figure to reach by at least between (Land 10), where: 0 = not, 10 = you, very strong important

<table>
<thead>
<tr>
<th>aspect</th>
<th>figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>work with career possibilities</td>
<td></td>
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<tr>
<td>work content that personal interests</td>
<td></td>
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<tr>
<td>work in which I can exploit my capacities</td>
<td></td>
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<tr>
<td>distance between work and place of residence</td>
<td></td>
</tr>
<tr>
<td>labour certainty</td>
<td></td>
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<tr>
<td>high salary and allowances</td>
<td></td>
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<tr>
<td>working circumstances</td>
<td></td>
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<tr>
<td>prefer people to discriminate</td>
<td></td>
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<tr>
<td>time for friends and other preferred activities</td>
<td></td>
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<tr>
<td>children</td>
<td></td>
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<tr>
<td>new soliciting, challenge</td>
<td></td>
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</tbody>
</table>

44 You can make it not always everyone to the sense, even yourself not. Yet it is for your plans for the future perhaps important or you here more or less run. You can indicate in these areas of judgments mentioned below on you by figure to give between 0 and 10, where: 0 = is appropriate entirely not at me. 10 = is appropriate directly at me.

45 You can indicate how many hours per day spent normally spent on:

<table>
<thead>
<tr>
<th>task</th>
<th>di</th>
<th>wo</th>
<th>so</th>
<th>vi</th>
<th>sa</th>
</tr>
</thead>
<tbody>
<tr>
<td>school</td>
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<tr>
<td>job</td>
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<tr>
<td>household chores</td>
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<td>other work</td>
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<tr>
<td>spending time with</td>
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<tr>
<td>hobbies, leisure, etc.</td>
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<tr>
<td>and other</td>
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</table>
SECOND FOLLOW-UP SURVEY - November 1993

QUESTIONNAIRE FOR STUDENTS WHO IN MAY 1991 ENTERED HIGHER GENERAL SECONDARY EDUCATION AND MBO SAT

1. An event in last year
   1 I want return still as just as on the situation such as that previous year September (1992) were. This situation has us in a previous questionnaire probably already, however, pre, but it is more easily to make it possible Changes clear you this step by step to can give.
   (Is thus part of work if at least 7 hours per week involved in was; there is use of a training/study of at least 5 hours per week involved in was)
   2. My situation on 1 September 1992 was.
      - In the field of Training/study:
        1 I followed the same education as for the summer holiday of 1992
        2 I started a new training
        3 I followed no education
      - In the field of work:
        1 I had work
   2. We want return still as just as on the situation such as that previous year September (1992) were. This situation has us
   2. I thought work
   3 I had no work and sought work also not
      (You can work, therefore also and study)
   3. Are you between the beginning of the previous academic year and now of 1 September 1992 up to and including October 1992 change of situation?
   4. We ask your indiscipline if you have changed to other training or stopped has started with a training, to or stopped with (paid) a job, or have changed of job. Is short all changes which do/lose with school/study and work. (You can tell possible two possibilities)
   1 no, year (1992) pre-cure since September has been then nothing changed to work or training
      (--- > continue with question 4)
   2 yes, years (1992) previous since September have been these one or several times something changed in work, started or stopped.
      (--- > yes by with question 3)
   3 yes, years previous since September have been these one or several times something changed to training
      (started, stopped or succeeded)
      (--- > continue with question 3)
   4 if you have changed 1 September 1992 since of training or, then we will know work this way gladly exact possible what has there been happened and when. For that we have two diagrams maybe which we ask fill in you. Read e.g. firstly well explanation and the examples. (Do not come you/here good from, do not hesitate then our even call, the phone numbers stand in introduction of this questionnaire.)

Explanation at the diagrams

Finally we want gladly the month and the year know in which you have changed of work or training (where January = 1, February = 2, etc.). Further indicated at ask you always or it concerns the beginning (start) or the end of an event (stopper or diploma), where:

Stand = stand (of work or of a training)
Sto = stop (of work or of a training)
Dep = diploma certificates for a training
A couple makes examples perhaps still more clear how your the diagrams specify must fill in:
Example 1 If of study have changed you in January 1992 then is that two changes, namely:
   in the diagram for training or study
   (b) change: 1, 93, stand (= started with new training)
   Example 2 If you are in December 1992, successful to a training, then in April 1995, have found a job and afterwards in September 1995 to a part-time course basis that job have started, is that three changes, namely:
   a) change: 1, 93, stand (= started with new training)
   b) change: 2, 93, stand (= started with new training)
   c) change: 4, 93, stand (= started with work)
   Fill in now the diagrams
<table>
<thead>
<tr>
<th>rownr.</th>
<th>ended?</th>
<th>year?</th>
<th>start / stop / diploma</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>...</td>
<td>92</td>
<td>sta sta dipl</td>
</tr>
<tr>
<td>2</td>
<td>...</td>
<td>92</td>
<td>sta sta dipl</td>
</tr>
<tr>
<td>3</td>
<td>...</td>
<td>92</td>
<td>sta sta dipl</td>
</tr>
<tr>
<td>4</td>
<td>...</td>
<td>92</td>
<td>sta sta dipl</td>
</tr>
</tbody>
</table>

4. Have you in the academic year 1992/93 (between 1 September 1992 and 1 September 1993, education followed or you had been registered at education institution? (N.B. If you doing that academic year of training has changed, gives their answer for your first training.)

1. yes, Higher General Secondary Education, VWO or mbo (- > go to question 5)
2. yes, a training in Vke or Vto (- > go to question 6)
3. yes, another training (- > go to question 7)
4. no, not at all registered (- > continue in question ?)
5. If you followed 1992/93 (again) education to Higher General Secondary Education, VWO or mbo:
   a. In 1992/93 the diploma of this training have you gained?
      6. no, I will not in the end examination class, but in class...
         1. yes, entirely succeeded
         2. no, only certificates
         3. no, only theory examination
         4. no, I have failed for the examination
         5. no, as much as examination class, but not (again) examination taken off
      b. If you have done end examination, what was then your average figure?
         my average figure on the end examination was: ... 
   a. If successful, diploma gained on:
      7. month: ... (figure 1 and 12); year: ... (92 or 93)
5. If you followed education to an insititution for hbo or vto how we want gladly what in knowing concerning your study progress in the academic year 1992/93?
   a. In 1992/93 I followed:
      8. 1 programme/programme programme
      9. 2 head phases or doctoral/programms
     10. partially preceded, briefly head phase/Master's
   b. you 1992/93 have been promoted successful or in higher school year?
      11. successful/precede
      12. promoted to...
      13. failed/promoted
      14. not of application in my study you do not become promoted
      15. started with this study
   if you have succeeded or have promoted, you can indicate then when?
     month: ... (figure 1 and 12); year: ... (92 or 93)
   c. which part of the programme which you in the academic year 1992/93, you followed had sufficiently wound up on 1 September 1993:
      16. or had I 1 September 1993..... percent of the programme wound up of the academic year 1992/93 sufficiently
      (if a number between 0 and 100 in)
   a. Can say also how many credits you have gained the previous academic year (1992/93)?
      1. yes, namely: ... points of level: ... points the programme of the academic year
      2. no, we got no credits
      3. no, that I know I not
7 If you: a) in 1992/93 other Education (no Higher General/Secondary Education, VWO, mbo, HBO or VWO) followed:
   a. education has then followed you?
   b. have you gained the diploma of that training?
      1. yes
      2. no
      3. no, only certificiates
      4. no, only theory examination
      5. no, I have failed for the examination
      6. no, other examination

c. if you have gained the diploma, you can indicate then when?
   month: ___________ year: ___________ (02 or 03)

d. how many hours per week have you previous academic year (1992/93) on average worked for:
    _hour lectures/colleges per week
    _ hour practical/practical exercises per week
    _hour house work/house work only preparation, - studybill by yielded
    _hour totally per week

How many weeks have you previous academic year (1992/93) to follow of a training period spent?
    _weeks

How many weeks you have not worked previous academic year (1992/93) to your study? (halve, waiting times between study components, work, paid, etc.)
    _weeks

e. Judgments concerning the study in the previous academic year 1992/93

We are curious how you have the study in last year polite and how you look back them on. And also at the applicability of quality of (higher) the education impuissance is more and more been attached to the judgment of students. A range vast hence that we judgments to you present, with the request for at each pronouncement to what extend to indicate that pronouncement is appropriate at you

You can do this giving a figure between:

0 = does not fit at all your situation or experience the academic year 1992/93

10 = is appropriate exactly at your situation or experiences in last academic year

(N.B: If you are during that academic year of training changed, reflect then answer for your old training.)

f. below we pose your judgments concerning phenomena of the study and study has that were experienced you. In noverse to fit in these judgments at your situation or experiences the previous academic year?

    Sufficient time remains between the study other matter
    I have enough time sufficient prepare me to lectures and working parties
    I will generally the way work hard study that largely have enough time well once what or beantiies to come
    I have enough time sufficient prepare me to examinations
    It is for me practical unfeasible for the period set in successfully course or pass through
    I have to large effect matter the substance
    My occupation the study frequently prevent me entirely to stk. in my study
    I find the precept of workload not only large
    It is for me generally practically unfeasible to start study with the next year preparation
    I cannot keep up the study known

At 10 + those components left my knowledge and skills is wish concerning

10 Then follow a few judgments concerning your study compared with study in general it consequently and, concerning the study that you have chosen. In noverse are appropriate these judgments at your situation of experiences in your previous academic year?

    I am satisfied with my study choice
    I can only study or pays
    I think always more often for to another study (direction) to change
    I use all available time as much as possible for readiness to graduate
    I try always this way high possible obtain figure
    I am satisfied concerning the study effort which I have provided
    I feel it difficult me strain for uninteresting study components
    I have the inclination postgraduate obligations
    My health disciplines is well
    I am possible me generally during studying prior to concentrate
    The study is not what I had expected of it, then falls me against
    I know that I move energy in my study world have stoppers, but I can put myself to this end not
    I find my study generally captivating
    I have generally pleasure is my study
    I find it nice, always new learn though in my study
    I think of my study I become sometimes desperado
    Generally I find, however, pleasant for to the study day ak to start
    I find my study is fact not this way interesting
11 Ten come there are some judgments concerning issues about the environment, contacts with the instructors, and study environment.

(a) To what extent do these judgments apply to your situation at your current academic year? Write a brief commentary.

(b) The medium environment on the faculty/department is generally good. However, I do not have the impression that in- and instructors are friendly towards their students.

(c) Most of the instructors are friendly towards the students. However, I have the impression that they show more interest in the students who are doing well than in those who are struggling.

(d) There are many possibilities for involvement in student life and extra-curricular activities. However, I have the impression that many students do not participate in these activities because they do not see the value in doing so.

(e) The instructors are generally friendly towards their students. However, I have noticed that some instructors are more approachable than others.

(f) The course curriculum is generally well-planned. However, I have noticed that there are some courses that are not as well-planned as others.

(g) The study material is generally available. However, I have noticed that there are some courses where the study material is not available.

(h) The beginning of a course is generally well-structured. However, I have noticed that there are some courses where the beginning is not as well-structured as others.

(i) Following the course, the study material is generally well-structured. However, I have noticed that there are some courses where the study material is not well-structured.

(j) The course has been well-structured. However, I have noticed that there are some courses where the course is not well-structured.

12 There is a lot of pressure on students to do well in their studies. However, I have noticed that there are some students who are not able to do well.

(a) Of those students, I notice that some students are not able to keep up with the workload.

(b) Some students are not able to manage their time effectively.

(c) Some students are not able to handle stress effectively.

(d) Some students are not able to ask for help when they need it.

(e) Some students are not able to participate in discussions.

(f) Some students are not able to keep up with the workload.

13 In my personal situation, I think that the environment is generally good. However, I have noticed that there are some areas that need improvement.

(a) In my personal situation, I notice that the environment is generally good.

(b) However, I have noticed that there are some areas that need improvement.

(c) In my personal situation, I notice that the environment is generally good.

(d) However, I have noticed that there are some areas that need improvement.

14 Further, I think that the environment is generally good.

(a) However, I have noticed that there are some areas that need improvement.

(b) In my personal situation, I notice that the environment is generally good.

(c) However, I have noticed that there are some areas that need improvement.

(d) In my personal situation, I notice that the environment is generally good.

(e) However, I have noticed that there are some areas that need improvement.
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15 Most of the education institutions allow students to improve the quality of the education to improve. One of the requirements at these institutions is to take regular evaluations.

a. Have there been previous academic year evaluations of quality education next of by you taken place?
   1. yes
   2. no, not taken place
   3. no, not involved as
   4. that I know not

b. You yourself the previous academic year have been involved in evaluations of the quality of the education?
   1. yes
   2. no, regular
   3. no, incidente
   4. that I know not

c. you think that is significant if you or your students them judgment gives concerning the quality of the education?
   1. yes
   2. that can lead to better education
   3. no, there is no significant for students it is not listened

15 Finally questions we you still for the previous academic year was what looking over your judgment to give concerning the next academic year? (with a figure between 0 and 10).
   1. I am satisfied with my study in last academic year
   2. too little attention is given on the accomplishment of students
   3. the course is unreasonably heavy, with regard to scope and level of difficulty

6. Situation at this moment

17 Do you follow education in 1 September 1993 still?
   1. yes, I follow full-time education
   2. yes, I follow education part-time
   3. no, I have only course

4. I follow at this moment education for education

4. no, I have only course (component D)

4. Do you have a second course in another education follows?

6. Which diploma have you obtained the diploma, namely:
   1. diploma
   2. diploma
   3. diploma
   4. diploma
   5. diploma
   6. diploma
   7. diploma
   8. diploma
   9. diploma

4. I have obtained the diploma, namely:

20. If you have gained several diplomas (figures also several courses)

1. diploma
2. diploma
3. diploma
4. diploma
5. diploma
6. diploma
7. diploma
8. diploma
9. diploma

10. differently, namely:

21. How many months have you been looking for a job since leaving the education?

1. not of application, because no job have or sought
2. worked already (have) the education left
3. months I have found the job

5. How much time have you applied since the education have left?
22. If you do work now (paid), you can indicate than which level of education best describes the work which you perform:
0 of apprenticeship, I do not do any paid work
1 Literate
2 Higher General Secondary/Exe cutation
3 student/eng.
4 Mbo
5 VWO
6 HBO
7 Vw.

23. If you do now (paid) work, how many hours work you this in the week?
how per week
b. how satisfied are you with the work which you have now? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

24. In which company sector the venture or institution belongs?

25. remaining service

26. What is your net income per month (using labor remuneration) after a benefit? (E.g. wind up on complete gilders)

27. if you have a benefit of (net) per month

28. How satisfied are you with entering which you have now? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

29. You, afterwards, would consider again choose for education which you have now followed?

1 yes, I again the same molas
2 no, I then a training of a lower level would go to follow
3 no, other (internal) leading molas... ask it happens: 

30. Do you follow a course at this moment?

1 no, I follow no course
2 yes, I follow a course by means of the company or the certification where I work
3 yes, I follow a course (not by means of my work)

31. If you follow a course, how many months lasts the course? months

With which aim do you this course? 1 = yes 2 = no

1 to prepare me to new activities 1.2
2 the current work improves to carry out 1.2
3 to increase career possibilities 1.2
4 more to be possible comm concerning a new subject 1.2
5 the course collates directly on my field 1.2
6 the course is /collated with an acknowledged diploma 1.2
7 or certificate, namely: 


27. How do you think that your situation over approximately a year (autumn 1984) will be?
   1. I think that I will study part-time.
   2. I think that I will study full-time.
   3. I think that I will not study.

28. You think that you will study in the future still or in a school what? That can study, if you do not wish.
   1. I think that I will not study.
   2. I think that I will study.

29. Do you think that you will do anything in the future?
   1. Yes, I think that I will do something.
   2. No, I do not think that I will do anything.

30. If you do a job, what will you do?
   1. I will do a job.
   2. I will not do a job.

31. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

32. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

33. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

34. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

35. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

36. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

37. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

38. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

39. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

40. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

41. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

42. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

43. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

44. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

45. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

46. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

47. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

48. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

49. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.

50. If you do not study, what will you do?
   1. I will do a job.
   2. I will not do a job.
50 We want gladly know how far you have progressed in this study.

a. Which part of the programme of this study had you completed by 1 September 1993? (Tick a number between 0 and 100%)

1. no
2. some
3. most
4. all
5. all, except
6. all, except
7. all, except
8. all, except
9. all, except
10. all, except
11. all, except
12. all, except
13. all, except
14. all, except
15. all, except
16. all, except
17. all, except
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46. all, except
47. all, except
48. all, except
49. all, except
50. all, except

b. Also you can say how many credits you by 1 September 1993 cumulative had gained of total programme of these study?

1. yes, namely
2. no, we get no credits
3. no, that I do not

51 Have you, on the basis of your voorkleding, also exemption (en) got partly of this study?

1. no
2. yes, for the size of approximately
3. yes, for the size of approximately
4. yes, for the size of approximately

51 You follow a Second besides the said study also still study?

1. no
2. yes

52 How assist you registered that second study?

1. studentstudein - full-time
2. studentstudein - part-time
3. externes
4. other

52 How many hours per week spend you on training lessons + practical lessons + preparation/house work + etc.?

1. normal
2. normal
3. normal
4. normal
5. normal
6. normal
7. normal
8. normal
9. normal
10. normal
11. normal
12. normal
13. normal
14. normal
15. normal
16. normal
17. normal
18. normal
19. normal
20. normal
21. normal
22. normal
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33. normal
34. normal
35. normal
36. normal
37. normal
38. normal
39. normal
40. normal
41. normal
42. normal
43. normal
44. normal
45. normal
46. normal
47. normal
48. normal
49. normal
50. normal

53 Is 1991, we and have you asked for your motivation the study of your first preference. You can indicate how you see motivation for the study that you follow at this moment? Below becomes a number of issues called. We ask you for each item to tick the most right site plays it in your judgement concerning attractiveness of the study. You can on this giving a figure between 0 and 100, the consideration plays totally no role.

A. this consolidation plays an exceptionally spring role

1. find the subject of this study interesting
2. find the subject of this study interesting
3. find the subject of this study interesting
4. find the subject of this study interesting
5. find the subject of this study interesting
6. find the subject of this study interesting
7. find the subject of this study interesting
8. find the subject of this study interesting
9. find the subject of this study interesting
10. find the subject of this study interesting

B. this consolidation plays a smaller role

1. I can follow the study a certain profession will qualify
2. this consolidation plays a smaller role
3. I can follow the study a certain profession will qualify
4. this consolidation plays a smaller role
5. I can follow the study a certain profession will qualify
6. this consolidation plays a smaller role
7. I can follow the study a certain profession will qualify
8. this consolidation plays a smaller role
9. I can follow the study a certain profession will qualify
10. this consolidation plays a smaller role

C. this consolidation plays a role

1. people I know think this consolidation plays a role
2. people I know think this consolidation plays a role
3. people I know think this consolidation plays a role
4. people I know think this consolidation plays a role
5. people I know think this consolidation plays a role
6. people I know think this consolidation plays a role
7. people I know think this consolidation plays a role
8. people I know think this consolidation plays a role
9. people I know think this consolidation plays a role
10. people I know think this consolidation plays a role

D. this consolidation plays no role

1. this consolidation plays no role
2. this consolidation plays no role
3. this consolidation plays no role
4. this consolidation plays no role
5. this consolidation plays no role
6. this consolidation plays no role
7. this consolidation plays no role
8. this consolidation plays no role
9. this consolidation plays no role
10. this consolidation plays no role

54 You can yourself motivation for the study/finishing is September the 1992 and September 1993 with a figure between 0 and 10:

1. my motivation in September 1992 was:
2. my motivation in September 1993 was:
3. my motivation in September 1994 was:
4. my motivation in September 1995 was:
5. my motivation in September 1996 was:
6. my motivation in September 1997 was:
7. my motivation in September 1998 was:
8. my motivation in September 1999 was:
9. my motivation in September 2000 was:
10. my motivation in September 2001 was:

55 Will you attain of the end diploma?

1. yes, dual training (contrace with next question)
2. no
3. no
4. no
5. no
6. no

56 How large you consider the chance of obtaining the end diploma of the study/finishing which you follow now?

1. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
2. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
3. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
4. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
5. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
6. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
7. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
8. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
9. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
10. I give myself a dual training the end diploma at to obtain (fill in number between 0 and 100)
39 How many months think you that you will have gaining diploma necessary to find a job?

39a. Perhaps: __________ months

40 Make you sometimes look themselves concerning the chance on a job which will regard to quality and level being appropriate to you training?

1 yes, very frequent
2 yes, regular
3 yes, sometimes
4 no, almost never
5 no, never

41 You pressure want take with a job under level of the diploma which you then not have obtained?

1 no talk of
2 perhaps: __________ months
3 if the work keen me nice
4 I want gladly know from which you receive the study finances.

We ask you for this reason for the mont of October 1993 to all about which income have you from each of the financing source mentioned below. (S.x.p. wind up on complete gulf)

My income in October 1993 was:
1 basic grant f.___________
  additional grant f.___________
  study loan f.___________
  contribution parents/guardians f.___________
  contribution partner f.___________
  income from own labour f.___________
  income from benefit f.___________
  differently, namely f.___________

How satisfied are you with your current income? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

42 How you is coexistance at this moment?

1 living with parents
2 living independently with family
3 living independently in a student flat
4 living independently in a private room
5 independent living together
6 other, namely

43 Intent you for beside the study (possibly temporary) paid work perform to will or you do that, now already?

1 yes, I will work beside my study
2 no, I will perform work of plain
3 no, I am not will work of pay beside my study
4 If you work or work, will seek beside the study: how much hour per week is this?

44 If you work, this work dovetails bar training which you now follow?

1 yes, if dovetails my training
2 no, it has do nothing with my training

45 How you think that your valuation over approximately a year (autumn 1994) will be?

1 I think that I will go up my current study
2 I think that I will stay on my current study
3 I think that I have have the diploma of my current study gained and another study will follow
4 I think that I will stay on my current study (without having my current study rounded off) and another study will follow
5 I think that I will leave my current study and no more education will follow
46. In May 1991 we have asked you an estimate of age at which you will leave university. It is well possible that there are some years remaining before you reach the age of 18. Is this true for everyone?

47. What are your reasons for leaving university?

48. At which level do you consider yourself to be able to gain a final certification or degree of level?

49. How do you think the diploma will be gained by a final certification or degree of level?

50. Will you consider the diploma as a worthwhile investment for further education or training?
Third Follow-up Survey - 1994

QUESTIONNAIRE FOR STUDENTS who IN MAY 1991 SAT FOR EXAMINATIONS OF WSC. HIGHER GENERAL SECURITy EDUCATION AND MQO

A events in last year
1. We want event still just as on the situation such as that previous your September (1993) were. This information has you in previous questionnaire probably already, however, given, but it is more easily to make if possible changes. okay you this step by step to can give. (in there talk of work as there at least 7 hour per week involved in work, there is talk of training/Ludy if at least 5 hour per week involved in work)

My question on 1 September 1993 was:
- In the fall of training
   1. I followed the same training/Ludy as for winter holiday of 1993
   2. Started a new training
   3. Followed no education

- In the field of work:
   1. I had work
   2. I sought work
   3. I had no work and single work also no

- (You can work, now/only also and study)

2. Are you between the beginning of the previous academic year and now (of 1 September 1993) up to and including October 1994) changed of situation?
   (We ask your initials if you have changes to other training or stopped this started with, an training, to or stopped with (past) a job, or have changed of job. In short all changes which do have with study/work.
   (You can ask possible two possibilities)
   1. No, year (1993) previous since September has been there nothing changed to work or training
   2. Yes, years (1993) previous since September have been there now in several times something changed to work (started or stopped)
   3. Yes, years previous since September have been there one or several times something changed to training (started, stopped or succeeded)

   (continue with question 3)

3. If you have changes 1 September 1993 since of training or, even we want know work this way glad that possible what there has happened and when. For that we have two diagrams made which we ask fill in you. Rearp k.v.p. firstly fill explanation and the example.

   (Do out some you there good form, do not hesitate then our even call, the phone numbers stand in Introduction of this questionnaire)

   Explanation of the diagrams:

   Firstly we want glad that month and the year know in which you have changed of work or training (where January + 1.
   February = 2, etc.). Further we ask you always of it contains the beginning (start) or the end of an event (stopped or diploma), where; stand = starts (of work or of studying)

   (stop = stop (of work or of training)

   dipl = diploma (battles for a training)

   A couple makes example appears most clear how your the diagrams exactly must fill in.

   Example 1: 9 of study have changes you in January '94 then it first two changes, namely:

   - In the diagram for training or study
     - 1 change: 9, 8th (stopped with over training)
   - 2 change: 1, 94, started (started with other training)

   Example 2: If you are in December '93 successful for a training, then in April 1994 have found a job and afterwards September '94 to a part-time course besides that job have started, is that three changes, namely:

   - Firstly in the diagram for training or study
     - 2 change: 2, 9rd, dipl (progressed for training)
   - 2 change: 3, 94, stand (started with new training)

   afterwards in the diagram for work
   - 3 change: 4, 94, stand (started with work)

   Fill in now the diagrams:

   My change (en) of study and training

<p>| verneni- | mean? | past? | about veneration? |
|         | (1993) | of 94 |         |
| ning re. |        |       | start / stop / dipl. |
| 1        | ...    | 93    | sta    | stn    | dipl |
| 2        | ...    | 94    | sta    | ato    | dipl |
| 3        | ...    | 93    | sta    | ato    | dipl |
| 4        | ...    | 94    | sta    | ato    | dipl |</p>
<table>
<thead>
<tr>
<th>number</th>
<th>year?</th>
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<tbody>
<tr>
<td></td>
<td>(1 to 12)</td>
<td>193 of 94</td>
</tr>
<tr>
<td>1</td>
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<tr>
<td>4</td>
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</tbody>
</table>

4. Have you in the academic year 1993/94 (between 1 September 1993 and 1 September 1994) education followed or you had been registered at education institution?

N.B. If you are during that academic year of training charged, answer then for your first training.

1. yes, Higher General Secondary Education, WMO or mbo (- > go in question 5)
2. yes, training in hbo or WO (- > go in question 7)
3. yes, another training (- > go to question 7)
4. no, not at all registered (- > continue by question 9)
5. if you followed in 1993/94 education to Higher General Secondary Education, WMO or mbo:
   a. In 1993/94 the diploma of this training have gained you?
      0 no, I did not in that end examination class, but in class...
      1 yes, entirely succeeded
      2 no, only certificates
      3 no, one theory examination
      4 no, I have fallen for the examination
      5 no, as much as examination class, but not (again) examination taken off
   b. if you have done end examination, what was then your average figure?
      my average figure on the end examination was: ...
   c. If successful, diploma gained on:
       month: ...... (figure 1 and 12); year: ...... (93 or 94)

6. If you followed education to an institution for HBO or WO then we want gladly to know what you know concerning your study program in the academic year 1993/94:
   a. In 1993/94 I followed:
      1. programme
      2. read phases or doctoral programme
      3. partly propedeuse, partly head-phase Master's
   b. you have have promot 1 in 1993/94 successful or in higher school year?
      1. successful promot
      2. promoted to...
      3. end diploma gained
      4. failure not promoted
      5. not of application: in my study you are not promoted
      6. stopped with this study
   c. if you have successful or have promoted, you can indicate then when?
      month: ...... (figure 1 and 12); year: ...... (93 or 94)
   d. which part of the programmes which you in the academic year 1993/94, you followed had sufficiently wound up on 1 September 1994, or on 1 September 1994, essentially percent of the programme wound up of the academic year 1993/94 sufficiently
      0 no, we got no credits
      2 no, we got no credits
      3 no, that I know not
      4 no, or further with question 8
   e. If you in 1993/94 other education (no Higher General Secondary Education, WMO, HBO or WO) followed:
      a. education has then followed you?
         b. have you gained the diploma of that training?
            1 yes
            2 no, only certificates
            3 no, only theory examination
            4 no, I have failed for the examination
            5 no, no examination done
         c. if you have gained the diploma, you can indicate then when?
            month: ...... (figure 1 and 12); year: ...... (93 or 94)
B4 (a) (iv) p. 3

6 How many hours per week do you work at your previous job? (1993/94) on average work 20 weeks per year:
   _____ hours in total per week

7 How many weeks are there in a training period spent (1993/94) per week?
   _____ weeks

8 How many weeks have you worked previously at your study (1993/94) to your study? (holiday, waiting times between study components, work path, etc.) _____ weeks

9 Situation at this moment:

   a) Do you follow education on 1 November 1994 still?
      1. Yes, I am now full-time education -> go further with question 21 (components D)
      2. Yes, I am now part-time education -> go further with question 21 (components D)
      3. No, I follow only course(s) -> go to the next question (component C)
      4. No, I follow at this moment entirely none education -> go to the next question (component C)

   b) Which question(s) if any at this moment not only one course or no education follows:
      10. When have you the education to leave?
          month: _____ year: _____ (91, 92, 93 or 94)

   c) With have you the education with a diploma?
      1. No, I have not followed obtaining a diploma
      2. Yes, I have followed obtaining a diploma

Which diploma have in the past obtained you? (If your can you have gained other diploma figures also several circle)
   1. diploma/diploma
   2. MSc diploma
   3. PhD diploma
   4. Vetr-diploma
   5. diploma (brief middle profession education)
   6. diploma of 4 training in the student's being
   7. diploma/diploma diploma
   8. HBO (pre-diploma 
   9. WO-diploma (first year)
   10. WO-diploma (first year)
   11. VWO-diploma

12. Differently, name:

12. How you is situation now? circle the number that most with you situation corresponds
   1. I have a job in paid employment
   2. I have an own company/shop
   3. I cooperate in family company (shop, farm etc.)
   4. I am presert in military service
   5. I have not job, but missing work
   6. I have no job and I seek with also no
   7. I work in the household
   8. differently, namely:

13. How many months lasted it to you find job you wanted since leave at the educator?
   1. not of application, because no job have or sought
   2. I worked already then I leave education left
   3. months found me first job

   14. If you do work now paid, you can indicate then which level of education best describe the work which you perform:
      0. no of application, I do not do paid work
      1. LBO/HEAVO
      2. Higher General Secondary Education
      3. student being
      4. MBO
      5. HBO
      6. VWO
      7. VBO

   15. If you do now (paid) work
      a) How many hours work you then in the week?
         hours per week
      b) can indicate you for which company sector the venture or institution belongs?
Industry
1 agriculture and fishery
2 industry
3 construction - and installation companies
4 public utility companies

Service business
5 gas
6 catering services
7 transport and communication
8 banking
9 insurance being
10 accountant office
11 consultancy
12 remaining service business

Remaining service
13 university/other profession education
14 remaining education
15 scientific research
16 health care
17 social insurance
18 socio-cultural institutions
19 remaining realm service
20 remaining sub-national authorities
21 remaining service out-business
22 not of application

How satisfied are you with the work which you have now? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

What is you net income per month from labour remunerations and/or from a benefit? (e.g. what will it on complete guides)

My net income is £... per month
I have a benefit of (net) £... per month

How satisfied are you with entering such a job you have now? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

You afterwards, would you again choose the education which you have now followed?
1 yes, I again the same meters
2 no, when a training of a lower level would go to follow
3 no, I other (continuation ) training meters, as it happens!

Do you follow a guided at this moment?
1 no, I have no course
2 yes, I follow a course by means of the company or the institution where I work
3 yes, I follow a course (not at means of my work)

If you follow a course

Can you state how many months lasts the course?... months

With what aim do you follow this course:
1 = yes 2 = no

I want to prepare me to own activities
1.2
With the current work improves to carry out 1.2
With increase career possibilities 1.2
More to be possible come concerning a Nice subject 1.2
The course concerns directly on my field 1.2
The course is concluded with an acknowledged diploma 1.2
Or certificate, namely:

How you think that your situation will approximately one year (autumn 1995) will be?
1 I think that I study then full-time will follow
2 I think that I study then part-time will follow (in combination with work)
3 I think that I study then none will follow

I know it not

You think that you will study in the future still or to a school will go? That can (study) yeah therefore needed be but also just concerning a whole year, after you firstly what differently to was done?
1 yes, I go (positively in the further future), however, further to study/learn
2 I will follow only still but course
3 no, I will study never more/with
4 I know it (still) not
Fill now only the questions of part 1 (question 39 and farther) still in
Paragraph and e can skip you.
Do you follow education at this moment, however,
If you follow more than 1 study, fill the question which you most important study, at question 23 you can fill a second study to
mention.
a. I follow education
   (name institute/school) ..........................................
   (place) ..........................................
   all (place) ..........................................
b. The education which I follow at present is in full ..........................................
   c. Training/course lasts officially
      ____ year and
      ____ months
d. I am registered as:
   1. student/student - full-time
   2. student/student - part-time
   3. extracurricular
   4. auditor
e. The level on which study follow:
   1. Mavo or 8th class...
   2. upper General Secondary Education -> class...
   3. Havo -> class...
   4. voep -> class...
   5. Mbo -> class...
   6. student being in-service training
      -> 1 primary training
      -> if continued training
      .. -> 3 in-service training
    7. tivo
    8. Wim
   If you follow a training in hbo or the Wim in which sector falls that training?
   a. Follows the sector/decree in which I study is:
      More higher profession education scientific education
      1. economy / economy
      2. socially agoyc; if social sciences
      3. health / health
      4. agriculture / agriculture
      5. education / education
      6. pedagogical
      7. rift
      8. art Education / 8 language and culture
      9. technique 1 technique
      10. to classify 10 to classify
   If you follow a training in mbo, tivo or student being in which sector falls that training?
   b. Follows the sector/decree in which I study is:
      1. agrarian
      2. technical (aka: laboratory, graphic, nautically)
      3. service / health care (aka: in-service emplacement)
      4. economy/administration
      5. resorting
   22. We was glad to know how far you now in sum are progressed in my study.
   a. Which part of total programme of the study you felt cumulative was up to 1 September 1994?
      if I had 1 September 1994, percent of total programme was up to the study sufficiently
      fill a number between 0 and 100 in
   b. Are you can say how many credits you by 1 September 1994 cumulative had gained of total programme of these
      study?
      1. yes, namely: ...... points of total: ...... points total/course
      2. no, we get no credits
      3. to, that know not
   c. Have you, on the basis of your uncompleted, also violation(s) got partly of this study?
      1. no, no exemption
      2. yes, for the size of approximately: ...... credits
      3. yes, for the size of approximately: ...... months study
23 You follow a second level the course study also gift study?
1 No (-) go to the next question
2 Yes, namely:

24 How many hours per week spend you on training lessons = practical/practical lessons + preparation/house work etc.?
1 I spend normally per week to: (therefore not what you must, but what you actively does)
2 hour follows of college/practical per week
3 hour at home study/library per week
4 hour in other works
5 as a half time
6 hour less

25 You can yourself for the whole training in September 1993 and September 1994 with a figure between 0 and 10?
1 My motivation in September 1993 was
2 My motivation in September 1994 was

26 Are all you obtain a plan third diploma?
1 Yes
2 No

27 If you answer 2 or 3 a (or that depends of it) is unsuitable you then indicate which factors it does depend? (you can maximum two to answer to circle)
1 of my attitude for the study
2 of my motivation
3 of my decision is easy to another study
4 of my financial situation
5 of my personal ability
6 of my health

28 How much the chapels of obtaining the end diploma in the study/training which you follow now?
1 I give myself percent chance to the end diploma to obtain (fill in number between 0 and 100)

29 If you would finish this training how long you expect these then concerning to have a sum done to obtain that end diploma?
1 I think it I expect three years and months concerning done to have (as from the start of the study)

30 How many months this you that you after gaining diploma necessary to find a job?
1 not applicable: I look possibility my paid job
2 I expect: approximately months a job to have

31 You pleasure want take with a job under level of the diploma which you just has has obtained?
1 No
2 perhaps: months
3 if the work seems me nice

32 We want gladly know from which sources you the study finances.
We ask you to this reason for the month of October 1994 is to give which income has you from each of the following frames measured below. (%v.p. wind up on complete guideline)
My income in October 1994 was:
- basic grant f.
- additional grant f.
- study loan f.
- contribution private/parental f.
- contribution partner f.
- income from part-time f.
- income from benefits f.
- difference, namely f.

33 How satisfied are you with your current income? Give for this a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

34
33. What is your living situation at this moment?
1. living with parents
2. living independently with a family
3. living independently as a student flat
4. living independently in a private room
5. unsupervised living space
6. other, namely...

34. I intend to plan the study (possibly temporary) paid work to fit in with my study.
1. yes, I work already beside my study
2. yes, I am going to start work of my own...
3. no, I am not going to work or plan beside my study...

35. If you work or visit some other activity beside this study, how many hours per week do you work?
if you work, how work overlaps then training which you now follow.
1. yes, it dovetails my current training
2. no, I have nothing with my training

36. Have you at this moment plan for after round-off of your current training (further) as will study in the higher education?
1. yes, I have (false) no concrete plans
2. yes, regular (false) no training
3. yes, 24 phases probation training in the/her (for example framework - or continuous training).
4. yes, (regular)Wo  training
5. yes, Fort Wo training for Hbo-gelderland
6. yes, Acquisasing in the Wo (ani)
7. no, 24 phases probation training in the Wo (for example education for general practitioner or industrial nurse)
8. differently, namely...

37. How you think will your situation now approximately a year (summer 1995) will be?
1. I think that if I stay still my current will follow study/ training
2. I think that I have then the diploma of my current study gained and another study will follow
3. I think that I have then the diploma of my current study gained and co-election will follow
4. I think that I have (false) have having my current study anderson in another field of education will follow

38. For who you study in the higher education (Wo and Hbo)?
In you no longer study or is a training outside higher Education follows, contrasts then with the questions from the last component of the questionnaire (part 1, question 39 and further)

39. Are you planning to study at a university/college or at another institute/college?
1. yes...
2. no...

40. Are you doing anything about your education choices (for example specialization, by-way, switchers of study, etc.)
1. yes...
2. no...

41. Are you doing anything about your education choices (for example specialization, by-way, switchers of study, etc.)
1. yes...
2. no...

42. Have you done something with the information from visitor report?
1. yes...
2. no...

43. Are you doing anything about your education choices (for example specialization, by-way, switchers of study, etc.)
1. yes...
2. no...

44. Are you doing anything about your education choices (for example specialization, by-way, switchers of study, etc.)
1. yes...
2. no...

45. Are you doing anything about your education choices (for example specialization, by-way, switchers of study, etc.)
1. yes...
2. no...

46. Are you doing anything about your education choices (for example specialization, by-way, switchers of study, etc.)
1. yes...
2. no...

47. Are you doing anything about your education choices (for example specialization, by-way, switchers of study, etc.)
1. yes...
2. no...
38. To practice many students go after graduating still further study in the higher education (No & HBO). We want plenty know in which situations you would think for, round-off of your current study, to start a new training. More higher education.
You want indicate which of your alternatives:
1. full-time continuation study in the HBO
2. full-time continuation study in the University
3. part-time continuation study in the HBO
4. only some professions from the HBO

Your preference is in the following (hypothetical) situations:

a. in current situation, with my current insititute/department, my rights to study financing, are my preference:

   b) if for the continuation study in the HBO or University interest-rearner team and no grant could get, then my preference goes to:
   (number between 1 and 4 from the list above)

c) if for this continuation study, however, my current study financing rights, but also "cope" in that publicity must pay at full-time study an annual college money of such high (to 5000 or some agents and range studies to 20000 some technical and medical studies), then my preference goes out to:
   (number between 1 and 4 from the list above)

d) if I must limit both anything, and must pay the college (combination of situation b and c), then my preference would go to:
   (number between 1 and 4 from the list above)

39. Fack questions for everyone:

39. This research concerns choices for yes or no (to remain) to study. We want how gladly again of you, how long you think still long you still think the education will follow and which educational level you eventually wants reach will.

a. how much year education thinking think will follow you: 7 (a.o. a wind up on complete years)

b. there that I still, your full-time education to follow

and still you education plans a definite inside work or other occupation)

c. of which educational level experts you eventually planning will have gained?

1. only continued education.
2. training.
3. HBO-training.
4. University-profession training in HBO (for example fakereca or continued training).
5. TV-training.
6. Abroad-study in the HBO (promotion).
7. 2. on parents professions training in the HBO (for example education for general practitioner or industrial devises)

40. How many years had you all the beginning of the study the year still right to regulation as a student in the highest education?

1) Yes at the beginning of the study year (September 1994) still right... your registration as a student

2) That know I not

And how much year were expected you still to a basic grant?

1) That had at the beginning of the study year (September 1994) still right... your basic grant

2) That know I not

41. Trained differ in the degree in which there the emphasis lay an independent application of knowledge or it independent to deviate of knowledge. For which type considers himself training you are arranged metre? You can estimate by below a figure to the of circle between them both probabilities.

   independently dependent

   to apply 1.234 5.6.7.8.9 to develop

   of knowledge independence

42. As a result of the plant in the younger generation, declaration has been agreed that a discussion is started concerning someone for higher education. Cost of the elements from that discussion the question of HBO and the HBO to the better students is a new training must get that masters "training" and for remaining students three-year "bachelor" training.

a) If now a master training would exist, think you then that you a good chance would make to be allowed to such a training (irrespective of the question in you that also would want?)

1 yes
2 no
3 know not

b) and you also allow want income is a such master training (irrespective of your chance on admission?)

43. debut new (nov 94), p. 9

1 yes
2 no
3 know not

(c) which place thinks you that you take approximately between students if your training or, if you now a longer study, look during your last study? 123

1 the best 25% of the students
2 best half of the students
3 least good halves of the students
4 that I do not decide know
Fourth Follow-up Survey — November 1995

QUESTIONNAIRE TO STUDENTS WHO IN MAY 1991 WHO SAT FOR EXAMINATIONS OF VWO, HIGHER GENERAL, SECONDARY EDUCATION AND MBO

Amsterdam, November 1995

A education career

In the previous years you scored information has been given concerning course you study, your judgment concerning quality if it, you further (study) plan(s), etc. Nevertheless since there still occurs a wide span in that information, you already become sort everyone always all examinations which could result of savage. In this last questionnaire sixth ask we for this reason yourself sort still one in short you study course to effect. We ask your very first to on the next page it is to measure if you are after the end examination passes (in September 1991) further education in will follow and which study that was then. Afterwards we get to possible other studies, which you are afterwards will follow.

Finally you can in question 3 also possible temporary discontinuity of your study indicate:

1. You followed in (September 1991) four years suffered (study) difficulty?
2. yes, namely:
   * Name of training/study:
     1. economy / pedagogical
     2. local / light
     3. health / art language culture
     4. agriculture / technology
     5. solar science/laboratory
   * Type training/study:
     1. More higher / profession education (bso)
     2. Scientific education (Wis)
     3. Medical profession education (mbo)
     4. differently, namely:

   * When have started you with this training/study?
     month... year... (1-12) year... 19...

2. you considered has this training/study?
   1. no, I follow this study still
   2. yes, I have or have the end diploma
   3. yes, I have or have the end diploma

If 2 or 3, when diploma period or stopped?
   month... year... (1-12) of year... 19...

3. If you are again after September 1991 will study or other (very briefly) are will follow, you want that then in the following way of approach:

(Use for the name of type study and number of the costly the figures, such as those above at question 1 are used.)

Successes in study:
   week... 1 2 3 4 5 6 7 8 9 study... 1 2 3 4

Lapses in study:
   week... 1 2 3 4 5 6 7 8 9 study... 1 2 3 4

Successes in study:
   week... 1 2 3 4 5 6 7 8 9 study... 1 2 3 4

Lapses in study:
   week... 1 2 3 4 5 6 7 8 9 study... 1 2 3 4

Successes in study:
   week... 1 2 3 4 5 6 7 8 9 study... 1 2 3 4

Lapses in study:
   week... 1 2 3 4 5 6 7 8 9 study... 1 2 3 4

Successes in study:
   week... 1 2 3 4 5 6 7 8 9 study... 1 2 3 4

Lapses in study:
   week... 1 2 3 4 5 6 7 8 9 study... 1 2 3 4

Successes in study:
   week... 1 2 3 4 5 6 7 8 9 study... 1 2 3 4
1. Have you had to interrupt your study (a) since September 1991? 
   a) no, never interrupted
   b) yes, namely:
      i. in 1991, during... months
      ii. in 1992, during... months
      iii. in 1993, during... months
      iv. in 1994, during... months
      v. in 1995, during... months

Last academic year studied followed:
4. Were you in the academic year 1994/95 (between 1 September 1994 and 1 September 1995) educational followed or had been registered at education institution? (N.B. if you were during this academic year your training has changed, give them answer for your first intake)
   a) yes, training in here or elsewhere... go to question 5)
   b) no, another training... go to question 9)
5. If yes, at what time do you want to know something concerning your study progress in last academic year 1994/95?
   a) in 1995/96 I followed:
      i. part of the programme
      ii. final phase of doctoral program
      iii. final phase of Master's
      iv. second phase of training
   b) you have been promoted in 1994/95 successful or to higher school year?
      i. successful promoted
      ii. promoted
      iii. diploma gained
      iv. not promoted
      v. not of application, in my study you are not promoted
6. What is your study level?
7. If you have succeeded or have promoted, you can indicate that when?
   a) in 1995/96... go to question 8)
   b) which part of the programme, which you in the academic year 1994/95, your followed had sufficiently wound-up on 1 September 1995:
      i. had 1 September 1995, percent of the programme wound up of the academic year 1994/95 sufficiently
     (fill a numeral between 0 and 100 e)
   c) can say also how many credits you have gained the previous academic year (1994/95)?
      i. yes, namely...
      ii. how much, what of the programme of the academic year
      iii. to the question or no credits
8. Since the academic year 1993/1994 has ensued so-called a tenancy grant, what students gain onto study program than 25% of the education programme of the study year (the standard), Your grant is with retrospective effect converted into an interest-bearing loan. We have wanted already know or you since the setting-up of tempo grant has gained this study progress standard.
   a) you had, according to your education institution, in academic year 1993/94 this standard gained?
      i. yes
      ii. no
   b) if private is for your grant to pd in interest-bearing loan, you have lodged an appeal then against that decision?
      i. yes, and the profession has been granted
      ii. yes, but the profession has been rejected
      iii. not, I did not know that I could lodge an appeal
9. If and how you, according to your education institution, in expensed academic year 1994/95 the standard of 25% study progressions gained?
   a) yes
   b) no
10. That know I not
11. If private is for your grant to put in interest-bearing loan, you have lodged an appeal then against that decision?
   a) yes, and the profession has been granted
   b) yes, but the profession has been rejected
   c) I did not know that I could lodge an appeal
   d) no
If you do not have the standard in one or both course years gained, so that a part of your gain is converted into (i) to interest-bearing loan, then how do you assess your course and/or study behaviour?

1. Did you not gain the standard?
2. The government has changed nothing there.
3. I am aware that the loan is to be spent.
4. I have changed to another study.
5. I have stopped with study
6. Differently, namely.
7. (b) you have further to question (8)

If you followed in 1984/85 other education (no t.ac or Ugo).

a. education has then followed you?

b. have you gained the diploma of the training?
1. Yes
2. No, only certificate
3. No, only theory examination
4. No, I have fallen for the examination
5. No, no participation depends

c. if you have gained the diploma, you can indicate then which?

month: (figure 1 and 12) year: (94 or 95)

9. How many hours per week have you spent academic year 1994/95 on average worked for:
   - hours lessons/colleges per week
   - hours practical/technical learning per week
   - hours work for senior preparation - self-study by yield
   - hours study per week

How many weeks have you previously academic year (1994/95) to follow a training period spent?

Weeks

How many weeks you have not worked previous academic year (1994/95) to your study? (holiday, waiting time between study component, work paid, etc.)

weeks

8. Education at this moment

10. Do you follow education on 1 November 1995 still?
   1. Yes, I follow full-time education
   2. Yes, I follow education part-time
   3. No, I follow only course
   4. M. I follow at the moment socially none education

C. Questions if you at this moment only a course or no education follows (N.B. if partly, in your previous education follows, then have you a number of these questions already answered in an earlier list. We put now however, when violent questions and requires you then to answer at questions only again - for this last time.)

11. When have you the education to leave?
   month: (figure between 1 and 12)
   year: (91, 92, 93, 94 or 95)

And have you the education, which you that moment left, concluded with a diploma?
1. Yes, I have obtained the diploma
2. No, only certificates
3. No, only theory examination
4. Yes, I have obtained the diploma, namely:

Which diploma did in the past obtained you? (circle the figure in each diploma which you have gained)

1. Diploma
2. Mavo-diploma
3. Havo-diploma
4. Vwo-diploma
5. Diploma briefly middle profession education
6. Diploma of a training in the student living
7. Diploma of diploma diploma
8. Diploma of diploma (first year)
9. Wvr-diploma (first year)
10. Hbo-diploma
11. Wvo-diploma
12. Different, namely: (Figure)
13. Have you, or during your (guaranteed or not) training administrative experience gained? (for example: association, education institution or internship group)

1. No
2. Yes, namely:

You have acquired work experience for or during your training, that for your field relevant? (This is possible both paid and unpaid work.)

1. No
2. Yes, in which order or during the year
3. Yes, in turn longer than one year

During your training you work have paid performed for at least 12 hours per week?

1. Yes, during the entire training
2. Yes, during at least one year
3. Yes, but less than one year
4. No

14. How you feel situation now? (Circle the number that most with your situation corresponds)

1. I have a job in paid employment
2. I have an own company/shop
3. I work as a family company (shop, farm, etc.)
4. I am present in military service
5. I have no job, but missing work
6. I have no job and I seek work also no
7. I work for the household
8. differently, namely:

15. How many months passed it for your first job found himself since leave of the education?

1. Not applicable: because no job or sought
2. Worked already then I the education left
3. Months before, I my first job

How much time you have applied since you're education have left?

16. If you have now work, this first job then you have since then have left the education? (If you had already work, the moment you education left, consider that then if your first job)

1. I have not had a job since the education had left (-> go to question 16)
2. Yes, this is my first job after leaves of education (-> go to question 17)
3. No, I have had job already more than one job since 4 education left

Why of job have changed you? (Circle maximum 2 reasons, which were for you most important.)

1. Work under my level was
2. The salary was too low
3. The environment at work did not please me
4. There were few career perspectives
5. New (temporary) contract expired
6. I was dismissed
7. differently

17. We ask you what has length of your first job since leave of the education and concerning your current job. At the following range of questions until you for this reason always two times figure circles:

in the first column for your first job (or work that you already had than you the education left),

- and in the second column for your current job (if your self that works on first job or if you have work now no, leaves only second column empty)

a. What is the nature of your service link?

1. first current job
2. fixed appointment
3. temporary, with view on fixed service link
4. temporary appointment
5. independent
6. freelance
7. by means of employment agency

b. did you that agree the level of that first and of your current function to your competences?

1. those functions and/or have been paid attention to my competences
2. those functions closely matched my competences
3. Those functions were far off had been paid attention to my competences

1. Be possible you indicate to which company sector the venture if institution belongs?
First current job

Industry
1.1 Agriculture and Forestry
2.2 Industry
3.3 Construction - and installation companies
4.4 Public usefulness companies

Service business
5.5 ad
6.6 Catering services
7.7 TV-report and communication
8.8 Banking
9.9 Insurance being
10.10 Accountant office
11.11 Consultancy
12.12 Remaining service business

remaining service
13.13 University/Higher profession education
14.14 Remaining education
15.15 Scientific research
16.16 Health care
17.17 Social Insurances
18.18 Socio-cultural institutions
19.19 Remaining realm services
20.20 Remaining sup. national authorities
21.21 Remaining service business

What do you do at work? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied):

First job: figure ...

Current job: figure ...

Which level of satisfaction do you think is the best at the work who you build?

First current job

1.1 Bricklayer
2.2 Higher General Secondary Education
3.3 Student being
4.4 Mbo
5.5 VWO
6.6 Hbo
7.7 Wo

What were you net income per month from your work (remunerations)? (E.g. wind-up on complete guidelines)

My net income at first job: _______ per month

My net income from current job: _______ per month

How satisfied were you with entering your work? Reflect for that figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied):

First job: figure ...

Current job: figure ...

How are you at the moment a benefit? (E.g. wind-up on complete guidelines)

My current net payment amount to: _______ per month

Appetite of next training

Do you, afterwards, would consider again change for education which you have now followed?

Yes, I am the same motives. (- go to question 15)
2. no, I would like limits then so for training of more (saw first)
3. no, I another training (study direction, specialisation) choose, namely: ______________________

Why you would consider, afterwards, another study choice make? (Circle maximum 2 reasons, which are for you most important)

1. that other study is like for and more interesting
2. those other studies offer more chance on good social position (income, certainty, status)
3. those other studies offer more chance on nice work and/or likes people to cooperate
4. those other studies are easier
5. differently, namely: ______________________
6. differently, namely: ______________________
7. differently, namely: ______________________
8. differently, namely: ______________________
9. differently, namely: ______________________
10. differently, namely: ______________________
11. differently, namely: ______________________
12. differently, namely: ______________________
13. differently, namely: ______________________
14. differently, namely: ______________________
15. differently, namely: ______________________
16. differently, namely: ______________________
19. Or you now have finished the study or have demolished, yourself have your study (s) several skills in more or inferior learned degree to master and knowledge gathered. You can indicate to what extent you hereafter the called points countered the moment you a education left and to what extent you these skills apply in your current (final) function? We ask you give a figure to each skill between 0 and 10, where 0 = in whole null and 10 = complete. (If you put at present-point function have you can column fill in 'applied' for possible unpaid activities. As that not possibly is the column then only fills in 'context'.)

Control application

1. written expression skill
2. oral expression skills
3. abilities and care
4. social and interpersonal skills
5. technical skills
6. giving skills
7. independently work
8. carry responsibility
9. decisions take
10. specific promotion niche
11. general skills
12. planning skills
13. analytical, diagnostic, research skills
14. cooperation skills
15. systematic reflection

20. Need you at present by education in the area of one or more of in the previous question the points laid down? (Circle below these associated figures, you can maximum 3 figures to circle).

No
Yes, Netherlands
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15

Fill now only the questions if part e (question 32 and further) still is: Part d can skip you.

D questions if you follow education at this moment, however,
Do 21 what kind of studies/training follow you at this moment? (If your more than 1 study follow, fill in this question than fix your most important study.)

a. I follow education (name institution/school)

b. The study I now named in full:

c. The study lasts officially

year and

months

a. I stand registered at:
1. students/student - full time
2. students/student - part-time
3. extradiv
4. auditive

b. The level on which I study follow is:
1. havo or lbo - > class
2. Higer General Secondary Education - > class
3. VWO - > class
4. kabo - > class
5. Mbo - > class
6. student being or in-service training
-- 1 primary/preliminary
-- 2 continued/training
-- 3 in-service training
7. Hbo
8. Mbo

If you follow a training is Hbo or the Mbo, in which sector falls that training?

More higher profession education scientific education
1. economy
2. sociology
3. health
4. agriculture
5. laboratory
6. pedagogical
7. law
8. art education
9. education 7 technique
10. to classify
22 Which part of this study (as from the 1st year to and with end diploma) have meanwhile successfully wound up do you?
   a. I have approximately... percent of the study wound up (fill in a number between 0= absolutely no components gained; and 100= end diploma gained)
   b. Can you express this who in a number of credits?
      1 since I with the study has started I have... points of total... points in total course gained
      2 no, we get no credits
      3 no, that I know not
   c. Have you, on the basis of your vocational training, also vocational training got partly of this study?
      1 no, exception
      2 yes, for the size of approximately... credits
      3 yes, for the size of approximately... months study
   23 You can yourself motivation for the study/training in September 1984 and September 1985 with a figure between 0 and 101:
      my motivation in September 1984 was:...
      my motivation in September 1985 was:...

24 Are will obtain you in (an) the end diploma?
   1 yes, in my current education institution
   2 yes, but probably to another education institution
   3 that depends of it
   4 no, that does not intend I

If you answer 3 or 4 (no or that depends of it) it is possible you then indicate on which factors it does depend? (you can maximize two answers to profit)
   1 of my attitude for the study
   2 of my motivation
   3 of my decision to sway to another study
   4 of my technical situation
   5 of my personal situation
   6 of my health

25 How large you consider the chance of obtaining the end diploma of the study/training which you follow now?
   (give myself... percent chance for the end diploma to obtain (fill in a number between 0 and 100)

26 How long aspects there still you to repeat for that and diploma to obtain?
   1 expect concerning... year and... months and diploma to obtain

27 Have you at this moment plan for after round-off of your current training (turner) to will study in the higher education?
   1 no, I have got no concrete plans
   2 yes, (regular) Hbo training
   3 yes, 2e phase profession training in Hbo (for example framework or continued training)
   4 yes, (dead-end) Vb-training
   5 yes, Kort-Wa training for Hbo certificate
   6 yes, Ab-training in the Vbo (promotion)
   7 yes, 2e phase profession training in the Vbo
   8 difficulty, namely...

28 We want now to know from which sources you the study finances.

We ask you for this reason for the month of October 1985 for at to give which income has you from each of the financing sources mentioned below: (cf. p. wind up on complaint of donors)
   My income in October 1985 was:
      - basic grant /...
      - additional grant /...
      - study with /...
      - contribution parents/gardens /...
      - contribution partner /...
      - income from own labour /...
      - income benefit /...
      - differently, namely /...
      - total /...

How satisfied are you with your current income? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied)
   figure...

29 What is your (sp) situation at this moment?
   1 living with parents
   2 living independently with a family
   3 living independently in a student flat
   4 living independently in a private room
   5 independent living space
   6 other, namely...
30 I intend you for bespoke the study (possibly temporary) paid work work to if you do that now already?  
1 yes, I work already beside my study  
2 no, I plan will work beside my study  
3 no, I will not work at all beside my study  
If you work or work will you achieve the study. How much hour per week is this?  
1 hour per week  
2 two hours per week  
3 three hours per week  
If you work, how many work days per week which you now someone?  
1 yes, I work today beside my training  
2 yes, I do nothing with my training  
3 no, it has done nothing with my training  
31 I know you that your decision over approximately 1 year (summer 1996) will be?  
1 I know that I have left my current will/plan study/training  
2 I think that I have the diploma of my current study gained and another study will follow  
3 I think that I have then the diploma of my current study gained and no education will follow  
4 I think that I have then (without having my current study rounded off) will follow another study  
5 I think that I then (without having my current study rounded off) will do more education will follow  
E last question for everyone:  
32 How large was your study debt?  
• if now all/still you: at this moment and  
• if no longer studies you: the moment you it education left  
0 no study debts  
1 less than / 2500  
2 / 5000 / 5000  
3 / 5000 / 7100  
4 / 7500 / 10000  
5 / 10000 / 12500  
6 / 12500 / 15000  
7 / 15000 / 17500  
8 / 17500 / 20000  
9 more than / 20000  
33 To what extent this study debt corresponds to your expectations?  
1 the study debt is approximately what expected, then with study start/stop  
2 these study debts are clearly higher than I expected, when I with study started  
3 these study debts turn out better than I expected, in fact, however  
4 I then I will study started I do not have me good results which study debt I would build up with that  
43 Many students run by a multiplicity to cause, delay with respect to the official course. You can estimate makes of the delay which you have incurred you (yes as I complete) at study?  
1 during study a delay has occurred of usually  
2 / 3 months (i.e. wound up on incomplete numbers)  
Hereafter we a number of factors, which possibly cause are item of study delay. You can estimate which factors in your case has made a contribution to occurring delay? (Make an estimate of the number of months delay that each of the caused factors has produced; grant wind up on complete numbers.)  
number of possible causes  
months of study delay  
... staggert study components breakthroughs  
... pockets in study components by repetitiveness of it  
... pockets for study components by too short preparation  
... would from own choice louer for study components because of own interest  
... solve study components simplified on top of obligatory course  
... personal problems and illnesses  
... the interest being lacking sufficient motivation for study  
... activities the study, but related to the study (for example student organisation, some forms of work or Henderson, etc.)  
... activities the course, but not related to the study (for example care child, hobby, some forms of work or horsekeeping, etc.)  
... waiting time by do not connect of study components  
... rigid and hierarchically organisation of the study  
... differently, namely
Dutch Questionnaire C – English Translation
Initial Survey – May 1991

Questionnaire for students in LBO and WO
A. Personal details

1. Gender
   1 male
   2 female

2. What is your birthdate?
   day: ...
   month: ...
   year: "...

3. Do you count yourself to a foreign population?
   No 0
   Yes, namely: ...

4. Are you born in the Netherlands?
   1 yes
   2 no

5. If you are not born in the Netherlands, when were you born for the first time in a Dutch school?
   1 in the third grade of the primary school (or first grade of the lower school) as recently as earlier
   2 in the fourth grade of the primary school (or lower school)
   3 education completed in the first class of the school for
   4 in a higher class of the school for continued education
   5 the education concluded after

6. What is your living situation?
   1 live at home (still) at my parents
   2 live as a family
   3 live in a student flat
   4 live in a private room
   5 live independently (own apartment/house)

7. What are the four figures from the tax code of your place of residence?
   The four figures of my tax code are ...

8. Do your both (natural) parents at each other alive?
   1 yes
   2 no, my parents have separated
   3 no, one of my parents has died or my both parents have died

9. What is your father's and mother's education?
   father/guardian
   1 less than 6 years lower education
   2 more lower education (completed)
   3 LBO 1 (e.g. LBO, HIS, LSE, housekeeping school, lower agricultural school, etc.)
   4 a training from the student being A (e.g. Brieven, SVB, Gereedschappen, etc.)
   5 Mavo or MBO or UBO 5
   6 3 years HBO, gymnasium, or atheneum
   7 MBO 7 (e.g. MBO, Mavo, nursing, middle agricultural school, small child training, etc.)
   8 Higher General Secondary Education or MBO 8
   9 University NBCS, gymnasium or Atheneum 9
   10 HBO 10 (e.g. BB, HIS, pedagogical Akademie, Higher agricultural school, etc.)
   11 university candidate diploma
   12 university doctorate/diploma

10. You can indicate approximately which income your father/guardian and your mother/guardian per month?
    father/guardian
    0 no income
    1 less than f 1500 ...
    2 between f 1500 and f 2500 ...
    3 between f 2500 and f 3500 ...
    4 between f 3500 and f 4500 ...
    5 between f 4500 and f 5500 ...
    6 between f 5500 and f 6500 ...
    7 between f 6500 and f 7500 ...
    8 between f 7500 and f 8500 ...
    9 between f 8500 and f 9500 ...

mother/guardian
10 between the F 4500, - and F 5000, - 10
11 between the F 5000, - and F 5500, - 11
12 more than F 5500, - 12

Or:

I cannot say separately, but the net monthly income if my parents/guardians jointly is approximately:

- Fill a number between 0 and 15 in from the classificationitten

10 If your parents have separated, what is then approximately 4 Netto-women per month of the parent where you do not live at (for example you will study)?

- I value that netto-women per month:

- Fill a number between 0 and 12 in from the classification above

11 How many children your potential family exists?

1 1 children
2 2 children
3 3 children
4 4 children
5 5 or more children

And the number child are you in that family? (e.g. second, third etc.)

I am it, ... child in our family.

12 You have one or more brothers and/or sisters who higher profession training (e.g. pedagogical academy, hhs, hehs) or scientific training (in a university) follow or have followed:

- I no: I have no brothers and/or sisters or key are still at young to follow such a training

- No, none of follow my brothers and/or sisters such training or has ever done that

- Yes, both scientific and higher profession training

- Yes, only higher profession training

- Yes, only scientific training

B) Earlier career or the education

We put you now a number of questions concerning continued education which you have followed. Questions concerning education that you afterward possibly has followed (for example WO or MBO) come further down in list. If you have followed continued education of by the mainmunicipality you want try then that as well as possible at 'translate' education continued to the current system for? (count for example:

- for MBO, MWA, MWA MBO Higher General Secondary Education; for hhs, ... WO: WO, WO MBO

13 At the end of the upper or primary school you have recommendation get which type continued education most suitable was. Which recommendation got you then?

- 1 first

- 2 Lyceum

- 3 Mavo

- 4 Mavo Higher General Secondary Education

- 5 Higher General Secondary Education

- 6 Higher General Secondary Education/WO

- 7 WO

14 Are you sometimes continue still?

- 1 No, never

- 2 Yes, namely:

- on the lower school (primary school… time

- the education continued in: ... time

15 Many students went in the continued education different school types sat. They frequently start in first cycle and go then to a certain department of comprehensive school. Sometimes is it still changed also afterwards of one department to the other or even of the one school to another school. We ask indicate you below in which school type of continued education you have successively sat (irrespective of or you also the diploma has gained) (circles maximum one figure by column)

started on afterwards to possibly afterwards still

- 0 first type: another type: third type:

- 1 Lyceum or comprehensive school/ middle school

- 2 Mavo

- 3 Higher General Secondary Education

- 4 WO

- 5 MBO

(Assume afterwards also still on a fourth or perhaps even, however, fifth school type in the continued education last sit is possible you below the figure of that school type sit write down

fourth type

fifth type: ...)
15 Which diplomas in the confirmed education have you gained?  
(If you have gained several diplomas, can you more answer once.)

1 diploma
2 Maavo-diploma
3 Master-diploma
4 PhD-diploma
5 Doctor-diploma
17 Which figures have gained you at your VWO, Higher General Secondary Education - or Mavo-examen? If you have gained several of these diplomas, fill in the figure of the highest diploma, as you rose of these diplomas, let us have gained the question then.

Dutch: economy
English: economy
German: economy
French: commercial sciences
Swiss: (or) biology
Maths: (or) (or) physics
Maths: chemistry
History: Latin
Geography: Greek
Differently, namely:....
Differently, namely:....
Differently, namely:....

18 Your current study do not need the first form of higher education to be which you follow. And it is also no necessary that you directly connecting on the continued education to training in the higher education have started. We ask you for this reason in diagram mentioned below globally to indicate how your 'history' after the continued education from sees there.

(Circle maximum one figure by column.)

After the continued education my situation was:

    stuffy, afterwards then:

1 agreed with current study of current study of current study
2 other VWO-study
3 other VWO-study
4 individual education
5 military service
6 will work
7 differently, namely:

1 started with 1 started with
2 other VWO-study
3 other VWO-study
4 individual education
5 military service
6 will work
7 differently, namely:

(Rwill never often of situation have changed you between continued education and your current study, then are possible you the figure of that situations below will write down:
possible 4th situation:....
possible 5th situation:....
)
C. Current study and earlier career in the higher education
On 19 what kind of study/working follow you at this moment?

a. I follow education (name institution/school:........................................)
at (place:)

b. The education which I follow at present named in full:...........................

c. And I follow:

1 full-time training
2 part-time course

d. The level on which I study follow in:

1 Hbo
2 WO
3.2e phase training WO

a. Follows the selected subjects in which I study is:

More higher profession education scientific education

1. economy: 1 economy
2. socially artists: 2 social sciences
3. health: 3 health
4. agriculture: 4 agriculture
5. bio-holistic: 5 nature
6. pedagogical: 6 right
7. art education: 7 language and culture
8. technical education: 8 technique
9. not at of called subjects to classify

20 On the basis of which diploma is allowed you to these training?

1. diploma continued education (Higher General Secondary Education, VWO, mbo)
2. conference dixtern or reconstitutionswet/mw (admission exam/level, 21 + regulation)
3. diploma: prepedeside
4. diploma: diploma
5. foreign diploma
6. diffusely, namely:.........................
21. When are you with your current study/training (possibly at another institution) started?
   - month: [Month] 19
   - year: 19

22. How much study - or years of this study have you completed?
   - still no
   - 1 year completed
   - 2 years completed
   - 3 years completed
   - 4 years completed
   - 5 years completed
   - 6 years completed

23. What is the number of full-time or part-time students
   - yes, of full-time to part-time
   - 3 yes, of part-time to full-time

24. How many years have you after this study year still right to registration as a student in the higher education?
   - 1 year registration as a student
   - 2 years registration as a student
   - 3 years registration as a student

25. How many years have you after this study year still right to registration as a student in the higher education?
   - 1 year registration as a student
   - 2 years registration as a student
   - 3 years registration as a student

26. How many years have you after this study year still right to registration as a student in the higher education?
   - 1 year registration as a student
   - 2 years registration as a student
   - 3 years registration as a student

27. How many years have you after this study year still right to registration as a student in the higher education?
   - 1 year registration as a student
   - 2 years registration as a student
   - 3 years registration as a student

28. How many years have you after this study year still right to registration as a student in the higher education?
   - 1 year registration as a student
   - 2 years registration as a student
   - 3 years registration as a student

29. How many years have you after this study year still right to registration as a student in the higher education?
   - 1 year registration as a student
   - 2 years registration as a student
   - 3 years registration as a student
C149 (end 91) p 6

29 All kinds of reasons can be there for a certain study not to finish and (possibly after shorter or longer term) with other study and/or to another institution further at to go. Below we call a number of possible reasons. You can to indicate to what extent these reasons have played a role if it you overlap to a new study and/or a new institution for higher education?
You can address this by the reason a figure to give between

absolutely no role played

and 10: an extremely important role played

I have changed study and/or institution of because:

I found the study not interesting... 
I found another study more interesting...
the study was for me too difficult... 
the institution was/is chaotic...
I was not positive to that institution because of the wished follow study or further specialization...
I found the environment under which students unpleasant...
the study had been meant temporarily only such as... 
I intended always already after the proposition concerning at to step to another study...

the study was not what I/you/you expected of it...
the contacts with the instructors were unsatisfactory...
I missed the study too theoretically...
I found the study too explicitly-oriented...
I found the study too theoretical...
the quality of the education at that institution was at low...
I could not continue the study with work...
I could not continue the study at work...
I found the perspective occupation too small...
the study accompanied me short time...
the education had been unprofitable badly...
by personal problems I just had to dismiss the study...
the institution was too far...

a) the reason, namely...

30 At the choice of your current study have possibly number of considerations a role played. Below become number of such considerations called. We ask you for each consideration to indicate how important it is to your opinion has been at the choice of your current study.

You can give this a figure between

0: this consideration played literally no role and 10: this consideration plays an exceptionally strong role.

I follow this study because:

I feel the subject of this study interesting...
By following this study I think later independent work perform to be able...
By following this study I think later going self function to be able...
By following this study I think later certainly get job to be able...
By I can follow this study a certain profession to will exercise...
I think this study on an educational isolation which near in the neighborhood is...
I expect that this study difficult for me to be...
I expect too study within (normal) the course-duration wind-up to be able...
With this study I have more chance on a job after...
I think this study is really my first preference...

D. study situation, study course and study attitude

31 We want gladly know from which resources you your study finances, We ask you for this reason for the month of October 1991 to give which income has you from each of mentioned below financing sources. (E. g. wind up on competent.   (guides)

My income in October 1991:

- basic grant...
- additional grant...
- study loan...
- contribution parents/guardians...
- contribution partner...
- income from own labour...
- income from benefit...
- grant...

totally...

32 Is the month of October 1991 what this concerns derogatory of what you can the rest of this study year expected?

1 no
2 yes, because...

33 intent you for besides the study (possibly temporarily) paid work to perform to will or do you that already?

1 yes, I work already beside my study
2 yes, I will perform work I plan
3 no, I am not will work of plan beside my study
34 You use your on-paakarta for education at all?  
1 no, I get mine on-paakarta  
2 yes, I travel/commute on a... on the public transport for all the school/sports become to come  
3 no, usually not moment is education  
35 You would/promote/make it live somewhere else or study as priva on-paakarta would become no longer financially to supply to students with a basic grant?  
1 no, I would change nothing  
2 yes, I would promote more elsewhere  
3 yes, I would promote more elsewhere same  
36 You have itself this Studyleveland for the final registration for this study? (Or: are you a freshmen student in your current study?)  
1 yes  
2 no  
36 (c) (c) continue with question 42  
Questions for freshmen students  
37 You have taken part in the first months of the study to lessons, working parties, college and/or practices?  
1 yes  
2 no  
38 You have (or more) x examination(s) as the first months already taken off?  
1 no, examination occasion(s) and no has been  
2 no, I took home some self-tasteful, amen occasions  
3 yes, with (on average) sufficient result  
4 yes, with (on average) insufficient result  
39 You can with a figure between 0 and 10 indicate how satisfied you are in the course of your current study: levels and study envi-ironments which you have attended so far? (0 means: I am exceptionally satisfied, and 10 means: I am exceptionally unsatisfied)  
40 how permanently you have planning for the first year ("propedeuse") of your study 10 gain and how sure do I intend to obtain the propedeuse within one year? You can indicate this with a figure between 0 and 10, where:  
0: that does not attend I definitely  
10: that is certainly very of plan  
41 And how large treasured you the chance that you can really succeed the propedeuse within one year will obtain?  
I value that chance on... percent (number between 0 and 100 included)  
42 Questions for color one years students  
42 You were originally the status of your current study of plan, to obtain the propedeuse (the first year)?  
1 no, that did not intend  
2 yes, with the intention doing that within one year  
3 yes, if I needed far me not if necessary within one year  
4 yes, but I saw no chance of doing that within one year  
5 yes, with that instead of the propedeuse  
33 You have the propedeuse in your current study quickly pass through?  
1 yes, I am... proceeds study for the propedeuse succeeded  
2 no, but I expectychorning... moro, however, succeeded in the to be  
3 no, I have exemption for the propedeuse  
4 no, I will stop with this study  
44 You are at an estimate of the possible delay that you up to at this moment is the study have incurred? t gives for delay with respect to official course/curriculum (usually 4 years)  
1 I have nil, indeed do not mind, even on official programme of the study  
2 I have less than half a year delay  
3 I have a half up to a complete year delay  
4 I have 1 up to 2 years delay  
5 I have 2 up to 3 years delay  
6 I have more than 3 years delay  
45 Students who are by 2017 on study to have right to 6 years study financing. Was the scheme of such study financing be this way modified that you a year less are entitled you to that financing? think that you then after assuming the study would 0 and on which amounts you then that this saves?  
I think that is then... months, shorter would study  
and that time would be by  
- spent on frequent extra time on interesting study, components... months  
- follow less of extra study components above (library, education programme... months)  
- less, in a higher tempo... months  
- expect less time on activities outside the study (e. g. student organization, work, business, care, child)... months  
- differently, namely...
46 Below we try to range pronounce for obtaining manner of to study and learns and the importance which you grant to study results. We ask you for at each pronouncement to at to give to what extent that you apply. You can do this by giving a figure between 0: does not apply totally to me and 10: applies exactly to me

... I use all available time as much as possible for rapidly to graduate
... I have now attempt I achieve something solution-good
... I try always a this way high possible obtain figure
... I find it difficult for independently my study at all.
... my occupations my studies prevent me entirely to go in my study
... why I would wind up my study more rapidly, than necessary is, it is the most beautiful time of my life
... I have myself rapidly by less study results from field based
... I am satisfied concerning the study performances which I to now have provided
... I find it difficult me strain for uninteresting study component
... I cannot permit me financially long my study to do
... I have the motivation postpone obligations

Questions for all students
47 You can your motivation for current study/learning the start of the study and at this moment reflect with a figure between 0 and 10
then with this study started my motivation was:

... my motivation at this moment is:
48 How many hours per week spend you (on average) for:
a. training (lessons + practice + preparation/house work etc.)
average... hour per week
b. second study, student organisation, etc.
average... hour per week
c. work, care, children, leisure activities (hobby, sport) etc.
average... hour per week
49 How large you consider the chance of obtaining the end diploma of the study/learning which you follow now?
... I give myself... percent chance of obtaining the diploma (66 is number between 0 and 100)
50 How long you think of studying them in such as you that and diploma obtain? (Only the time for gaining diploma in your current study counts)
... I expect then... year and... months for the diploma of my current study to have itself
51 How much you think being able deserve not go (commencement pay) when you have gained the end diploma?
... I expect then a commencement pay of... month... net per month
52 You make sometimes look you yourselves concerning the question of your study financing sufficient will be for the study properly all around?...
... no, I transfer me myself no care
... yes, then I make myself, however, what care
3. I have been yes provided very concerned
53 Current study financing exists from a basic grant not an additional financing. The right to additional financing depends on entering the talents and exist from a part additional grant and a part interest-bearing loan. As of 1 January, these interest are calculated from the beginning of the loan. The course of 1560 students themselves (within the limits of maximum 6000) an interest-bearing interest-bearing part. Couple of that you beside the basic point would qualify for additional study financing to maximum amount. For which amount you then interest-bearing later conclude? (The interest is calculated as from beginning of the loan.)
... I do not the free choice信息 for:
... the 1 maximum amount
... for older one years We-students of 1560, - per year and
... for older one years who-students of 2720, - per year
... less, just more than 75% of the maximum amount
... less, of 75% up to 50% of the maximum amount
... less, of 50% up to 25% of the maximum amount
... less, of 25% of the maximum amount
... I conduct no loan
54 How you think that your situation over approximately a year (end of 1992) will be?
... I think that then still my current will follow study/learning
... I think that I will follow then another study
... I think that I study then none will follow
5. Finally we refer a number pronounced for commending the study to that you follow now and concerning the institution to which you that education follows. We ask you to tell each pronouncement to all to give or is appropriate this pronouncement if you. You can do this to figure to give between.

0. This pronouncement is not appropriate absolutely at me and 10. this pronouncement is appropriate entirely at me

- the information which I have concerning this study have gave me then I now myself of the study have a lot
- other picture
- the education so far is of good quality
- I am satisfied concerning the contacts with my fellow students
- I must work much harder than I had expected
- the introduction at the beginning of the study has me well picture given of the study
- the introduction at the beginning of the study has me well picture given of the institution to which I study
- the didactic quality of the instructors are small
- training so far is what I had expected if
- I am satisfied concerning the contacts with the instructors
- I have a clear picture of my study obligations this study year
- I study in a kingdom situation
- the obligation much have been set up too hastily
- I know exactly what I got this study year for my study to do
- The parts study four/in four are in task four a little too after a year still being able choose by another study which more interesting or more appealing are
- you already during studying which what you has learned also done in practice must apply be able

Thanks once again warmly for filling in.
C2-list (end 92) p 9

A events in last year

In the next questionnaire you may be asked two questions: one about your situation in last year and now. Yet we know that many people to this day never get drunk, which is not a general category question in the survey and that currently living here a lot can influence. For this reason we put first the open question, in which's possible that particular forward become.

1 Is the best, for you to work some type of employment that you're situation or of particular importance (that is, that possible phrasing in your personal situation is, or your direct surroundings, but also broader social and political events)?
1 no
2 yes

This influence has had on the implementation of your plans for study or work in last year?
1 no, then no influence has had
2 yes, I have changed as a result, my aim
3 yes, I have not been possible shift my aim as a result, (still)
4 yes, I have been possible to shift my aim as a result, correctly, (yet), situation as from September previous academic year 1992.

We went to all as on the situation such as that previous year (1991) was. This information has you us in previous questionnaires probably already, however, given, but it is easier possible make changes clear if you can give this step by step to the

My situation on 1 September of previous academic year (1991) were:
1 I had then started with the (then) study of political studies
2 I was then already a year or longer living with my (then) study of history in that study
3 I started then in a new study as freshman, besides another study in the higher education

4 differences, namely:

Are you between the beginning of the previous academic year and now (of 1 September 1991 up to and including December 1992) of situation changed in the field of study and work? (Is there talk of work at least 15 hours per week involved anywhere, there is talk of a study/study as hours there at least 5 yet week involved is valid)

We ask you whether if you have changed to other training or work has changed or to stopped work (then) a job, or have changed of job. In short all changes which you have with your aim to work.

(You can tick possible two possibilities)
1 no, yet previous time September has changed nothing to work or training
2 yes, years previous since September you had been there or several times something changed to work (started or stopped)
3 yes, years previous since September have been there or several times something changed to training (started, stopped in succeeded)

As you since 1 September of previous academic year (1991) have changed of work or training, then we want this way to the gladness and possibilities know what there has happened and when. For that we have made hereafter a diagram that we ask you for in it to fill. Read the y.d.p. firstly with the explanation and examples. (Does not come you good, hostile then not for put them to call, the boxes numbers (in the introduction of this questionnaire.)

studies and the diagram:

- Firstly we want clarify the month and the year in which you have changed of work or training, where:
  - January = 1, February = 2, ..., November = 11, December = 12
- Further we ask always indicate if it concerns the beginning (start) or for the end of an event (stopper or to succeed), where:
  - start = start of work or a training
  - stop = stop of work or a training

leetc = succeeds (battelle of a training)

- Change of study or job is therefore two changes, "starts one " to another one",
- A second job or study in start is ordinary name " starts (without a " to another one"
- And in the last column we ask indicate you for what change it went:
  1 = study/training
  2 = work

A couple makes examples perhaps still more clear how you the diagram exactly must fill in:

Example 1: if study have changed you in January 1992 then is the two changes, namely:
1st change: 1, 92, start (1) [diagram with the one training]
2nd change: 1, 92, start (1) [diagram with a training]

C2-list (end 92) p 10

Example 2: if you are in February 1992 successful for your study, then in April you have (then) a job and later in September 1992 a a full-time course beside that job are started, in that three changes, namely:
1st change: 2, 92, letzie (1) [successor for training]
2nd change: 4, 92, stand (2) [started with work]
3rd change: 9, 92, stand (1) [started with new training]
Fill in now the diagram
My changes of study and training between 1 September 1991 and end 1992 is (be):

<table>
<thead>
<tr>
<th>variable</th>
<th>main?</th>
<th>part?</th>
<th>start / stop</th>
<th>aim?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1 lot 12)</td>
<td>91 of 92</td>
<td>91 of 92</td>
<td>91 of 92</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>sta</td>
<td>sta</td>
<td>sta</td>
<td>sta</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
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<td>1</td>
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<td>1</td>
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<td>3</td>
<td>91</td>
<td>92</td>
<td>sta</td>
<td>sta</td>
</tr>
<tr>
<td>4</td>
<td>91</td>
<td>92</td>
<td>sta</td>
<td>sta</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

If you change still more have appeared, then you can reflect them below in a similar manner.

B. Questions over the previous academic year 1991-1992
In this component couples we range questions concerning your study in the previous academic year, if in the meantime of study have changed you, then we ask answer the questions for study, where you were in September 1991 study.
6 You have succeeded in the previous academic year for examination in your study?
   0 no
   1 yes, succeeded for (proposed) first year
   2 yes, Bachelor's or diploma gained
   3 yes, different, as it happened
   If you have succeeded for a re-examination, in which month which year was this then?
   month: ....... all in a figure between 1 and 12)
   year: ....... (in 91 of 92 in)
7 You can indicate how your study progress was in last academic year?
   a. Which part of the course of that academic year have you wound up?
      0 absolutely no components sufficient
      1 less than 25%
      2 between 25 and 50%
      3 between 50 and 75%
      4 more than 75%, but not everything
      5 100%
   b. Can say also how many credits you have gained the previous academic year (1991/92)?
      0, yes, namely....... points of total....... wrote the programme of the academic year (N.B. generally a academic year includes approximately 42 credits)
      2 no, that know I not
      3 no, we got no credits
8 How many hours have you spent previous academic year (1991/92) on average worked for:
   a. hour lectures per week
   b. hour practical work per week
   c. hour practical / written preparation - self-study by yielded
   d. hour total per week
9 You can give an overview of your experiences, your activities and the importance which you granted good study results?
   We ask you various judgments mentioned below to degree on which applied them to you by always figure to square between 0 and 10, where:
   0 = not appropriate at all
   10 = appropriate exactly at me
   a. ...
Accompaniment and heaviness of the study

1. In the appraisal of the quality of the student judgment. To this end ask
your opinion concerning the education in the academic year 1991/1992. (And again, if of study have charged you
give then your opinion concerning the study, where you were in September 1991 body.)
You can pass on an appraisal of aspects mentioned below a figure to know between 0 and 10, where:
0 = no, not at all correct
10 = yes, entirely correct
figure

experiences which are related to the study which
... I found the contents of the study interesting
... the learning substance was instructed in a captivating manner
... the study was totally different than I had expected
... the study forms a challenge by interesting questions to recall
... to my education institution am not possible I wished by such or specialties follow
... there are, however, more interesting studies
... the study had been meant temporarily only such as

experiences which are related to heaviness and study skills
... the study was for me too difficult
... working piece of work does not lie me this way
... subjects give problems me
... I missed essential for knowledge
... it was lacking me to study skills
... the study was for me too easy

experiences which are related to environment and the organization of the study
... I found the environment on the factorial/lecture
... my students are not negative
... there were possibilities sufficient for influence from at practical on which during the education happened there
... it was easy lay contact with instructors
... the contacts with the instructors were satisfactory
... the study accomplishment ate thoroughly
... the groups with which I study followed were too large
... the sets are appropriate at the contents of the education
... the organization of the education was proper
... if you follow exactly the programme you must practically complete work on to study to spend

experiences which are related to (future) the profession
... I found the study too practically-oriented
... I found the study too theoretical
... I want a profession for which prepares this training per se do not exercise
... I expected to pay job to be able get with this training

11 How many instructors have encountered you who gave the impression you that:
... they are interested in students? 
... instructor(s)
... they are interested in students? 
... instructor(s)

12 You can indicate of judgments mentioned below if they are correct yes or no?
... I know at least one instructor who would want me to help yes/no

if it is necessary at my study

The study administration is prepare you to help yes/no

13 Because a study does not always smoothly try education institutions with certain measures the study results of
students to improve. You can give a judgment concerning herefore the had possible measures?
We ask indicate you for each measure in that, in your judgment, will lead to improvement of the study results of
students. You can do this giving a figure between 0 and 10, where:
0 = does not lead absolutely to improvement of study results
10 = leads definitely to improvement of study results
figure
... improvement of the information concerning course study guide, instruction meetings choice programmes,
... improving of the number of choice components
... improving of the planning of the course
... spacing of fishing out possibilities over the year
... to introduce counselor system (older students who familiarize with company)
... to introduce tutor system (a mentor who a group students accompany)
... in extend individual study accomplishment
... regular confrontation with incurred study delay
... an obligatory course study skills at study delay of a half year
... higher requiring instructors to students
14 Further we you also tell so for of some situations to at in give or you think that you would will study in that situation more rapidly of clearly not. We ask for all each situation the figure you to circle, with as meaning:
1 = more rapidly will study
2 = differently do not will study
3 = change to an easier study
4 = entirely stop with study
* if a system would exist, where examinations is/were at the overshooting of that deadlines, then 1 2 3 4
* As welding up the study with study delay on labour market would become negatively appreciated, then 1 2 3 4
* If it could study still but 4 5 year with base fromm afterwards would have left, then 1 2 3 4
* If I a study contract could have concluded, where regular studying is rewarded, then 1 2 3 4
* As the basic grant at a delay of more than six months would be converted into interest-bearing loan, then 1 2 3 4
Connection continued education at higher education.

By students and teachers becomes the connection of the continued education or particularly the higher education as problematic experience. We put you for this reason some questions which explicitly to the passage to continuation education are related.

15 Below a number of study skills is called. We ask you your own assess skills by figure between 0 and 10 to know o each of skills at the start of the study year 1991/92.

* figure
  - planning activities for my study
  - chairing and entering in the minutes working parties
  - use of information which during colleges/lessons and practice are supplied
  - taking pieces of work
  - giving presentations for working parties
  - systematic approaching (objective) problem or question
  - reflect concerning links between theory and practice
  - the nature of a text in short reflect
  - linking between components of learning substance

16 Also concerning the connection of the professions panel at chosen study exists doubts. We want gladly know to what extent you in your study is faced with restrictions of your Earlier made choice of professions.

I have thought several times in my study, that I in my profession panel but... chosen. (You can maximum two professions to circle.)

<table>
<thead>
<tr>
<th>0 = absolutely no profession</th>
<th>9 = economy I</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 English</td>
<td>10 economy II</td>
</tr>
<tr>
<td>2 German</td>
<td>11 economy (commonly)</td>
</tr>
<tr>
<td>3 French</td>
<td>12 commercial sciences</td>
</tr>
<tr>
<td>4 Maths A</td>
<td>13 = biology</td>
</tr>
<tr>
<td>5 Maths B</td>
<td>14 physics</td>
</tr>
<tr>
<td>6 Maths (general)</td>
<td>15 chemistry</td>
</tr>
<tr>
<td>7 History</td>
<td>16 = biology</td>
</tr>
<tr>
<td>8 Geography</td>
<td>17 Greek</td>
</tr>
</tbody>
</table>

C situation at this moment

17 Do you follow end 1992 still education?

1 = yes, I follow full-time education – > go further with question 28 (component E)

2 = yes, I follow education part-time – > go further with question 28 (components E)

3 = no, I follow only course – > go to the next question (component D)

4 = no, I follow at this moment entirely new education – > go to the next question (component D)

18 Questions for them that at this moment only one course or no education follow

15 When have you stopped with your study?

month:...... day:...... (from 91 or 92)

19 You have concluded the study with gaining diploma?

1 no, I have stopped obtaining diploma

2 yes, the doctoral diploma (400)

3 yes, the second diploma (400)

4 yes, another diploma, as it happens,......

20 You have had since you with your study have stopped your pursuit actively work paid to connecting on your eyes or no completed training?

1 yes, until now

2 yes, found up to the moment on when I a first function had

3 yes, but not permanent

4 no, I had already being appropriate work

5 no, not sought
21 Which forms of job seek you have exploited?
(You can circle several answers)
1. applied on advertisements
2. open application letters sent to companies/institution
3. registration at employment agency
4. registration at employment agency
5. differently, namely:

22 How many months after you have stopped with the study, have you work got?
1. I have got no work after the study (still) or have sought
2. I had already lived with then I stopped
3. .... months

23 How is your situation now? (go to the number that most with your situation corresponds)
1. I have a job in paid employment
2. I have my own company/ho
3. I cooperate in family company (shop, farm, etc.)
4. I am present in military service (-> go further with question 25)
5. I have no job, but looking work (-> go further with question 25)
6. I have no job and I seek work also no (-> go furthermore with question 25)
7. I work in the household (-> go further with question 25)
8. differently, namely: ....

24 i. you can indicate then which level of education best details the work that you perform:
1. Primary
2. Higher General Secondary Education
3. Student Language
4. Mbo
5. VWO
6. HBO
7. Wo

b. how many hours work you then in the week?
1. work ... hour per week

c. you can indicate to which company sector the venture or institution belongs?

Industry
1. agriculture and fishery
2. industry
3. construction - and investment companies
4. public usefulness companies

service business
1. act
2. catering services
3. transport and communication
4. banking
5. insurance being
6. accountant office
7. consultancy
8. remaining service business

remaining service
13. university/higher profession education
14. remaining education
15. scientific research
16. health care
17. social insurances
18. socio-cultural institutions
19. remaining health services
20. remaining sub-national authorities
21. remaining service non-business
22. not off application

d. and in which of the sector (called) you work?

25 What are your net income per month from labour (remunerations and possible allowances) and/or from a benefit?
(i.e. p. wind up as complete question)
my net income labour is f. .... per month
I have a benefit of (net) f. .... per month
26. Do you follow a course at this moment?
   1 no, I follow no course
   2 yes, I follow a course by means of the company or the university where I work
   3 yes, I follow a course (not by means of my work)

   If you follow a course you can then the following questions to answer:
   how many months lasts the course? ... months
   the course prepared me on new activities yes no
   the course has been repeated the current work improves to carry out yes no
   the course gives more career possibilities yes no
   ... the course connects directly on my task yes no

   the course is concluded with an acknowledged diploma yes no ... as it happens

27. You think that you will study in the future still or towards a training will go? That is possible (study) year therefore next to be but also just concerning a couple year, after you firstly what differently have done:
   1 yes, I go (possibly in the further future), however, further to study/learn, and I think thereby to
   2 I will follow only still but courses
   3 no, I will study never more/any
   4 I know it (still) not

We ask now still the questions of what you fill in (question 41 and further).

E. To ask for them that at this moment, however, follow education

28. We went now roughly this way exact possible what kind of study follow you at this moment. For this reason we put a range three questions concerning. If you more than one study in higher education follows, fill in this three questions for the study which for you it is most important.

   a. I follow education (name institution): ..............................................
      at (place): ..............................................
      year and ..............................................
      months.

   b. The education which I follow at present named in full: ..............................................

   c. Training/course lasts officially: ..............................................

   d. And it is:
      1 full-time training
      2 part-time course

   e. The level on which I study follows:
      1 Hbo
      2 university (first year programme)
      3 university head phase
      4 higher short course (firstly Hbo)
      5 Wo head phase (part year programme)
      6 Wo head phase (clinical programme)
      7 Wo short programme (short Wo)
      8 Wo postgraduate programme (second phase training)
      9 differently, partly

If you follow a training in Hbo or the Wo in which sector fails that pointing?

1. Follows the sector/field/branch in which I study is:
   More higher professor education scientific education
   1 agriculture 1 economy
   2 pedagogical 2 social sciences
   3 health 3 health
   4 agriculture 4 agriculture
   5 laboratory 5 nature
   6 pedagogical 6 law
   7 art education 8 language and culture
   9 technique 9 technique

29. You can your motivation for the study/training in December previous year and at this moment reflect with a figure between 0 and 10?

   my motivation in December 1991 was: ........

my motivation at this moment is: ........

30. How satisfied are you concerning course of your current study/training and the study results which you have gained so far?

   1 very dissatisfied
   2 dissatisfied
   3 goes, however,
   4 satisfied
   5 very satisfied
31 How many hours per week you spend on training/lessons + practicals + preparation/house work etc.? (Therefore not what you must, but what you actually do)
- hour/follows of practicals/lecture per week
- hour at home study/revision per week
In busy weeks 4 to .... hour more
In quiet weeks it is .... hour less
32 How large you consider the chance of obtaining the diploma or the study/qualification you follow now?
- give myself ...... percent chance of the end diploma to obtain (fill in number between 0 and 100)
33 If you would finish this training how long you expect it to take, concerning to have as sum done to obtain that end diploma?
- I finish it expect they ...... year and ...... months to have done (see from the start of the study)
34 You make sometimes look yourselves concerning the question or your study training sufficient weeks for the study properly at round off?
1 no, there I transfer myself no care
2 yes, there, make myself, however, what care
3 before I have/have been yes provided very concerning
35 What is your basic situation at this moment?
1 living with parents
2 living independently with a partner
3 living independently in a student flat
4 living independently in a private room
5 independent living space
6 other, namely ...
36 We want gladly know from which sources you the study finances.
We ask for this reason for for the month of October 1992 to at to give which income had you from each if mentioned below financing sources (5, e.g. wind up on company guildings)
My income in October 1992 was: 
- basic grant ...
- additional grant ...
- study loan ...
- contribution parents/paternity ...
- income from own leisure ...
- income from own work ...
- income from own sales ...
- income from own other ...
- income from own ...
- differently, run variance ...
- totally ...
37 Intend you for passive the study (possibly temporary) paid work perform to will or you do that now already?
1 yes, I work already beside my study
2 yes, I am/will perform work of gain
3 no, I am/will not perform work beside my study
38 Do you use of your ov-jurkasten or fellow education?
1 yes, I receive an ov-jurkasten
2 yes, I travel (approximately) ... km with the public transport to at the school/institution to come
3 no, usually no
39 You would predominance will live somewhere else or study as private ov-jurkasten would become no longer automatically to supply to students with a basic grant?
1 no, I would change nothing
2 yes, I would predetermine will live somewhere else
3 yes, I would predominante will usually somewhere else
40 How you think that your situation over approximately a year (September 1993) will be?
1 I think that I then still my current will follow study/training
2 I think that I have then the diploma of my current study gained and other study will follow
3 I think that I have the diploma of my current study gained and my education will follow
4 I think that I have (without having my current study rounded off) will follow another study
5 I think that I then (without having my current study rounded off) my more education will follow
F meaning of education and work

For everyone

Finally we want questions aimed to everyone to ystem, that is related to the meaning of education and work.

41 In the previous questionnaire we have already once a time asked how much you thought of desiring if you leave now one education.

This question was not state again, because you there now different concerning can think. If you have meanwhile work, you fill in what you a full-time job would derive.

If I now a full-time paid job then I think of desiring net per month:

0 thou I can make absolutely no estimate of
1 less than f 1000,-
2 f 1000, - to f 1200,-
3 f 1250, - to f 1500,-
4 f 1500, - to f 1750,-
5 f 1750, - to f 2000,-
6 f 2000, - to f 2500,-
7 f 2500, - to f 3000,-
8 f 3000, - to f 3500,-
9 f 3500, - to f 4000,-
10 f 4000,- or more

42 How much more thinks that you could derive as you next diploma will have gained. Therefore:

- if you believe now a training, how much would derive now if you have gained the diploma of this piping;
- if you follow education now no, how much more you derive if you have gained the diploma of training which your first preference has (but on from questions as what these preferences is)

I think that I eat per month, . . . more would be possible derive if I have gained the diploma of my current training or the training of my first preference (circle it answer)

0 nothing or very little
1 f 100, - to f 200,-
2 f 200, - to f 400,-
3 f 400, - to f 600,-
4 f 600, - to f 800,-
5 f 800, - to f 1000,-
6 f 1000, - to f 1500,-
7 f 1500, - to f 2000,-
8 f 2000, - to f 3000,-
9 f 3000, - to f 5000,-
10 f 5000, - or more than f 5000,-

17 here I can make absolutely no estimate of, but anyway more.

If you education now no more follows, then we will gladly training of your first preference know, depending on your situation:

situation now: training first preference:

Hill not finished 1 rbo
2 rbo
3 Wio
4 Wio not finished 4 rbo
5 Wio
6 Wio: 3 rbo, however, finished, other direction
7 rbo, second phase training
8 Wio doctoral training
9 Wio, however, finished other direction
10 Wio, second phase training

differently, namely: ...

43 You can provide an appraisal of the chance which you itself gains at nice work and a high income, taking into account your situation.

We ask always give a figure you between 0 and 10, where:

0 = does not apply to me,
10 = applies very strongly to me

... You must present, however, diplomas have for nice work to get
... My chance on nice work is greater than average because of my capacities
... My chance on nice work is larger than average by my good posture
... I am possible more than my contemporaries on average to derive, because I capitalize have
... I am possible more than my contemporaries on average to derive, because I have a good posture have
... My parents leave would do if I on my training a diploma of has obtained a nice training or university

44 There is a present a shortage to study economy and ethics. The previous time has been spoken much concerning planning guided in these sectors more to let desirable than study in other sectors. If this would be interpreted over a year, do you think that this influence on your plans?

1 no, absolutely no influence
2 yes, possible more interested in study profession
3 yes, certain more interested in study profession
45. Couples, you have an university training, two academic years ahead: You will have help from interested schools in special programmes of study. Study full-time and complete within two years in combination with work and learn. At the choice of subject you must take into account the situation on the labour market.

1. no, none interest
2. yes, only partial
3. yes, much interest

46. You would study not at you yourself, but your study financing would have to be covered. This means that no system would exist in terms of grants, student grant or student loan under special conditions.

1. no, definitely not
2. no, probably not
3. yes, probably, however
4. yes, certainly, however.

47. You can give an appraisal of your wishes, whether or not your future position in the society? We will indicate you at the following aspects which importance attests you in the future this to reach by figure to know between 0 and 10, where:

0 = no, I do not at all find important

10 = yes, very string important

figure

- work with career possibilities
- work connects with personal identity
- work in which I can exploit my capacities
- distance between work and place of residence
- labour mobility
- high salary and allowance
- working circumstances
- employer people to cooperate
- time for friends and other attractive aspects
- children
- new exciting challenge

48. You can make it not always, everyone to be tense, even yourself not. Yet it is for your plans for the future perhaps important or you rare event or lots up runs. You can to indicate to what extent judgments mentioned below on you of acquaintance is giving a figure between 0 and 10, where:

0 = is not at all appropriate at me

10 = is appropriate exactly at me

figure

- family members, me think that I have something differently must to will do
- my most important friends/friends find that what I now do well at me is appropriate
- I am satisfied with my current situation
- I get much support of my family
- I get much support of my family
- I get much support of my family
- I can change more easily by surrounding things my personal problems at the
- I can change more easily by surrounding things my personal problems at the
- I can change more easily by surrounding things my personal problems at the

49. As last we want know gladly will which place several activities which have been in this questionnaire to the order, such as study and work, in your daily life takes. You can indicate how many hours per day spoken normally spent on:

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<th>da</th>
<th>wo</th>
<th>do</th>
<th>vr</th>
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</tbody>
</table>
A events in last year

1. We want return still just as on the situation such as that previous year September (1992) were. This information has you us the previous questionnaire probably indirectly; however, given, but it is clearly easier for printable changes at make if you can give this step by step by step. (g: These talk of work if at least 7 hours per week involved in work)

My situation on 1 September 1992 was:

- In the field of training/study:
  1. I followed the same training/study as for summer holiday of 1992
  2. I started to a new training
  3. I followed no education

- In the field of Work:
  1. I had work
  2. I sought work
  3. I had no work and sought work as no.

2. Are you between the beginning of the present academic year and now (of 1 September 1992 up to and including October 1992) of situation changed? We ask you indicate if you have changed to another training or have stopped with a training, started to or stopped with paid job, or have changed of job. In short all changes which may have had with school/training and work. (You can pass the two possibilities)

   1. no, year (1992) previous since September has been there nothing changed to work or training

   (-> continue with question 4)

   2. yes, years (1992) previous since September have been there one or several times something changed to work (started or stopped)

   (-> continue with question 3)

   3. yes, years previous since September have been there one or several times something changed to training (started, stopped, or succeeded)

(-> continue with question 3)

3. If you have changed 1 September 1992 since of training/or, then you now know work this was clearly exactly possible what there has happened and when. For that we have two diagrams made which we ask fill in now. Read and fill with the explanation and the examples. (Note: do not call you good, hesitate then not event, the phone numbers stand in the introduction of these questionnaires)

Explain what the diagrams:

Firstly we want partly the month and the year know in which you have changed of work or training (where January = 1, February = 2, etc.). Further indicate we you ask always or it concerns the beginning (start) or for the end of an event (stop) or diploma, where:

start = starts (of work, or in a training)

stop = stop (of work or in a training)

dipl: = diploma (bachelor for a training)

A couple makes examples perhaps still unsure clear how you the diagrams exactly must fill in:

Example 1 of study have changed you in January 1993 then it that two changes, namely in the diagram for training or study

1st change: 1, 93, dipl

2nd change: 1, 93, start

Example 2 if you are in December 1992 successful for a training, then in April 1993 a job has found and afterwards September 1993 to a part-time course beside that you have started, is that three changes, namely:

1st change: 12, 92, dipl

2nd change: 9, 93, start

3rd change: 12, 93, stop

Fill in the following:

Fill in the following:

<table>
<thead>
<tr>
<th>year?</th>
<th>1992</th>
<th>1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>start</td>
<td>dipl</td>
<td>start</td>
</tr>
</tbody>
</table>

For training:

1. (1 Oct 12) | 92 of 93 | dipl |
2. | 92 | start |
3. | 92 | dipl |
4. | 92 | dipl |
4 You have to fill the academic year 1992/93 in. Between 1 September 1992 and 1 September 1993, education followed or you were registered at an educational institution?
3.1 [if you are during that academic year of training chairman, answer the latter for first training]
1) yes, training in hbo or VWO (- -> go to question 5)
2) yes, another training (- -> go to question 5)
3) no, not at all registered (- -> continue with question 16)
5 If you followed education at an institution for HBO or VWO then we want to know what to know concerning your study progress in academic year (1992/93):

a. In 1992/93 I followed:

1. programme
2. head of department or director of department
3. partially graduated, partly third phase/ Maste's
4. in 1992/93 successful if it is promoted you to higher school year?
   1. no
   2. promoted
   3. failed/not promoted
4. not of application in my study you are not promoted
5. stopped with this study.
   If you have succeeded or have promoted, you can indicate then when?
   month, .... (figure 1 and 12), year .... (82 or 93)
   c. Which part of the programme which you in the academic year 1992/93, you followed had sufficiently wound up on 1 September 1993?
   1. 1 to 1/1 September 1993, percent of programme wound up if the academic year 1992/93 sufficiently
   2. a number between 0 and 100%
   d. can say also how many credits you have gained the academic year (1992/93)?
      1. yes, namely, points of total, points the programme of the academic year
      2. no, we get the credits
      3. no, that know I/not (- -> go now further with question 7)
6 If you followed 1992/93 other education (no HBO or VWO)

a. with education have you then followed?

b. you have the diploma of that training gained?

1. yes
2. no, only certificate
3. no, only thesis/examinations
4. no, I have taken for the examination
5. no, in examination done

c. If you have gained the diploma, you can indicate then when?
   month, .... (figure 1 and 12), year .... (82 or 93)
   7 How many hours per week do you have your previous academic year (1992/93) on average worked for:
   1. hour lessons/lecture per week
   2. hour practical/practical lessons per week
   3. hour house work/len/len preperation - selfstudy by yielded
   4. hour totally per week

How many weeks have you previous academic year (1992/93) to follow of a training period spent?
How many weeks have you previous academic year (1992/93) not worked for your study? (holiday, waiting inner paid
between study commitments, work, etc.)
Judgments concerning the study in the previous academic year 192/93

We are curious how you have the study in last your polite and how you look back they uh. And also at the appraisal of quality of (higher) the education becomes more and more important been attached to the judgment of students. Hence that we will use range judgment to you presents, with this request for at each pronouncement to what extent to indicate that pronouncement is appropriate at you. You can do this by giving a figure between 0 = zero not at all at my evaluation or experiences the academic year 192/93

10 = appropriate exactly at my situation or experiences in last academic year

In B. if you are judging academic year of training changed, reflect this answer for your first training.

Below we lay you pronounced for concerning heavens of the study at study that you have experienced. In general to be appropriate these judgments at your selection or experience in last academic year?

- Sufficient time required beside the study other matters...
- I have enough free time. Sufficient pupil life in college and working time...
- I must generally this way hard study that hardly have enough time set once what on bullfights to come...
- I have enough time sufficient prepare me to examinations...
- It is for me practically unfeasible for the pupil level it is successfully return to pass through...
- I have to large effort master the substance...
- My examinations the study frequently prevent me entirely to go up in my study...
- I feel the pressure of work load not very large...
- It is for me generally extremely unfeasible for swabb with the tent amm population to start...
- I cannot keep up the study tempo...
- At 1 or more comments left my knowledge and skills with which concerned

Then below now a range judgments concerning your attitude completed with study in general is commonly and concerning the study that you have chosen. In general are appropriate these judgments at your situation or experiences in the previous academic year?

- I am satisfied with my study choice...
- I can only study to puts...
- I have always more often for is another study (direction) to change...
- I use it available time as much as possible for rapidly study...
- I try always this way high possible obtain figure...
- I am satisfied concerning the study effort which have provided...
- I find it difficult mine strain for using reading study campaments...
- I have the incitation postpone obligations...
- My tall discipline is well...
- I am possible me generally during studying good to concentrate...
- The study is not what I had expected of it. It then falls me against...
- I know that I more easy in my study would have stoppen, but I can put myself to this end not...
- I find my study generally calling me...
- Have generally plagiarism in my study...
- I find it nice always new learn things in my study...
- If I think of my study I become什么东西...
- Generally I find, however, plagiarism for the study day at to start...
- I find my study in fact not this my interesting...

Judgments concerning environment, contact with the instructors and study accomplishment. To what extent to be appropriate these judgments at your situation or experiences in last academic year?

- The mutual environment at the factual method is concerning general good...
- I do not have the impression that instructors or hardly be interested in their students...
- Most of the instructors appreciate it when you then outside approaches colleges or working parties with questions...
- The instructors have sufficient for influence best at practical on what during the education happens there...
- It is easy by contact with instructors...
- I am generally disappointed concerning accessibility of instructors telephonically, on the institute...
- The instructors give your rapidity to hear or you well or not works...
- You off insufficiently given full details concerned on your work...
- Instructors and study consultant ensure sufficiently social-emotional support...
- My tutor (a) (if absent, my instructors) know me personally...
- My tutor (b) (if absent, my instructors) have always the good data at the band if you something asks
11 There is the last time much attention for how well studies in each other at. Thus there passed appeared year a report of comparison was on concerning student self-paced classes. The next range has judgments with that student self-paced choices at sample. To what extent those judgments are appropriate at your Mission is experienced in the previous academic year?
  ... the study of self-control of study companions to overlap each other too much.
  ... the organization and equation set up include a list of unproductive observations and last times.
  ... All (almost) each study component it has been in advance confessed how much time you are considered on
  ... unaided hours and spend how much to self-study.
  ... the study material is generally available.
  ... At the beginning of a program its there generally little to study (forced unavailability).
  ... initially it is generally under what you must do in preparation for an examination.
  ... the course had been this way set up that your never with more then 2 professors or study components at
  ... the same time busy are.
  ... I could get difficult aspects of the term sheet requirement.
  ... at the term end preparation one possible irregularity really do not state as I sufficiently master the
  ... substance (no little feedback).
  ... Giving is unfamiliar. On some stem of must you yielded a lot of dedication fowar and an other correctly
  ... complete title.
  ... Or more examinations were heavier than I in an reasonableness could have expected.
  ... Or more examinations were differently than the last exam requirement that the conferred products
  ... importance sharing the substance is just until for examinations treated.
  ... Following education is not necessary for the examinations to obtain.
  ... The books and study material often we insufficiently support for efficient study.
  ... Examinations and tests have been blown out proportionally concerning academic year.

12 Also personal circumstances and social-conflicts are possible an important role to play game to yes or on in study.

To what extent the following judgments are appropriate at your situation or experiences in the previous academic year?
  ... My own social situation known many temporal sources.
  ... I have sufficient friends under my students.
  ... I make easily new knowledge.
  ... I have sufficient contact with students.
  ... I feel myself often solitary.
  ... I feel the difficult contact to lay with students.
  ... I have sufficiently social contacts.
  ... I foresee my being situation as pleasant.

For me it was optimally study practically unfeasable by:
  ... obligations the study, not related to the study.
  ... obligations that the study, however relevant to the study.
  ... because I have been sick or physically mental not or optimum condition was
  ... because I could considerate not well if I tried study.

13 Further what's clearly all what to know concerning your experiences with working circumstances in your school or Institute during last academic year.

In the span where I must because of my study regulate I have to be frequently impacted of (circum what kind of study applies).

1  yes 2 no

1.2 unpleasant temperaments (total, wryth, dissatisfaction)
1.2 uninteresting to (day: well-education, infeasibility)
1.2 fail intelligibility of instructors
1.2 insufficient amount of safety regulations
1.2 insufficient and/or infeasible tables
1.2 found uncooperative body students (such as: uncomfortable to sit, no good studies inside)
1.2 bad computer supplies
1.2 base-line supplies
1.2 bad and/or insufficient study space
1.2 bad computer facilities
1.2 and full systems of education/univers room

14 Most of the education situations arise there to for quality of the education to improve. One of the fundamentals at these quality control to be regular evolutions.

a. have more the previous academic year evolutions of quality education need of by you taken place?
  1 yes, regular
  2 yes, ocassional
  3 no, not taken place
  4 I do not know I not
b. you yourself involved in the previous academic year at evolutions of the quality of the education?
  1 yes, regular
  2 yes, ocassional
  3 no, not involved are
c. you think that it is significant as you or your students them judgment gives concerning the quality of the education?
  1 yes, that can lead to better education
  2 no, never/always to students it's not listened
C3-15

15. Finally, questions, we you still for the previous academic year his whole looking at your end to give concerning the three followings judgments (with a scale between 5 and 10):
   1. I am satisfied concerning my study in past academic year
   2. I am very satisfied concerning my study in past academic year
   3. I have received a good amount of feedback concerning my study in past academic year
   4. I have received a lot of feedback concerning my study in past academic year
   5. I have received a lot of good feedback concerning my study in past academic year

C situation at this moment

16. Do you follow education on 1 November 1993 still?
   1. no
   2. yes

17. Do you have the education to leave?
   1. no
   2. yes

18. Which diploma have you in the past obtained? (If you several diplomas have joined can you figure also several figures)
   1. diploma
   2. Mavo-diploma
   3. Havo-diploma
   4. Vwo-diploma
   5. diploma briefly middle professional education
   6. diploma of a training in the student being
   7. diploma
   8. HBO-diploma (first year)
   9. HBO-diploma (first year)
   10. HBO-diploma
   11. HBO-diploma
   12. diploma of a training in the student being

19. You have for or during your (present or absence of work) training gained in the Wo or HBO administrative experience? (For example for an administrative education institution at being then)
   1. no
   2. yes

20. How is your situation now (circle the number that most with your situation corresponds),
   1. I have a job or paid employment
   2. I have my own company/shop
   3. I cooperate in family company (shop, farm etc.)
   4. I am present in military service
   5. I have no job, but missing work
   6. I have no job and I seek work also
   7. I work in the household
   8. differently, namely

21. How many months, apted if you for your first job found since leave of the education?
   1. more than a year
   2. more than a year
   3. month
   4. month
   5. month
   6. month
   7. month
   8. month
   9. month
   10. month

22. How much time you have applied since you the education has left?
   1. time applied
   2. time applied
   3. time applied
   4. time applied
   5. time applied
   6. time applied
   7. time applied
   8. time applied
   9. time applied
   10. time applied
C3-4 (end 93) p 2a

25. If you do work now paid, you can indicate then which level of education best dovetails the work which you perform:
0 0 of application, I do not do none paid work
1 Lepalana
2 Higher General (Secondary Education
3 Student being
4 Mba
5 Vdc
6 Hbc
7 Wb

26. If you do now paid work, how many hours works you have in the week?

hour per week

(b) can indicate you to which company sector the venture and or institution belongs?

Industry
1 agriculture and fishery
2 industry
3 construction and instalation companies
4 public usefulness companies
5 service business
6 art
7 catering services
8 transport and communication
9 banking
10 insurance
11 accountancy
12 remaining service business

remaining service
13 University/High colligation education
14 remaining education
15 scientific research
16 health care
17 social institutions
18 socio-culture institution
19 remaining health services
20 remaining sub-support authorities
21 remaining service not-business
22 not of application

Find you feel the level of your current function corresponds with your competencies?
1 this function had been paid attention law to my competencies
2 these functions do not fall to my competencies
3 these functions have been mild attention sign to my competencies

What satisfied are you with the work which you have now? Give forth a figure between 0 = absolutely dissatisfied and 10 = (extremely satisfied)

7.4

What are your net income per month from labor (remuneration) and/or from a benefit? (E.g. p. wind up on complete grid)

1 my net income labor is 1.............. per month
2 I have a benefits of (net) 1.............. per month

How satisfied are you with entering which you have now? Give forth a figure between 0 = absolutely dissatisfied and 10 = (extremely satisfied)

figure

35. You, afterwards, would consider again choose for the education that you have now followed?
1 yes, I again the same classes
2 no, I would sit listen to a training of more lower level
3 no, I another training (not-discoop, specificates a choice, namely

26. Do you follow a course at this moment?

1 no, I follow course
2 yes, I follow a course by means of the company or the institution where I work
3 yes, I follow a course (not means of my work)

If you follow a course:

How many months lasts the course?............. months

With which aim do you follow you the course? 1 = yes 2 = no
1 to prepare me to new activities 1.2
2 to increase your possibilities 1
3 to be promote come concerning a nice subject 1.2
4 the course concerns already as my field 1.2
27 How you think that you will be in 1 year (autumn 1994) will be:
1. I think that I will be in 1 year will follow
2. I think that I will be in 1 year will follow (in combination with work)
3. I think that I will be in 1 year will follow
4. I know for sure.

28 You think that you will study in the future still or towards a training will go? That is possible (fill in one answer) but study year are also with confirming a couple of year after you finish what differently has done.
1. Yes, as possible (in the future), however, further to study
2. Yes, will follow only still but courses
3. No, I will study another more fundamental
4. I know (fill in)

Fill in now only the questions of this part (question 47 and 48) still:
Put a cross if you.
E. Questions if you (fill in education) at this moment, however.

Do 29 what kind of study/training is followed you at this moment? (All you more than 1 study follows, fill in this question than for your most important study, see question 31 you can mention second study.)

a. I follow education

b. The education, which I follow at present is:

c. The title of the course or study is officially:

1. Year and...
2. Names:
3. Department:
4. Auditor:
5. The level or which I study follow is:

6. Title
7. MSc/MPhil/MBA (first year programme)
8. MBA/MPhil/MBA (first year programme)
9. MBA/MPhil/MBA (first year programme)
10. MBA/MPhil/MBA (first year programme)
11. MBA/MPhil/MBA (first year programme)
12. MBA/MPhil/MBA (second phase training)
13. Differently, name:

f. If you follow a training in bibli or the way a, which sector talks that training?

More higher education education/africa education

1. Economy
2. Sociology
3. Health
4. Agriculture
5. Laboratory
6. Geographical
7. Art
8. Art education
9. Language and culture
10. Technique

30 We want gladly know how far are you now in your

a. Which part of your programme if the study you had constructive wound up to 1 September 1993?
1. No
2. Some
3. Complete

b. Also in your study did you see a cumulative point of the individual programme of this study?

1. Yes
2. No
3. How many credits
4. How many credits

31 You have, on the basis of your training, also crystalized(s) get partly of his study?

1. No
2. Yes, for the stop of approximately
3. Yes, for the size of approximately
4. None

5. Name:

6. Department:

7. Title of the course:

8. Name of the auditor:

9. Level or which I study follow is:
31 You follow a Second beside the called study who still study?
1 no / 2  yes, namely ........................................

32 How do you think regards whilis to second study?
1 students(judge) full-time
2 students(judge) part-time
3 extramural
4 auditor

33 How many hours per week you spend on training lessons + practical/preserved tests + preparation/house work etc.? I spend normally per week on (therefore not what you must but what you actual does)
... hour follows of first college/college per week
... hour at barke study/library per week
In busy weeks it is ... hour more
In quiet weeks it is ... hour less

34 In 1982, we have asked you for your motivation for your study. You can indicate now motivation over years needs for study that you follow at this moment? Below become number of arts called. We ask you for at each item to at you want which role plays it in your judgment concerning attractiveness of the study. You can do this giving a figure between 0 and 10: this combination plays totally a role
10: this combination plays an exceptionally strong role
... I find the subject of this study interesting
... By following this study I think later independent work perform to be able
... By taking this study I think later a confident function have to be able
... By following this study I think later in career get paid job to be able
... By following this study I can following this study a current profession to will exercise
... This study follow I on an education institution which near is the builts
... I find this study not difficult for me
I expect this study within (finally) the course require work up to be able

35 You can your motivation for the study/training in September reflect 1982 and September 1983 with a figure between 0 and 10?
... my motivation in September 1982 was ...
... my motivation in September 1983 was .......

36 Are will you obtain the end diploma?
1 yes, to my current education institution
2 yes, but probably to another education institution
3 I don't know what is it
4 no, this does not interest me

37 If you answer 3 or 4 (no or that depends of it) can you indicate then in which factors it does depend? (you can maximum two answers)
1 of my diploma for the study
2 of my motivation
3 of my decision to change to another study
4 of my financial situation
5 of my personal situation
6 of my health

38 How large you consider the chance of obtaining the end diploma of the study/training which you follow how?
1 myself ...
2 the chance for the end diploma at to obtain

39 If you would finish this training how long you expect there then concerning to have done in sum does not that end diploma at obtain?
... if I finish it expect there ... year and ... months concerning to have done (as from the start of this study)

40 Has you at this moment plan for after wind-off of your current training (if/then) to study in the higher education?
1 no, I have (still) no concrete plans
2 yes, (negotiate) a hbo-training
3 yes, I have professional training in (for example in newark or professional education)
4 yes, (improve) WO-training
5 yes, WO a training for hbo certificate
6 yes, also training in the WO (prempinent)
7 yes, also phase of professional training in the WO (for example education for general practitioner or industrial diseases)
8 differently, namely .....................................
3) Know you already what kind of work you (ever) want to do, what for type profession you want exercise in? We application you (in) to give few clarify your picture is of it by below a figure to circle. if you have really absolutely so idea, then you circle the figure 1; but if you very exact know which profession will choose you and which work you (ever) go do, then you circle the figure 9.

I have that know [ ]
I have none [ ]
1.2.3.4.5.6.7.8.9 idea-exact [ ]

40 How many months think you that you after gaining diploma necessary in find a job?

3 months [ ]
6 months [ ]
10 months [ ]
2 years [ ]

41) You make sometime have yourselves-concerning the chance in a job which with regard to nature and level being appropriate at your training?

1 yes, very regular [ ]
2 yes, regular [ ]
3 no, sometimes [ ]
4 no, almost never [ ]
5 no, never [ ]

42) You believe want take with a job under the level of the diploma which you then not has obtained?

1 no talk [ ]
2 perhaps, ... months [ ]
3 if the work seems me nice [ ]
4 I want always know from which sources you (in) study finance. We application you for this reason for the month of October 1993 to give which outcome has you from each of mentioned below measuring sources. (5 = p. Wind up on complete guidelines)

My income in October 1993 was:
- basic grant f. ........... [ ]
- additional grant f. ........... [ ]
- study loan f. ........... [ ]
- contribution parents/guardians f. ........... [ ]
- contribution partner f. ........... [ ]
- income from own effort f. ........... [ ]
- income from benefit f. ........... [ ]
- differently, namely f. ........... [ ]
- total f. ........... [ ]

How satisfied are you with your current income? Give for that a figure between 0 (extremely dissatisfied) and 10 (extremely satisfied).

44) What is your living situation at this moment?

1 living with parents [ ]
2 living independently with a family [ ]
3 living independently in a student flat [ ]
4 living independently in a private room [ ]
5 independent living space [ ]
6 other, namely [ ]

45) Intend you for beside this study (possibly temporary) paid work perform to will in or (so) that now already?

1 yes, I work already beside my study [ ]
2 yes, I am will perform work in future [ ]
3 no, I am not will work of plan beside my study [ ]

If you work or work will been beside the study, how much hour per week is this?

hour per week [ ]

If you work, this work downfalls then training which you now follow?

1 yes, it disturbs my current training [ ]
2 no, it has do nothing with my training [ ]

46) How you think that your situation will be approximately a year (autumn 1994) will be?

1 I think that I then still my current will follow study/training [ ]
2 I then think I have then the diploma of my current study gained and another study will follow [ ]
3 I think I then the diploma of my current study gained and so education will follow [ ]
4 I think I then (without having my current study finished) will follow another study [ ]
5 I think that I then (without having my current study finished) no more education will follow [ ]
F look questions for everyone
17 There is the last year much discussion concerning the institution of complete systems of higher education in the Netherlands. It goes less for examples for the vocational qualifications of training in the WO versus those of training in HBO. Also go there regular voting on for, under reliance to the situation in V.S., more provincial differences to introduce between institutions for higher education.
You can give a judgment concerning judgments mentioned below on this area, where:
0: totally in disagreement
10: entirely since

... the title after completed a HBO-training equivalent to the ________ title after WO-training must be...
... the higher education do not have "is the point", but select more during the study...
... also at the occupation directed training in HBO must get students the possibility to continue investigation...
... just after one or two years higher education you the choice must make for in scientific or occupation directed specialization further to go...
... the grading of the university must be reserved for people with a really scientific interest...
... the existence of prestige differences between institutions for higher education will contribute to the quality improvement of the higher education...
... my institution itself on the point of prestige difference much more clearly profile themselves...
... for the very best students here appellation more high education institution must be...
... I study (Re) for my study to the best institution in the Netherlands...
... the graduates of my study direction telling to the top of the Netherlands...

48 At the decision yes or no to continue with study or to a study to start again, be possible considerations all kinds of a role to play. Below we do have a number of reasons concerning. We ask you to indicate each pronouncement to as how you agree or disagree. You can do this by a figure of the
0: this pronouncement is not appropriate completely at me
10: this pronouncement is appropriate exactly at me

... I find to learn nicely...
... On a small college or university s, and I terrible...
... Be I can study my interests expand...
... I want deliberate to build my own destiny...
... With a wound up study I think a higher position at are possible reach...
... A training to finish will last me a long...
... I can develop myself in studying...
... I find personal video rags in studying...
... if I study further how I now work still no so so zoom...
... I have of to learn enough...
... Without further to learn I can get nice work...
... I must棋牌 on a job will make if I further-study has followed...
... I have min. a chance on a high income if I further-study has followed...

Thanks again warmly for filling in.
Third Fellow-up Survey – November 1994

A events in last year
1 We-asked return still just as on the situation such as that previuos-year September (1993) were. This information hints you up for previous questionnaire probably already, however, given, but it is usually easier for suitable changes or make if you can give this step by step to: Is there talk of work if at least 7 hours per week involved anywhere, there is talk of a training/study as hours there at least 5 per week involved (ields) My situation on 1 September 1993 was:

- In the field of Training/study:
  1. I followed the same training/study as for summer holiday of 1993
  2. I started a new training
  3. I followed no education

- In the field of Work:
  1. I had work
  2. I sought work
  3. I had no work and sought work also no

2 Any year between the beginning of the previous academic year and now (1 September 1993) up to and including October 1994 of variation change? We ask you whether if you have changed to another training or have stopped with a training, started to or stopped with (seek) a job, or changed jobs at all in short of changes which to make have with school/study and work. (You can possibly two possibilities tick)

1 no, year (1993) previous since September has been there nothing changed to work or training (...) (> > question with answer 4)
2 yes, years (1993) previous since September have been there one or several times something changed to work (started or stopped) (...) (> > continue with question 5)
3 yes, years previous since September have been there one or several times something changed to training (started, stopped or succeeded) (...) (> > continue with question 3)

3 If you have changed 1 September 1993 since of training or, than we want know the way glad! exact possible what have this happened and when. For that we have a diagram there which we ask fill in you. Read a v.p. they will the explanation and the examples. (Does not come call you good, hesitate then not our even, the phone numbers filled in the introduction of these instructions.)

Explanation of the diagrams:
Finally we want grade the month and the year know in which you have changed of work or training/paralel, January = 1, February = 2, etc. Further indicate whether you ask always or it concerns the beginning (start) or for the end of an event (stopper or diapason), where:
- stands = stands (of work or of a training)
- sto = stop (of work or of a training)
- dipl = diploma (ballet for a training)

A couple multiplies examples perhaps still more clear how you the diagrams; exactly must fit in:

Example 1 of study have changed you in January 1994 namely in that two points, namely:
in the diagram for training/study
- 3 change: 1, 94, stood [stayed for training]
in the diagram for training/study
- 2 change: 1, 94, used [used with other training]

Examples 2 if you are in December 1993 suddenly for a training, true in April 1994 a job has found and afterwards September 1994 to a part time course besides that job have started: Fit that three changes, namely:
in the diagram for training/study
- 3 change: 12, 93, dipl [suspended for training]
in the diagram for training/study
- 2 change: 12, 93, stand [stayed for training]
in the diagram for training/study
- 1 change: 4, 94, stand [started with work]

Fill in now the diagrams.
My change (on) of study and training is (the):

1 You have the additional year 1993/94 (between 1 September 1993 and 1 September 1994) education followed or were you requested at an education institution? (H3. as you during that academic year if training have changed, give then answer for your last period)

1 yes, training in not or Wo (...) (> > go to question 4)
2 yes, another training (...) (> > go to question 4)
3 no, not at all registered (...) (> > continue to question 3)
5 If you followed education to an institution for hbo or wis then we want gladly what to know concerning your study progress in said academic year 1993/94:

a. in 1993/94 followed:
   1. ... programme
   2. ... level 3 phase or doctoral programme
   3. partly propedeutic, partly basic phase: ...'s
   4. ... second phase training
b. in 1993/94 successfully admitted to higher school year?
   1. successfully propedeutic
   2. promoted to...
   3. and diploma gained
   4. ... promted
   5. ... of application in my study you are not promoted
   6. stoped with this study

If you have successfully or have promoted, you can indicate then when?
  1. mon.
  2. ... (figure 1 and 12), year ... (93 or 94)
c. what part of the programme: you in the academic year 1993/94, you followed had sufficiently wound up on 1 September 1994 or did I 1 September 1994 further part of the programme wound up of the academic year 1993/94 sufficiently (84 a number between 2 and 100 as)
d. can say also how many credits you have gained the previous academic year (1993/94)?
   1. yes, namely... points of total... points in the programme of the academic year
   2. no, we did not credits
   3. yes, still knowledge I not ...

If you followed in 1993/94 other education (no hbo or wis):
   a. which education have you then followed?

b. you has the diploma of that earning gained?
   1. yes
   2. no, only certificate
   3. no, only theory examination
   4. no, if I have taken for the examination
   5. no, no examination done
c. if you have gained the diploma, you can indicate then when?
  1. mon.
  2. ... (figure 1 and 12), year ... (93 or 94)

7. How many hours per week you have previous academic year (1993/94) worked for:
   ... hours lessons/lectures per week
   ... hours practical/actical lessons per week
   ... hours work/study amst. preparation = self-study by yielded
   ... hours totally per weeks

How many weeks have you previous academic year (1993/94) to follow a training period spent?

How many weeks have you previous academic year (1993/94) not worked for your study? (halfday, waiting-times paid between study components, work, etc.)

weeks

8 Situation at this moment

8 a. Do you follow education or 1 November 1994 still?
   1. yes, I have full-time education -- go further with question 21 (component D)
   2. yes, I follow education part-time -- go further with question 21 (component D)
   3. no, I follow only courses -- go to the next question (component C)
   4. no, follow at this moment another work-experience -- go to the next question (component C)

C questions as you at this moment, only one couples or no education follow up

9. When do you have the education to have?
   1. mon.
   2. ... (figure between 1 and 12)
   3. year ... (91, 92, 93 or 94)

And have you completed that education with a diploma?
   1. no, I have stopped obtaining the diploma
   2. no, only certificates
   3. no, only theory examination
   4. yes, I have obtained no diploma, as it happens: ...
10. Which diploma etc. have you in the past obtained? (you can have more than one diploma)

1. Diploma in Diploma
2. Maro-diploma
3. Mavo-diploma
4. Vwo-diploma
5. Diploma from middle profession education
6. Diploma of a training in the student working situation
7. Diploma in Diploma
8. HBO-Williams (first year)
9. HBO-propedeusus (four-year)
10. HBO-endo-diploma
11. HBO-doctoral diploma
12. A different diploma

11. You have for or during your (presence of absence of wound up) training obtained in the WO or HBO administrative experience? (for example for associates, education inspection or similar group)

1. No
2. Yes, briefly

You have for or during your training in the WO or HBO your field relevant work experience acquired? (This is possible both paid and unpaid work is taken possible training period into consideration)

1. No
2. Yes, in same or different job for one year
3. Yes, in same or different job for more than one year

During your training in the WO or HBO work for at least 12 hours per week?

1. Yes, during whole training
2. Yes, during at least one year
3. Yes, but less than one year
4. No

12. How is your situation now? (circle the number that most with your situation corresponds)

1. I have a job in paid employment
2. I have my own company/shop
3. I cooperate in family company/shop
4. I am present in a military service
5. I have a job that is not connected to the profession
6. I have no job and I seek work also no
7. I work in the house/yard
8. Generally, namely...

13. How many months lasted for you your first job found since arrival of the education?

1. Total of applications, because no job have or sought
2. Worked already longer than the education left
3. ... months (kind of my first job)

How much time you have applied since you the education has left?

14. If you do work now, paid, you can indicate which level of education best available the work which you perform:

0. Not applicable. Do not do any paid work
1. Lower secondary
2. Higher General Secondary Education
3. Student being
4. Mbo
5. VWO
6. HBO
7. WO

15. If you do now (paid) work

a. How many weeks works you turn in five weeks?

b. Can indicate you to which company sector the venture or acquisition belongs?
C4. List (end 94) p. 32

Industry
1 agriculture and fishery
2 electricity
3 construction - and installation companies
4 public usefulness companies

Service business
5 tot
6 catering services
7 transport and communication
8 banking
9 insurance
10 accountants' offices
11 consultancy
12 remaining service business

Remaining service
13 university/Higher education profession education
14 short-time education
15 scientific research
16 health care
17 social insurance
18 social-cultural institutions
19 remaining service business
20 remaining sub-national authorities
21 remaining service not-business
22 not of application

Cinds you that the level of your current function corresponds with your competences?
1 this function has been paid attention low to my competences
2 these functions has been paid attention good to my competences
3 these functions have been paid attention high to my competences

d how satisfied are you with the work which you have now? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

figure:

16 What is your net income per month from job or (remunerations) and/o ' rom a sideline? (G.v.p. wind up on complete guilders)

my net income labour is f._________ per month

I have a benefit of (out) f._________ per month

How satisfied are you with entering which you have now? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

figure:

17 You, afterwards, would consider again choose for the education that you have now followed?
1 yes, I again via same modules
2 no, I would set limits than to a training of more lower level
3 no, I want in training (study direction, specialisation) choose, namely: ____________________________

18 Do you follow a current at this moment?
1 no, I follow no course
2 yes, I follow a course by means of the (pupilship) or the institution where I work
3 yes, I follow a course/not by means of (my work)

If you follow a course:

how many months lasts the course? ______ months

With which aim or follow you this course? 1 yes 2 no
1 to prepare to me to new activity 1.2
2 to increase career possibilities 1.2
3 more to be possible cut 'me concerning a nice subject 1.2
4 the course concludes with an acknowledged diploma 1.2
5 or certificate, namely:

19 How you think, that your situation over approximately a year (autumn 1995) will be?
1 I think that I study then full-time will follow
2 I think that I study then part-time will follow (in combination with work)
3 I think that I study then none will follow
4 I know it not

20 You think that you will study in the future still or towards a training will go? That is possible therefore next (but study) year are also just concerning a couple year after you firstly what differently ha 's done.
1 yes, 1 go (possibly in the autumn future), however, further to study
2 I will follow only still but courses
3 no, I will study never more/finish
4 I know it (still) not
Fill in only the questions of part f (question 19 and further) still in; Part d and e can skip you.

Do 21 what and all study/training follow you at this moment? If you do, write in capitals.

C4-31st (end 94) p 35

21. a. name education (name institution/school): ..................................................
      place: ........................................................................

      b. The education which I follow at present is in full: ......................................

      c. Training course tests officially
         for your most important study, at question 23 you can mention a second study:
         1. Student/Student - full-time
         2. Student/Student - part-time
         3. Examinations
         4. Auditors

      d. I stand registered as:
         1. Mbo
         2. Mbo sequela (first year programme)
         3. Hbo Hoofd fase
         4. Hbo shortens programme (briefly hbo)
         5. Wbo proopedeus (first year programme)
         6. Wbo Hoofd fase (doctoraal programme)
         7. Wbo shortens programme (short Wbo)
         8. Wv postgraduate programme (second phase training)

      e. I study the following (please name the year and months)

      f. If you follow a training in hbo or the vwo in which sector falls that training?
         More higher profession education scientific education
         1. economy
         2. socially aggie 2 social sciences
         3. health 3 health
         4. agriculture 4 agriculture
         5. laboratory 5 laboratory
         6. pedagogical
         7. law
         8. set education 8 language and culture
         9. technical 9 technique
         10. so classify 10 to classify

      22. We will now ask you how far you have in sum m=9 progressed in this study.
         a. Which part of total programme of the study you had cumulative wound up on 1 September 1994?
            oh I had on 1 September 1994 ______ percent of total programme wound up of the study sufficiently
            (fill in a number between 0 and 100 m)

         b. Also you can say how many credits you have by 1 September 1994 cumulative had gained of total programme of this study?
            1. yes, namely, ______ points of hbo, ______ points total course
            2. no, we get no credits
            3. no, that I not

         c. You have, on the basis of your experience, also of your training(s) get partly of this study?
            1. no, no exemption
            2. yes, for the sum of approximately ______ credits
            3. yes, for the sum of approximately ______ months study

         23. You follow a second beside the called study also still study?
            1. no (- - > go to the next question)
            2. yes, namely, ______________

         how do you actually registered that second study?
            1. Student/Student - full-time
            2. Student/Student - part-time
            3. Examinations
            4. Auditors

         24. How many hours per week you spend on training (lessons + practical/practical lessons + preparation/house work etc.)?
            1. spend normally per week to (therefore not what you must, but what you actually then)
               ______ hour in total of lessons/practical in week
               ______ hour at home study/teaching in week
               ______ hour in busy weeks it is ______ hour less

         25. You can name your reasons for the study/training in September reflect 1993 and September 1994 with a figure between 0 and 10?
            my motivation in September 1993 was ______
            my motivation in September 1994 was ______
26 Are you going to plan the end diploma?
   1 yes, to my current education institution
   2 yes, but probably to another education institution
   3 not, that depends on it
   4 no, that does not interest I

If your answer 3 or 4 is (no or that depends of it) can you indicate then on which factors it does depend? (you can maximum two reasons circle)

   1 of my aptitude for the study
   2 of my motivation
   3 of my decision to stay to another study
   4 of my financial situation
   5 of my personal situation
   6 of my health

27 How long are you planning the chance of obtaining the end diploma of the study/training which you follow now?
   1 give myself ______ percent chance for the end diploma at to obtain

(58 in number between 0 and 100)

28 If you would finish this training how long you expect there then concerning to have in sum done for that end diploma at obtain?

   If I finish it I expect there ______ year and ______ months concerning to have done (as from the start of the study)

29 Has you at this moment plan for after round-off of your current training (further) to will study in the higher education?
   1 yes, I have (still) no concrete plans
   2 yes, (regular) a hbo-training
   3 yes, 2 phases profession training in hbo (for example framework - or continued training)
   4 yes, (regular) Wc-training
   5 yes, kort-Wo a training for hbo-certificate
   6 yes, Art-training in the Wo (promotion)
   7 yes, 2 phases profession training in the Wo (for example education for general practitioner or industrial devices)

8 differently, namely

30 How many months think you that you after gaining diploma necessary to find a job?
   1 not of application: I seek provisionally no paid job
   2 if I expect after approximately ______ months a job to have

31 You make sometimes look yourselves concerning the chance on a job which with regard to nature and level being appropriate is at you training?
   1 yes, very regular
   2 yes, regular
   3 yes, sometimes
   4 no, almost never
   5 no, never

32 You pleasure want take with a job under the level of the diploma which you than net has obtained?
   1 no talk
   2 perhaps … months
   3 if the work seems me nice

33 We want gladly know from which sources you the study finances. We application you for this reason for for the month of October 1984 to give which income has you from each of mentioned below financing sources. (S. v. p. wind up on complete guidance)

My income in October 1984 was:
   - basic grant f__________,
   - additional grant f__________,
   - study loan f__________,
   - contribution parents/guardians f__________,
   - contribution partner f__________,
   - income from own labour f__________,
   - income from benefit f__________,
   - differently, namely f__________,

34 How satisfied are you with your current income? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied)

35 What is your living adv=fom at this moment?
   1 living with parents
   2 living independently with a family
   3 living independently in a student flat
   4 living independently in a private room
   5 independent living space
   6 other, namely
35 Intend you for beside the study (possibly temporary) paid work perform to will or you do that now already?
1 yes, I work already beside my study
2 yes, I am working work of plan beside my study
3 no, I am not will work of plan beside my study
If you work or work will steek beside the study: how much hirer per week is this?
hour per week
if you work, this work dooets this training which you now follow?
1 yes, it dooets my current training
2 no, it has nothing with my training
36 How you think that your situation over approximately a year ( autumn 1995) will be?
1 I think that I then still my current will follow study/training
2 I think that I have then the diploma of my current study gained and another study will follow
3 I think that I have then the diploma of my current study gained and no education will follow
4 I think that I then (without having my current study affirmed) no more education will follow

E. questions for the who now stand in the higher education (Wo and Hbo)
If you no longer study or a training outside higher Education follows, continues then with the questions from the last component of question (part 1, questions 39 and further).
37 I find annually there at several training in more higher education: * visitations * place: Is examine to quality of the education at concerning training, outcomes are made public visitor reports.
a. You can say if your study in the previous years has been visited?
1 yes, a visitation has taken place
2 no, no visitation of my training has been (- > continue to question 38)
3 that know I not (- > continue to question 38)
b. You have taken knowledge of the outcomes of visitation report of your training?
1 no (- > continue to question 38)
yes, by means of:
2 the booklet of the university/college
3 rural or regional newspapers
4 the report itself
5 differently namely...
c. You have done something with the information from visitation report?
1 no
2 yes, uses at my own education choices ( e.g. specialization, bridge, switches of study, etc.)
the 3 yes, agents for the education (faculty Council, instructors, etc.) there addressed on (possibly together with other students)
4 yes, differently, as it happens...
38 In practice many students go after graduating still further study in the higher education (Wo and Hbo). We want get to know in which situations would you... after round-off of your current study, to start to new training the higher education. You want indicate which of the four alternatives
1 no continuation study in-no Hoo more
2 full-time continuation study in the Hoo
3 part-time continuation study in the Hoo
4 only some professors from the Hoo
your preference or in the following (hypothetical) situations?
a. current situation, with my current inscrption and rights to study financing, are my preference:
(b) number between 1 and 4 from the list above
b. I like the continuation study in the Hoo only interest-bearing loan and no grant could get, them my preference would go out to:
(c) number between 1 and 4 from the list above
c. if I for this continuation study, however, my current study financing rights, but also "cost" of that training would have pay (at four-time study annual college money of such K000 same alpha and range study to 20000 for some technical and medical studies), then my preference would go out to:
(d) number between 1 and 4 from the list above
d. if I must lend with everything and must pay the cost (combination of situation b and c), then my preference to go out to:
(e) number between 1 and 4 from the list above
C4 list (end 94) p 38

F Lack questions for everyone

39 This research concerns choices for work or no (to gain/m) to study. We want you (nearly) all of you (how many you still think education will know and which educational level you eventually want to reach will)

a how much education /training will you feel? (e.g., how long on complete year)

1 I think I'm still /... you full-time education to follow and still/... your education part-time (begin with or other occupations)

b of which additional level/extends you eventually diploma/have gained?

1 only continued education

2 training/training training

3 thesis proposal training in the (for example framework - or continued training)

4 thesis proposal training in the (Where)

5 thesis proposal in the (promotion)

7 thesis proposal training in the (she for example education for general practitioner or/industrial designer)

40 How many years had you at the beginning of this study year still after to registration as a student in the higher education?

1 I had at the beginning of this study year (September 1987) still right - year registration as a student.

2 That know I not

And how much year were you entitled to a bachelor grant?

1 I had at the beginning of this study year (September 1987) still right - year bachelor grant

2 I had known/ I not

41 Many of you are during the duration of this research between the summer of 1994 and now) changed of study or even stopped with study, without gaining the end diploma. When this applies also to you, then we want you (nearly) all the most important reasons know for switching or stopping with the study. You want in the list mentioned below three to five most important reasons written? (You can not more than 10 figures cut)

Goal of justification: not switched or not stopped without end diploma to obtain

1 I found the study not interesting

2 I found another study more appealing

3 the study was for the too difficult

4 the study was for the too easy

5 I found the environment under the students unpleasant

6 the study was part with the pessimistic were unsuitable

7 I found the study too practically-oriented

8 I found the study too theoretical

9 I preferred a paid job

10 afterwards was nevertheless study nothing for me

11 I found a place in a nice week after the study too small

12 I found the chance on a good job after the study too small

13 by my financial situation I had to stop study

14 by personal problems I had to stop study

42 Training shifts or changes in which there the emphasis lies on independent acquisition of knowledge or on independent developing of knowledge. For which type considers training you itself most suitable? You can indicate this by below a figure which to cross between these possibilities. Independent to apply

1 2 3 4 5 6 7 8 9 to develop

43 As a result of the plans in the younger government declaration has been agreed that a discussion is started the scheme for higher education. One of the elements that discussion is the question of how and WU for student students new top-opting must get (master's + training) and for the remaining students three-year 'bachelors' training.

a if now a master training would exist, which you think that you a good chance would make to be selected to such a training (independent of the question if you that also would want/)?

1 yes

2 no

3 I know not

b do you also adjusted want become to such master training (independent of your chances an admission)?

1 yes

2 no

3 I know not

c which chance would there you that you take approximately between students of your training (or, if you now no longer study, trust during your last study)? (belonging to)

1 the 1 best 15% of the students

2 best half of the students

3 less skilled half of the students

4 than I do not depewh know
A study career

1. How long have you had a degree course? Your judgment concerning the quality of a, your further (study) plans, etc. Nevertheless, you must still once a week, in a specific way, and everyone always had an examination, could return to the questions we sent for this reason for you at questions time. I will present your study career to reflect. Use the main concern here on the left-hand page before you end with the start of the next one (September 1991) following. Afterwards we ask for some personal opinions, which you will remark. Finally you can in question 2 (possibly temporarily) reconstruct your study career, indicate.

1. Which study followed you in September 1991 (Four years ago?)

2. Name of the study:

* section of the study:
  1. economy
  2. social
  3. health
  4. agriculture
  5. olimic science/chemistry

* type study:
  1. HBO
  2. Wo

* When did you start with this study?
  2 months... (1-12) year...

* You have this study concluded?
  1. no
  2. yes, I have gained the end diploma
  3. yes, I have stopped obtaining the end diploma

If 2 or 3, when diploma gained or stopped?

* If 2,(1-12) year...

2. As you approach September 1991 still quiet. (Continuation.) Studies are in follow,. Want you that then is the next goal as indicated? (Use the name of the study and source of the study the figures, such as those above at question 1 has been used.) (Measured possible 5 studies at the 5th the question). If you have had your study (s) since September 1991 sometimes temporary interrupted?

1. no

2. yes, namely:
   1. in 1991, during... months
   2. in 1992, during... months
   3. in 1993, during... months
   4. in 1994, during... months
   5. in 1995, during... months

Last academic year study followed?

4. You have in the academic year 1994/95 (between 1 September 1994 and 1 September 1995) education followed or was you expelled in an education institution? (If yes, including this academic year of training have changed, give the then answer for your first training)

1. yes, training in your Wo (-> go to question 5)

2. yes, another training (-> go to question 9)

3. no, not all-registered (-> continue to question 10)

study course to the previous academic year

5. If yes, follows education is an institution for HBO or Wo then we want gladly what to know concerning your study progress in past academic year (1994/95):

a. In 1994/95;

   1. programme

2. head phases or doctoral programme

3. partly proficient, partly rapidly phases/Master's

4. Wo-second phase training

b. in 1994/95 successful or if you promoted you to higher school year?

1. successful promotion

2. promoted

3. diploma gained

4. diploma not reached

5. no application in my study you are not promoted

6. stopped with this study

If you have accomodated or have promoted, you can indicate then when?

* month... (Figure 1 and 12) year... (94 or 95)

C. which part of the programme, which you in the academic year 1994/95 you followed had sufficiently wound up on 1 september 1995.

   1. completed 1 September 1995...

   2. percent of the programme wound up of the academic year 1994/95 sufficiently
6. Can you also how many credits you have gained the previous academic year (1994/95)?
   1 yes, namely.... points of load...... points the programme of the academic year
   2 no, we got to credits

Since the academic year 1993/1994 has initiated so-called temporary grants. When students gain less study progress that 75% of the education programme of the study year (the standard), they are in with retroactive effect converted into interest-bearing loan. We have waited gladly to hear you have the setting-up of tempo grant has gained his study progress standard.

Do you hold, according to your education institution, in academic year 1994/95 the standard of 25% study progress gained?
   1 yes
   2 no
   3 that know I not

If private is for your grant to put in interest-bearing loan, is you then against that decision on appeal gone?
   1 yes, and the profession has been granted
   2 yes, but the profession has been rejected
   3 I did not know that I could lodge an appeal

6b. and you have, according to your education institution, in academic year 1994/95 the standard of 25% study progress gained?
   1 yes
   2 no
   3 that know I not

If private is for your grant to put in interest-bearing loan, is you then against that decision on appeal gone?
   1 yes, and the profession has been granted
   2 yes, but the profession has been rejected
   3 I did not know that I could lodge an appeal

7. If you do not have the standard in one of both academic years gained, so that a part of your grant is converted to a interest-bearing loan, has thith the consequences for your study and/or study behavior?
   0 if application, I have not always gained the standard
   1 at me has changed nothing there
   2 I am more time or too study to will spend
   3 I have changed to another study
   4 I have stopped with study
   5 differently, namely.............. ( - go now further with question 9)

8. If you followed in 1994/95, other education (in hbo or vwo):
   1 which education have you then followed?

   b. you has the diploma of that training gained?
   1 yes
   2 no, but certificates
   3 no, only theory examination
   4 no, I have failed for the examination
   5 no, I have dissolution there

9. If you have gained the diploma, you can indicate then when?
   (figure 1 and 2) year:.... (1994 or 95)

9. How many hours per week you have previous academic year (1994/95) on average worked for:
   1 hour lecture/lecture per week
   2 hour practical/practical lessons per week
   3 Your house work/first time stipulation - itself study by yourself
   4 hour totally per week

How many weeks have ypu previous academic year (1994/95) to follow of a training period spent?
   weeks

How many weeks have you previous academic year (1994/95) not worked for your study? (holiday, waiting times, study convocations, paid work, etc.)
... weeks

9. situation at this moment

10. How often do you follow education on 1 November 1995 still?
   1 yes, I follow full-time education... go to next question 21 (component D)
   2 yes, I follow education part-time... go further with question 21 (components B and C)
   3 no, I follow only course...
   4 no, I follow at the moment essentially name education... go to next question (component C)
C5. What questions do you at this moment only argue course or no attention follows.

Q. (If you already have no more education, follow) then you number of these questions has already answered in earlier hit. We couples who however what matter questions and requests you then for this last time - questions once again. What to know:

11 When did you have the education to leave?
   month: ___/___/___ year: ___ (91, 92, 93, 94 or 95)
   And you have the education, allowing you to that moment left, concluded with a diploma?
   1 no, I have stopped obtaining the diploma
   2 no, only curriculum
   3 no, only theory examination
   4 yes, I have obtained the diploma, as it happens.

12 Which diploma you have in the past obtained? (circle the figure of each diploma which you have gained)
   1 diploma/other diploma
   2 Mavo-diploma
   3 Havo-diploma
   4 Vwo-diploma
   5 diploma briefly middle profession education
   6 diploma of a journey in the student living
   7 diploma/diploma
   8 Hbo-propedeuse (first year)
   9 Wvo-propedeuse (first year)
   10 Wvo-voortdiplova
   11 Wvo-voortdiplova
   12 differently, namely: ___

13 You have for or during your presence or absence of wound up training gained in in the Wo or the administrative experience? (For example for association, education institution or interest group)
   1 no
   2 yes, namely: ____________________________
   You have for or during your training in the Wo or the field relevant work experience acquired? (This is possible in both paid as unpaid work or, late possible training periods outside consideration)
   1 no
   2 yes, in sum shorter or right to one year
   3 yes, in sum longer than one year
   During your training in the Wo or your work has paid you performed, for at least 12 hours per week?
   1 yes, during whole-year
   2 yes, during at least one year
   3 yes, but less than one year
   4 no

14 How is your situation now? (circle the number that most with your situation corresponds)
   1 I have a job in paid employment
   2 I have its own company/office
   3 I cooperate in family company/shop, farm etc.
   4 I am present in military service
   5 I have no job, but working
   6 I have no job, I does work also to
   7 I work in the household
   8 differently, namely: ____________________________

15 How many months lasted it for you your first job found, since leave of the education?
   1 not of application, because no job have or sought
   2 I worked already then the education left
   3 months found I my 1st job

How much time you have applied since you the education has left?
   ___ week(s)
16 If you left now, work, this first job you've had been given you the education it left? (If you had already worked, all the moment that you leave education, complete that then of your first job).

1. I never had a job since I left education (← > go to question 18)
2. Yes, but in my first job after leaving education

(← > go to question 17)
3. No, I have had already more than one job since I leave education.

Why of job have changed you? (Circle maximum 2 reasons, which were for you most important.)

1. Work under my own name.
2. If salary was too low.
3. The environment at the work did not please me.
4. There were few career perspectives.
5. Some (permanent) contract expired.
6. I was interested.
7. Affinity.

17 We want precisely what has criticized known more concerning your first job since leave of the education and concerning your current job. All next range of questions must you for this reason always two bars: figure circles - in the first column for your first job (or work that you already had then you leave education left); - and in the second column for your current work (as you still that acts on first job or if you have work now on leaves then second column unity).

a. What was the "first" of your service link?

b. Current job

1. Fixed appointment.
2. Temporary workers, view on fixed service link.
3. Temporary appointment.
4. Fixed contract.
5. Freelance.
6. By means of employment agency.

b. Had you that a problem the level of the first and of your current function to your competencies?

1. No.
2. Yes.

b. Is there possible to indicate to which company one does the service in institution belongs?

b. Current job

1. Industry.
2. Agriculture and fisheries.
3. Construction and installation companies.
4. Public usefulness companies.
5. Service businesses.
6. Art.
7. Catering services.
8. Transport and communication.
10. Insurance.
11. Canteen.
12. Education.
13. Remaining service.
15. Remaining research.
16. Health care.
17. Social services.
18. Civic-social institutions.
19. Remaining service.
20. Remaining service.
21. Remaining service.
22. Remaining service.
23. Remaining service.
24. Remaining service.
25. Remaining service.

b. How satisfied were you with your work? Give for this a figure between 0 (= absolutely dissatisfied) and 10 (= extremely satisfied).

26. retired.
27. Current job figure...
e. Which level of education did it connects the skills at the work you do now?
   1. Primary
   2. Secondary
   3. Higher Education

f. What is your net income per month from your work (wages/salary)?
   1. Less than $1000
   2. $1000 to $2000
   3. $2000 to $3000
   4. $3000 to $4000
   5. $4000 to $5000
   6. $5000 to $6000
   7. More than $6000

2. What is your annual income in your current job? $________ per month
3. How satisfied are you with your net income in your current job? $________

4. Would you consider a job in another field?
   1. Yes
   2. No

5. Are you planning to change your job in the next six months?
   1. Yes
   2. No

6. What is your current net payment amount per month? $________ per month

7. Have you any further studies? (Yes/No)

8. Appraisal of next training:
   1. You would attend next training?
   2. You would be interested in next training?

9. Why would you consider, afterwards, another skill or job in the future? (Circle maximum 2 reasons)
   1. More challenging
   2. Higher pay
   3. Better job opportunities

10. Critical application:
    1. Writing
    2. Oral expression
    3. Numeracy
    4. Logical reasoning
    5. Technical skills
    6. Giving directions
    7. Independence
    8. Responsibility
    9. Decision making
    10. Specific skills
    11. General knowledge
    12. Problem solving
    13. Information retrieval
    14. Cooperation

11. Have you attended any training in the past year?

12. Have you attended any courses at university or college in the past year?

13. Have you attended any training at work in the past year?

14. Have you attended any training at any other level in the past year?

15. Have you attended any training at any other level in the past year?

16. Have you attended any training at any other level in the past year?

17. Have you attended any training at any other level in the past year?

18. Have you attended any training at any other level in the past year?

19. Have you attended any training at any other level in the past year?

20. Have you attended any training at any other level in the past year?
Do you know the question at part e. (question 22 and further) still is, Paul I can skip yes.

21. a. Did you follow education at this moment, however?
   b. If you follow education, what is the study that I follow?
      1. name institution, school, year, and name institution, school, year, and name institution, school, year.
      2. if you follow education at this moment, how much education do you follow?
      3. The study I follow.
      4. The level of education I follow.
      5. The level of education I follow.
      b. What is the level of education I follow?
      1. name institution, school, year, and name institution, school, year.
      2. name institution, school, year, and name institution, school, year.
      3. name institution, school, year, and name institution, school, year.
      4. name institution, school, year, and name institution, school, year.
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   h. name institution, school, year, and name institution, school, year.
   i. name institution, school, year, and name institution, school, year.
   j. name institution, school, year, and name institution, school, year.
   k. name institution, school, year, and name institution, school, year.
   l. name institution, school, year, and name institution, school, year.
   m. name institution, school, year, and name institution, school, year.
   n. name institution, school, year, and name institution, school, year.
   o. name institution, school, year, and name institution, school, year.
   p. name institution, school, year, and name institution, school, year.
   q. name institution, school, year, and name institution, school, year.
   r. name institution, school, year, and name institution, school, year.
   s. name institution, school, year, and name institution, school, year.
   t. name institution, school, year, and name institution, school, year.
   u. name institution, school, year, and name institution, school, year.
   v. name institution, school, year, and name institution, school, year.
   w. name institution, school, year, and name institution, school, year.
   x. name institution, school, year, and name institution, school, year.
   y. name institution, school, year, and name institution, school, year.
   z. name institution, school, year, and name institution, school, year.
25 How large a percentage of your allowance do you allocate to study? (in number between 0 and 100)

26 How long do you expect it to take you to complete your course of study?

27 How long do you expect it to take you to complete your course of study?

28 What type of training will you undertake after completing your course of study?

29 How many hours per week do you plan to study?

30 How do you feel about the possibility of becoming self-employed in your field of study?

31 What is your current financial situation?

32 How do you plan to finance your studies?

33 What is your current financial situation?
34 While each student is the higher education runs, by a multiplicity of forces, delay in with respect to the official time. You can make an estimate of delay which you will incur in your (in or no completed) study? 

During my study a delay has incurred of totally: 

- months (e.g. wind up to compute numbers). 

Hereafter we call a number of factors which popularly cause unavoidable delay. You can indicate which factors in your case have made a contribution to such delay (make an estimate of the number of months delay that have such of the said factors contributed, gently wind up on complete numbers.)

Number of possible causes:

- lack of study delay
- poor quality of study components breakdown
- problems for study components by heaviness of it
- problems for study components by too short preparation
- work-off from own choice longer for study components because of own interest
- extra study components followed on top of obligatory course
- personal problems and sicknesses
- temporary being lacking sufficient motivation for study
- activity for the study, but related to the study (for example reading, library, some forms of work or recreation, etc.)
- activity the course, but not related to the study (for example care of child, house, some forms of work or recreation, etc.)
- wasting time by do not consist of study elements
- rudimentary and bureaucratic organization of the study
- differently, namely: ........................................
APPENDIX L

Dutch Questionnaire 1997-1998
Questionnaire
students in Wo and hbo
Research determinants Participation in the higher education
1997-1998
Respondentnummer:
Amsterdam, December 1997
Introduction
In this questionnaire we put you ask several areas:
- personal details concerning yourself and your parental family
- your earlier career in continued and higher education
- your current study and how you there compared with state

At the most questions need you only cirkelje to put for the figure which applies for you. Generally you can but one figure circles (and if you hesitate, molar then the figure that the mêst applies).

If you can several answer at a question stands give that separately.
At other questions you can indicate how strongly you with a certain pronouncement once are giving a figure between 0 (absolutely in disagreement, this pronouncement is not appropriate totally at me) and 10 (entirely once, these tuispraak are appropriate entirely at me).

If you have filled in all questions are possible you questionnaire in the bijgevoegde does return envelope and to our. postage stamp plakken is not necessary.
In advance we you request for the next question at to answer.
You have itself in 1997/1998 registered a study in the higher Onderwijs (Wo and hbo)?
1 yes
2 no, I had me, however, presented at the IBG, but have me not ingeschreven
3 no, I am graduated
Under the exhibitors of the inquiry we raffle some beautiful price. "Warmly to twist" questions we you for fixed at three questions start answer with the volgeade.
b. As you the hoofdpijna (for the value of f 1000, -) wins, he who price wants you then?
   1 computer (equipment equipment)
   2 holiday travel

c. As you get three 2e prices, where do choose do you win then for?
   1 Eiss-man
   2 Walk-man

d. As you of the remaining prices, what want do you win then dear?
   1 book order
   2 plate order
   3 cinema order
   4 gift order

e. Couple becomes there a lottery to which 10 people can participate and the price is written out: 1000, -. What is the maximum amount you would want which pay for one of ten to draw lots?

* * *

Much success and permanently thanks for filling in.

<table>
<thead>
<tr>
<th>Personal details</th>
</tr>
</thead>
</table>

1 Line
   1 male
   2 female

2 When are you born?
   day: ...... (figure between 1 and 31)
   month: ...... (figure 1 and 12)
   year: 19... (for example 71 or 74; accidentally 97 do not fill in)

3 You find that you determine part of foreign population?
   0 No, I feel myself (mainly) Dutchman (continues with question 4)
   1 Yes and no, because I feel myself Dutchman and belonging at a foreign group
   2 Yes, I feel myself mainly as someone who belongs at allochtoone group

If you itself partially or mainly belongs to allochtoone does group feel, which group is that?

   1 Surinams
   2 Antillies
   3 Moroccan
   4 Turkish
   5 Differently, as it happens, ..................

4 Are you in the Netherlands born?
   1 Yes
   2 No, I am born in .............

Is your parents in the Netherlands born? (circle the correct answer for your mother and father)

Mother
   1 yes, in the Netherlands
   2 a another country, ....

father
   1
   2 as it happens;
5 You speak with your parents mainly Dutch or another language?
1 mainly Dutch
2 mainly other language, namely ...

6 How is your accommodation?
1 I live at my parents at home
2 I live at family
3 I live at student flat.
4 I live in private chamber
5 I live independently (own etage/house)
6 differently, namely ...

And how long do you live already this way?
1 after August 1997
2 for August 1997, but shorter than a year
3 longer than a year

7 What is highest training which your parents or guardians have afgemaakt? (Circle in both the columns one figure)
Mother/verzorgster Vader/verzorger
1 less than 6 years lower education 1
2 more lower education (completed) 2
3 More lower profession education hbo 3
4 a training from the student being 4
5 Mavo or Mulo or Ulo 5
6.3 years hbs, gymnasium or atheneum 6
7 Middle profession education mbo 7
8 Higher General Secondary Education or Mms 8
9 (entirely) Hbs, gymnasium or atheneum 9
10 Hbo or University - without diploma 10
11 More higher profession education hbo 11
12 University Doctoraaldiploma 12
13 promoted 13

8 You can indicate approximately which nette-inkomens deserve your mother/guardian and your father/guardian per month? (As you only west which income they have together fill in then the second question.)
Mother/guardian Vader/guardian
0 none to enter 0
1 less than f 1500,- 1
2 between the f 1500,- and f 1750,- 2
3 between the f 1750,- and f 2000,- 3
4 between the f 2000,- and f 2250,- 4
5 between the f 2250,- and f 2500,- 5
6 between the f 2500,- and f 2900,- 6
7 between the f 2900,- and f 3500,- 7
8 between the f 3500,- and f 4000,- 8
9 between the f 4000,- and f 4500,- 9
10 between the f 4500,- and f 5000,- 10
11 between the f 5000, - and f 6000, -.11
12 between the f 6000, - and f 7000, -.12
13 between the f 7000, - and f 8000, -.13
14 more than f 8000, -.14

Or:

I cannot it separately say, but it net month lacome of my ouders/attendonts jointly
is approximately:

.... (Fill a number between 0 and 14 in from the classification hierboven)
B. Current study in higher Education

9 What kind of study/training follows you at this moment?
   a. I follow education
      (name institution/school): ......................................
      at (place): ..........................................
   b. The education that I at present follow named in full: ..........................................
   c. And I follow:
      1 full-time training
      2 part-time course
   d. The level on which I education follows is:
      1 Hbo
      2 Wo
   e. The sector/direction in what I teach follow is:

   More higher profession education scientific onderwijs
   1 economy 1 economic
   2 social agogic 2 social wetenschappen
   3 health 3 gezondheid
   4 agriculture 4 landbouw
   5 laboratory 5 natuur
   6 education
   7 law
   8 art education 8 language and cultuur
   9 technique 9 technique

10 You follow this year propedeuse-programma?
   1 yes
   2 no, I have already it propedeusediploma or another diploma provide access to that to Master's or vroeddiploma

11 On the basis of which diploma is you allowed to this training?
   1 diploma continued education (Higher General Secondary Education, V-VO, mbo)
   2 conference doctum or vooropleidingsonderzoek (toelatingsexamen, 21 + regulation)
   3 Hbo-propedeuse
   4 Hbo-diploma
   5 foreign diploma
   6 differently, namely..................

12 When you have itself for these study of presented at the Informatic management group in Groningen?
   1 for 1 December 1996
   2 after 1 December, but by 15 May 1997
   3 after 15 May 1997
   4 not presented at IBG

13 When you have itself registered at your institution for these opleiding?
   year 1996
14 You can indicate which of situations mentioned below best is appropriate at your geschiedenis in higher education:

This study year 1997/1998:
1 is my first year of registration in the higher onderwijs
(- - > go furthermore with question 21)
2 is not my first year of registration, I was already more earlier ingeschreven in the higher education
(- - > towards next question)

15 I am in sum (including current study) registered are for...studies in higher Education.
My earlier study (s) by my current study was:
(circle maximum 3 sectors: you have rather studies still more have gevolgd, maar then for three most important)

More higher profession education scientific onderwijs
1 economy 1 economie
2 socially agogie 2 social wetenschappen
3 health 3 gezondheid
4 agriculture 4 landbouw
5 sciences 5 natuur
6 education 6 education
7 law 7 wet
8 art education 8 language and cultuur
9 technical 9 technique

And I am in sum (including current instelling) registered are....institutions for higher education
16 How long you have those other study (s) followed (and/or registered to those other institution(s) stood)?
   0 did not start to only short (at the most some months)
   1 some month up to 1 study year
   2 between 1 and 2 study years
   3 between 2 and 3 study years
   4 between 3 and 4 study years
   5 more than 4 study years

17 You have in that other study (and/or gained to that other institution) a diploma?
   i no
   2 only moduln or certificates
   3 propedeuse/first year
   4 B.A. examination
   5 doctoral/end diploma
   6 diploma second phase training

18 You have in your new study compensation (exemptions) obtained on the basis of the other study which you (entirely or partially) has followed?
   1 no, no compensation got
   2 yes, I have compensation got for the size of (ongeveer)
       ..months study time

19 You follow at this moment still other study?
   1 yes
   2 no

20 Which of both training do you consider as your first and which as a second study?
   1 training which I am this year started and have laid down in question 9
   2 training which I was already earlier started and have laid down in question 19
   3 I consider them to each other right
21 Everyone are not just as certain or choice to will study the good decision was. You can indicate in which degree you doubt or have doubted?

We ask indicate this you by to each of the following uitspraken a figure to know between 0 and 10, where

0 = this applies totally not for me
10 = this is (were) at me in very strong degree the case

concerning yes or no study
...I have a lot doubted or I, however, would continue to study
...I have a lot doubted or I dit year further studeren would go
...I have still doubts my decision to go study concerning difference bbo - Wo
...I have long doubted concerning choice between to study in bbo or the Wo
...I have still doubt my decision for bbo or Wo
...I rather just after 1 or 2 years to study to decide if I a bbo - or Wo-diploma will obtain

concerning the study direction
...I have wanted never something else to study then this profession, these study-directions
...I have long doubted concerning choice between two or several studies
...I have still doubts my decision for this study
...my parents have clear preference pronounced
...I have made a list with several studies from which I have chosen
...my parents did not have rather that I would choose a certain study (or certain studies)

concerning the institution
...I do not have serious to another institution thought
...I have several institutions seriously visited
...I have information on at least 1 study of asked at meerdere institution
...I have still doubt my decision to study to these instelling

concerning the city
...I have never others predominated
...I have looked at to leuke training in the complete country
...I want per se in provisions city will study
...I have long getwijfeld concerning choice between two or several cities
...I have still doubt my decision for this city

22 At the choice of your study have possibly a number of overwegingen a role played.
We ask you for at each overweging to indicate how important that to your opinion has been at choice of your current study. You can do this by a figure at even

0 = this consideration plays totally none role; and
10 = these overweging play uitminderlijk strong role.

I have chosen this training because:
...I find the subject of these study interesting
...I think later independent work is possible verrichten
...I think later giving function is possible beëchten
...I think later certainly get paid job to be able
...An possible I a certain profession to go uiteefenen
...I can follow this study on education institution which is near in the buurt
...I expect that this study not with difficulty for me will be
...I expect this study within (formal) cursusduur is possible afvoeden
...With this study I have more chance on a job in the buitenland
...This study is really my first preference
...By I can following this study my capacities exploit
...By following this study I think me personally develop to be able
As of study year 1996/1997 the so-called performance purse has been introduced. The two head measures in the performance purse are:

a. restriction of study financing duration up to 4 years.
b. replaced study progress control by performance measuring, where:
- in the first place right conditional loan exists off current grant;
- becomes at the first year loan converted into a grant as the student has come up to the performance standard of 50%;
- at the second, third and fourth study year becomes the loan omgezet in a grant such as the student the diploma gains within 8 citizenship years (as the cursus is longer is than 4 years, worden both the period of voorwaardelijke loan as the period within within which the diploma must be gained, extended).
c. furthermore applies that grant does not become converted into loan if you stop in the first year with training by 1 February

We lay you about this judgements now some for. Gladly your opinion about this in the form of a figure between 0 and 10, where

0 = total in disagreement;
10 = completely once.

...I was informed well with restriction up to 4 years;
...I was informed well with presented prestiometering
...I was informed well with possibility to stop for 1 February

My judgement concerning performance grant is:

...it means large financially-risk
...this way costs study more than it produces
...you force to unreasonably high tempo
...you or you does consider two times however, (immediately) students will go
...you bring easier training to choose
...you give a better idea what to study all costs
...you force for a job beside study to take
24 The commission has Heremans October a recommendation about financing the future of study financing. What your opinion concerning some parts of this proposal is:
0 = total in disagreement
10 = total onces
...abolishing additional grant after 21 years for students whose parents have a low income
...parents by means of the judge force to their child parent contribution to give
...student makes agreements with institution over the duration of the study and gets drawing right over that period on grants and loans
If I were now free for study financing over more years to spread out than 1 my basic grant want receive concerning a period of:
- maximum 4 years
- 2 between 4 and 4.5 years
- 3 between 4.5 and 5 years
- 4 between 5 and 5.5 year
- 5 between 5.5 and 6 years
- 6 longer than 6 years
How real you think that the following assumptions is?
0 = total not real
10 = very real
I expect that:
...my parents are prepared at least 6500,- per year it to contribution to my maintenance them financial to this end able would be
...my parents financially able be contribution to my levensonderhoud
...my parents also after my 21ste want carry te my levensonderhoud
...I myself able will be after my 21ste in my maintenance to foresee (by means of parent contribution or work)
25 As you at present or does not limit you use then of the possibility of concluding a study loan, can to indicate how factors mentioned below are then of influence.

0 = totally no influence; 10 = very strong of influence

99 this question does not apply to me, I have maximum loan concluded

...I have no (maximum) loan necessary
...I work rather something more
...I wish no large debts at to make
...I lend if it is really necessary
...my parents Councils it me strongly finished
...I am uncertain concerning my later to enter
...I find a study loan too expensive

Binding study recommendation

26 There its many institutions in More higher profession education which at the end of the first year binding study recommendation gives to their students. Last year also the university is of Leiden with that started. We want gladly know how you in a free choice situation (therefore choice from all mogelijkheden) the binding study recommendation assesses.

...I study rather not at such institution, because I weet or I positief will not get recommendation
...I gladly study to institution which gives a binding study recommendation, because students of such an institution will have a better name
...A binding study recommendation is well appliances to stipulate your suitable bheid for the study
...A binding study recommendation is undeserved obstruction in the choice trial
...The binding studie-advies a role played at my choice
D. Qualification chances

27. a. How large do you consider the chance for an end diploma to obtain of the studie/opleiding which you follow now?
   I give myself..... percent chance to obtain the end diploma
   (number between 0 and 100 percent)

b. And how large do you consider the chance for end diploma period which applies to to obtain within the wettelijk performance grant?
   The legal period is 6 years for the regular training in the higher education. For training
   with derogatory cursusduur apply aangepaste periods.
   I value that qualification chance on..... percent

28. You think that you have the capacities to obtain the diploma of each of onderstaande training (possibly firstly Hbo-propedeuse)?

My qualification chance for training, that above-mentioned stand be:

University higher vocational training
   electrical engineering..... %..... %
   data processing..... %..... %
   economy..... %..... %
   rights..... %
   communication..... %..... %
   Dutch..... %
   history..... %
   medicine..... %
   physical therapy..... %
   teacher primary education..... %
   teacher Dutch..... %..... %
   teacher maths..... %..... %
   laboratoriumonderwijs..... %
   chemistry..... %

E. To enter

27. In this question we want something concerning your income expectancies know. We ask thereby for expected incomes. We to know that these estimations with difficulty be because to give, perhaps you there still never concerning have thought or that you about that have little information. Try answers nevertheless as well as possible to value. How high treasure you net entering per month that you would deserve kunnen in a full-time job as:
   a. Education the continued as you directly after would be work will in a full-time job? Circle hereafter in column a your estimate.
   b. If you would graduate now in the this year started training? Circle in column b the correct figure.

Peak career:
   c. on the high point of the career as you only the diploma your highest level of education?
      Circle in c your estimate.
   d. on the high point of your career with the diploma of your current training?
Finally circle in column d a figure.
My estimate of the net salary per month at a full-time job in the situation:

<table>
<thead>
<tr>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>less than £1000, -</td>
<td>£1000, - to £1250, -</td>
<td>£1250, - to £1500, -</td>
<td>£1500, - to £1750, -</td>
</tr>
<tr>
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<td>£2000, - to £2250, -</td>
<td>£2250, - to £2500, -</td>
<td>£2500, - to £2750, -</td>
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<td>£3000, - to £3250, -</td>
<td>£3250, - to £3500, -</td>
<td>£3500, - to £4000, -</td>
</tr>
<tr>
<td>£4000, - to £4500, -</td>
<td>£4500, - to £5000, -</td>
<td>£5000, - to £6000, -</td>
<td>£6000, - to £7000, -</td>
</tr>
<tr>
<td>£7000, - to £8000, -</td>
<td>more than £8000, -</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
F. Employment

30 You can indicate how large you the chance valued to find a job which the education continued after then connect?

Directly after obtaining my highest diploma continued education (of high to low: VWO, mbo, Higher General Secondary Education) had I..... percent chance on connecting work

You can make an estimate of chance on a connecting job with the diploma of training which you in 1997/98 have started?

I value that chance on..... percent

31 a. As you at this moment Hbo-studie follows: how high treasure you the chance on a connecting job with a diploma diploma your current training?

I value that chance on..... percent

b. If at this moment Wo-studie follow you: how high treasure you the chance on a connecting job with Hbo-diploma in your current training?

I value that chance on..... percent

32 School leavers do not find frequently immediately a job. You hereafter are able indicate how long you think that you unemployed will be with:

a. Only one diploma of continued education
   1 less than 3 months
   2.3 months up to 1 year
   3 longer than 1 year

b. Hbo-diploma in my study direction
   1 less than 3 months
   2.3 months up to 1 year
   3 longer than 1 year

c. Wo-diploma in my study direction
   1 less than 3 months
   2.3 months up to 1 year
   3 longer than 1 year

33 a. You had already rather heard of phenomenon pig cycle?

yes/no

Explanation: The pig cycle describes it phenomenon that farm if the prices of pigs are high massive pigs goes to keep. By the time that the pigs large to be can and to be sold the market oversupplied with pigs as a result of which the prices plummet and the output layer is. The varkenscyclus also occur in the higher education. Because there celebrate up to six years sits between the moment of training choice and eventual te graduate (and zoekentot a job) is job perspectives new frequently none good indicator for the chances at the moment of to graduate.

b. You have in your training choice taken into account?

1 no
2 beetje
3 yes
c. You can tick where the cycle in your profession at present is itself?
   0 no, I decide know not

d. You can tick where the cycle in your profession will be itself if you graduate?
   0 no, I decide know not

e. At present it goes well with Dutch economy and decreases the werkloosheid. Where you think that the economic economic situation will be itself the moment you alstudeert?
   0 I do not decide know

---

G. Technique and nature sciences

It is frequently thought that exact (technical and scientific) training very important are for our society and economie. For this reason we want ask now a number of questions concerning exact training. We are especially geïnteresseerd in the question if you sometimes predominated have to an exact training and follow if you this in certain situations also would will do.
34 You study in technical or scientific direction?
1. yes --> go by to question 39
2. no --> to next question
35 Have considered you for exact training follow to will?
1. no
2. yes, sometimes
3. yes, fairly serious

36 Why have you apart from follow of exact preparatory training? Give at the considerations mentioned below to how important they you were an exact not choose training, where

0 = very unimportant
16 = very important
...I had no suitable preparatory training
...I do not find an exact training interesting
...I find an exact training difficult
...a technical university find I not attractive
...finds technique/ nature science I too much maar sangelegenheid
...at an exact training have you only insipid neesteden
...a technical training lasts 5 year, which finds I too long
...in exact training much are persons who drops out
...exact study = harder works
...nerds-image
I think that with a technical training have I:
...a smaller qualification chance, but larger chance on a high income
...a smaller qualification chance, but larger chance on a good job

37 If you an exact training molar's which do have then your voorkeur?
0 no idea
More higher profession education scientific education
1 physics 9 physics
2 chemistry 10 chemistry
3 maths 11 maths
4 data processing 12 data processing
5 electrical engineering 13 electrical engineering
6 mechanical engineering 14 werktuighouwskunde
7 physical geography 15 physical geography
8 differently, as it happens 16 differently, as it happens....

38 How large you consider the chance that you it end diploma obtains when you the exact training of your first preference molar's?
1 value that chance on...... percent
And how high or low treasures you chance on connecting work with einddiploma of this exact training?
1 value that chance on...... percent
Below we lay you a number of fictitious situations for. Firstly questions we to conditions among which you exact training would find interessant. Also as you technical or scientific direction questions has chosen we you a judgement at to give.
39 Is consider there conditions which for you an exact (technical or natuurwetenschappelijke) study aantrekkelijker would make?
0 = does not decide chosen for exact training
10 = certainly, however, chosen for exact training
measures which the government could take
...for all study directions except exact training the collegegeld are raised with f 1000, -
...the college money for exact training becomes verlaagd with f 1000, -
...for exact opleidingen needs no college money to be paid
...students in exact training to get a basic grant of f 750, - per month
...for an exact training needs no college money to become betaald and you get a
... basic grant of f 750, -
... Hbo-ers with good subject-package get three years extra study financing
measures which would be possible the institutions to take
...a training to make for which has with voldoendes for b professions on the end
...examination 90% someone chances to to succeed
... After 3 year a bachelors-diploma and after that possibility for everybody
... continuation program of 2 year to choose for engineers diploma (b.sc.)
...a job guarantee graduates
...problem-sent education to offer
...improve dovetail continued education
...more attention social impact of technological developments alter social changes
...the inception salary is raised with 500,- gross per month
...there many come better possibilities to work part-time
...there much come better career possibilities for parttimers

### H. Profession of teacher

40 What are your estimate of entering of a teacher basisonderwijs or teacher education continued

<table>
<thead>
<tr>
<th>a</th>
<th>2500</th>
<th>e2900</th>
<th>j3300</th>
<th>m3700</th>
<th>q4100</th>
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<tbody>
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<td>f3000</td>
<td>j3400</td>
<td>n3800</td>
<td>r4200</td>
</tr>
<tr>
<td>c</td>
<td>2700</td>
<td>g3100</td>
<td>k3500</td>
<td>o3900</td>
<td>s4300</td>
</tr>
<tr>
<td>d</td>
<td>2800</td>
<td>h3200</td>
<td>l3600</td>
<td>p4000</td>
<td>t4400</td>
</tr>
</tbody>
</table>

### b. I value teach the gross month income of a beginning teacher in the voortgezet (second degree) on

0 absolutely no idea

<table>
<thead>
<tr>
<th>a</th>
<th>2500</th>
<th>e2900</th>
<th>i3300</th>
<th>m3700</th>
<th>q4100</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>2600</td>
<td>f3000</td>
<td>j3400</td>
<td>n3800</td>
<td>r4200</td>
</tr>
<tr>
<td>c</td>
<td>2700</td>
<td>g3100</td>
<td>k3500</td>
<td>o3900</td>
<td>s4300</td>
</tr>
<tr>
<td>d</td>
<td>2800</td>
<td>h3200</td>
<td>l3600</td>
<td>p4000</td>
<td>t4400</td>
</tr>
</tbody>
</table>
c. for me the profession of teacher becomes primary education interestingly at a commencement salary gross/month?

| 0 never | a 2500 | e2900 | 13300 | m3700 | q4100 |
| b 2600 | f3000 | j3400 | n3800 | p4200 |
| c 2700 | g3100 | k3500 | o3900 | s4300 |
| d 2800 | h3200 | l3600 | p4000 | t4400 |

d. the profession teacher in continued education becomes me interesting such as the commencement salary gross per month amounts to?

| 0 never | a 2500 | e2900 | 13300 | m3700 | q4100 |
| b 2600 | f3000 | j3400 | n3800 | p4200 |
| c 2700 | g3100 | k3500 | o3900 | s4300 |
| d 2800 | h3200 | l3600 | p4000 | t4400 |

e. Which changes it for you attractively to making choose for the teacher profession?

<table>
<thead>
<tr>
<th>0 = decided more attractive</th>
<th>10 = a piece do not attractive</th>
</tr>
</thead>
<tbody>
<tr>
<td>...classes not more large than 20 pupils</td>
<td></td>
</tr>
<tr>
<td>...number of hours teaches of 28 hours to bring back towards 23 hours per week</td>
<td></td>
</tr>
<tr>
<td>...a job guarantee for (full-time) appointment 12 maanden graduate</td>
<td></td>
</tr>
<tr>
<td>...the social appreciation for the profession larger becomes</td>
<td></td>
</tr>
<tr>
<td>...students itself on school differently to behave, as a result of which the ease likely are give lesson</td>
<td></td>
</tr>
</tbody>
</table>

f. For to have arranged for the profession teacher you must interest have in handling children. My interest is:

<table>
<thead>
<tr>
<th>0 = absolutely no interest</th>
<th>10 = much interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>...for children 4 - 6 years</td>
<td></td>
</tr>
<tr>
<td>...for children 6 - 12 years</td>
<td></td>
</tr>
<tr>
<td>...for children 12 - 15 years</td>
<td></td>
</tr>
<tr>
<td>...for children 15 - 18 years</td>
<td></td>
</tr>
<tr>
<td>...for students as from 18 years</td>
<td></td>
</tr>
</tbody>
</table>

1. Earlier career in continued education

We now put you a number of questions concerning continued education which you have followed. Continued as you education of by the manmoet wet want you have followed then try for that as well as possible at ' vertalen ' education continued to the current system for? (count bijv. for mulo -> Mavo; for Mms -> Higher General Secondary Education; for hbs -> Vwo)

41. At the end of the primary school you have a recommendation gekregen concerning which type continued education most suitable was. Which recommendation got you then?

1 Lbo
2 Lbo/Mavo
3 Mavo
4 Mavo/Higher General Secondary Education
5 Higher General Secondary Education
6 Higher General Secondary Education/VWO
7 VWO
42 Are you sometimes continue sit?
1 No, never
2 Yes, namely:
   - on lower school/primary school,...time
   - in continued education,...keer

43 Which diplomas in continued education has gained you?
(If you mentioned have diplomas gained several answers circle.)
1 diploma/diploma diploma
2 Mavo-diploma
3 Havo-diploma
4 Vwo-diploma
5 diplomadiploma diploma
6 diploma knihoe/serlingwezen/inservice training

44 Which figures have gained you at your VWO-, Higher General Secondary Education
   - or mavo-examen? If you have gained several of these diplomas, fill in then the figures
   of the highest diploma; as you none of these diplomas, let us has gained this question
   then.
   Figure figure
Dutch... Economy I,...
English... Economy II,...
German... Economy....
French.... Handelswetensch....
Maths a (or I)... Biology....
Maths b (or II)... Physics....
Maths... Chemistry....
Data processing... Latin....
History... Greek....
Geography... society leathers....
Differently, namely ................
Differently, namely ................
Differently, namely ................

45 We want gladly know from which sources you finance your study.
We ask you for this reason for for month of October 1997 to indicate which income had you from each of financieringsbron ned mentioned below. (S.x.p. wind up on complete
guilders). Received you the maximum amount, then can you be enough with the box to tick.
<table>
<thead>
<tr>
<th></th>
<th>maximum living at home</th>
<th>maximum independent</th>
<th>other sums fill in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic grant</td>
<td>212.50</td>
<td>7425.00</td>
<td>Netherlands,</td>
</tr>
<tr>
<td>Supplementary grant</td>
<td>386.40</td>
<td>421.40</td>
<td>*</td>
</tr>
<tr>
<td>Student loans</td>
<td>367.40</td>
<td>367.40</td>
<td>Netherlands,</td>
</tr>
<tr>
<td>contribution others/guardians</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>contribution partner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>income own work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>income payrent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>differently, namely</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* private insured/health insurance fund

Total month income, incl. incidental grants/income? ........., -

Are you insured individual?

yes/no

46 Taking into account my current situation and needs, I would consider a totally net income per month as:

very bad if it would lie around? ....00, -
badly if it would lie around? ....00, -
sufficiently if it would lie around? ....00, -
well if it lie around? ....00, -
very well if it would lie around? ....00, -

(fill in an amount at each rule; for example it is bad: 400: fill in 4)

47 Intend you for beside the study (possibly temporarily) paid work perform to will or you do that now already?

1 yes, I work already beside my study
2 yes, I intend work perform to will
3 no, I am not of plan beside my study work to will

If you work or work will zeken beside the study: how many hours per week are this?

..... hour per week

If you work, this work closes then to at training which you follow now?

1 yes, it encloses my current training
2 no, it has nothing at make with my training

48 Possess you Ov-studentenjaarkant?  
1 no
2 yes, a week card
3 yes, a weekend card

K study situation, study course and studyending

49 You have in the first months of study taken part in lessons, working parties, colleges and/or practica?
   1 yes
   2 no

50 You have in the first months already (or more) tentamen(s) afgelegd?
   1 no, there is still none tent amen occasion are
   2 no, I have so far still none used tentamengelegenheiten
   3 yes, with (on average) sufficient result
   4 yes, with (on average) insufficient result

51 How satisfied are you concerning course of your current study/training and the study results which you have so far gained? Give a figure between 0 (exceptionally dissatisfied) and 10 (exceptionally satisfied)
   My satisfaction, is....(number between 0 and 10)

52 How permanently you have planning for the first year (the prepdeuse) of your study to gain and how fixed are you of plan to obtain the prepdeuse also effective within one year?
   You can indicate this with figure between 0 and 10, where:
   0 = that do not intend I definitely
   10 = that I am certainly very of plan
   .... prepdeuse gains
   .... prepdeuse once year gains

And how large treasure you the chance that you also really succeed will the prepdeuse within one year obtain?
   I value that chance on.... percent (number between 0 and 100 invullen)

53 You can your motivation for your current reflects study/training at the start of the study and at this moment with figure between 0 and 10?
   my motivation then I with these study started were: .......
   my motivation at this moment is: .......

54 Hereafter we lay you a range judgements concerning the manner of studeren and learn and the importance which you grants to studieresultaten. We ask indicate you at each pronoucement to what extent that for you appies. You can do this by a figure at give 0:does not apply totally to me
   and 10: applies exactly to me

   ...I use all available time as much as possible to graduate rapidly
   ...I try always this way high possible figure to obtain
   ...I find it difficult for independently my study to plan
   ...my occupations my study to prevent me entirely go up in my study
   ...why I my study more rapidly to wind up then necessary is, it the most beautiful
time of my life is
   ...I am possible only at puffs good to study
   ...I am satisfied concerning study performances which I have provided so far
   ...I find it difficult me in at stretch for uninteresting studieonderdelen
   ...I have the inclination obligations to postpone
   ...my itself discipline is well
...I actually more time must spend on my study
55. How many hours per week spend you (on average) to:
a. Training (lessons + practica + voorbereiding/house work etc..)
   colleges/practica, etc. average..... hour per week
ee. Self-study average..... hour per week
b. Second study, student organisation, etc.
   second study average..... hour per week
study/students - association/trade union average..... hour per week
c. To work
   work average..... hour per week
56. How long you think in sum necessary at have for gaining the einddiploma? (Only the
    time for gaining of the diploma in your current study count in)
    I expect then... year and... months for the diploma studied of my current study to
    have
57. How you think that your situation concerning approximately a year (end 1998) will
    be?
   1 I think that I then still will follow always my current study/training
   2 I think that I then other study will follow
   3 I think that I then none education will follow
1. Lock questions

58 If you decide if has already decided a study loan to conclude then you build a study debt. Below is a number of possible study debts given. You can indicate how high you value that your study debt will be after round-off of your study? And you can indicate which amount acceptable finds you up to, therefore at which studieschuld you do student no longer go?

I value the debt after result I consider up to acceptable of my study on: studieschuld:

|   | none study debt | less then f 2500 | f 2500 - f 5000 | f 5000 - f 7500 | f 7500 - f 10000 | f 10000 - f 12500 | f 12500 - f 15000 | f 15000 - f 17500 | f 17500 - f 20000 | f 20000 - f 22500 | f 22500 - f 25000 | f 25000 - f 27500 | f 27500 - f 30000 | f 30000 - f 32500 | f 32500 - f 35000 | f 35000 - f 40000 | more then f 35000 |
|---|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 0 | none study debt | 0                | 1               | 2               | 3               | 4               | 5               | 6               | 7               | 8               | 9               | 10              | 11              | 12              | 13              | 14              | 15              | 16              |

............., as it happens.:/ as it happens.:? ..................
59 You make sometimes look yourselves concerning question if your studiefinanciering will be toegekend for the study properly to wind up?
   1 no, there I make myself no care
   2 yes, there I make myself, however, what care
   3 yes, there I am very provided

60 you think that you would study now as you itself for your study financing would have look; this means, that there none system would exist of basisbeurs, additional grant or rentedragende loans under special voorwaarden?
   1 no, certainly not
   2 no, probable not
   3 yes, probably, however,
   4 yes, certainly, however,

61 it is spoken there for on large in the education scale to invest in information and computer technology (ICT). Which experience has acquired you with ICT within and outside the education?

<table>
<thead>
<tr>
<th>a number of hour per week for training and study</th>
<th>on school in examinations</th>
<th>on institution hbo/wo</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ practicum material</td>
<td>... hour</td>
<td>... hour</td>
</tr>
<tr>
<td>house work/preparation</td>
<td>... hour</td>
<td>... hour</td>
</tr>
<tr>
<td>Internet</td>
<td>... hour</td>
<td>... hour</td>
</tr>
</tbody>
</table>
b. Number of hour per week in free time

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Games</td>
<td>... hour</td>
<td>... hour</td>
<td>... hour</td>
</tr>
<tr>
<td>e-mail</td>
<td>... hour</td>
<td>... hour</td>
<td>... hour</td>
</tr>
<tr>
<td>Internet</td>
<td>... hour</td>
<td>... hour</td>
<td>... hour</td>
</tr>
</tbody>
</table>

d. Do you have his own e-mail address? (you can tick several answers)
1 no
2 yes, by means of institution
3 yes, private

e. By means of new information technology (e-mail, Internet, interactive CD-Roms, etc.) it is study possible to on 'distance'. We present a number of situations to you. Answer 0 and 10, where: 0 = decides incorrectly; 10 = very correct
...I am informed of this
...I have been interested
...I would use it now as it was possible
...I will graduate there after use of make
...I think there without problems use to be able
...I become in my study sufficient prepared to this future

f. You use of
yes/no e-mail Internet yes/no
yes/no private study yes/no
contact students - yes/no
yes/no administration yes/no
yes/no contact doctor yes/no

62 can indicate problems you or you does each experience of onderstaande situations in?
0 = I consider the current situation/relation as particularly unsatisfactory
10 = I consider the current situation/relation as very satisfactorily

...parents
...finances
...for you yourself care
...spending free time
...friends
...alcohol/use of drugs
...sexuality
...health
...physical handicap
...student:
...housing
...get used to higher education

63 below you three find ladders with everyone 10 steps. They proposal life ladders. As you itself on bottom trede is you find oneself in the worst possible position. The upper step the best possible position is. If you appreciate your life in its whole (therefore not only material), give then to where you are yourself now, where you itself 5 years ago was and where you think of being itself over 5 years.
(place 3 time a kruisje)

| 10 | better is not possible |
| 9. |  |
| 8. |  |
| 7. |  |
| 6. |  |
| 5. |  |
| 4. |  |
| 3. |  |
| 2. |  |
| 1. | more badly is not possible |

64 you can signify itself by score to give to the following kenmerken, where

0 = does not apply totally to me; 10 = applies very strong to me

...intellectual
...realistic
...artistic
...social
...enterprising
...conventional
...extroverted
...altruistic
...careful
...anxious
...frank

Thanks warmly for filling in.
Wheed the questionnaire enclosed in answer envelope
(postage stamp is not necessary).
If you want observations which you in make still questionnaire lost was not possible then can you that make on the special space on back of this notebook.
Space for observations
Second questionnaire of
the research determinants
of participation higher education
Cohort eerstejaars 1997/98
Respondentnummer:
Amsterdam, January 1999
Introduction
This is the second questionnaire which you of us receives. We put you a range questions concerning what you since the previous questionnaire of beginning 1998 has done, what you do at this moment and what your further plans for the future is.
You leave by the cross-section of questionnaire does not deter!
Dependent of your specific situation is possible you certain components of the questionnaire miss.
Just like in the previous questionnaire you need at many questions circle to only put for the figure which for you of application are. At the most questions can you but one figure omcirkelen (and as you hesitate, choose then the figure that applies the best). As you at question can give several answers stands that separately.
At many other questions can indicate you how strongly you it once is with a certain pronunciation giving a figure between 0 (absolutely in disagreement, this pronunciation is not appropriate totally at me) and 10 (entirely once, these uitspraak are appropriate entirely at me).
Read on each question quietly and give then your answer: it concerns your situation, your opinion and your plans.
If you doubt concerning the intention of a question or not well know how you must answer, bel us then rested just as on:
020 - 525.13.76 (Uulkje the young) or
020 - 525.13.83 (ca Roelveld) or
020 - 624.24.12 (Marko of Leeuwen)
Or wheel a e-mail to:jaapr@educ.uva,Netherlands
Before to the questionnaire himself starts you couples we you on the next page questions still some in advance.
a. What is your birth month: ... And what is your birth year: 19... 

b. We have been interested in the distance between your (former) place of residence and the institution.

How much kilometre is the institution where you September 1997 have started with a training removed of the address where you lived before you that started training? (Give evet. an estimate) 

... Kilometre

As well as in the previous rounds to raffle we under the exhibitors of the inquiry same beautiful price. We ask you for this reason "warmly to twist" by the following questions at answer:

c. As you the head price (for the value of f 1000, -) wins, he who price wants you then?
1 computer (equipment equipment)
2 holiday travel

d. As you of the three 2e prices, where do choose do you win then for?
1 Disc man
2 Walkman

e. As you of the 50 remaining prices, what want do you win then dear?
1 book order
2 plate order
3 cinema order
4 gift order

Much success and permanently thanks for filling in.

P.S. The laureates are drawn from the file of respondentnummers with as code 'inquiry retour'.

[.A. Your study in the previous period]

1 In the first questionnaire concerning academic year 1997/98 has told you which study followed you then. You follow still always the same study as then?
1 yes
2 no, I follow now other training
3 no, I follow none education more

2 You have succeeded for the prepredicate of the study, that you followed at the end of 1997?
1 no, I have stopped with that study
2 no, not yet succeeded; I give myself...... percent chance this study year of succeeding
3 yes, succeeded for prepredicate in: 
   month: ...... (figure 1-12); year: ...... (for example 98 or 99)

We want now gladly what to know concerning your study progress. We split up that from to the study progress in the previous academic year 1997/98 (question 4 up to and including 7) and the progress in the current academic year 1998/99 (question 8).

3 Firstly questions we to your study progress in the previous academic year (1997/1998). 

As you that year of study has changed, mentioned then your progress in the study which you end 1997 followed.

a. Which part of the annual programme which you in the academic year 1997/98 followed, had you sufficient tifgerond on 1 september 1998.
on I had 1 September 1998......percent wound up of the jaarprogramma of the academic year 1997/98 sufficiently
b. Can say also how many credits you you has gaiied in the previous academic year (1997/98)?
1 yes, namely...... points of total ...... points in the programma of the academic year
2 no, we got no credits
3 no, that know I not
c. Which figure has gained you (on average) concerning study components of the programme of
the previous academic year? As you but certain components of no exact figures got other
names try translate these then to 'report figures.' of 1 to 10.
My average figure was: ...... , . (for example 6,3)
4 At performance grant applies the regulation that which by 1 February of the first study year with
the study does not stop must come up to the standard for those prestatiebeurs (at least half of the
number of stuipunten).
You have predominated for, seen your studieresultaten in the first five months of the study, so
that to stop by 1 February previous year (1998), you your grant (at possible do not gain of the
standard for performance grant) not would have pay back?
1 not on me of application, because I was not a freshman
2 not on me of application, because I receive no basic grant
3 no, I was not informed of this regulation, with critical date 1 February of the first study
year
4 no, my study went this way well that I there (almost) certainly of was that I would obtain
the standard
5 no, indeed my study entered the beginning not this way well, but I went there from that I
nevertheless the standard to obtain
6 yes, but I want perse these study continues, also already I would not obtain the standard and
as a result extra study debt builds
7 yes, I am effective for 1 February 1998 stopped
(- - > go to question 6)
8 differently, namely .................
5 a. You have in previous academic year 1997/98 the standard for performance grant (half of the
number of stuipunten) gained?
1 no (- - > go further with question 5b)
2 yes (- - > go to question 6)
3 that know I not (- - > go to question 6)
b. If you do not have the standard gained, so that your grant a part of your study debt has
become, this has then consequences have for your study and/or studeeergedrag?
1 at me has changed nothing there
2 I am more time on to study to will spend
3 I have changed to another study
4 I have stopped with study
5 differently, namely

6 You have during or directly after the previous academic year 1997/98 a recommendation got yes or no the continuation with your study?
1 no
2 yes, a recommendation to go farther
3 yes, a recommendation to go to another study to do
4 yes, a recommendation entirely to stop with study in the higher education
5 yes, a another recommendation, namely

Know you or your training uses a standard for study progress at bringing out negative recommendation (study does not continue)?
1 if one less than..... credits negatief recommendation gain are brought out
2 that know I not

7 How many hours per week have you previous academic year (1997/98) gemiddeld worked for:
   .... hour lesson college working parties per week
   .... hour practica/practical lessons per week
   .... hour house work/homework preparation - selfstudy per week
   .... hour totally per week

How many weeks have you previous academic year (1997/98) to following training period spent?
   .... weeks
How many weeks you have not worked previous academic year (1997/98) for your study?
(holiday, waiting times between study components, work paid, etc.)
   .... weeks

8 Finally questions we you to your study progress to now this academic year (1998/99). (If of study
have changed you, mentioned then the progress in your current study.)
a. Which part of annual programme that follows you in academic year 1998/99, had you
   sufficient afgemond on 1 February 1999:
on had 1 February 1999 L..... percent of the jaarprogramma of the academic year 1998/99
   sufficient wound up
b. You can say also how much credits have gained you so far in this academic year?
   1 yes, namely...... points of total...... points in the programma of the academic year
   2 no, we get none credits
   3 no, that know I not

B.Judgement concerning the study in previous academic year 1997/98

We are curious how you have the study in the previous academic year polite and how you look
back there on. Also at the appraisal of the kwaliteit of the education importance is more and
more bees attached to the judgement of students. You want indicate of the next range uitspraken to what extent these at you are appropriate? You can do this giving a figure between:
0 = does not pay absolutely my situation or experiences in the academic year 1997/98
10 = is appropriate exactly at my situation or experiences in the previous academic year
(N.B. if you are during the previous academic year of training veranderd, answer then for your first training.)

9 Judgements first of all follow concerning heatness of the study and studiebelasting that you have experienced. In hoevere to be appropriate these uitspraken at your situation or experiences in last academic year?

... There remained beside the study sufficient time for other matter
... I had enough time sufficient for me to prepare to colleges and working parties
... I had generally this way hard to study that I had enough time hardly still once what on breathes to come
... I had enough time sufficient for me to prepare to examinations
... It was for me practical unfeasible for the studieprogramma in the period set successfully at to pass through
... I had large effort the substance to master
... My occupations study prevented me frequently go up volledig, in my study
... I found the pressure of workload not terrible large
... It succeeded me concerning commonly to start swiftly with the teat amen preparation
... I was not possible the study tempo to keep up
... I raised essential foreknowledge
... The study was for me at difficult
... Subjects gave me problems
... It was lacking me to study skills
... The study was for me at easy

10 Then follow now a range judgements concerning your attitude compared with study in general it commonly and concerning the study that you have chosen. To what extent these judgements are appropriate at your situation or ervaringes in academic year 1997/98?
... I was satisfied with my study choice
... I was possible only st puffs to study
... I thought always more often to change to another studie (richting)
... I used all available time as much as possible for rapidly at studeren
... That training was appropriate entirely at me
... I tried always this way high possible figure to obtain
... I was satisfied concerning study effort which I had geleverd
... I found it, difficult for me to strain for uninteresting study components
... I had the inclination obligations to postpone
... My itself discipline was well
... I was possible me generally during studying well concentreren
... The study was not what I of it had expected; she disappointed me
... I knew that I more energy in my study stoppen would have, but I could put myself to this end not.

... I found my study concerning commonly captivating.

... I did not feel myself at home that training.

... I had generally pleasure in my study.

... I found it nice for always new soliciting to learn in my study.

... If I thought of my study I became sometimes despondent.

... Generally it is found, however, pleasantly for to the study day at beginnen.

11 Vervolgens come there a range judgements concerning environment, contacts with the instructors and study accompaniment. In hoevere are appropriate these pronunciations at your situation or experiences in the last academic year?

... The mutual environment on factoriaschool was concerning the algemeen well.

... I had the impression that instructors not or hardly interested are in their students.

... Most of the instructors stalls on price when you approached then outside colleges or working parties with questions.

... There were sufficiently possibilities to exert influence on what there during the education happened.

... I had also sometimes social contacts with instructors outside education.

... It was easy contact to lay with instructors.

... I was generally dissatisfied concerning the bereikbaarheid of instructors (telephonically, on internet).

... The instructors gave your rapidly at to bear if you worked well or not well.

... You get insufficiently detailed comment at your work.

... Instructors and study consultant sufficient social-emotionaly ensued understoeying.

... My tutor (s) (of absent; my instructors) knew me personally.

... My tutor (s) (if absent; my instructors) had always the good data at the hand as you something asked.

... I knew at least one docent could request that I possibly aid.

... I knew many students that I aid could ask if that necessary could.

12 There is the last years much attention for how well studies in each other sit (statusberichtheid of studieprogramma's), next range is make judgements. To what extent these are appropriate uitpraak at your situation or experiences in the previous academic year?

... The study occupations of several study componentes overlapped each other too much.

... The consistency in education programme was unclear.

... The organisation and education set-up included a lot of unproductive bezigheden and loss times.

... The study material was generally too late beschikbaar.

... At the beginning of programme could there generally be studied little (forced onderbelasting).

... Initially it was generally vaguely what you had to do for the voorbereiding of an examination.

... I was possible with difficulty altitude get of the test examen requirements.
... At the test amen preparation I could evaluate generally not well or the substance sufficiently mastered (too few feedback)

... Grading was unbalanced: on some days of the week you had follow a lot of education and on other correctly complete little

... I or more examinations were more heavily than I in reasonableness could have expected

... I or more examinations were differently than the examination requirements which me confessed products

... Important sharing the substance to be just short for the examination behandeld

... Following education, was not necessary to obtain the examination

... The books and study material offered me insufficient support for doelmatige study

... The syllabi were of bad quality

13 Also personal circumstances and social contacts are able play belangrijk a role as yes or ne well expired of the study. To what extent the following uitspraken are appropriate at your situation or ervaringen in the afgelopen academic year?

... My own social situation knew many tension sources

... I had sufficient friends under my students

... I made easily new knowledge

... I had sufficient contact with students

... I felt myself often solitary

... I found the difficult contact to lay with students

... My bad study-enjoyed other lifestyle then I

... I felt myself a herd animal

... I had sufficiently social contacts

... My living situation assessed as pleasant

For me it was optimally study practically unfeasible by:

... obligations study, not related to the study

... obligations study, however, related to the study

... because I have been sick or physically/mentally in optimum condition was not

... because I was possible myself not well concentrate if I tried at studying
14 Further we want gladly still what to know concerning your experiences with werkomstandigheden on your school or institute during the previous academic year.
In the spaces where I must be because of my study regular I have frequently entarrrassment of: (circle what kind of you applies)
  yes no
1.2 unpleasant temperature (heat, warmth, wisselingen)
1.2 unpleasant ventilate (, wet, excursion, unclean ventilates)
1.2 bad intelligibility of instructors
1.2 insufficient (maintain of) safety prescriptions
1.2 insufficient and/or unequal toilets
1.2 found oneself body attitudes (such as: uncomfortable to sit, no good furniture)
1.2 bad canteen supplies
1.2 bad library supplies
1.2 bad and/or insufficient study spaces
1.2 bad examination rooms
1.2 bad computer facilities
1.2 too full systems of education/college rooms
15 a. Following the study becomes influenced by a handicap or chronic sickness?
   0 No (continue with ☐ question 16)
   1 yes
b. What is the nature of the handicap or the chronic sickness?
   1. allergies, disorder air ways
   2. damage of movement apparatus
   3. visually handicapped/blind
   4. hearing impaired/deaf
   5. chronic metabolisms disturbance/ liver/kidney or bowel sicknesses
   6. mental sickness
   7. skin sickness
   8. chronic problems throat -, nose - or ears
   9. damage of central nerve scheme
c. To what extent becomes your study handicap or sickness influenced?
  not 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 very strong
d. You for the study has a special initial interview conversation conducted?
   0 no
   1 yes
e. A special contact for you has been appointed from training?
   0 no
   1 yes
f. You have appealed to the possibility for obtaining lengthening of study financing?
   1 no, I do not intend also
2 no, but I go (probably) however, do
3 no, I am not informed of the possibilities
4 yes, I have requested

16. Concerning the connection of the profession parcel from Continued education at a study in the higher education frequently exist doubts. We want gladly know to what extent you are faced in your study with restrictions of your more earlier germaine choice of professions. I have in my study thought, I had several keren in my profession parcel but... getrozen. (You can maximum two professions circle.)

<table>
<thead>
<tr>
<th>No.</th>
<th>Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>absolutely no profession</td>
</tr>
<tr>
<td>1</td>
<td>English</td>
</tr>
<tr>
<td>2</td>
<td>German</td>
</tr>
<tr>
<td>3</td>
<td>French</td>
</tr>
<tr>
<td>4</td>
<td>Maths a</td>
</tr>
<tr>
<td>5</td>
<td>Maths b</td>
</tr>
<tr>
<td>6</td>
<td>Maths (general)</td>
</tr>
<tr>
<td>7</td>
<td>History</td>
</tr>
<tr>
<td>8</td>
<td>Geography</td>
</tr>
<tr>
<td>9</td>
<td>Economy I</td>
</tr>
<tr>
<td>10</td>
<td>Economy II</td>
</tr>
<tr>
<td>11</td>
<td>Economy (commonly)</td>
</tr>
<tr>
<td>12</td>
<td>Trade sciences</td>
</tr>
<tr>
<td>13</td>
<td>Biology</td>
</tr>
<tr>
<td>14</td>
<td>Physics</td>
</tr>
<tr>
<td>15</td>
<td>Chemistry</td>
</tr>
<tr>
<td>16</td>
<td>Latin</td>
</tr>
<tr>
<td>17</td>
<td>Greek</td>
</tr>
</tbody>
</table>
C. Situation at this moment

17. Do you follow now (spring 1999) still education?

1 yes, I follow full-time education
   → go further with question 27 (onderdeel E)
2 yes, I follow education in part-time
   → go furthermore with question 27 (onderdeel E)
3 no, I only follow but cursus
   → go to the volgende question (onderdeel D)
4 no, I follow on this moment entirely none onderwijs
   → go to the next question (onderdeel D)

D. Questions for as you now only cursus or helemaal follow no education

18. When you have the education leave?
   month: .... (figure between 1 and 12)
   year: ...... (98 or 99)
   And you have training, which you that moment left, concluded with a diploma?
   1 no, I have stopped without obtaining the diploma
   2 no, only certificates
   3 no, only theory examination
   4 yes, I have the diploma obtained, namely:
      a Hbo-propedeuse
      b WO-propedeuse
      c Hbo-end diploma
      d WO-doctoral diploma
      e differently, as it happens: .........

19. How is your situation now? (circle the number that with your situation corresponds most)
   1 I have a job paid employment
   2 I have own company/shop
   3 I act on family company (shop, farm etc.)
   4 I have no job, but missing work
   5 I have no job and I missing also no work
   6 I work in household
   7 differently, namely: ...............

20. How many months listed it for you your first job found since have left of the onderwijs?
   1 not of application, because no job have or gezocht
   2 I worked already then the education left
   3 ...months found I my first job
   How much time has you applied since you the education has left?
   ... time applied
21 a) if you work after stopping training or, has been this first job; then you has worked since you the onderwijs has had leave? (If you had already work, the moment you left the education, consider that then as your first job).

1) I have had no job since I have been teaching left
(→ → go to question 24)
2) yes, this is my first job after leaves of onderwijs
(→ → go to question 22)
3) no, I have already more than had left one job have had since I the education
4) I have had a job, but now no longer

b) why you of job have changed or have stopped? (Circle maximum 2 reasons, which were for you most important.)

1) work was under my level
2) the salary was too low
3) the environment at the work did not please me
4) were little there career perspectives
5) mine (temporary) contract expired
6) I was dismissed
7) differently

22 You can indicate which opleidingsniveau best dovetails the work that you perform or have performed:

1) Lio/mavo
2) Higher General Secondary Education
3) student being
4) Mbo
5) VWO
6) Hbo
7) Wo

23 a) How many hours work you per week?

...... hour per week

b) What is the nature of your service link?

1) fixed appointment
2) temporarily, with view on fixed service link
3) temporary appointment
4) independent
5) freelance

6) by means of employment agency

c) You find that the level of your current function corresponds to your competences?

1) these function has been paid attention low to my competences
2) these function dovetails good my competences
3) these function has been paid attention high to my competences
1. How satisfied are you with work which you have now? Daarvoor geef een figuur tussen 0 (= absolutely dissatisfied) en 10 (= extremely satisfied). figure: ...

24. What are your netto-inkomsten per month from labour (renumerations) and/or from uitkering? (S x p. winst per ongoed van volledige gaar) My netto-inkomsten labour is f. per month. I have a benefit of (net) f. per month. How satisfied are you with entering which you have now? Reflect daarvoor een figuur tussen 6 (= absolutely dissatisfied) and 10 (= extremely satisfied). figure: ...

25. You, afterwards, would consider again choose for onderwijs that you have now followed?
1. yes, I again the same motives (+ > go to question 26)
2. no, I me then restrict to a training of lower niveau
3. no, I another choose training (specialisation) and/or institution, namely: 

... why would you consider, afterwards, another study choice to make? (Circle maximum 3 reasons, which are for you most important.)
1. that other study is lusher and more interesting
2. those other studies offer more chance on a job
3. those other studies offer more chance on a good maatschappelijke position (income, certainty, status)
4. those other studies offer more chance on nice work and/or like people of cooperating
5. those other studies are easier
6. that other institution is much improve
7. differently, namely: ...

You think that you will go in the future still study? That can next (studie)jaar be but also just concerning a number of years, after you firstly what differently has done. We ask you for the next range uitgesproken to assess with a figure between 0 and 10, where:
0 = this pronouncement is appropriate totally not at me
10 = this pronouncement is appropriate exactly at me
...
... I have stopped temporarily with to study
... A study in higher education is nevertheless nothing for me
... I go only still but study if I apply moreover my own can observe
... A new study goes me at long lasting
... I have of study enough
... Without a new study is possible I get also nice work (or behouden)
... I go only still but study if my boss pays it
... I find living as a student on hogeschool or university not nice
... Without diploma of university or college has you but little chance on social career
... If I weerga study krijg I, however, a very large study debt
... I go rather firstly once what look around for a further weerga to study
To study leker would be as theory (learn) and practice (work) geconbineerd could
... I go only still ba cursussen follow
... With a paid job have you more future perspective than with a new study
... A new study seems me difficult
Go now further with the questions of part g (question 41 and further);
Part e and f can skip you.

1. Questions for as you at this moment, however, education follows

Do 17 what kind of study/training follow you at this moment? (If you follow more than 1 study, fill in this question then for your belangrijkste study.)

a. I follow education

(name institution/school): ........................................
at (place): ........................................

b. The study that I follow named in full: ........................................
c. The study lasts officially

.... year and .... months

d. I stand registered as:

1 student - volledig
2 student - part-time
3 externus
4 auditor
e. The level on which I teach follow is:

1 Mbo
2 Hbo Propedeuse (first year programme)
3 Hbo head phase
4 Hbo Programme shortens (briefly hbo)
5 Wo Propedeuse (first year programme)
6 Wo head phase (doctoraal programme)
7 Wo Programme shortens (short Wo)
8 Wo Postgraduate programme (second phase opleiding)
9 differently, as it happens: ........................................

f. As you a training in Hbo or the Wo follows in which sector falls that training?

More higher profession education scientific onderwijs

1 economy 
2 socially agogic 
3 health 
4 agriculture
5 laboratory 
6 pedagogica
7 right
8 art/journalism
9 language and culture

communication
28 Which part of this study (as from the 1st year up to and including einddiploma) have you meanwhile successfully wound up?

a. I have approximately _____ percent of the total study wound up
   (fill in a number between 0 = component still absolutely no gained; and 100 = einddiploma gained)
   
   b. You can express this also in a number of credits?
      1 since I with the study have I started, _____ points of total _____ points in total studioprogramma gained
      2 no, we get none credits
      3 no, that know I not
      c. You have, on the basis of your voortopleiding, also exemption (en) got partly of this study?
         1 no, none exemptions
         2 yes, for the size of approximately _____ credits
         3 yes, for the size of approximately _____ months study

29 You can your motivation for the study/training September 1997, September 1998 and now seegerven with a figure between 0 and 10?
   my motivation September 1997 was:______
   my motivation September 1998 was:______
   my motivation now is:______

30 How many hours per week you work in this study year (1998/99) gemiddeld to your study?
   _____ hour lesson college working parties per week
   _____ hour practical/practical lessons per week
   _____ hour house work/examination preparation - zelfstudie per week
   _____ hour totally per week

31 Intend you the end diploma of your current study obtain to will?
   1 yes, to my current education institution
   2 yes, but probable to another education institution
   3 that depends of it
   4 no, that is not 1 of plan

If your answer 3 or 4 is (no or that depends of it) is possible you then aangeven on which factors it does depend? (you can maximum two antwoorden onvinkelen)
   1 of my aptitude for the study
   2 of my motivation
   3 of my decision for to sway to andere study
   4 of my financial situation
   5 of my privé-situatie
   6 of my health
32. How large you consider the chance for the end diploma at do opleiding obtain which you follow now of the studie? 
I give myself........ percent chance of obtaining the end diploma 
(number between 0 and 100 invullen)

33. How long expects there still you to repeat for that end diploma to obtain? 
I expect concerning..... year and..... months the end diploma to obtain

34. Plans concerning further education in future? 

a. Has you at this moment plan for after round-off of your current training (further) to wil study in the higher education? 
1 no, I have (still) none concrete planning 
2 yes, (regular) HBO-opleiding 
3 yes, 2e phases profession training in HBO (for example framework or voortgezet training) 
4 yes, (regular) Wo-opleiding 
5 yes, Koor-Wo training for HBO-pedagogique
6 yes, Aio-opleiding in the Wo (premition) 
7 yes, 2e phases profession training in the Wo 
8 yes, university secondary teacher training 
9 yes, a training to medical specialist 
10 differently, namely .....................

b. You seem attractive (yes or no as AIO) to go up in the Wo? 
1 yes, and I have clear plans 
2 yes, but only vague plan in that direction 
3 yes, but no plans 
4 no, seems me not attractive

c. Apart from the question or you it attractive gladly finds, want we know how you assess the chance that sufficient capacities have to go up. 
I give myself..... percent chance for the degree of doctor (scientific promotion in one of the wagscheppe) to obtain I would want that (number between 0 and 100 fill in)

35. We want questions now something concerning your social situation. 

a. How is your wonsituatie at this moment? 
1 living at home (at ouders) 
2 living independently with a family 
3 living independently in a student flat 
4 living independently in a private room 
5 independent living space 
6 differently, namely......................

b. Do you have at present a fixed partner? 
1 yes 
2 no

c. Do you live and your partner on the same address?
1 yes.
2 no.
d. How do you go normally of your place of residence to the place where you follow education? It chooses you alternative that have most used you in resp. summer and winter. (As you part takes off with bijn. the bicycle and a part with the train, choose you then it alternative that the largest part of travel covers).
   1 go to my training:
      summer winter
      1 at foot 1
      2 with the bicycle 2
      3 with brommer/moteme/scouter 3
      4 with the car, only 4
      5 with the car, with others 5
      6 with the public transport 6
36 How for beside the study (possible tijdelijk) paid work perform to will or do you that now already?
   1 yes, I work already beside my study
   2 yes, I attend work to will perform (continues with question 37)
   3 no, I am not of plan beside my study to will work (continues with question 37)
b. How many hours per week you work?
   ...... hour per week
   c. Connects this work at training which you follow now?
      1 yes, it enclouses my current training
      2 no, it has nothing at make with my training
d. Glady we want know or working has also impact for your study. You want assess the following situations by knowing a figure of 0 to 10, where 0 = completely incorrect and 10 = completely correct
   .... I cannot visit some education meetings for time reasons
   .... I study more targeted, because I see where it rises to
   .... I have enough time too little for a thorough preparation (also examination - voorbereiding)
   .... I have received pulses from the work for my study activities
   .... My income push me able longer student to remain
   .... My to graduate is slowing down (unfortunately).by
   .... The study stands for me no longer this way in the centre
   .... In fact the study is still only one constactivity
37 We want gladly know from which sources you study finances. We ask you for this reason for the month of February 1999 to at to give which inkersten have you from each of the financieringsbronnen mentioned below. (S.v.p. wind up on complete guides). As a memory support we mention some rough attentive amounts at study financing. You received exactly that amount, then you can be enough with circling the concerning amount.
a. My income in February 1999 was:
<table>
<thead>
<tr>
<th>Maximum dependent at home</th>
<th>Maximum independent</th>
<th>Other sums fill in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic grant</td>
<td>f 135,-</td>
<td>f 435,-</td>
</tr>
<tr>
<td>Supplementary grant</td>
<td>f 414</td>
<td>f 344</td>
</tr>
<tr>
<td></td>
<td>f 449</td>
<td>f 579</td>
</tr>
<tr>
<td>Student loans **</td>
<td>f 383,-</td>
<td>f 383,-</td>
</tr>
<tr>
<td>Contribution others/guardians</td>
<td>f.....</td>
<td></td>
</tr>
<tr>
<td>Contribution partner</td>
<td>f.....</td>
<td></td>
</tr>
<tr>
<td>Income own arheid</td>
<td>f.....</td>
<td></td>
</tr>
<tr>
<td>Income payment</td>
<td>f.....</td>
<td></td>
</tr>
<tr>
<td>Precessing saving</td>
<td>f.....</td>
<td></td>
</tr>
<tr>
<td>Differently, namely......</td>
<td>f.....</td>
<td></td>
</tr>
<tr>
<td>(Total net-income)</td>
<td>f 893.45</td>
<td>f 1228.45</td>
</tr>
</tbody>
</table>

* Individual insured resp. health insurance paid
** The maximum loan is higher, Netherlands: f 768.45 resp. f 803.45
b. Are you insured individual?
 1 yes
  2 no
c. Total monthly income, incl. incidental grants/income $ f ....... contribution (r) in kind receive for the value of f .........,**
d. How satisfied are you with your current income? Give for that a figure between 0 (= absolutely dissatisfied) and 10 (= extremely tevreden). figure:.....

38 In the previous question or you have already indicated you already then not studielening have. We want gladly more of your opinion concerning studielening know. We preserve you a number of judgments and ask you hoevere you it with that once is giving a figure between:
  0 = totally in disagreement; and
  10 = entirely once.

... I do rather what longer my study by moreover will work, then that I a study loan take
... It is normal that you for an investment in your future, such as must lead a study, money
... If I after my study good job krijg, I cashly my possible study debs in able relay
... I am frightened that my study debt still years if molestieen will have my ring
... If I be obliged to conclude a study loan, then I stop rather with study
... Compared to my future mortgage for its own house does not put a study debt so much for
... If I have to repay the loan a good did not pay off job to find I also much will need
at discharge of my eventual study debt
... The society more must invest in students and they do not have burden with study debts
... You can better money of your parents or of friends lend, then that you must conclude a study
loan
... I find the interest percentage of study loans much too high

39 Possess you a Voe-jankaart?
1. No
2. Yes, a week card
3. Yes, a weekend card

40 Internalisation is objective of much training. To what extent you have gained experience in foreign
Country or is you still of plan acquire this?

a. You has a training period run, abroad?
   1. No, I do not intend also
   2. No, but that intend 1
   3. Yes

b. You has education/ cursus followed abroad?
   1. No, I do not intend also (go further with question 41)
   2. No, but that intend 1 (go further with question 41)
   3. Yes

c. You have followed training period and/or education/ cursus, how long are you for that abroad
   are?
   □ Months for training period
   □ Months for education/ cursus

d. Which country/ continent has you visited for training period or education/ cursus?
   1. Great Britain
   2. Germany
   3. Belgium
   4. France
   5. Other one Member State European Union, Netherlands,
   6. United States
   7. Other country America, Netherlands,
   8. Africa, Netherlands
   9. Asia, Netherlands
   10. Oceanic, Netherlands
A stay abroad is organise not always this way easily. You can indicate or you in your situation to do has had with the circumstances mentioned below. We ask you reflect a figure between 0 and 10, where 0 = does not apply totally to me and 10 = applies exactly to me

... No idea how you must organise it
... No idea where your subsidy can request
... No idea where I to would want
... Financial contributions are much too small
... It is ordinary obligatory in my training
... Only in foreign country seems me not nice
... None space in the curriculum
... No time link with study financing
... applications for support and recognition credits lasts terribly long

41 In this question we want know something concerning your inkomensverwachtingen. In the first place we want gladly know which to enter expects you with the diploma of your current training:

a. a commencement salary; and
b. the peak of your career;

In the Second place we these income expectations also off you want can when you other study would follow c. and d.

You now follow an exact study (technical or scientific training) then wants we gladly income expectations know with the end diploma of not-exact the study of your first preference.

You now follow not-exact a study then we want gladly know the inkomensverwachtingen with the diploma of exact study of your first preference.

Here too it concerns then the commencement salary (c.) and it salary on the peak of your career (d.).

We know that such estimates with difficulty be to give. Try answers nevertheless as well as possible to value. Fill the inkomensverwachtingen of your own study a. and b., and the verwachtingen at other study c. and d.

My estimate of the net salary per month at full-time job (circle a figure in each column)

<table>
<thead>
<tr>
<th>study of alternatie</th>
<th>beginning top beginning top</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than f 1000, -</td>
<td>0.0, 0.0</td>
</tr>
<tr>
<td>f 1000, - to f 1250, -</td>
<td>1.1, 1.1</td>
</tr>
<tr>
<td></td>
<td>2.2, 2.2</td>
</tr>
</tbody>
</table>
42 Previous years have asked we you for your experiences with information and communication technology (ICT). Still it is use of ICT in development. Which experience has acquired you with ICT within and outside the education?

a. Do you have his own e-mail address? (you can several answers tick)
   1 no
   2 yes, by means of institution
   3 yes, private

b. You can give an estimate of average number of hour per week that you in the last whole year (sept. 98 to febr. 99) have used for ICT? We ask that separately use on the institution where you study and use this.

<table>
<thead>
<tr>
<th>Activity</th>
<th>On institution (h/a/wo)</th>
<th>At home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson/practical material</td>
<td>.... hour</td>
<td>.... hour</td>
</tr>
<tr>
<td>Tasks/preparation</td>
<td>.... hour</td>
<td>.... hour</td>
</tr>
<tr>
<td>Internet - for study</td>
<td>.... hour</td>
<td>.... hour</td>
</tr>
<tr>
<td>Internet - private</td>
<td>.... hour</td>
<td>.... hour</td>
</tr>
<tr>
<td>e-mail - for study</td>
<td>.... hour</td>
<td>.... hour</td>
</tr>
<tr>
<td>e-mail - private</td>
<td>.... hour</td>
<td>.... hour</td>
</tr>
<tr>
<td>Games</td>
<td>.... hour</td>
<td>.... hour</td>
</tr>
</tbody>
</table>
c. In some training one uses of newest multimedia techniques. Can indicate you or you of mentioned below examples have heard, or perhaps even already experience has acquired?
Circle always an alternative:
1 = never heard of
2 = heard of
3 = experience gained
Choose the alternative which is appropriate for the best at your situation:
1.2.3 Video conference
1.2.3 Audio conference
1.2.3 Computer conference
1.2.3 lessons choose by tel.
1.2.3 lessons choose of CD-ROM
1.2.3 lessons choose of video
1.2.3 Use e-mail for questions and obtain to answer instructors
1.2.3 Use chat-program for questions and to answer instructors and students
1.2.3 Bulletin use board systems for questions and answers instructors and students

d. You make this academic year use of e-mail or Internet for the contact with student administration or with instructors?

E-mail Internet
yes/no contact student administration yes/no
yes/no contact instructors yes / no
Hlock questions for everyone

43 Numbers of you have changed of study or even stopped with study, without getting the end diploma. Others have predominated stop if to sway.
  You need this also for you apply, want you then in the list mentioned below live for you most important reasons aangeven? (You can maximum 5 figures circle)
  1 I did not find the study interesting
  2 I found another study more interesting
  3 The 3 studies were for me too difficult
  4 The studies were for me too easy
  5 I experienced environment the students unpleasant
  6 The contacts with instructor were unsatisfactory
  7 I found the study a practically-oriented
  8 I found the study at theoretical
  9 I indicated the preference paid a job
  10 Afterwards was study nevertheless nothing for me
  11 I found the chance on nice work after the study too small
  12 I found the chance of well enter after the study too small
  13 By my financial situation had stop I with the study
  14 By personal problems had stop I with the study
  15 I was frightened that my study debt very large would become
  16 The organisation of training was very bad

44 How much chance says for you itself for within 10 years to graduate:
  a more than $100,000 - gross by year to deserve?...... % chance
  b more than $250,000 - gross by year to deserve?...... % chance
  c more than $500,000 - gross by year to deserve?...... % chance

45 A student who has study financing and falls under the rules which apply for performance grant get for the Second, third and fourth study year no (basis)beurs but firstly a conditional loan. These are just converted into a grant when he gains the end diploma within six years. (At cursusdaur of more than 4 years is both the period of voorwaardelijke loan, as the period within which the diploma must be gained also longer.)
  Couple now that you the third or fourth study year an attractive job gets offered and you realise that you will not succeed by that job for within six years the end diploma to gain. What would you do then?
  The 1 job not to accept, but firstly within the time graduates so that conditional loan is converted to a grant
  2 As condition to employer couples, who that anyway that pays part of the studieschuld
  3 Accept the job and (extra) the study debt on the buy increases

46 You can give an appraisal of your wishes at looks of your toekomstige position in the society?
We ask you of the following aspects how much importance you are attached to the future this to reach, where:

0 = no, I find not at all important
10 = yes, very strong important

.....work with career possibilities
.....work connects that at personal interests
.....work in which I my capacities can exploit
.....work that status has
.....labour certainty
.....high salary and allowances
.....good secondary labour agreements
.....none heavy mental task is
.....none heavy task tax in time
.....distance between work and place of residence
.....prefer people for at to work
.....time for friends and other leisue solicit
.....children
.....new soliciting, challenge

47 We want gladly know how you it work in several organisations assesses. You can grant a figure to the following organisations, where 0 = do not want I decide to work

10 = I want terribly gladly to work

.....Multinational
.....Small, rapidly growing venture
.....Large nationally or regional company
.....Independent entrepreneur
.....Small nationally or regionally operating company
.....University or research office
.....Rural government (ministries)
.....Sub-national authority (province, municipality)
.....Nonprofit organisation
.....International organisation (European Union, United Nations, etc.)

48 There is the last years much discussion concerning the planning of the complete couple of higher education. The Netherlands. For example for the desirability of more prestige differences institution. Or concerning the admission rules to the higher education. You can judgement gives concerning judgements mentioned below, where apply:

0 = totally in disagreement
10 = entirely once

.....Publishing study performances of students by institution makes a contribution to the quality of higher education
...Publishing judgements concerning the education of students by institution makes a contribution to the quality of higher education.

...My institution must itself on the point of prestige differences between institutions much more clearly profile themselves.

...End examination continued education must stipulate to which training has your access.

...Institutions must be select entirely free to to poort.

...The difference between HBO and Wo is artificial.

...I study (de) for my study to the best institution of The Netherlands.

...The graduates of my training belong to the top of The Netherlands.

...The research of my training belongs at the top of The Netherlands.

...The instructor of my training belong to the top of The Netherlands.
Again thanks warmly for filling in.

Wheel the questionnaire in the answer envelope enclosed
(postage stamp is not necessary).

If you want observations which you could not in the questionnaire lost make still then you can
make that on the special space on the back of this notebook.
Appendix M
1991 C Questionnaire Chi-square tests
Chi-square tests for Parental Education Level, Father's Income Level, Joint Parental Income and Student Institutional Choice and Enrollment Level (Full-time/Part-time) Variables in 1991 from Questionnaire C (Students enrolled in HBO and WO Baccalaureate Institutions)

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<th>No income</th>
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<th>Std.</th>
<th>Residual</th>
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Table M1

Father's Income per Month * Currently Full-time or part-time studies? Currently Full-time or part-time Total

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<td>Std.</td>
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<td>5000-5500</td>
<td>Count</td>
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<td>.2%</td>
<td>5.3%</td>
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Table M1 (continued):

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<td>% of Total</td>
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Chi-square tests:

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<td>Linear-by-Linear Association</td>
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Note. a 1 cells (3.8%) have expected count less than 5. The minimum expected count is 3.13.
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<th>Current level of studies</th>
<th>Total</th>
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<td>Hbe - professional degree</td>
<td>Wo - University degree</td>
</tr>
<tr>
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<td>Count</td>
<td>Count</td>
</tr>
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<td>.7%</td>
<td>9%</td>
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<tr>
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<td>We- University degree</td>
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Table M2 (continued)

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Chi-square test

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Note. * 8 cells (20.5%) have expected count less than 5. The minimum expected count is 94.
Table M3

*Joint Parental Income per Month * Currently Full-time or part-time studies?

<table>
<thead>
<tr>
<th>Joint Parental Income per Month</th>
<th>Currently Full-time or part-time</th>
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<td></td>
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<td>Part-time</td>
</tr>
<tr>
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<td>1.2%</td>
<td>.2%</td>
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<tr>
<td>Std. Residual</td>
<td>-.1</td>
<td>.3</td>
</tr>
<tr>
<td>1500-1750</td>
<td>23</td>
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<td>Expected Count</td>
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<td>.8</td>
</tr>
<tr>
<td>2500-3000</td>
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<td>Part-time</td>
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<tr>
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<td></td>
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Chi-square tests

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Note: * 8 cells (33.3%) have expected count less than 5. The minimum expected count is .72.
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<td>2.6%</td>
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<td>Wo - University degree</td>
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<td>Hbo professional degree</td>
<td>Wo University degree</td>
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<td>----------------------</td>
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<tr>
<td>Pearson chi square</td>
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<tr>
<td>Linear-by-linear Association</td>
<td>12.760</td>
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<tr>
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</table>

Note. * 14 cells (33.9%) have expected count less than 5. The minimum expected count is .24.
### Table M5

**Mother's Education Level Consolidated * Currently Full-time or part-time studies?**

<table>
<thead>
<tr>
<th>Mother's Education Level Consolidated</th>
<th>Currently Full-time or Part-time studies?</th>
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<tr>
<td></td>
<td>Full-time</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>1 Primary Education or Less</td>
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</tr>
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</tr>
<tr>
<td>2 Secondary</td>
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</tr>
<tr>
<td>Professional</td>
<td>1353.5</td>
</tr>
<tr>
<td>Preparation or practical Training</td>
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<td>Preparatory Training</td>
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<td>Training</td>
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<td>4 HBO Professional Degree Programs</td>
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### Chi-square tests

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*Note.* 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.37.
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<th>Std Residual</th>
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<td>Std Residual</td>
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### Chi-square tests

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*Note:* 1 cells (6.7%) have expected count less than 5. The minimum expected count is 4.63.
### Table M7

**Father's Education Level Consolidated * Currently Full-time or part-time studies?**

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### Chi-square tests

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<tr>
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**Note:** 0 cells (.0%) have expected count less than 5. The minimum expected count is 21.70.
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### Chi-square Tests

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*Note: 8 cells (9%) have expected count less than 5. The minimum expected count is 6.07.*
Chi-square tests for Parental Education Level, Parental Income Level and Student Institutional Choice and Enrollment Level (Full-time/Part-time) Variables in 1997 from Questionnaire 1 (Students enrolled in HBO and WO Baccalaureate institutions)

Table N1

Father's net monthly income * Educational institution type

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<td>Wo</td>
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<td>Count</td>
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### Chi-square tests

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Note. * 15 cells (33.3%) have expected count less than 5. The minimum expected count is .57.
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Chi-square tests

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Note: * 17 cells (37.8%) have expected count less than 5. The maximum expected count is .02.

Table N3

Mother’s Education Level Consolidated * Level of Enrollment in 1997

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<td></td>
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<tr>
<td>2 Secondary Professional or Less</td>
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Note: * 17 cells (37.8%) have expected count less than 5. The maximum expected count is .02.
Table N3 (continued)

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<tr>
<td>4 Some College, No Degree</td>
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Chi-square tests

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Note: * 0 cells (0%) have expected count less than 5. The minimum expected count is 9.96.
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<td>Less</td>
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Table N4 (continued)

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<tbody>
<tr>
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<tr>
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<tr>
<td>Degree or Higher</td>
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<tr>
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<td>1.0%</td>
<td>4.3%</td>
<td>5.4%</td>
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<tr>
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<td>-.4</td>
<td>-.6</td>
<td>6.7</td>
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<td>Count</td>
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<td>1906</td>
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<td>1906.0</td>
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<tr>
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<td>1.2%</td>
<td>50.2%</td>
<td>48.6%</td>
<td>100.0%</td>
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</tbody>
</table>

Chi-Square tests

<table>
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<th>Value</th>
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<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>256.019*</td>
<td>10</td>
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<tr>
<td>Likelihood Ratio</td>
<td>266.014</td>
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<tr>
<td>Linear-by-Linear Association</td>
<td>216.037</td>
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Note. * 2 cells (11.1%) have expected count less than 5. The minimum expected count is 1.51.
<table>
<thead>
<tr>
<th>Father's Education Level Consolidated</th>
<th>Educational Institution Type</th>
<th>Missing</th>
<th>Hoo</th>
<th>Vlo</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Values</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Primary</td>
<td></td>
<td>Count</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education or less</td>
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<td>331.4</td>
<td>312.9</td>
<td>158.0</td>
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<td></td>
<td>18</td>
<td>727</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td></td>
<td>14.3</td>
<td>621.7</td>
<td>587.0</td>
<td>1223.0</td>
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<td>1.0</td>
<td>4.2</td>
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<td>3 Secondary</td>
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<td>Preparatory</td>
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<tr>
<td>Education</td>
<td></td>
<td>1.0</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Some College, No Degree</td>
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<td>2.0</td>
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<tr>
<td>Professional Degree</td>
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<td>409.7</td>
<td>386.9</td>
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<td>6 WD University Degree or Higher</td>
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<td></td>
</tr>
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</table>

Missing values: 
- Father's Education Level Consolidated: 6
- Educational Institution Type: 6

Expected Counts: 
- Father's Education Level Consolidated: 6
- Educational Institution Type: 6

% of Total: 
- Father's Education Level Consolidated: 2%
- Educational Institution Type: 2%

Std. Residual: 
- Father's Education Level Consolidated: -6
- Educational Institution Type: -6

Total: 
- Father's Education Level Consolidated: 652
- Educational Institution Type: 17.0%

Total: 
- Father's Education Level Consolidated: 17.0%
- Educational Institution Type: 17.0%
Table NE (continued)

<table>
<thead>
<tr>
<th></th>
<th>Missing</th>
<th>Hbo</th>
<th>WGo</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Values</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Total</td>
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<td>1846</td>
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<td>1846.0</td>
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<td>48.0%</td>
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Chi-square test:

<table>
<thead>
<tr>
<th>Value</th>
<th>d'</th>
<th>Asymp. Sig. (2-sided)</th>
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<tbody>
<tr>
<td>Pearson chi square</td>
<td>280.001*</td>
<td>10</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>287.944</td>
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</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>214.436</td>
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</table>

Note. * 2 cells (11.1%) have expected count less than 5. The minimum expected count is 2.0.
<table>
<thead>
<tr>
<th>Father's Education Level Consolidated</th>
<th>Level of Enrollment in 1997</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full-time</td>
<td>Part-time</td>
</tr>
<tr>
<td>1 Primary Education, or less</td>
<td>581</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>595.0</td>
<td>51.0</td>
</tr>
<tr>
<td></td>
<td>15.3%</td>
<td>1.7%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>-0.6</td>
</tr>
<tr>
<td>2 Secondary</td>
<td>1111.6</td>
<td>95.4</td>
</tr>
<tr>
<td>Professional</td>
<td>1085</td>
<td>111</td>
</tr>
<tr>
<td>Preparation or</td>
<td>28.8%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Training program</td>
<td>Std. Residual</td>
<td>-5</td>
</tr>
<tr>
<td>3 Secondary</td>
<td>291.9</td>
<td>25.1</td>
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<tr>
<td>Preparatory</td>
<td>Std. Residual</td>
<td>.1</td>
</tr>
<tr>
<td>Education</td>
<td>7.3%</td>
<td>.6%</td>
</tr>
<tr>
<td>4 Some College, No Degree</td>
<td>151</td>
<td>18</td>
</tr>
<tr>
<td>HBO Professional</td>
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<td>13.4</td>
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<td>Degree</td>
<td>Std. Residual</td>
<td>-4</td>
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<tr>
<td>5 HBO Professional</td>
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<td>Degree</td>
<td>735.9</td>
<td>63.1</td>
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<td></td>
<td>Std. Residual</td>
<td>19.7%</td>
</tr>
<tr>
<td>6 WO University</td>
<td>638</td>
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<tr>
<td>Degree or Higher</td>
<td>518.0</td>
<td>53.0</td>
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<td>Std. Residual</td>
<td>15.7%</td>
</tr>
<tr>
<td></td>
<td></td>
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</table>
Table N6 (continued)

<table>
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<th>Part-time</th>
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<tbody>
<tr>
<td>Count</td>
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<td>301</td>
<td>3809</td>
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<td>Expected Count</td>
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<td>301.0</td>
<td>3809.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>92.1%</td>
<td>7.9%</td>
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</table>

Chi-square tests

<table>
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<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson chi square</td>
<td>19.866*</td>
<td>5</td>
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<tr>
<td>Likelihood Ratio</td>
<td>20.699</td>
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<tr>
<td>Linear-by-Linear Association</td>
<td>16.877</td>
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</tbody>
</table>

N of Valid Cases: 3806

Note. * 0 cells (.0%) have expected counts less than 5. The minimum expected count is 13.35.
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<td></td>
<td>Missing</td>
<td>Hbo</td>
</tr>
<tr>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No income</td>
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<td>592</td>
</tr>
<tr>
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<td>649.5</td>
</tr>
<tr>
<td>% of Total</td>
<td>4%</td>
<td>20.6%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-0.4</td>
<td>1.8</td>
</tr>
<tr>
<td>&lt;1500</td>
<td>11</td>
<td>333</td>
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<tr>
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<td>319.4</td>
</tr>
<tr>
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<td>0.4%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>1.4</td>
<td>0.8</td>
</tr>
<tr>
<td>1500-1750</td>
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<td>0.1%</td>
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<td>2.7%</td>
</tr>
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<td>-3</td>
</tr>
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</tr>
<tr>
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<td>3000-3500</td>
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<td>.3%</td>
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<tr>
<td>Std. Residual</td>
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<td>-1.6</td>
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<td>4500-5000</td>
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<td>% of Total</td>
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<td>.4%</td>
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<td>Std. Residual</td>
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<td>-1.0</td>
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<tr>
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<tr>
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<td></td>
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<td></td>
<td>% of Total</td>
<td>.0%</td>
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<td>-.6</td>
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<td>Count</td>
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<td>Expected Count</td>
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</tr>
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<td></td>
<td>% of Total</td>
<td>.1%</td>
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<td>Std. Residual</td>
<td>-.4</td>
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<td></td>
<td>% of Total</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>Std. Residual</td>
<td>-.3</td>
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<tr>
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</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>.0%</td>
</tr>
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<td>Std. Residual</td>
<td>-.5</td>
</tr>
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<td><strong>Total</strong></td>
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<tr>
<td></td>
<td>Expected Count</td>
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</table>

**Chi-square tests**

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<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
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<td>Linear-by-Linear Association</td>
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<tr>
<td>N of Valid Cases</td>
<td>2879</td>
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</tr>
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</table>

* 16 cells (33.3%) have expected count less than 5. The minimum expected count is 0.07.

Note: * 16 cells (33.3%) have expected count less than 5. The minimum expected count is 0.07.
<table>
<thead>
<tr>
<th>Joint Parental Net Monthly Income</th>
<th>Level of Enrollment in 1997</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full-time</td>
<td>Part-time</td>
</tr>
<tr>
<td>No income</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Expected Count</td>
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<td>1.0</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.1%</td>
<td>.2%</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>.0</td>
<td>.0</td>
</tr>
<tr>
<td>&lt;1500</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Expected Count</td>
<td>4.6</td>
<td>4</td>
</tr>
<tr>
<td>% of Total</td>
<td>.9%</td>
<td>.0%</td>
</tr>
<tr>
<td>Std. Residual</td>
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<td>1500-1750</td>
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<td>0</td>
</tr>
<tr>
<td>Expected Count</td>
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<td>.9</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.1%</td>
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</tr>
<tr>
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<td>.3</td>
<td>-.3</td>
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<td>1750-2000</td>
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<td>3</td>
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<tr>
<td>Expected Count</td>
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</tr>
<tr>
<td>% of Total</td>
<td>3.6%</td>
<td>.6%</td>
</tr>
<tr>
<td>Std. Residual</td>
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<td>.8</td>
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<td>2000-2250</td>
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<td>1</td>
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<tr>
<td>Expected Count</td>
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<td>.9</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.9%</td>
<td>.2%</td>
</tr>
<tr>
<td>Std. Residual</td>
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<td>.1</td>
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<tr>
<td>2250-2500</td>
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<tr>
<td>Expected Count</td>
<td>13.7</td>
<td>1.3</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.1%</td>
<td>.8%</td>
</tr>
<tr>
<td>Std. Residual</td>
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<td>.4</td>
</tr>
<tr>
<td></td>
<td>Count</td>
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<tr>
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<td>-------</td>
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<tr>
<td>2500-3000</td>
<td>24</td>
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<tr>
<td></td>
<td>% of Total</td>
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<tr>
<td></td>
<td>Std. Residual</td>
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<tr>
<td>3000-3500</td>
<td>42</td>
<td>43.9</td>
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<tr>
<td></td>
<td>% of Total</td>
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<tr>
<td></td>
<td>Std. Residual</td>
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<tr>
<td>3500-4000</td>
<td>46</td>
<td>47.6</td>
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<tr>
<td></td>
<td>% of Total</td>
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<tr>
<td></td>
<td>Std. Residual</td>
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<td>4000-4500</td>
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<tr>
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<td>Std. Residual</td>
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<tr>
<td>4500-5000</td>
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<td>46.7</td>
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<td>% of Total</td>
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<tr>
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<tr>
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<tr>
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<tr>
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<td>41.2</td>
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<tr>
<td></td>
<td>Std. Residual</td>
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</tr>
<tr>
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<td>Full-time</td>
<td>Part-time</td>
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<tr>
<td>7000-9000</td>
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</tr>
<tr>
<td>Count</td>
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<tr>
<td>Expected Count</td>
<td>30.2</td>
<td>2.8</td>
</tr>
<tr>
<td>% of Total</td>
<td>8.0%</td>
<td>2%</td>
</tr>
<tr>
<td>Std. Residual</td>
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<td>&gt;9000</td>
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<td>1</td>
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<td>45</td>
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<td>Count</td>
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<tr>
<td>Expected Count</td>
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<tr>
<td>% of Total</td>
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Chi-square tests

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<th>Value</th>
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<th>Asymp. Sig. (2-sided)</th>
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<td>.112</td>
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<td>.056</td>
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<td>.019</td>
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<tr>
<td>N of Valid Cases</td>
<td>529</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * 14 cells (46.7%) have expected count less than 5. The minimum expected count is 43.
Appendix O

Paying for College
Paying for College
Changes Between 1990 and 2000 for Full-Time Dependent Undergraduates

Findings from
The Condition of Education 2004
Paying for College
Changes Between 1990 and 2000 for Full-Time Dependent Undergraduates

Findings from
The Condition of Education 2004

June 2004

Susan P. Chey
MPR Associates, Inc.
The National Center for Education Statistics (NCES) is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze, and report full and complete statistics on the condition of education in the United States and publish reports and specialized analyses of the meaning and significance of such statistics. Federal, state, and local education agencies use these data to improve their statistical systems, and review and report on education activities in other countries.

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John Wei
(202) 502–7478
John.wei@ed.gov
Preface

The Condition of Education summarizes important developments and trends in education using the latest available data. The report, which is required by law, is an indicator report intended for a general audience of readers who are interested in education. The indicators represent a consensus of professional judgment on the most significant national measures of the condition and progress of education for which accurate data are available. The 2004 print edition includes 38 indicators in six main areas: (1) enrollment trends and student characteristics at all levels of the education system from early childhood education to graduate and first-professional programs; (2) student achievement and the longer-term, enduring effects of education; (3) student effort and rates of progress through the educational system among different population groups; (4) the contexts of elementary and secondary education in terms of courses taken, teacher characteristics, and other factors; (5) the contexts of postsecondary education; and (6) societal support for learning, parental and community support for learning, and public and private financial support of education at all levels.

The 2004 edition also includes a special analysis that examines changes in student financing of undergraduate education between 1989-90 and 1999-2000, focusing on students who were enrolled full time and were considered financially dependent on their parents for financial aid purposes. To make the special analysis available to all readers interested in student financial aid, the special analysis is repeated here as a separate volume.
Paying for College
Changes Between 1990 and 2000 for Full-Time Dependent Undergraduates

A Decade of Change

The 1990s brought college tuition and fee increases that outpaced both inflation and growth in the median family income (U.S. General Accounting Office 1996, 1998). At the same time, federal, state, and institutional financial aid to students expanded (The College Board 2005a), and important changes were made in the structure of the financial aid system. At the federal level, the 1992 Reauthorization of the Higher Education Act expanded students' eligibility for need-based aid, raised student loan limits, and introduced unsubsidized loans for students regardless of their need. The resulting increase in borrowing has been one of the most dramatic changes in financial aid in the decade. Also during the 1990s, the federal government began to use tax credits to ease the burden of paying for college. States and institutions increased their grant programs, as well as the amounts awarded based on merit or a combination of merit and financial need, rather than need alone (The College Board 2000b; Horon and Peter 2005). As a result of these trends and events, the overall picture of what and how students pay for college has changed substantially since the early 1990s.

This analysis examines changes in student financing of undergraduate education between 1989–90 and 1999–2000, focusing on students who enrolled full-time for the full academic year and who were considered financially dependent on their parents for financial aid purposes. It briefly describes the increases in tuition and fees, major types and sources of financial aid available to undergraduates, data and definitions used, and where students enrolled. It then shows what prices they faced, how much they and their families were expected to pay from their own resources, and what types and amounts of financial aid they received. The analysis presents
the price of going to college in three ways: the total price (tuition and fees plus books and living expenses), the net price after taking grants into account, and the net price after both grants and loans are considered.

Although this analysis describes how students have used financial aid to help pay for college, it does not address the costs of financial aid or providing access to college. Only students who actually enrolled were included—that is, those who were able to assemble the necessary financial resources. The analysis does not include prospective students who may have been discouraged by the price of going to college, found the available financial aid inadequate to their needs, or were unable or unwilling to borrow the amount needed to enroll.

Tuition and Fee Increases

College prices were relatively stable during the 1970s, but increases in tuition and fees began to outstrip growth in consumer prices during the early 1980s, raising much public concern about college affordability (The College Board 2003a). Figure 1 shows the annual percentage increases in tuition and fees at different types of institutions between 1989–90 and 2002–03. In the public sector, annual increases were mostly in the 10 to 14 percent range in the early 1990s. A period of more modest annual increases followed, ranging from 4 to 6 percent at 4-year institutions and less than that at 2-year institutions. In the past couple of years, however, growth has accelerated again, and between 2001–02 and 2002–03, tuition rose by 9 percent at public 4-year institutions and by 7 percent at public 2-year institutions. At private 4-year institutions, annual percentage increases have been more even. Compared with the increases at public institutions, they were generally not as high in the early 1990s, were about the same in the mid-1990s, and have not shown the recent upsurge.

Student Financial Aid

Aid consists of grants or merit-based scholarships that do not have to be repaid, loans that must be repaid, and work-study that requires work (usually on campus) in exchange for aid. Aid providers use different criteria for distributing aid to students, depending on their goals. Many federal, state, institutional, and private financial aid programs exist to assist students who need financial help with their educational expenses.

The original goal of federal student aid programs implemented as part of the Higher Education Act of 1965 was to provide need-based financial aid to low-income students to increase their access to postsecondary education and give them
reasonable alternatives from which to choose an appropriate program. By the 1980s, this goal had been expanded to include making college more affordable for middle-income families as well (Spencer 1999). The 1992 Reauthorization of the Higher Education Act made several major changes to the federal financial aid system. It changed the method for calculating need, making it easier for dependent students to qualify for need-based aid; it raised the loan limits for the Stafford loan program, allowing students to borrow more; and it made federally guaranteed unsubsidized loans available to students regardless of need. Within the last decade, the federal government has begun to use the tax code to assist families with annual incomes up to $100,000 with educational expenses, although families with incomes below $20,000 a year typically do not have sufficient tax liability to benefit from these programs (U.S. General Accounting Office 2002).

In 2002-03, the federal government provided $71.6 billion in student aid for undergraduate and graduate study—$15.8 billion in grant aid, $49.1 billion in

---

**Figure 1.** Annual percentage change in average tuition and fees paid by full-time-equivalent students, by type of institution, and annual percentage change in the Consumer Price Index: 1980-81 to 2002-03

<table>
<thead>
<tr>
<th>Year</th>
<th>Public 2-year</th>
<th>Public 4-year</th>
<th>Private 4-year</th>
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<td>15</td>
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<td>17</td>
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<td>2002</td>
<td>28</td>
<td>34</td>
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<td>27</td>
</tr>
<tr>
<td>2003</td>
<td>29</td>
<td>35</td>
<td>39</td>
<td>28</td>
</tr>
</tbody>
</table>
guaranteed loan, $12 billion in work-study aid, and $5.4 billion in education tax credits (The College Board 2003b).

States support postsecondary education mainly through operating subsidies to public institutions. State student aid programs have played a secondary role (Hauptman 2001). However, the 1972 reauthorization of the Higher Education Act provided states with incentives to create grant programs, and they responded. By the end of the 1970s, almost all states had at least one need-based grant program, and many have more than one now. States have taken different approaches to eligibility, and rules vary by program within states (National Association of State Student Grant and Aid Programs [NASSGAP] 2003). For example, some programs limit participation to students at public institutions, while others also include students who attend private institutions. A few are open to state residents regardless of where they enroll, and some are targeted to specific groups, such as prospective teachers or nurses.2 Between 1992–93 and 2002–03, the amount of state grant aid more than doubled, from $7.7 billion (in constant 2002 dollars) to $5.6 billion (The College Board 2003b). State grants were once mainly need-based, but the use of merit-based grant programs has grown. In 2002–03, 24 percent of state grants were merit-based, compared with 10 percent a decade earlier.

Institutions, especially private ones, have considerable freedom to establish their own criteria for awarding aid. They may distribute aid to achieve a variety of goals, such as assuring financially needy students, attracting students with high levels of academic ability or other talents, enrolling diverse student bodies, or meeting enrollment goals (Redd 2000). Often they try to achieve some or all of these goals simultaneously. In 2002–03, public and private institutions awarded a total of $22.4 billion in student aid from their own funds, which represented about half of all the grant aid awarded (The College Board 2003b). Between 1992–93 and 1999–2000, the percentage of undergraduates receiving institutional aid increased, particularly in the higher-income brackets (Hearn and Peters 2003; U.S. Department of Education 2004, indicator 37).

Legislators and policymakers frequently review and adjust the goals of the student financial aid system, the rules for distributing various types of aid, and the amounts available. To inform financial aid debates and measure the impact of changes in laws and policies, the National Center for Education Statistics (NCES) conducts the National Postsecondary Student Aid Study (NPSAS), which has collected information on a nationally representative sample of postsecondary students at 3- to 4-year intervals since 1987. The most recently completed study collected data during the 1999–2000 academic year, the next one covers 2003–04. Among

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Footnote 3: Paying for College
other topics, NPSAS covers the actual charges to students, the amounts students and their families are expected to contribute, and the types and amounts of financial aid students receive from various sources. This analysis uses data from the 1989-90 and 1999-2000 studies to examine changes in student financing of undergraduate education over this period.

Data and Definitions

Most of the data presented in this analysis are extracted from tables produced for A Decade of Undergraduate Student Aid: 1989-90 to 1999-2000, an NCE publication that contains an extensive compendium of tables on student financing of undergraduate education in each of the four NPSAS years between 1989-90 and 1999-2000 (Wei, L. and Berkner forthcoming). The report tables present data on full-time, full-year undergraduates at four types of institutions (public 2-year, public 4-year, private not-for-profit 4-year, and private for-profit less-than-4-year) and within type of institution separately for dependent and independent students. For financial aid purposes, undergraduates are categorized as "dependent" or "independent." Undergraduates under age 24 are generally considered financially dependent, which means that parents' income and assets as well as the student's are considered in determining eligibility for federal financial aid. Independent students are undergraduates 24 years and above or younger students who are married, have dependents of their own, are veterans, or are wards of the court. Parental financial resources are not considered for these students. In 1999-2000, 49 percent of all undergraduates were dependent (Hoxon, Peter, and Rooney, 2002).

The analysis presented here focuses on dependent undergraduates who enrolled full time for the full academic year. It compares data for the 1989-90 and 1999-2000 NPSAS years by type of institution and family income quartiles. The two end-points were selected for analysis as before and after comparisons, showing the results of the changes enacted by the 1992 Higher Education Amendments that were implemented in 1993-94.

While dependent, full-time undergraduates tend to receive the most attention in financial aid discussions, they represented only part of the total undergraduate population in 1999-2000: 12 percent at public 2-year institutions, 43 percent at public 4-year institutions, 62 percent at private not-for-profit 4-year institutions, and 75 percent at private for-profit less-than-4-year institutions.

Many of the tables present data by family income. In 1999-2000, the average family income among full-time dependent students was $65,500. The average...
was $38,809 for families in the lowest quarter, $43,100 for those in the lower middle quarter, $67,600 for those in the upper middle quarter, and $125,600 for those in the highest income quarter. Adjusted for inflation, the average family income was higher in 1999–2000 than in 1985–90, when it was $62,380 (in 1999 constant dollars). The average family income increased for each quarter except the highest, where an apparent increase was not statistically significant.8

For ease of presentation, references to the 1989–90 and 1999–2000 academic years have been shortened to 1990 and 2000, and “full-time, full-year” has been shortened to “full-time.” Estimates of dollar amounts for 1999–2000 were adjusted for inflation using the Consumer Price Index for All Urban Consumers.9

**Enrollment Patterns**

Postsecondary students can choose from many types of institutions, including public and private not-for-profit 4-year institutions that offer primarily bachelor’s degrees or higher; public 2-year institutions (often called “community colleges”) that offer mainly associate’s degrees and vocational certificates; and other less-than-4-year institutions. This last type of institution typically offers certificates or programs that can be completed in about a year of full-time enrollment, but some of these institutions offer associate’s degrees as well. Most students at these types of institutions attend private for-profit institutions, commonly known as “trade” or “proprietary” schools.

In both 1990 and 2000, approximately one-half of all full-time, dependent undergraduates attended public 4-year institutions, and about one-quarter attended private not-for-profit 4-year institutions (table 1). Between 1990 and 2000, the proportion attending public 2-year institutions (community colleges) increased, while the proportion enrolled at private for-profit less-than-4-year institutions decreased. The decline in the proportion attending private for-profit less-than-4-year institutions may reflect in part the decline in the number of such institutions (from 5,444 in 1990 to 4,343 in 2000) (U.S. Department of Education 2003, table 5). The number of public 2-year institutions increased from 968 to 1,068, and the number of 4-year institutions remained approximately the same (about 600 public and 1,500 private not-for-profit institutions).
<table>
<thead>
<tr>
<th>Family income</th>
<th>Public 2-year</th>
<th>Public 4-year</th>
<th>Private not-for-profit 4-year</th>
<th>Private for-profit less than 4-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>15.5</td>
<td>32.4</td>
<td>28.0</td>
<td>4.1</td>
</tr>
<tr>
<td>Lowest quarter</td>
<td>16.4</td>
<td>47.0</td>
<td>20.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Lower middle quarter</td>
<td>19.7</td>
<td>55.3</td>
<td>22.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Upper middle quarter</td>
<td>15.5</td>
<td>66.4</td>
<td>25.2</td>
<td>2.9</td>
</tr>
<tr>
<td>Highest quarter</td>
<td>10.6</td>
<td>57.4</td>
<td>35.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>19.4</td>
<td>51.3</td>
<td>27.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Lowest quarter</td>
<td>24.2</td>
<td>47.4</td>
<td>22.9</td>
<td>5.0</td>
</tr>
<tr>
<td>Lower middle quarter</td>
<td>21.2</td>
<td>51.3</td>
<td>22.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Upper middle quarter</td>
<td>18.6</td>
<td>51.7</td>
<td>28.6</td>
<td>1.2</td>
</tr>
<tr>
<td>Highest quarter</td>
<td>12.6</td>
<td>51.9</td>
<td>32.6</td>
<td>0.9</td>
</tr>
</tbody>
</table>

*Significant at the .05 level of confidence.

Table 1. Percentage distribution of full-time, full-year dependent undergraduates by type of institution, by family income: 1989–90 and 1999–2000

The distribution of low-income students across types of institutions has shifted.

Among full-time dependent undergraduates in the lowest family income quarter, the percentage attending private not-for-profit 4-year institutions declined between 1990 and 2010 (from 28 to 23 percent), as did the percentage attending private for-profit less than 4-year institutions (from 9 to 5 percent) (Table 1). The percentage attending public 2-year institutions increased from 16 to 25 percent, however. In both years, 47 percent of low-income dependent students attended public 4-year institutions. It is possible that lower income students reacted to rising tuition by choosing institutions with lower prices (either within or across sectors), but price is only one of many factors students consider in choosing a college.

Overview of the Financial Aid System

The diagram on the next page summarizes how a student's financial aid eligibility is assessed (need analysis) and how grants and loans are packaged. A student applying to college faces expenses for tuition, fees, books, and living expenses.
Depending on where the student wants to enroll and the family's financial resources, the student may be able to receive financial aid to help cover these expenses. An awarding aid, institutions typically first package any grants for which the student is eligible and then offer loans (although some institutional grants aid may be awarded after loans are packaged). If the student has financial need after grants, at least some of the loans may be subsidized (i.e., the federal government pays the interest while the student is enrolled).

Need Analysis

A need analysis determines a student's eligibility for financial aid at a particular institution. The need analysis establishes how much a family is expected to contribute from its own income and assets and compares that to the price of attending. If the price of attending is greater than the expected family contribution, the difference between the two represents the student's financial need. If the expected family contribution is greater than the price of attending, the student is not eligible for need-based aid, but may still qualify for merit aid and can take out unsubsidized loans.

Tuition and Fees

Tuition and fees represent the price institutions charge students before any grant aid is taken into account. Fees are charges assessed for services such as laboratory expenses, health services, exercise facilities, and art and music and may not be the same for all students. The amounts used in this analysis are the actual charges to individual students and therefore reflect whether they paid in-state or out-of-state tuition.

- Average tuition and fees (after adjusting for inflation) have risen substantially.

Dependent undergraduates who attended full time in 1990 were charged an average of $1,100 in tuition and fees at public 2-year institutions, $2,900 at public 4-year institutions, and $12,000 at private not-for-profit 4-year institutions (figure 2). By 2000, the averages had risen to $1,600, $4,300, and $15,900, respectively. The apparent increase in private for-profit less-than-4-year institutions (from $7,300 to $8,000) is not statistically significant.
Despite widespread concern about the affordability of postsecondary education, students have a range of options with price tags that vary widely. Although a relatively small percentage (5 percent) of full-time dependent undergraduates at all 4-year institutions faced tuition and fees of $24,000 or more in 2000, about 44 percent were charged less than $4,000 (figure 3). Students at public and private not-for-profit 4-year institutions faced very different prices, however; about 13 percent of students at public 4-year institutions were charged less than $6,000 in tuition and fees, while about a quarter of those at private not-for-profit institutions were charged $22,000 or more.

Total Price of Attending

For each student and applicant, a financial aid officer develops a budget that estimates the price for that student to attend the institution. The budget includes amounts for tuition and fees (including out-of-state tuition and fees when applicable), books and materials, and reasonable living expenses for that geographic area (housing, food, transportation, and personal items). The amount allocated
for living expenses takes into account whether the student lives on campus, independently off campus, or with parents or relatives. Student budgets represent what the institution thinks students would need to spend to attend, but in fact, students may spend more or less depending on their individual needs, resources, and standards of living. The budget, or price of attending, is the starting point for determining financial aid eligibility (i.e., need analysis).

Reflecting the tuition and fee increases described, the total price of attending (after adjusting for inflation) increased between 1990 and 2000 at all types of institutions except private for-profit less-than-4-year institutions, where the apparent increase was not statistically significant (table 2). In 2000, the educational expenses of full-time dependent undergraduates averaged $8,500 at public 2-year institutions, $12,400 at public 4-year institutions, $24,400 at private not-for-profit 4-year institutions, and $16,000 at private for-profit less-than-4-year institutions.
Table 2.  Average price (in 1999 constant dollars) for full-time, full-year dependent undergraduates, by type of institution: 1999–90 and 1999–2000

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>1999–90</th>
<th>1999–2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public 2-year</td>
<td>57,500</td>
<td>58,500</td>
</tr>
<tr>
<td>Public 4-year</td>
<td>10,000</td>
<td>12,400</td>
</tr>
<tr>
<td>Private not-for-profit 4-year</td>
<td>15,400</td>
<td>24,400</td>
</tr>
<tr>
<td>Private for-profit less than 4-year</td>
<td>14,700</td>
<td>16,000</td>
</tr>
</tbody>
</table>

*Reported inflationary changes are 1999–2000.

Expected Family Contribution

The formula used to calculate the expected family contribution takes into account family income and assets, family size, and the number of other college students in the family. Institutions must use the Federal Methodology legislated by Congress to assess eligibility for federal aid, but states and institutions may use different formulas to distribute their own aid. In this analysis, references to the expected family contribution mean the federal amount. If the expected family contribution exceeds the price of attending, the student will not be eligible for any need-based aid. The expected family contribution is independent of where the student enrolls and depends entirely on the family’s financial circumstances.

The formula is designed to compare ability to pay across families to promote the equitable distribution of available aid. In practice, families may contribute more or less than the amount established by the formula depending on their own perceptions of what they can afford and are willing to pay.

The formulas for determining the expected family contribution have been changed many times in an effort to create rules that are both fair and easy to understand (Baum 1999). Among the issues frequently debated are at what age should a student be considered independent, how the financial resources of a noncustodial parent should be treated, and what parental assets should be included in the calculation.
After adjusting for inflation, the average federal expected family contribution has declined over the past decade for low- and middle-income students.

The 1992 amendments to the Higher Education Act introduced several important changes in how the expected family contribution is computed. Home equity is no longer included in assets used to calculate the expected contribution; assets are no longer counted for parents with incomes above $50,000 who file a short federal tax return; the annual minimum student contribution was eliminated; and the required contribution from student earnings was reduced. The net result of these changes was that the average expected family contribution, after adjusting for inflation, was lower in 2000 than in 1990 for all full-time dependent students except those in the highest income quartile, where no change was observed (figure 4).

Figure 4. Average expected family contribution (EFC) (in constant 1999 dollars) for full-time, full-year dependent undergraduates, by family income 1990–91 and 1999–2000

*Significantly different from 1990–91.

NOTE: EFC is the amount required by federal aid eligibility programs; the amount is the same at all institutions.


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Financial Aid Eligibility (Need)

As indicated earlier, the amount of need-based financial aid for which a student is eligible is calculated by subtracting the expected family contribution from the price of attending. The amount of need-based aid for which a student is eligible reflects both the choice of institution and the family's financial circumstances. At a given institution, a low-income student would generally have greater need than a high-income one, and a given student would have greater need at a high-priced institution than at a low-priced one. Thus, low-income students at the institutions with the highest prices typically have the greatest need.

Figure 5 presents the relationship between expected family contribution and price for families at various income levels in 2000 and shows the average price of attending the different types of institutions.21 For any income group, the gap between the average price of attending and the average expected family contribution represents the amount of need-based aid for which the student would qualify. For example, students from families with incomes in the $30,000 to $40,000 range had an average expected family contribution of about $7,000. Therefore, on average, they would be eligible for about $1,300 in need-based aid at a public 2-year institution, $5,400 at a public 4-year institution, $9,000 at a private for-profit less-than-4-year institution, and $17,400 at a private not-for-profit 4-year institution. As discussed later, sufficient need-based aid is not always available to meet the students' needs.

Students from families with annual incomes under about $35,000 had average expected family contributions that were less than the average price of attending even a public 2-year institution, and therefore would have been eligible for some need-based aid at any type of institution. Similarly, on average, students from families with incomes between $35,000 and $74,999 would not have been eligible for need-based aid at public 2-year institutions, but would have been eligible at other types of institutions (although possibly only for loans in some cases). Students from families with incomes of $85,000 or more typically would have been eligible for need-based aid only at the average private not-for-profit 4-year institution.

Because prices have risen and expected family contribution has declined, average financial need has increased.

As described above, the 1999% brought an increase in the average price of attending college and a decrease in the average expected family contribution at most
income level after adjusting for inflation. Consequently, the amount of need-based aid for which the average full-time dependent student was eligible (i.e., average financial need) increased. For example, the average full-time dependent undergraduate at a public 4-year institution was eligible for $5,800 in aid in 1990 (in 1999 constant dollars) and for $5,108 in 2000 (figure 6). Average need increased at the other types of institutions as well.
Financial Aid

Once a student’s financial need is established, a financial aid office develops an aid package to meet as much of this need as possible. Aid packages consist mainly of grants, loans, and work-study. The particular combinations of aid and awards vary systematically with family income, reflecting varying opportunities for need-based aid, and by type of institution, reflecting differences in prices of attendance and aid resources. As income and price increase, so does reliance on loans generally.

Students do not always receive sufficient aid to meet their entire need for several reasons. First, the funds available may not be sufficient to cover all students’ needs. Second, students may decline to take out some or all of the loans for which they are eligible and find other ways to cover their expenses such as working more, spending less, or contributing more than the amounts calculated in the expected family contribution formula. Finally, students who are eligible may not apply for aid or provide all the documentation required to complete the application process.
In 1999, 54 percent of all full-time dependent undergraduates received some type of financial aid (table 3). By 2000, 71 percent received aid. Among aid recipients, the average amount received (adjusted for inflation) grew as well (from $6,200 to $8,700), as did the percentage of the price of attending covered by financial aid (from 46 to 53 percent). This pattern of growth was evident for students in all income groups and at all types of institutions. It reflects the increased eligibility for aid, as described earlier, and the increased availability of both grants and loans, as described below.

<table>
<thead>
<tr>
<th>Family income quintile of institution</th>
<th>Percentage of full-time, fall full-year dependent undergraduates who received financial aid and among those, average amount received (in 1999 constant dollars) and average percent of price of attendance covered by financial aid by family income and type of institution: 1999–2000 and 1999–2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>53.8</td>
</tr>
<tr>
<td>Family income</td>
<td></td>
</tr>
<tr>
<td>Lower quintile</td>
<td>61.1</td>
</tr>
<tr>
<td>Lower middle quintile</td>
<td>56.3</td>
</tr>
<tr>
<td>Upper middle quintile</td>
<td>49.5</td>
</tr>
<tr>
<td>Higher quintile</td>
<td>29.4</td>
</tr>
<tr>
<td>Type of institution</td>
<td></td>
</tr>
<tr>
<td>Public 2-year</td>
<td>37.1</td>
</tr>
<tr>
<td>Public 4-year</td>
<td>47.5</td>
</tr>
<tr>
<td>Private not-for-profit 4-year</td>
<td>71.3</td>
</tr>
<tr>
<td>Private for-profit less-than 4-year</td>
<td>78.8</td>
</tr>
</tbody>
</table>

*Significant change in percentage point, 1999–2000.

**Source:** National Center for Education Statistics, National Postsecondary Student Aid Study (NPSAS:3), 1999–2000.
Grants

The percentages of students receiving grants and the average amounts received by students with grant aid have increased.

In 2000, 37 percent of all full-time dependent students received grants to help them pay their educational expenses, up from 45 percent in 1990 (table 4). The percentage receiving grants increased at all income levels. At least three-quarters of students in the lowest income quartile received grants in both years (77 percent in 1990 and 84 percent in 2000) (figure 7). At the highest income level, the percentage with grants roughly doubled (from 23 to 39 percent) between 1990 and 2000. The percentage receiving grants increased at all types of institutions except private for-profit less-than-4-year institutions, where the apparent increase is not statistically significant. The average grant increased from $4,230 to $5,400 overall, it also increased for each income group and at most types of institutions. The exception was private for-profit less-than-4-year institutions, where the average grant was $2,900 in both years (table 4).

<table>
<thead>
<tr>
<th>Family Income and Type of Institution</th>
<th>Percentage of Students with Grants</th>
<th>Average Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1990-91</td>
<td>1999-2000</td>
</tr>
<tr>
<td>Total</td>
<td>44.6%</td>
<td>56.9%</td>
</tr>
<tr>
<td>Family Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowest quartile</td>
<td>77.0%</td>
<td>83.8%</td>
</tr>
<tr>
<td>Lower middle quartile</td>
<td>48.8%</td>
<td>66.5%</td>
</tr>
<tr>
<td>Upper middle quartile</td>
<td>36.6%</td>
<td>39.5%</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>15.3%</td>
<td>18.5%</td>
</tr>
<tr>
<td>Type of Institution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public 2-year</td>
<td>31.2%</td>
<td>43.6%</td>
</tr>
<tr>
<td>Public 4-year</td>
<td>26.5%</td>
<td>31.7%</td>
</tr>
<tr>
<td>Private not-for-profit 4-year</td>
<td>15.2%</td>
<td>19.1%</td>
</tr>
<tr>
<td>Private for-profit less-than-4-year</td>
<td>57.1%</td>
<td>63.1%</td>
</tr>
</tbody>
</table>

*Significantly different from 1990 at p < .05.*

Although no statistically significant difference was measured in the average grant amounts received in 2000 by low- and high-income students ($5,500 and $5,300, respectively), low-income students would typically receive more grant aid than high-income students at a given institution. The average amount of grant aid received by an income group affects the prices of attending the institutions they select and merit as well as need. In 2000, high-income students were more likely than low-income ones to attend higher priced institutions (Berken et al. 2002) and to receive merit aid at private not-for-profit 4-year institutions (Horn and Peter 2005). Both of these patterns tend to bring the averages for the income groups closer together.

The federal Pell grant program, state grant programs, and institutional grant aid are the major sources of grant aid for undergraduates. In the 1990s, Pell grant awards were stable; and state and institutional grant aid increased.
Pell grants were generally at about the same level in 1990 and 2000.

The Pell grant program is the federal government’s primary need-based grant program. The amount awarded to a Pell recipient is equal to the maximum Pell grant minus the expected family contribution. The maximum award is established annually by congressional appropriation (up to the limit specified in the Higher Education Act). In 2002-03 constant dollars, it was $1,354 in 1989-90, declined to $2,765 by 1991-92, then began to increase, reaching $3,313 in 1999-2000 and $4,000 in 2002-03 (The College Board 2003b). Thus, the maximum amounts in 1990 and 2000 after adjusting for inflation were about the same.

At public 2-year institutions, the apparent change in the percentage of full-time dependent students receiving Pell grants (from 20 to 25 percent) is not statistically significant, but the average amount received rose from $1,700 to $2,200 (figure 8). At other types of institutions, no statistically significant increases were measured in the percentages of full-time dependent students receiving Pell grants in 1990 and 2000: about 21 percent at public 4-year institutions, 24 percent at private not-for-profit 4-year institutions, and 50 percent at private for-profit institutions. The average amount received (adjusted for inflation) was in the $2,100 to $2,200 range both years.

The increase in the average amount at public 2-year institutions was partly a consequence of a change to the eligibility formula for Pell grants during the 1992 Reauthorization of the Higher Education Act that removed the cap limiting awards to 60 percent of the student budget. This change benefited students at public 2-year institutions, but had little effect on students at other types of institutions where higher budgets—meant that student awards had not been limited by the cap.

State grants have increased.

Between 1990 and 2000, the percentage of full-time dependent students receiving state grants increased from 11 to 18 percent at public 2-year institutions, 14 to 23 percent at public 4-year institutions, and 9 to 18 percent at private for-profit less-than-4-year institutions (figure 8). Students at private not-for-profit 4-year institutions were the most likely to receive state aid in both 1990 and 2000, but no statistically significant increase over time was measured. The average amount received (adjusted for inflation) increased for students at public 4-year institutions (from $1,400 to $2,000) and decreased for students at private for-profit less-than-4-year institutions (from $2,800 to $1,900).
Figure 2. Percentage of full-time, full-year undergraduates who received grants, and for those with grants, average amount received (in 1999 constant dollars), by source of grant and type of institution: 1989–90 and 1999–2000

<table>
<thead>
<tr>
<th>Source of Grant</th>
<th>Public 2-year</th>
<th>Public 4-year</th>
<th>Private not-for-profit 4-year</th>
<th>Private for-profit less than 4-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poll grant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average amount received (1999–90)</td>
<td>15,700</td>
<td>2,390</td>
<td>2,100</td>
<td>2,100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average amount received (1999–2000)</td>
<td>2,390</td>
<td>2,100</td>
<td>2,100</td>
<td>2,100</td>
</tr>
</tbody>
</table>

*Significantly different at the 5% level.

NOTES: In public institutions, the distinction between state and institutional aid is not shown since both sources are state funded.

Institutional aid has increased.

Full-time dependent students at all types of institutions except private for-profit less-than-4-year ones were more likely to receive institutional grant aid in 2000 than in 1990 (figure 8). In addition, the average amount received (adjusted for inflation) increased for students at both types of 4-year institutions, from $2,400 to $2,900 in the public sector, and from $4,900 to $7,600 in the private not-for-profit sector. At private for-profit less-than-4-year institutions, the average amount decreased, and at public 2-year institutions, it was $900 in both years.

Net Price and Net Tuition After Grants

Because grant aid does not have to be repaid, it reduces the price that recipients pay to attend college. Therefore, in addition to looking at the increases in the total price of attending (table 3) and tuition and fees (figure 2) between 1990 and 2000, it is important to examine the changes in net price (total price minus grants) and net tuition and fees (tuition and fees minus grants). In addition to providing a more accurate indication of the price of attending college, these measures allow us to address whether the increases in grant aid just described were sufficient to offset the increases in the total price of attending or even the increases in tuition and fees.

Net price after grants increased.

Between 1990 and 2000, after grants are taken into account, the average net price of attending for full-time dependent undergraduates increased (after adjusting for inflation) at all four types of institutions (table 3). The net price increases were greater than, on average, the grant increases shown in table 4 were not large enough to offset the total price increases that occurred in the 1990s. Average net price appeared to increase for all income groups, although the increases were not statistically significant for students in the lowest income quartile at public 2-year or private for-profit less-than-4-year institutions.

Net tuition and fees after grants also increased.

The average net tuition and fees after grants were computed for 1990 and 2000 to determine whether, on average, grant increases during this period were sufficient to cover the increases in tuition and fees. As public 2-year, public 4-year, or private not-for-profit 4-year institutions, they were not; at each type of institution, after adjusting for inflation, the average net tuition and fees after grants
Table 5. Average net price and average net tuition and fees (in 1999 constant dollars) after grants (of any type) by type of institution and family income: 1989-90 and 1999-2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average net price</td>
<td>Average net tuition</td>
</tr>
<tr>
<td></td>
<td>$6,700</td>
<td>$13,500</td>
</tr>
<tr>
<td>Total</td>
<td>$900</td>
<td>$1,000</td>
</tr>
<tr>
<td>Public 2-year</td>
<td>$900</td>
<td>$1,000</td>
</tr>
<tr>
<td>Lowest quarter</td>
<td>5,700</td>
<td>3,100</td>
</tr>
<tr>
<td>Upper middle quartet</td>
<td>7,100</td>
<td>8,200</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>8,800</td>
<td>9,900</td>
</tr>
<tr>
<td>Public 4-year</td>
<td>$2,100</td>
<td>$2,900</td>
</tr>
<tr>
<td>Lowest quarter</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Upper middle quartet</td>
<td>3,900</td>
<td>3,900</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>10,100</td>
<td>12,000</td>
</tr>
<tr>
<td>Present not-for-profit 4-year</td>
<td>$8,200</td>
<td>$9,400</td>
</tr>
<tr>
<td>Lowest quarter</td>
<td>10,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Upper middle quartet</td>
<td>13,000</td>
<td>16,000</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>15,100</td>
<td>17,700</td>
</tr>
<tr>
<td>Private not-for-profit less than 4-year</td>
<td>$7,500</td>
<td>$13,600</td>
</tr>
<tr>
<td>Lowest quarter</td>
<td>11,000</td>
<td>13,700</td>
</tr>
<tr>
<td>Upper middle quartet</td>
<td>14,000</td>
<td>17,100</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>15,000</td>
<td>18,000</td>
</tr>
</tbody>
</table>


It was greater in 2000 than in 1990 (table 5). The average net tuition and fees after grants was generally greater in 2000 than in 1990 for students in each income group at public 2-year and public and private not-for-profit 4-year institutions. At private for-profit less-than-4-year institutions, the apparent changes in the average tuition and fees (figure 2) and net tuition and fees (table 5) were not statistically significant.
Loans

Dependent undergraduates and their families have access to two major federally sponsored loan programs: the Stafford Loan Program for students and the Parent Loan for Undergraduate Students (PLUS) program. Unlike grants, loans do not reduce the price of attending college because borrowers must eventually repay their loans. Nevertheless, loans provide students a way to finance their educational expenses and thus provide college access to students who still lack the personal financial resources to enroll after receiving any grants for which they qualify.

As part of the 1992 Reauthorization of the Higher Education Act, substantial changes were made to the Stafford loan programs that affected both the percentage of students who borrowed and the average amounts they borrowed. One important change affecting the percentage who borrow is the introduction of unsubsidized Stafford loans for all students enrolled at least half-time regardless of financial need. Previously, only students demonstrating financial need could borrow through the Stafford loan program. These loans were subsidized, meaning that the federal government paid the interest until the student started repaying as well as guaranteeing them. The subsidized program continued for students with demonstrated financial need, but the introduction of unsubsidized loans (which the federal government guarantees but does not pay the interest on) means that all full-time dependent students can borrow.

Another important change to the Stafford loan program, affecting the average amount borrowed, was higher loan limits. Before the 1992 reauthorization, dependent students could borrow $2,625 during each of their first 2 years, and $4,000 thereafter, up to a maximum of $17,250. Since the reauthorization, the limits have been $2,625 for the first year, $3,500 for the second year, and $4,500 thereafter, up to a maximum of $23,000 (U.S. Department of Education 2010). Students may take out subsidized loans up to the maximum allowed to meet their established financial need and then add unsubsidized loans up to the program’s maximum limits. For students without financial need, all loans are unsubsidized.

Finally, the changes in need analysis previously presented reduced the average expected family contribution and therefore increased both the number of students eligible for subsidized loans and the amount they could borrow. This likely increased both the percentage who borrowed and the average amount borrowed.
The percentage of full-time dependent students who borrowed increased, and among those who borrowed, the average amount increased as well.

<table>
<thead>
<tr>
<th>Family income and type of institution</th>
<th>1985–90</th>
<th>1999–2000</th>
<th>Average Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>40.1</td>
<td>45.4%</td>
<td>$13,000</td>
</tr>
<tr>
<td>Lowest income</td>
<td>46.0</td>
<td>48.9%</td>
<td>3,500</td>
</tr>
<tr>
<td>Lowest middle quarter</td>
<td>35.8</td>
<td>50.0%</td>
<td>1,800</td>
</tr>
<tr>
<td>Upper middle quarter</td>
<td>27.5</td>
<td>40.3%</td>
<td>4,200</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>13.3</td>
<td>14.5%</td>
<td>4,800</td>
</tr>
<tr>
<td>Type of institution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public 2-year</td>
<td>8.2</td>
<td>14.2%</td>
<td>2,100</td>
</tr>
<tr>
<td>Public 4-year</td>
<td>7.0%</td>
<td>46.6%</td>
<td>3,300</td>
</tr>
<tr>
<td>Private non-profit 4-year</td>
<td>44.7</td>
<td>63.1%</td>
<td>4,500</td>
</tr>
<tr>
<td>Private for-profit less than 4-year</td>
<td>61.1</td>
<td>74.4%</td>
<td>4,700</td>
</tr>
</tbody>
</table>

In 1990, when only need-based subsidized Stafford loans were available, the percentage of full-time dependent students who borrowed declined as family income increased, reflecting their decreasing eligibility for loans (figure 9). In 2000, in contrast, after unsubsidized loans and expanded eligibility took effect, about half of all students in the lowest, lower middle, and upper middle-income quartiles borrowed. The rate at which students in the highest income quarter borrowed continued to be the lowest among all the income groups, but it rose from 13 percent in 1990 to 34 percent in 2000.
Among students who took out loans, the average amount borrowed through all loan programs (adjusted for inflation) grew from $3,900 in 1990 to $6,180 in 2000 (table 6). The average amount borrowed increased between 1990 and 2000 for students in each income group, reflecting the higher average price of attending (table 2) and the higher loan limits in effect in 2000. In both years, the average amount borrowed increases with income (table 6). This pattern reflects a combination of factors, including variation in the prices of attending the institutions selected by students in each income group and the decreasing likelihood of receiving grant aid as income rises (shown in figure 7).

**Net Price After Grants and Loans**

One measure of the net price of attending college, already presented, is the total price of attending minus grants. This represents the "real" price students must pay (because they do not have to repay grant aid). Another measure of net price is the total price of attending minus all grants and loans. This measure represents
the outlay that students and their families must make in a given year to cover their expenses (or, more accurately, the outlay calculated by the need analysis, which, as already indicated, may not be the same as actual outlays).

- **Average net price after grants and loans increased at public 2-year institutions, but not at other types of institutions; the effect on income groups varied.**

The changes in net price after grants and loans between 1990 and 2000 represent the net effect of multiple factors, including price increases, smaller expected family contributions (and thus increased eligibility for need-based aid), more state and institutional grant aid, expanded eligibility for federal loans, and higher federal loan limits. At public 2-year institutions, the average net price paid by full-time dependent undergraduates (adjusted for inflation) was about $500 higher in 2000 than in 1990 ($7,000 vs. $6,500) (table 7). For students in the lowest and lower middle-income quarters, the apparent increases are not statistically significant, but they are for the upper middle- and highest income quarters.

At public 4-year institutions, the overall net price after grants and loans for full-time dependent students (adjusted for inflation) was $8,000 in both 1990 and 2000. There was, however, a decline in the average net price for students in the lowest income quartile and an increase for those in the highest quartile. At private not-for-profit 4-year institutions, the average net price actually decreased for those in the lowest income quarter (from $8,400 to $7,400), but the apparent decreases overall and for those in the upper middle- and highest income quartiles are not statistically significant.

At private for-profit less-than-4-year institutions, the average net price for full-time dependent students declined from $10,000 to $8,800 overall. The decline is statistically significant for students in the lowest income quarter, but the apparent decreases for those in the other income quartiles are not statistically significant.

- **Except at public 2-year institutions, increases in financial aid compensated for increases in price when both grants and loans are considered.**

Figure 10 shows the relative contributions of current outlays by students and their families (i.e., net price) and grants and loans to the total price of attending college at each type of institution in 1990 and 2000. Note that the average grant and loan amounts shown here differ from the amounts shown in other tables.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>$4,500</td>
<td>$7,600</td>
</tr>
<tr>
<td>Lower quartile</td>
<td>5,400</td>
<td>5,600</td>
</tr>
<tr>
<td>Lower middle quartile</td>
<td>6,900</td>
<td>7,200</td>
</tr>
<tr>
<td>Upper middle quartile</td>
<td>7,100</td>
<td>7,400</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>6,100</td>
<td>5,900</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$9,000</td>
<td>$14,000</td>
</tr>
<tr>
<td>Lower quartile</td>
<td>5,000</td>
<td>5,300</td>
</tr>
<tr>
<td>Lower middle quartile</td>
<td>7,000</td>
<td>7,400</td>
</tr>
<tr>
<td>Upper middle quartile</td>
<td>8,000</td>
<td>8,600</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>9,000</td>
<td>10,300</td>
</tr>
<tr>
<td><strong>Private non-profit 4-year</strong></td>
<td>$13,400</td>
<td>$12,800</td>
</tr>
<tr>
<td>Lower quartile</td>
<td>8,400</td>
<td>7,400</td>
</tr>
<tr>
<td>Lower middle quartile</td>
<td>10,000</td>
<td>10,000</td>
</tr>
<tr>
<td>Upper middle quartile</td>
<td>12,900</td>
<td>12,700</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>19,000</td>
<td>17,900</td>
</tr>
<tr>
<td><strong>Private for-profit less-then 4-year</strong></td>
<td>$10,000</td>
<td>$8,800</td>
</tr>
<tr>
<td>Lower quartile</td>
<td>8,700</td>
<td>7,400</td>
</tr>
<tr>
<td>Lower middle quartile</td>
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<td>9,000</td>
</tr>
<tr>
<td>Upper middle quartile</td>
<td>11,500</td>
<td>9,100</td>
</tr>
<tr>
<td>Highest quartile</td>
<td>15,500</td>
<td>12,400</td>
</tr>
</tbody>
</table>

*denotes statistically significant change from 1999-2000.

NOTE: Student loan is a loan obtained by students for educational purposes. It may be either a loan or a scholarship.


and figures because the averages in figure 10 were computed including students with no financial aid, rather than just aid recipients.

As just described, the average net price for full-time dependent students (adjusted for inflation) increased only at public 2-year institutions (by about $500). It remained stable at 4-year institutions and declined at private for-profit less-than-4-year institutions. This means that, except at public 2-year institutions, increases in financial aid compensated for the increases in prices of attending. At public 2-year institutions and at private and public non-for-profit 4-year institutions, there...
were increases in both the average amounts that students received in grants and took out in loans. At private for-profit less-than-4-year institutions, the average amount received in grants did not increase significantly, but the average amount taken out in loans did.

As noted earlier, the average net price, considering only grants, increased between 1990 and 2000 at each type of institution and, within each type of institution, for almost all income groups. The fact that the average net price after grants and loans did not increase as widely is due to increased borrowing. Therefore, although students and their families did not have to shoulder most of the burden of price increases through current outlays for educational expenses, they will have to pay back the part covered by loans in the future.

- The grant/loan balance shifted only at public 4-year institutions.

In 1999, the average amount received in grants at public 4-year institutions (computed including both enrolled and nonenrolled students) was greater than the average amount taken out in loans ($1,200 vs. $900) (figure 10). In 2000, the pattern was reversed ($1,900 in grants and $2,500 in loans). At public 2-year and private not-for-profit 4-year institutions, however, the average amount received in grants was larger than the average amount taken out in loans in both years. At private for-profit less-than-4-year institutions, the average amount received in grants was less than the average amount taken out in loans in both years.

When considering net price, it is important to understand that families’ choices about borrowing affect their net price. Students who have not taken out the maximum allowable Stafford loan or whose parents have not taken out a PLUS loan could reduce their net price with additional borrowing. Thus, to some extent, the average net price in 2000 reflects the level of debt families were willing to assume for educational expenses. However, there are many reasons why it may be wise for students to borrow the maximum allowed. Students’ ability to repay these loans after they leave school depends on their being able to obtain a well-paying job, which depends in part on economic conditions when they finish their education. The uncertainties surrounding the ability to meet repayment obligations are a particular problem for students whose academic success is uncertain or whose families lack the resources to help them financially if they have difficulty repaying their loans.
Expected Family Contribution Versus Net Price After Grants and Loans

As already described, the expected family contribution represents what families are expected to pay according to the Federal Methodology for need analysis, and the net price after grants and loans is the current outlay that students and their families have to make to cover their educational expenses. Therefore, a comparison of the expected family contribution and net price gives an indication of the extent to which the financial aid system is meeting students' financial needs, at least as defined by the Federal Methodology. Although expected family contribution is an imperfect indicator of ability to pay, it is the only yardstick available.

- On average, once grants and loans were taken into account, students in the highest-income quarter appeared to have sufficient resources to pay for college, while those in the lowest-income quarter still paid more than their expected family contribution.

Figure 11 displays the relationship between expected family contribution and net price by income level at each type of institution. For full-time dependent students in the highest income quarter at all types of institutions and in the upper middle-income quarter at public 2- and 4-year institutions, the average net price was lower than the average expected family contribution in both 1990 and 2000. In other words, after grants were awarded and loans were taken out, on average these families should have had sufficient financial resources to pay for college.

For students in the lowest income quarter at each type of institution and in the lower middle-income quarter at private not-for-profit 4-year and private for-profit less-than-4-year institutions, the average net price was well above the average expected family contribution in both 1990 and 2000. That is, after receiving grants and loans, families had to provide much more than expected by the Federal Methodology used for need analysis. At these income levels, they were unlikely to have savings or other assets to use. They may have made up the deficit through some combination of strategies such as additional work, credit card borrowing, or cutting expenses by adopting a reduced standard of living (Owens and Berke: 2003).

The gap between expected family contribution and net price is often referred to as "unmet" or "remaining" need. However, the significance of this gap should be interpreted cautiously. First, as indicated above, net price could be reduced...
Figure 11. Average expected family contribution (EFC) and net price (both in 1999 constant dollars) after grants and loans, by type of institution and family income: 1989–90 and 1995–2000—Continued

![Graph showing average expected family contribution and net price for various family income levels and quarters for private non-profit 4-year institutions and private for-profit less-than-4-year institutions.]

*Represents statistically significant change from 1989–90.


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for some families if they borrowed more. If students and their families decline to borrow the maximum allowed, their need is not technically "unused," although in practice there may be good reasons why additional borrowing is unwise for some families. Second, the fact that students with unmet need are enrolled means that somehow they found the money to attend even though it was beyond the amount expected using the Federal Methodology to determine need. They may have worked more, obtained funds from sources not included in the expected family contribution calculation (such as grandparents or a noncustodial parent), reduced their standard of living, or used some combination of these and other strategies. For these students, need is not truly unmet because they are enrolled, but their enrollment may cause serious financial hardship.

Summary

After adjusting for inflation, the average amount that full-time dependent undergraduates at public 2- and 4-year institutions and at private not-for-profit 4-year institutions were charged for tuition and fees was higher in 2000 than in 1990. These higher prices, combined with a reduced expected family contribution for low- and middle-income students and their families, meant that the amount of need-based financial aid for which the average student was eligible was greater in 2000 than in 1990.

Financial aid patterns for full-time dependent undergraduates changed during the decade as well. The percentage receiving aid and the average amount that aid was decreased for all income groups and at all types of institutions. These increases represent both increased grant aid and increased borrowing.

Grant aid reduced the price of attending because it does not have to be repaid. The percentages of students receiving grants and the average amounts received by students with grant aid increased for all income groups and for students at public 2- and 4-year institutions and at private not-for-profit 4-year institutions. The average net price after grants increased as each type of institution. The average net price after grants increased for all income groups, although the increases were not statistically significant for students in the lowest income quarter at public 2-year vs. at private for-profit less than 4-year institutions. The increases in net price after grants between 1990 and 2000 mean that the increases in grant aid were not enough to offset the price increases during this decade.
Loans reduce the current outlay required to cover educational expenses and thus increase access to postsecondary education. However, because they must be repaid, they do not reduce the price of attending, but simply postpone paying part of it. The percentage of full-time dependent students who borrowed to pay their educational expenses increased from 30 percent in 1998 to 45 percent in 2000. The percentage who borrowed increased for all income quarters except the lowest. By 2000, about half of the students in the lowest, lower middle, and upper middle-income quarters and 35 percent of those in the highest income quarter borrowed. The average amounts borrowed by each income group were higher in 2000 than in 1990. The increases in borrowing between 1990 and 2000 reflect not only the need to cover price increases not covered by increases in grant aid but also wider eligibility for subsidized loans, the introduction of unsubsidized loans not tied to need, and higher loan limits. Students who were not permitted to participate in federal loan programs in 1990 were allowed to do so in 2000, and everyone was allowed to borrow more.

The combined result of increases in prices, grants, and loans was that the average net price after grants and loans increased for some full-time dependent students and decreased for others: it increased for those at public 2-year institutions, remained stable for those at 4-year institutions, and declined for those at private for-profit less-than-4-year institutions. Within type of institution, the effect varied by income. Average net price after grants and loans declined for low-income students except at public 2-year institutions and increased for high-income students at public 2- and 4-year institutions.
Notes

1 The Higher Education Act was reauthorized again in 1998 with many more changes. The new reauthorization is scheduled for 2014. The Stafford loan program is in the reauthorization stage, with eligibility parameters being revised.

2 See NASCAP (2005) for a comprehensive state-by-state description of programs and funds available.

3 More information on the NPSAS facts and products can be found at http://nces.ed.gov/programs/pubs/pdf/npsas.pdf

4 The number of FAFSA forms that students complete and the numbers that go through the Web-based version of the FAFSA are almost identical. Therefore the number of students who were not full-time credit-seeking students were excluded for those years. In this analysis, all students who completed the FAFSA were included because we cannot determine if or how many of all full-time equivalent students attended this type of institution. For NA, the 1991-92 Undergraduate Data Collection System (UDS).

5 By this analysis, full-time, full-year students reported full-time for the entire month at a public, 4-year private institution for the 4-year institution, at a private, 4-year private institution for the 4-year private institution, at an NA school in 1991-92.

6 For 1991-92, the corresponding NA figures were 10, 14, 15, and 17 (1991-92 and 1991-92 National Postsecondary Student Aid Studies [NPSAS]: UDS and NASCAP, 2005).

7 The U.S. Census Bureau estimated 4-person family and 2-person family Median Income for a Region. For NPSAS, visit http://nces.ed.gov/programs/coe/indicator/ip01a.asp

8 http://nces.ed.gov/programs/coe/indicator/ip01a.asp

9 In 1991-92, the average student aid for 1991-92 was $3,610, $662, and $9,131.

10 By this analysis, full-time, full-year students reported full-time for the entire month at a public, 4-year private institution for the 4-year private institution, at a private, 4-year private institution for the 4-year private institution, at an NA school in 1991-92.

11 The 1991-92 U.S. Census Bureau Median Income for a Region was $3,610, $662, and $9,131.

12 To illustrate how many students fall into each category figure 1 also shows the percentage of students by family income.

13 NA includes those students that fall into either category of 90 or greater, 91-94, or 95 or greater, respectively.

14 The 1992 U.S. Census Bureau Median Income for a Region was $3,610, $662, and $9,131.

15 The 1991-92 U.S. Census Bureau Median Income for a Region was $3,610, $662, and $9,131.

16 If a student's income is less than the median and less than the poverty line, the student is not considered a full-time student, even if the student is enrolled for a minimum of 12 credits.

17 The figures are not statistically significant because they are not large enough to be statistically significant.

18 The figures are not statistically significant because they are not large enough to be statistically significant.
References


