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# EVALUATING COLLEGES AND UNIVERSITIES: A NEW MODEL FOR INSTITUTIONAL RANKINGS

Lucien Robert Costley

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Submitted in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY

> Seton Hall University May 2015

### SETON HALL UNIVERSITY COLLEGE OF EDUCATION AND HUMAN SERVICES OFFICE OF GRADUATE STUDIES

# APPROVAL FOR SUCCESSFUL DEFENSE

Doctoral Candidate, Lucien Robert Costley, has successfully defended and made the

required modifications to the text of the doctoral dissertation for the Ph.D. during this

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The mentor and any other committee members who wish to review revisions will sign and date this document only when revisions have been completed. Please return this form to the Office of Graduate Studies, where it will be placed in the candidate's file and submit a copy with your final dissertation to be bound as page number two. © Copyright by Lucien Robert Costley 2015

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#### ABSTRACT

Most colleges and universities function independently and lack the wherewithal of measuring performance areas of effectiveness, efficiency or quality. The United States Department of Education maintain a number of subsidiary organizations and external sources that provide public statistical data for analysis, yet an institutional performance output measure has not been defined, created, nor developed. At best, university rankings (from sources such as *US News and World Report*) have been the main source of institutional performance for decades despite researchers' attempts to address gaps within the higher education field. These sources remain limited within their methodology and may not truly depict a thorough evaluation of a college or university.

Therefore, the purpose of this study is to identify key indicators that measure whether an institution is performing well and provides a new comprehensive institutional ranking model. Using the initial framework from the Benchmark Model of Institutional Efficiency and Effectiveness (BMIEE) with guidance from Kim Cameron's measurement of organizational effectiveness in higher education, this study links institutional characteristics, expenditures, efficiency, and effectiveness in ways that can improve the overall performance and evaluation of institutions.

In addition, a review of *US News* ranking methodologies is examined based on peerreviewed empirical research as well as the development of three E components for the new model (effectiveness, efficiency, and expenditures). The findings of this study result in a new set of institutional rankings of 4-year (public and private) colleges and universities using the new Keywords: Rankings, Evaluation, Efficiency, Effectiveness, Expenditures, Institution Performance, Colleges and Universities

#### ACKNOWLEDGEMENTS

The desire to pursue a doctoral degree is generally inspired by an event in one's life. Once committed, the composition and defense of a doctoral dissertation then requires years of maintaining a focused direction, obtaining ongoing academic guidance, receiving never ending emotional and familial support, and forcing occasional, but necessary distractions. This monumental life achievement is shared with so many beautifully spirited colleagues, friends, and family.

My inspiration of attaining a doctoral degree occurred early in life by two courageous and trend setting women. In the late 1990's, my cousin, Dr. Veronica L. Estrada and high school biology instructor, Dr. Cynthia A. Perez successfully defended their doctoral degree, leaving a resounding impression and instilling an inspiring act of achievement that I then wished to accomplish one day. I now hope my efforts contribute to the prestige and honor established by each of them (within my maternal extended family and my hometown K-12 school district). I thank you both for being my example of greatness.

My focused direction is attributed to Dr. Rong Chen, Associate Professor and Director of Higher Education ELMP Programs, for serving as my advisor and mentor throughout my three and a half years of completing my academic work, and defense of this dissertation. Thank you for your vision and belief in me. Your support of my research led to multiple national level organizational opportunities beyond Seton Hall University as well as my first appointment within higher education institutional research. I am forever grateful.

I extend my sincerest gratitude to my professors within Jubilee Hall that aided my ongoing academic work. I received a strong foundation of higher education curricula and quality instruction from the finest within the field. A special thanks to both committee members (Dr. Robert Kelchen and Dr. Luke Stedrak) for your time, expertise, support, and feedback throughout this process. To all other ELMP staff that made every day of my graduate assistantship exciting, fun, and filled with laughter. Our \$5 lunches will be cherished. To the many Seton Hall University friends that I made along the way and who contributed to my random acts of craziness both at home and on campus (Jessica, Omayra, Will, Ryan, Jenn), I thank you.

Attempting to complete a dissertation without emotional support is frankly, impossible. Such support includes all contributions that fill the mind, heart, and spirit. From the pep talk to the *you need to finish that dissertation* lecture and the available bended ear that was filled with doubt, anxiety, and thrill...I needed it all. All of your unique personalities provided such a combination of enriched enthusiasm that leaped me out of moments of despair. This journey was only possible with your encouragement, words of validation, and commitment that I persisted through my defense. Thank you Cristina, Marissa, Mayra, Michelle, Nancy, and Traci for each of your witty senses of humor, inappropriateness (of which I love the most), energy, true friendship, and always believing in me. Our life-long relationships are forever rooted. What kindred spirits you are!

Relocating to the northeast required more than the usual familial support. This was received numerous times with wonderful care packages, seasonal cards, FaceTime opportunities, memorable visits, and uproarious phone conversations recollecting our childhood. To my siblings (Raymond Richard, Marlene Elaine, and Rex Anthony), thank you for being my true, solid foundation after all of these years. Our connection gives me strength and brings so much joy to my life! To my extended siblings (Blondi, Michelle and Ricky), thank you for your love and ongoing support. To my nieces and nephews (Talitha, Raythric Alexander, Ashley Elizabeth, Madeleine Faith, Elizabeth Marie and Christian Rex), may this accomplishment serve as an inspiration of future educational attainment.

Although all of those mentioned aided the *distraction* from my dissertation (in one way or another), while pursing my degree, I spent years as a part-time manager at the Pier 1 Imports Flagship Store on 5<sup>th</sup> Avenue in New York City. My time away from my academic studies truly provided a healthy balance of work and play over the years. Within said time, I met wonderful employees, encountered colorful customers, and gained a perspective of retail services that helped shaped my appreciation for those within the field. I truly admire and thank all of the managers for your positive and fun-filled, collegiate bonding working energy. Boy, did I have plenty of laughs along the way. What an amazing and talented set of individuals! I tip my hat to each of you.

On a special note, within the past few years and throughout my doctoral studies, two dear friends left this world way too soon. Their influence is especially noteworthy towards my successful completion of this doctoral degree.

To *†*Homer Clifton Shirley, III, a gentleman and scholar who came into my life for a short time, yet remains forever within my heart.

To **†**Middy L. Wilkinson, my beacon of light that continues to shine brightly over me, instilling laughter and enjoyment even though we are apart.

The both of you are truly missed.

# **IN DEDICATION**

To my loving and devoted parents,

#### **Deacon Richard and Mary Costley**

For your endless commitment and longstanding journey of building a home filled with love, God, and laughter. Words truly cannot express my deepest emotions of gratitude, respect, admiration, and pride for the both of you. Your example of hard work, commitment, spiritual devotion, and advocacy of education has truly empowered us 'onward and upward.' This life accomplishment is yet another groundbreaking achievement for the Costley legacy and it is because of the both of you. Well done, Mom and Dad.

and

#### **IN MEMORIAM**

To my sister and life-long guardian angel,

#### + Mylene Elizabeth Costley

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### Chapter 1

## **INTRODUCTION**

For decades, the American higher education system has grappled with identifying an instrument or methodology to measure institutional performance. Most colleges and universities function independently and lack the wherewithal of measuring performance areas of effectiveness, efficiency or quality. Institutions rely on the work of researchers to identify many key performance indicators, such as graduation and retention rates, but most contend there are other factors to consider.

An attempt of establishing a 'performance' outcome by The Lumina Foundation, a private organization, has worked to gauge ways of quantifying what graduates learn and earn beyond graduation; however, such results are not public (Staff, 2014). The United States Department of Education also maintains a number of subsidiary organizations that provide public statistical data for analysis, yet an institutional performance output measure has not been defined, created, nor developed (Staff, 2014).

Recently, however, the federal government recognized the need for establishing a measurement instrument as so much emphasis on higher education (rising costs, return on investment, federal government Pell Grants) continue to create tension within the field. With the development of President Obama's College Scorecard, an initiative that proposes a public rating of colleges and universities by 2015, credibility to this gap within the higher education field is supported (The White House, 2014). Although an optimistic goal, this initiative will take a number of years before full implementation.

At best, institution leaders lean towards university ranking publications as a guide to determine their annual performance and position against their peers and/or competitors (Meredith, 2004). The most commonly used source, *U.S. News and World Report* (formerly *America's Best Colleges*), has led the market since 1983 and was created as 'an institutional peer reputation list' from the most prestigious to the lesser. Over the years, the mass-circulation publication has morphed into the leader within its field as an aid to help prospective students decide which college or university to attend, all the while becoming a worldwide phenomenon as other countries have adopted a similar approach (Morse, 2008; Altbach, 2012).

## Institutional ranking systems

University rankings have been the main source of institutional performance for decades (Pusser and Marignson, 2013), despite researchers' attempts to address gaps within the higher education field. *U.S. News* markets institutional rankings to incoming freshmen as 'the' guide to help answer "the most controversial question with a simple answer...to help you make one of the most important decisions in your life;...[as] your investment in a college education could profoundly affect your career opportunities, financial well-being and quality of life" (U.S. News Staff, 2013a, par 1). Hence, the perceived popularity of rankings in the US has grown since the early 1980's as other well-known sources such as *Forbes, Washington Monthly*, and *Money* contributed to the publications. Each institutional ranking system differs by methodology, selection criteria of institutions, and weighting of variables used.

For example, *Forbes* focuses its ranking measurements on outcomes. With no emphasis on reputation or spending per student as in the *US News* ranking, the source measures student satisfaction, career success, student debt as well as graduation rates using different weights. Additionally, credit is given to those schools whose students are awarded nationally competitive awards such as Rhodes or Fulbright scholars, exclaiming that 'its ranking counts what matters' (Ranking Methodology, 2013). According to *Washington Monthly*, "no single category is considered to be more important than any other...thus, all three main categories [community service, research, social mobility] are weighted equally" (Editors, 2013, para 4).

The newest contributor to the market, *Money*, ranks institutions using a 1/3 weighting system measuring quality of education, affordability, and post graduate outcomes, such as career earnings. Within each category, various weighted percentages are defined; however, this ranking differs from *US News* by having one ranking list and not subcategorizing by institution sector (*Money* Methodology, 2014).

As a major contributing source within the field, *U.S. News and World Report*<sup>1</sup> measure approximately seven categories used as an evaluation and ranking tool that vary by institution category: undergraduate academic reputation (22.5%), retention (22.5%), faculty resources (20%), student selectivity (12.5%), financial resources (10%), graduation rate performance (7.5%), and alumni giving (5%). Each of the ranking model indicators are rescaled and weighted, based on the highest score in each category and then followed by the calculation of final scores, establishing institutional rank (Morse and Flanigan, 2014).

#### **Problem Statement**

Although methodologies differ from each source, the motivation to continue providing rankings is that institutions and prospective undergraduate seekers are eager to know how well institutions perform. With institutional ranking serving as the current method, the perspectives of college seekers, researchers, and institutional leaders based on institutional ranking systems vary.

<sup>&</sup>lt;sup>1</sup> US News is highly referenced and cited in many academic journals and opinion editorials in comparison to its peers and will therefore be used as the model for review.

*College Seekers*. Rankings have intensified the market in the past few decades. Beginning in the early 1990's with a reported 40% of entering freshmen who indicated college rankings were important in the decision (McDonough, Antonio, Walpole, & Perez, 1998 in Bowman and Bastedo, 2009) to an increasing 50% and rising of freshmen (Higher Education Research Institute, 2007), college seekers elect institutional rankings as a source when determining which college or university is the best fit (Wilson & Adelson, 2012). Additionally, the Art and Sciences Group polled SAT test-takers interested in a 4 year institutions and approximately two-thirds of students (N=846) indicated that college rankings were considered when deciding the "right" college or university and that "nearly two-thirds of students surveyed strongly agreed or somewhat agree that the rankings are 'very important in trying to sort out the differences between colleges' " (2013, para 4).

Media outlets; however, often caution incoming freshmen to not be blind-sided with a "business product" of institutional rankings that do not measure outcomes of the university (Silverman, 2007; O'Shaughnessy, 2013, MTC Writer, 2013; McGuire, 2013 Ascione, 2012). Even commentary with the discussion section of the polled results from the Arts and Sciences Group warn readers of the ongoing debate about the influence of college rankings on the minds of students making enrollment decisions as the metrics that drive them are "largely correlated with institutional wealth" (2013). However, Rob Asghar, a contributing editor for *Forbes*, commented on the contradicting paradox of the institutional rankings emphasizing that amidst the lack of comprehensive measure and marketing ploys, "human beings want to know the pecking order in their tribe" (2013, para 1).

*Researchers*. With the increasing prominence of rankings within higher education, some researchers demonstrate supportive outcomes on the effects of institutional rankings on both

undergraduate and graduate schools through empirical studies. The benefits (particularly on increasing admission) have "become both a representation of the relative prestige and influence of post-secondary institutions, particularly in the US and China, and a key driver of institutional prestige and influence" (Pusser and Maringson, 2013, p 551).

Griffith and Rask (2007) found that the choice by students is more responsive to changes in rank, indicating the higher the rank, the better opinion or perception of the institution. Their results suggested that "it is rational for college administrators (especially those at the highest ranked institutions) to pay attention to their *US News* rank because it is an important influence in yielding accepted students" (Griffith and Rask, 2007, p 244). Other researchers such as Bowman and Bastedo (2009) also found that the influence of rankings does play a role in the selection process or that they do matter when measuring institutional prestige and reputation (Ehrenberg, 2002; Sauder & Landcaster, 2006; Volkwein & Sweitzer, 2006; Lederman, 2009).

However, other researchers argue that rankings from *US News* maintain flaws and are subject to reform or termination. In a publication from 2013, Tierney identifies the many weaknesses and criticisms of *US News* rankings over the past 15 years based on support from popular and well-known researchers and sources within the field. They include:

Playing with Numbers – A 2002 essay by Nicholas Thompson, an editor of Washington Monthly that argues that the rankings "serve as a test; administrators teach to it; and society (including students) put too much stock in the results. The 'test' does not measure everything, people do not recognize it and there are more welldeveloped methods for describing what the test leaves out" (para 42).

- A Review of Measures Used in US News and World Report Rankings A 2002 report by Denise Gater from the University of Florida's Center for Measuring University Performance examines the 16 measures of academic excellence within the US News methodology and suggests compelling alternative measures for comparing institutions.
- *Is there Life after Rankings?* A 2005 essay by Colin Driver, then president of Reed College, presents his decision to withhold Reed College's participation in the rankings and the liberating consequences of that decision.
- *College Rankings* A 2009 report by Luke Meyers and Jonathan Robe from the Center for College Affordability and Productivity that provides the history and development of rankings, criticism to the current system and recommended reform based on quality and limiting incentives.
- The Order of Things: What College Rankings really tell us A 2011 essay by Malcolm Gladwell that presents a telling and critical view on the rankings based on an interview with Robert Morse, leading data analyst and methodologist for US News.

In their own way, each argue the gaps and shortfalls of the rankings from a combination of their methodology, purpose, effect on institutional behavior, implications on higher education as a field of study, and developed cultural mindset of prospective students, current students and alumni. Tierney demonstrates that rankings are a part of higher education culture and although many provide a critical view of the system, they will continue to be an influential source for all parties involved. *Institutional Leaders.* Higher education administrators show conflicting opinions on institutional rankings. With *US News*, colleges and universities continue to voluntarily provide statistical information for analysis, even if the results are not favorable<sup>2</sup>. For the spring and summer 2013 data collection period, 91% of the 1,376 ranked colleges and universities surveyed returned voluntary statistical information (Morse and Flanigan, 2013). A high response rate may suggest a supportive position from administrators. In turn, Hazelkorn (2008) conducted a study of institutional leaders and found that rankings were "understood as essential to institutional reputation and shaped virtually every aspect of institutional organization and governance" (p 204). Approximately 90% of the respondents implemented strategies to improve ranking, monitored the performance of peer institutions, and set new institutional priorities and resources allocation.

Conversely, institution leaders oppose institutional rankings as a negative influence in higher education. The most criticized model indicator within *US News* ranking methodology is 'undergraduate academic reputation'<sup>3</sup>. This indicator relies on survey results from peer administrators assessing the reputation of the institution without empirical data, institutional insight or first-hand knowledge about academic programs. Within the *College Rankings: History Criticism and Reform* report, Meyers and Robe (2009) reveal that presidents' view of rating other institutions as 'preposterous' and that by participating in rating of other institutions with a 'lack of informed judgment can be detrimental.'

<sup>&</sup>lt;sup>2</sup> Most sources like US News (Money, Forbes, Washington Monthly) capture data gathered by the federal government that is available for public use for rankings; however, the other sources use the information for other purposes beyond ranking institutions.

<sup>&</sup>lt;sup>3</sup>Undergraduate academic reputation led the *US News* indicators with the largest percentage, but recently became equal to retention in 2013. This indicator represents a peer institution assessment survey based on the opinion of those in a position to judge the institution's academic excellence (president, provost, dean, etc.). The values are based on a 5-point scale rating of academic programs from 1 representing a 'marginal' value to 5 representing a 'distinguished' value (Morse and Flanigan, 2014).

Additionally, Education Conservancy (a non-profit organization committed to improving college admission processes for students, college and high schools), maintains its commitment to discourage students from paying attention to the rankings and advocates that more presidents from higher education institutions refrain from filling out the surveys. The organization prides itself on the rising number of 'unranked' institutions within the rankings, indicating that those institutions declined to use *US News* data in promotions or to participate in its ranking (About Us, 2014).

The organization positions itself by arguing that the ranking undermines institutional diversity which inherently characterizes American higher education. Many schools strive to be different, yet a ranking methodology pressures institutions in becoming homogeneous, and inevitably penalizing within the ranking. The organization also argues that the rankings can develop skewed visions of institutions that are based solely on manipulating data or changing behaviors for the sole purpose of inflating a score rather than truly dedicating efforts towards the mission of the institution.

#### **Purpose of the Study**

Therefore, in efforts of moving beyond institutional rankings that may not truly depict a thorough and comprehensive evaluation of a college or university, researchers such as Baumann & Hamin (2011), Carey (2006), Bastedo and Bowman (2010) and Kayek (2001) have identified key indicators or identified variables that measure whether an institution is performing well. Some indicators within models represent components that measure variables of institution efficiency and effectiveness (linked to institutional performance) and are found to be useful when evaluating institutions.

Powell, Gilleland, and Pearson (2012) developed a correlational model of higher education institutions that focuses on analyzing the efficiency (better student to faculty ratios) and effectiveness (higher quality of programs/services and better graduation rates) of institutions based upon specific institutional characteristics and their allocation and revenue expenditures. They conjoined many factors that contribute to the overall performance of a higher education institution in their study.

Based on their efforts, they developed the Benchmark Model of Institutional Efficiency and Effectiveness (BMIEE) with guidance from Kim Cameron's measurement of organizational effectiveness in higher education linking institutional characteristics, expenditures, efficiency, and effectiveness in ways that can improve the overall performance and evaluation of institutions. However, their intention was not directed towards ranking institutions based on their findings, but limited to identifying key components of measuring institutions independently.

Therefore, considering that *U.S. News* provides a skewed methodology based on the many criticisms discussed when ranking higher education institutions and the researchers of the BMIEE model limited their approach by not ranking institutions, the development of a new evaluation model using both sources can assist the higher education field in examining the performance of institutions.

By assessing both the methodologies and critically examining each component using peer-reviewed empirical research on the current mechanisms of evaluating the performance of an institution (via effectiveness, efficiency, and expenditures), coupled with a theoretical framework, a proposed evaluation tool/model can be developed. Once the model is developed, the following questions will guide this investigative, non-experimental study. -How do four-year higher education institutions compare with one another based on a new evaluation model representing effectiveness, efficiency, and expenditures?
-How do the institutional ranking results from U.S. News and World Report compare to those from the new evaluation tool/model?

By investigating the research questions, insight into institutional performance can flourish and expand as it may serve as an influential mechanism for prospective students when determining the 'right' college or university of choice. Prospective students will gain more indepth knowledge when deciding what institution best meets their academic needs and university leaders may be able to use sound ranking information for strategic decision making on campus across the country.

#### Significance of the Study

The importance of this study will directly benefits many contributors and stakeholders within the higher education field including, but not limited to, prospective students, institutional leaders and policymakers, as well as fellow researchers.

Prospective students, ideally, should have a comprehensive evaluating mechanism that can assist their decision making process in identifying the best college or university. This study will provide a non-biased, quantitative approach to measuring institutions that are based on classification standards set forth by Carnegie including purpose. Researchers agree that prospective students should information that is based on empirical, objective data and not subjective (based on reputational rankings) (see for example, Myers and Robe, 2009; Tierney, 2003; Gladwell, 2011; Diver, 2005; Thompson, 2003, Gater, 2002; Ascione, 2012). Additionally, higher education institution leaders and policymakers should have an instrument or measuring tool evaluating annual performance to help guide strategic decision making. This study can produce benchmarks (based on comparing other institutions) whereby adjusting institutional behavior consist with the mission. By evaluating an institution's position among competitors, many improvements can be made via programming, strategic planning, or policy formation.

The significance of this study will also benefit fellow researchers by producing findings consistent with previous work and contributing evidence to either contradict or support the efforts of *US News* rankings. Researchers will be able to cite my comparable findings in future work and potentially adhere to the development of formulating new research questions for investigational study.

In turn, with the efforts of this study by developing a new evaluation model beyond the scope of *US News*, the higher education field can gain a comprehensive tool that can address an identifiable and critical problem that has warranted attention for decades.

#### **Organization of the Dissertation**

The following four chapters of this study collectively contribute to the proposed study. Chapter Two examines the theories that assist in supporting the components of evaluating an institution's performance that leads to a developed conceptual model for the proposed study. A thorough review of the literature investigating the key indicators of evaluating an institution's performance is presented. Chapter Three presents the methods of analysis used for the study including the data collection processes, data preparation, statistical model and limitations to the study. Chapter Four reveals the results of the study according to the research questions posed in Chapter One. Corresponding tables and figures demonstrating the results of the study are also found within the appendix of the study. Chapter Five highlights the implications of the study and proposes suggestions for future research based on findings.

#### Chapter2

## LITERATURE REVIEW

The following literature review consists of three main categories that aid in the review of the evaluation model used for the proposed study. Firstly, an examination of the theories will assist in supporting the various components of evaluating an institution's performance. Secondly, a review of the current models (*U.S. News* and BMIEE) is necessary to understand each model and clearly identify areas of improvement. Thirdly, a review of the research findings is incorporated within the models to determine which components are critical to the evaluation model. The development of a more thorough and comprehensive evaluation mechanism is the overall goal; however, due to limitations of accessing student engagement data, a combination and extension to the current models will result.

#### **Part 1: Theoretical Framework**

An examination of a theoretical framework is critical as the integration of theory on any given topic provides a foundation to make sense of the reasoning behind an existing wonder (Evans, Forney, Guido, Patton and Renn, 2010). In this instance of evaluating higher education institutions, the purpose is to provide insight on the theoretical forces that can support or justify the various components necessary to include in a model. Formal theory is "a set of propositions regarding the interrelationship of two or more conceptual variables relevant to some real of phenomena" (Rodgers, 1980, p. 81) and contains four dimensions: description, explanation, prediction, and control (DiCaprio, 1974 in Evans, et al., 2010). The following details the four dimensions and provides a theoretical reference linking the "phenomena" of evaluating a higher education institution towards understanding and reasoning.

## Description

The dimension of description focuses on the theoretical aspect that describes the situation from a holistic viewpoint (i.e. what is occurring). In this case, higher education institutions are under evaluation of their performance; thus, by applying Cameron's (1978) theoretical model of organizational effectiveness, predictions measuring the overall effectiveness (or performance) of a higher education institution can be substantiated. This approach focuses on the ability of an organization to acquire, absorb, and appropriate resources for the purposes of achieving its goals. In order for an organization to be effective, institutional leaders representing the institution should work towards being proficient at having access to essential resources for operation and production.

**Cameron's Domains of Organizational Effectiveness.** By acknowledging the four approaches defining organizational effectiveness as developed by many researchers, (goal approach, system resource approach, process approach and strategic constituency approach) and an in-depth analysis of higher education institutions, Cameron (1978, 1981) proposed a nine dimensional and 57-item questionnaire that targets the perceptions regarding the effectiveness of their own institutions. The work focuses on the understanding of effectiveness (i.e. performance) at four year colleges and has been tested for validity and reliability by multiple researchers (Anderson, 2000; Smart, 2003; Lejeune and Vas, 2009; Kwan and Walker, 2003; as in Ashraf and Abd Kadir, 2012). The following summarizes each dimension.

*Student educational satisfaction.* The satisfaction of students with their educational experiences at the place where they are studying; *Student academic development.* The rate and extent of achievement, growth, and progress which students have managed to gain and opportunities for academic development, given to them by the institution;

*Student career development*. The range of the students' occupational and vocational progress as well as the opportunities given to them by the institution;

*Student personal development*. The extent of the students' progress in non-career, non-academic areas (social, cultural, and emotional basis) and opportunities offered by the institution;

*Faculty and administrator employment satisfaction*. The satisfaction faculty and administrators have with their jobs;

*Professional development and quality of the faculty.* The range of work achievement and improvement of the faculty members as well as the extent of motives toward work progress provided by the institution;

*System openness and community interaction*. The attention given to interaction with the external environment of the institution, the adaptation to it and the service given;

Ability to acquire resources. The range of resources the organization can earn from external sources including faculty members and students with high-quality, political recognition and financial aid; and,

*Organizational health.* The level of smooth functioning of the institution from the viewpoint of its processes and operations such as good-will and liveliness of the institution (Ashraf and Abd Kadir, 2012, p. 83).

Given that the area of organizational effectiveness is a multi-dimensional concept,

Cameron (1978) incorporated three fields of organizational effectiveness that categorize each

dimension for a better conceptual understanding and in efforts of including all variables for

consideration. The academic field joins student academic and personal progress, professional

development, and faculty efforts whereas the moral field groups student education satisfaction,

organizational health and the satisfaction of the faculty and administrators.

The third field, *external adaptation field*, targets the student's career progress and community interactions. These three areas are integral to the overall effectiveness of a higher education organization as long as the institution can achieve its goals (acquire high retention and graduation rates). Cameron argues that organizations must consider all fields that integrate the nine dimensions as "not one single field is suitable for the assessment of organizational effectiveness" (1978, as in Ashraf and Abd Kadir, 2012, p. 85).

Hence, in addressing the description component of a theoretical approach, Cameron's theory of organizational effectiveness defines the premise in evaluating higher education institutions by framing the efforts of an institution to obtain resources from its environment and allocate those resources for maximum output, all while ensuring students are retained and graduate over a given period. Cameron denotes that although the presented dimensions and fields are specific to higher education, institutions maintain different variables that may alter measurement (1978), producing different results of organizational effectiveness. Therefore, the continued investigation of the behaviors of organizations may contribute to such contextual factors.

#### Explanation

The second dimension of a theoretical framework (explanation) is "used to explain the causes of behavior" (Evans, et al., 2010, p 23). Questions help demonstrate the need for identifying some contributing behavioral factors such as: why do some higher education institutions outperform others? or what factors are attributed to the overall performance of the institution? Hence, the application of Berger's (2000) organizational behavior theory incorporates the work of Birnbaum (1998) and Bolman and Deal (1991) as a "multi-dimensional construct that collectively contributes to the understanding of organizational behavior on a campus" (p. 4). This theory provides the underpinning or "building blocks" of organizational behavior, specific to higher education institutions.

**Berger's Organizational Behavior**. The behavior within a higher education institution, according to Berger (2001-2002), is a reflection of the acts or actions of those individuals who lead, operate or provide direct services (i.e. faculty, administrators, and staff). He contends that "it is important to remember that organizations do not behave; however, the people in those

organizations do behave while acting in the service of collective organizational interests" (p. 4). Berger assessed the work of other researchers regarding organizational behavior and developed a multi-dimensional construct that infuses five core dimensions (building blocks) in a comprehensive manner: bureaucratic, collegial, political, symbolic, and systematic.

The *bureaucratic* dimension emphasizes rationality in organizational decision-making through an emphasis on the use of formal structure manifested in rules, regulations, hierarchy, and goals. The *collegial* dimension describes organizational behavior in terms of collaboration, equal participation, concern for human resources, and the use of consensus to establish goals and make other important decisions. From a *political* perspective, organizational behavior emerges from competition for resources and the existence of varied interests among individuals and groups within an organization. The *symbolic* dimension focuses on the role of symbols (e.g., stories, myths, logos, seals, ceremonies, traditions, artifacts) in creating meaning within organizations. The *systematic* dimension provides an open systems view of an organization which suggests that what happens inside of an organization can be best understood by recognizing how the organizational system, and is component sub-system, interact with and relate to broader systems in the external environment (Berger, 2001-2002, p. 5).

Using the five building blocks, Berger focuses on organizational behavior and the impact on student persistence on college and university campuses. He found, consistent with other researchers (Astin and Scherrei, 1980; Blau, 1973; Ewell, 1989 as in Berger 2001-2002 and Kuh, 2001-2002), that those institutions more *bureaucratic* in nature tend to have lower retention rates, an indicator of institutional performance. However, other studies found that "certain levels of bureaucracy may be necessary in order for the institution to effectively function and may be lead to increased student satisfaction and may even have positive benefits in terms of the institution's ability to retain students" (Berger, 2001-2001, p. 12).

In review of the *collegial* dimension that models actions of fairness, positive communication and participation, Berger (2001-2002) found evidence to support high levels of

student persistence and satisfaction whereas campuses that exhibit a highly politicized environment tend to have a negative effect on student retention. He hypothesized that campuses who exhibit a competitive nature (institutions high in bureaucracy and low in collegiality) tend to have lower student involvement in extra-curricular activities and hence, lower retention rates suggesting that the political dimension inhibits overall institution performance. However, conclusive evidence does not support this suggestion as the competitive environment may be attributed to scarce resources and focused on scarcity rather than politics (Berger, 2001-2002).

The *symbolic* dimension was found to contribute to the persistence of students on campus as this type of behavior focuses on the shared meaning of institutional values and expectations. These efforts are demonstrated in developing the academic and social integration of students with higher education learning and experiences such as commemorating traditions, celebrating victories, engaging in ceremonies, etc. (Berger, 2001-2002). As students become integrated into the behavioral patterns of the campus environment, a connection between the organization and student is developed (Tinto, 1993).

The review of the *systematic* dimension focuses on the connection of the institution's efforts with external agencies or organizations that may directly link students with careers, professions or graduate school. Berger (2001-2002) argues that if an institution establishes a network of connections that help expected graduates to begin their professional careers, the attraction and retention of students strengthens. The external relationship can place a positive image on the institution and may contribute to its potential behaviors.

In turn, by modeling the five building blocks of organizational behavior developed by Berger, researchers may be able to hypothesize why certain higher education institutions outperform similar colleges and universities that may be identified as peer institutions, aspirant institutions and competitor institutions). This explanation of behavior contributes to the overall theoretical framework and provides insight when comparing institutions from an evaluation perspective.

# Prediction

Evans et al. (2010) defines the third theoretical dimension (prediction) as the ultimate goal. Considering that the end goal of an institution is to retain and graduate students throughout a four to six year timeframe, the incorporation of Astin's (1984, 1999) student involvement theory that "refers to the amount of physical and psychological energy that the student devotes to the academic experience" (p. 518) is critical. Coupled with the efforts of the organization, the outcome of the institution relies heavily on the efforts of students. Taking the involvement of students into consideration contributes to the comprehensive approach of evaluating a higher education institution.

Astin's Student Involvement Theory. The basic elements of the theory describe involvement as a behavioral concept that focuses on what the individual does, more so than what the individual thinks or feels. Astin (1984, 1999) formulates five "postulates" that frame the theoretical model.

*Physical and psychological energy.* Involvement refers to the investment of physical and psychological energy in various objects. The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination). *Continuum.* Regardless of its object, involvement occurs along a continuum; that is, different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times.

*Quantitative and Qualitative*. Involvement has both quantitative and qualitative features. The extent of a student's involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying) and qualitative (whether the
student reviews and comprehends reading assignments or simply stares at the textbook and daydreams).

*Student Learning.* The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.

*Education Policy or Practice*. The effectiveness of any educational policy or practice is directly related to that capacity of that policy or practice to increase student involvement (Astin, 1994, p. 519).

Astin claims that the involvement of students on a college campus stemmed from investigative research focused on college drop-outs and that "virtually every significant effect could be rationalized in terms of the involvement concept; that is, every positive factor was likely to increase student involvement in the undergraduate experience" (1999, p. 523). In other words, this means that the factors that contributed to the student's remaining in college suggested involvement, whereas those that contributed to student's dropping out implied a lack of involvement.

He found that the most contributing environmental factor that influenced a student via involvement is based upon a student's residence on campus. Those students who live on campus allocate more time and opportunity to get involved with academic and non-academic activities, further establishing a connection between the student and institution and potentially increasing the retention rate. Additionally, those students who engage in social fraternities and sororities or participate in sports are less likely to drop out and contribute to the overall performance of the university. Other findings contributing to the impact of student involvement include students involved in an academic honors program, involvement in ROTC, student-faculty research projects, and involvement with student government (Astin, 1999).

This theoretical component supports the predicting factors contributing to the overall performance of an institution (i.e. retention rate) and provides a construct aiding institutional

leaders with the wherewithal of addressing possible gaps and shortfalls. Additionally, by understanding the organizational behavioral components guiding organizational effectiveness, the various predicting factors that are largely attributed to the ultimate goal can assist institutional leaders in prioritizing their strategic plans. Hence, positive outcomes should result within the last dimension of the theoretical framework.

## Control

The final theoretical dimension defined by Evans et al. (2010) is control, which is based on the original premise that theories are developed to make sense of the reasoning behind the unknown. Therefore, the hypothetical assumption posits that once all dimensions are achieved, specific outcomes related to higher levels of moral reasoning are generated. In other words, by understanding any given issue and explaining the reasons driving the behavior coupled with predicting potential outcomes, the control dimension achieves a substantiated foundation that can produce developmental outcomes if operationalized.

Although no guarantee, by collectively integrating Cameron's model of organizational effectiveness framing the higher education issue and supporting the behavior using Berger's organizational behavior theory in conjunction with Astin's student involvement theory predicting possible outcomes, the control dimension may be achieved. In order to determine if the presented theoretical framework is valid and to justify the last theoretical dimension, verification by research is necessary, thus generating new knowledge (McEwen, 2003a; Evans et al., 2010).

By transforming theory into practice, it is necessary to identify a model or models that can help frame investigative work, all based on previous research and supported by theoretical models. However, the following will first review empirical studies conducted by researchers that are integrated within the methodologies of either model. Then, a review of each model will follow to help substantiate a redefined proposed framework for evaluating higher education institutions.

## Part 2: Empirical Research on Evaluating Institutions

# and A Review of the Models

Based on the theories presented that will help guide the development of a new evaluation tool, a review of the current models used to rank or evaluate institutions is necessary. To understand both the ranking methodology behind *US News* and the conceptual framework behind BMIEE, it is important to first gain insight into what quantitative measures are used in evaluating the outcomes of institutions. Thus, in this first section, empirical studies conducted by researchers are presented as a precursor to the two models used to develop a refined proposed framework for evaluating higher education institutions. In some cases, the empirical findings presented are used in both models as justification for their methodological support.

## **Empirical Research on Evaluating Institutions**

Gansemer-Topf and Schuh (2006) introduced their method of evaluating higher education institutions by incorporating organization attributes and behavior that are highly likely to impact performance (Taylor and Massy, 1996; Berger and Braxton, 1998; Braxton, 2001). Using the theoretical framework of Berger (2001-2002) and data from the Integrated Postsecondary Education Data System (IPEDS), a series of multiple regression techniques including discriminant analysis procedures were conducted for this study. With retention and graduation rates as the outcome variable, Gansemer-Topf and Schuh (2006) analyzed the expenditure patterns of institutions (instruction, academic support, student services, institutional support, and institutional grants) and correlated its resource planning behavior with institutional selectivity variables.

The findings suggested that more selective institutions performed better (higher retention and graduation rates) than those institutions with lower selectivity (also supported by Toutkoushian and Smart, 2001; Reason, 2009; Soria, & Stebleton, 2012; Woodard, Mallory & DeLuca, 2001). In referencing the organizational behavior patterns, the higher the percentage of expenditures an institution allocates to a specific function such as instruction, the greater the performance (Gansemer-Topf and Schuh, 2006).

Going beyond the work of Gansemer-Topf and Schuh, Webber and Ehrenberg (2010) used graduation and persistence rates as an outcome performance indicator and examined why instructional spending per full-time student is growing at a slower rate than expenditures in other categories (research, public service, academic support, support services, and scholarships and fellowships),. Webber and Ehrenberg (2010) used institutional level data from IPEDS and placed defined variables in an econometric analysis model which discovered that student service expenditures do influence the performance of an institution (i.e. graduation and persistence rates), specifically at colleges and universities with lower entrance test scores.

Hence, those campuses not performing at high rates require more of an allocation of funding within instructional areas (Pike, Kuh, McCormick, Ethington & Smart, 2010; Kenny, 2008; Johnes & Johnes, 2009; Bowen, 1980). The authors stressed the importance in having institutional administration make the ultimate decision, but the data presented in their study significantly supported their results. They also found, although puzzling, that higher levels of budgeted research expenditure per student appears to be associated with lower overall performance; however, limitations within IPEDS data may be the culprit. This finding mirrors the work of Gensemer-Topf and Schuh (2006) further emphasizing that institutions requiring lower entrance exam scores (i.e. lower institutional selectivity) have lower performance outcomes and require more support in non-instructional areas. Webber and Ehrenberg (2010) argue that higher selective schools generally adjust their expenditure allocations in efforts of achieving a greater performance, assuming "[they] already have achieved the correct balance of expenditures between instructional and student service expenditures" (p. 956).

The following will review two models used to help redefine a proposed framework for evaluating institutions. The first is a review of the *US News* methodology which includes a critique of each methodological category (supported by current literature and theories). The *US News* model will be analyzed and a recommendation to either include or not include as part of the new evaluation model will be presented. Additionally, a second model named the BMIEE will also be reviewed and assist in proposing a refined framework for evaluating higher education institutions.

#### **U.S. News and World Report Rankings**

Beginning with *US News*, the methodology within the institutional rankings consists of model indicators (represented in Table 1) that are given a percentage weight consistent with the perceived judgment "about how much a measure matters" (Morse and Flanigan, 2013, para 3). The given percentage weights in each category are chosen by analysts at *U.S. News* which are based on "years of reporting about education, on reviews of research about education and after consultation with experts in higher education" (U.S. News Staff, 2013b, para 4).

Model Indicator	Percentage Weights	Description
Undergraduate academic reputation	22.5%	Based on a peer assessment survey based on the opinion of those in a position to judge institution's academic excellence (president, provost, dean) Based on a 5 point scale rating academic programs (1 – marginal to 5 – distinguished).
Retention	22.5 %	Based on the calculated percentage of freshmen who return to campus for sophomore year - 20% of score and eventually graduate $-80$ % of score, indicating that the institution is better at offering courses and services students need to succeed.
Faculty Resources	20 %	Based on the premise that the more satisfied student is with their professors, the more they will learn and graduate. The calculated components including (1) class size (fewer than 20 students - 30% of score and those with 50 or more students – 10 % of score) (2) Average faculty salary accounting for 35% of score and (3) the proportion of professors with highest degree in fields 15% of score (4) the student-faculty ratio at 5% and (5) the proportion of faculty who are full-time at 5% of the score.
Student Selectivity	12.5 %	Based on the abilities and ambitions of students. The calculated components including (1) admissions tests of the Critical Reading and Math portions of the SAT and the composite ACT score $-65\%$ of score (2) the proportion of enrolled freshmen who graduated in the top 10% of their high school $-25\%$ of score (3) the acceptance rate or ratio of students admitted to applicants at 10% of score.
Financial Resources	10 %	Based on the generous per-student spending on programs and services, this is calculated by using the average spending per student on instruction, research, student services and related educational expenditures. Spending on sports, dorms, and hospitals are not included.

 Table 1: Ranking Model Indicators of U.S. News and World Report (2013)

Graduation Rate	7.5%	Based on the effect of college programs and policies		
Performance		on the graduate rate of students after controlling for		
		spending and student characteristics. A predicted		
		calculation is derived and then compared to the actual		
		graduation rate to determine if the college is		
		enhancing achievement		
Alumni Giving	5 %	Based on the average percentage of living alumni with		
		bachelor's degrees who give to their school attributing		
		to measuring student satisfaction.		

The weighted percentages within each category vary slightly from classification of institutions. Since 1983, *U.S. News and World Report* has categorized institutions using the Carnegie Foundation classification standards and further developed category names based on specific definitions: **National Universities** offer many undergraduate majors as well as masters and doctoral programs, coupled with faculty research and are defined by the Carnegie Foundation as Research Universities (very high research activity), Research Universities (high research activity) and Doctoral/Research Universities; **National Liberal Arts Colleges** target undergraduate education and award over 50 percent of degrees within the arts and sciences and are defined by the Carnegie Foundation as Baccalaureate Colleges – Arts and Sciences;

**Regional Universities** are defined by the Carnegie Foundation as Master's Colleges and Universities (larger programs), Master's Colleges and Universities (medium programs) and Master's Colleges and Universities (smaller programs) and provide a full range of undergraduate programs, some master's level programs and few, if any, doctoral programs; and lastly, **Regional Colleges** also focus on undergraduate education, just as the National Liberal Arts Colleges do, but grant less than 50 percent of their degrees in liberal arts disciplines. At these schools, at least 10 percent of undergraduate degrees awarded are bachelor's degrees. These schools are defined by the Carnegie Foundation as Baccalaureate Colleges – Diverse Fields and Baccalaureate/Associate's Colleges (Morse, 2014).

Additionally, the Regional Universities and Regional Colleges are then subcategorized by geographical boundaries of North, South, Midwest and West (Morse and Flanigan, 2013). As indicated, *U.S. News* categorizes institutions so that smaller liberal arts universities do not compete with larger, research intensive institutions. Additionally, the details within each model indicator may vary slightly. The following provides a detailed description of each model indicator, followed by a critique of the category and recommendation for the new evaluation model.

**Undergraduate Academic Reputation.** Overall for the majority of the institutions (national universities and liberal arts colleges), 77.5% of the institutional ranking score is based on objective data (graduation rates, retention, faculty, financial and admissions) whereas 22.5% is based on the peer assessment (Morse, 2013). In measuring the academic reputation of an institution, this rating is derived using survey data from presidents, provosts, and deans of admission personnel from institutions within the same ranking category that evaluate the quality of academic programs (including their own). It is the position of *U.S. News* that "peer assessments are subjective, but they are also important: a diploma from a distinguished college can help a graduate get good jobs and gain admission to top-notch graduate programs, just as high school's reputation can help or harm an applicant's chances of getting into a good college" (U.S. News Staff, 2013a).

Without insight into the performance of other institutions, respondents aimlessly judge the quality of academic programs. This category appears to represent more of a popularity contest among institutions rather than a measure of evaluation for rank. Although the survey does provide an option for a respondent to select 'don't know' if unfamiliar with the institution, this is solely based on the honor system. Some respondents may elect to rate peer institutions negatively to gain a better score or not rate competitors on purpose. Some researchers have argued for years that most academics generally have first-hand knowledge of no more than a dozen institutions (Gater, 2002) and such limited scope appears to be useless when evaluating an institution (Ascione, 2012). With such a high emphasis on reputation, it almost appears impossible for a small, unknown institution performing well to rise in the ranks unless the institution markets its abilities to its peers and in many ways, sells itself. It is important to note; however, until the methodology of 2014 was released, the peer assessment model indicator held the highest weight. For the forthcoming year, the value dropped from 25% to 22.5%, which is also the same value for retention (Morse and Flanigan, 2013).

**Retention.** The analysts at *U.S. News* recognize that outcomes of an institution should weigh heavier than other factors within the ranking system. Morse and Flanigan (2013) indicate that the most important measure of quality is graduation and retention and that collectively, it holds 30 % of the ranking (22.5% of retention and 7.5% of graduation rate performance). The retention weight is based on the percentage of freshmen who return to campus for the second year. The measure of this indicator suggests that if a freshman student returns to the same institution for the sophomore year, then students are satisfied with the courses offered and services rendered.

In terms of retention, researchers such as Astin (1993a, 1997), Gansemer-Topf and Schuh (2006) Braxton (2001) and Hosch (2008) argue that institutions with higher retention rates perform in a 'better' manner than those with lower retention rates. This argument has generally been accepted within the higher education community for years and its inclusion within the

ranking system is justified; however, it is noteworthy to mention that Astin's (1997) study developed a tool for higher education institutions to measure an expected retention rate based on the characteristics of an institution's entering student, a measure also supported by Burke (1998) and Alexander (2000). Generally, the percent of students within their first semester who attain a grade point average (GPA) below 2.0 on a 4.0 scale tend to have a lower graduation completion success rate and that "…for every 3-4 percentage points of the first-year cohort that earns below 2.0, the six-year graduation rate drops by one percentage point" (Hosch, 2008, p. 9), thus affecting institutional performance.

Using data from the Cooperative Institutional Research Program's (CIRP) annual survey, Astin (1997) found that by a series of multiple regressions, institutions can predict their retention rates based on predicting variables such as SAT scores, gender, race, and high school GPA. Higher education institutions can evaluate their outcomes using this mechanism and determine if they are effective in retaining students within their first year on campus. However, the study did list environmental factors that contribute to the retention rate, based on student input characteristics such as student's major field of study and whether the student lives on campus. Institutional size was found to have a negative effect on retention rates meaning the larger the institution, the lower the retention rate. Astin (1997) contends that "colleges and universities whose actual retention rates are low because of the kinds of students who enroll are put at a particular disadvantage...as such institutions appear to be doing a poor job of retaining their students" (p. 655).

**Faculty Resources.** This model indicator is based on the premise that the more satisfied students are with their professors, the more they will learn and eventually graduate. The analysts of *U.S. News* elect class size (fewer than 20 students in a class represents 6% of total score, more

than 50 students in a class represent 2% of total score) as an indicator suggesting that more small classes and fewer large classes create a better and favorable environment for students to connect with professors and to excel in student learning and achievement. Although this may be true for some researchers (Chapman & Ludlow, 2010; Kennedy & Siegfried, 1997), others have found conflicting results (Summary of Research Findings on Impact of Class Size on Student Learning and Satisfaction, 2004). In Johnson (2010), a history of the empirical studies reviewing class size dates back to 1924 with the work of Edmonson and Mulder where they demonstrated inconclusive results based on the effect of class size. Most studies focus on the kinds of assignments associated with either large or small classes. For example, large classes may focus on multiple choice exams versus a smaller class that may focus on written papers or oral presentations.

Since such time, Bedard & Kuhn (2005), Siegfried and Walstad (1998), Kennedy & Siegfried (1997), McKeachie (1990) are but a few examples of researchers who have separately produced results demonstrating either positive or negative effects of class size on student learning and yet most would agree that "the evidence and methodological problems surrounding this small body of research makes it difficult to form a firm conclusion" (Pascarella and Terenzini, 2005, p. 94). These conflicting results produce uncertainty that may not warrant inclusion within the overall evaluation of an institution.

Another component of faculty resources is the average faculty salary which represents 7% of total score from the institutional ranking methodology of *U.S. News*. This information is voluntarily provided by each institution and inherently suggests that a higher paid faculty leads to a culture that produces members who are more successful within the areas of research, teaching and service. With limited research to support or negate correlations between high

faculty salaries and student achievement, Kezar (2013) presented Gappa, Austin and Trice's (2007) framework on faculty performance within a preexisting framework on work performance by Blumberg and Pringle. These researchers found faculty members identify respect, collegiality, academic freedom, autonomy, professional growth, etc. as a correlation to their capacity, willingness and opportunity to work; however, no indication of 'salary' is incorporated within the framework.

Additionally, this indicator may be skewed as a higher salary may represent a combination of varying factors such as a faculty member's educational attainment, research agenda, service within the institution, and teaching experience. Some institutions may reward a higher salary to faculty members who publish more, and in essence, teach less (Fairweather, 2011). Thus, capturing this information to measure the 'performance of a faculty member' suggesting a link towards student learning and achievement is a stretch.

The other categories within the Faculty Resources model indicator include proportion of professors with highest degrees within the field (3% of total score), student-faculty ratio (1% of total score), and percent of full-time faculty (1% of total score). These connected measures have researchers in higher education questioning the potential negative or unintended consequences that an increased reliance on part-time faculty can have on an institution and its students (assuming a full-time faculty member maintains a doctoral degree). Sonner (2000) found that part-time faculty members are perceived as disconnected from other faculty, students, and the campus community in general. In terms of student outcomes, Ehrenberg & Zhang (2004) studied the impact of part-time faculty on graduation rates at both two-year and four-year institutions by utilizing national data from the College Entrance Examination Board's Annual Survey of College Standard Research Compilation and IPEDS. They found that each 10% increase in part-

time faculty employment resulted in a 2.65% reduction in an institution's graduation rate. Such a result is particularly troubling given the trend toward greater reliance on adjunct faculty at all types of institutions, including four-year colleges and universities (Jaeger & Eagan, 2009) (Jacoby, 2006).

Additionally, part-time faculty differ significantly in terms of educational attainment from full-time faculty, meaning more full-time faculty members hold advanced and/or terminal degrees than their respective part-time faculty counterparts (Eagan, 2007). Some researchers have suggested that this educational gap can lead to decreased quality of instruction (Christensen, 2008), while others have found no significant difference in student educational outcomes as a result of exposure to part-time faculty without terminal degrees in their fields (Roueche, Roueche, and Milliron, 1995).

**Student Selectivity.** This model indicator focuses on the abilities and ambitions of students as three components are required for this score. Approximately 8.125% of the total score is allocated to the average admissions test of the Critical Reading and Math portions of the SAT and the composite ACT score. The second portion is 3.125% of the total score which captures the percentage of enrolled freshmen who graduated within the top 10% of their high school graduating class. Finally, the last component represents 1.25% of the total score that references the acceptance rate of the institution. These areas focus on the student's projected ability to complete their undergraduate degree and are accepted as indicators for student success by many researchers. The assumption posed is that by having "better" incoming students, institutions will produce better results via retention and graduation rates (Rodgers 2007; Wilson & Adelson, 2012; Sexton, Comunale & Gara, 2012).

However, rather than viewing student selectivity, this measurement can also be interpreted from the institutional perspective also known as institutional selectivity. According to *Barron's Profiles of American Colleges*, the selectivity of an institution is "a scored measurement of admissions competitiveness" that is generally based on the academic qualities needed such as standardized test scores and incoming student high school GPA, coupled with retention and graduation rates (Barron's Educational Series, 2000 in Gansemer-Topf and Schuh, and 2013). In this instance, elements of student abilities and ambitions are not removed, but better situated and measured within a student engagement category, which was recommended as a missing component within the retention model indicator and will be further justified at a later point within this chapter.

In efforts of further supporting research of institutional selectivity, Toutkoushian and Smart (2001) conducted a study that combined both student-level data with institution-level data to identify whether institutional characteristics affect the overall performance of an institution via student academic gains. Using data from the CIRP and IPEDS, they performed multiple regression analysis and found that while controlling for student background and acquired characteristics, institutional selectivity was found to be a contributing factor for overall performance suggesting that highly selective institutions as presented by SAT exam scores maintain a better evaluation and rank than those with lower selectivity. Those students electing to attend a larger institution whose campus profile maintains a heavier concentration of graduate students were found to have a lower performance outcome, suggesting that not as many full-time faculty are teaching the undergraduate courses (Toutkoushian & Smart, 2001).

**Financial Resources.** Representing 10% of the overall score, this model indicator is based on the per-student spending on programs and services such as instruction, research, student services and related educational expenditures. Morse (2013) believes that at a specific point beyond a threshold, proportionate increases in spending does not lead to an increase in quality. His justification can be supported by other researchers that demonstrate expenditure models linking financial resources to overall performance of institutions (Gansemer-Topf and Schuh, 2006; Bowen, 1980; Johnes & Johnes, 2009; Pike et al., 2010; Scott, et al, 2006) or equilibrium points of funds reflective of outputs (Powell, Gilleland, and Pearson, 2012).

Hence, adequate and appropriate funding allocation decisions should be included in an evaluation matrix of an institution. Taking into account the fiscal planning and allocation of funds that generally guide the direction of institutions, Hamrick, Schuh, and Shelley (2004) developed a statistical model that pinpoints resource allocation decisions as predictors for overall performance. Hamrick et, al. (2004) found that institutions with higher allocations and expenditures in instructional, library, and academic support were significantly and positively related to higher graduation rates. Although the largest portion of expenditures is salaries and benefits for personnel, the analysis suggested that full professors versus adjunct instructors teach all levels of courses, implying that a higher quality of instruction is offered. Goble, Rosenbaum and Stephan (2008) identified institutional attributes that affect graduation rates and discovered that as the number of part-time faculty or adjunct instructors increase, the graduation rate falls and thus, a negative effect results on performance.

This finding is also consistent with Kotamraju and Blackman's (2011) study and Ryan (2004) who estimated the impact of institutional expenditures for instruction, academic support, student services, and administrative support. The findings suggest that instructional and

academic support expenditures have positive and significant effects on graduation rates (i.e. performance) and suggested in his discussion "...that there are trade-offs in the utilization of financial resources within an institution in terms of degree attainment, and that institutions should be careful when deciding where to allocate resources" (p. 99). These presented studies help demonstrate the importance of incorporating an evaluative measure of institutional expenditures or allocation of financial resources which is linked to the overall performance.

**Graduation Rate Performance.** Cohen and Ibrahim (2008) and Rodgers (2007) are researchers that claim the relevance of looking towards graduation rates as the dominant outcome measure in assessing the performance of higher education institutions. However, *U.S. News* incorporates both the calculation of a graduation rate within the retention model indicator and formulates a prediction indicator using information extracted from the National Center for Education Statistics (NCES) database. This calculation is considered a 'value added measure' and is derived from using a combination of student academic expenditures, standardized SAT and ACT scores and proportion of students receiving Pell Grants, which are all indicators of student completion. For this indicator, if the actual graduation rate of an institution is higher than the predicted graduation rate, then it is assumed that the institution is performing well (Morse and Flanigan, 2013).

Approximately 7.5% of the total score is represented as the graduation rate performance. Researchers such as Kelchen and Harris (2013) challenged this model indicator as it yields a favorable outcome for those institutions who allocate more dollars within student academic expenditures (by spending additional resources ineffectively), focus on students with higher test scores (generally from a more affluent background) and indirectly reduces the percentage of Pell Grant students as they have a lower persistence rate towards graduation. By incorporating student demographics, student characteristics, institutional characteristics and accounting for a cost-effective analysis into the value added measure, Kelchen and Harris (2013) present a modification to this measure that allows for a clearer evaluation of performance. Their findings show a negative correlation in comparison to the 2012 *U.S. News and World Report* rankings, suggesting that a more comprehensive approach to the model indicator is necessary.

Alumni Giving. The final model indicator within the methodology section is Alumni Giving, representing 5% of the total score. This indicator measures the average percentage of annual giving from those students who attained a bachelor's degree from their respective institution. The measure is accepted as a 'satisfaction' indicator from students, assuming that the higher the donation, the more satisfied the student is within its alma mater. Unfortunately, this indicator presents limitations as Hoyt (2004) presents theory to the alumni giving process and proposes a model that identifies psychological factors influencing the motivation to give. The theorist presents (1) altruistic values and preferences as a motivational influencing agent as well as (2) an individual's sense of perceived need and efficacy.

However, the findings do indicate that the third psychological factor is (3) satisfaction with the educational institution. Hoyt posits that "alumni who are satisfied with their education experiences or feel a positive emotional attachment to the institution will be more likely to contribute" (2004, p. 6). Be that as it may, other factors contribute to the giving process that is not correlated with satisfaction. Solicitation efforts can heavily influence the alumni giving process and both positively or negative effect the overall outcome (in this case, the average giving amount). Additionally, tax deductions, public notoriety and positive self-regard (Radely and Kennedy, 1995 in Hoyt, 2004) should also be considered as factors contributing to alumni giving. Given Hoyt's findings, this indicator does not directly measure a 'student satisfaction' component for institutional rankings.

Overall, the presented model indicators above that define the methodology of the *U.S. News* institutional rankings indicate both areas that are supported by researchers within the field, yet also present areas of improvement. In the following, I review a second model named the BMIEE. After understanding the indicators based on the U.S. News Institutional Ranking as well as other models including the BMIEE model, I will propose a refined framework evaluating higher education institutions.

#### **Benchmark Model of Institutional Efficiency and Effectiveness**

Currently, the most comprehensive investigative study that can be used as an evaluation model (beyond the efforts of institutional rankings) is through the work of Powell, Gilleland, and Pearson (2012). These researchers studied expenditures as a way to measure efficiency and effectiveness of higher education institutions. Powell et al. developed an evaluation model of higher education institutions that focuses on analyzing the efficiency (lower costs) and effectiveness (higher quality of programs and services) of institutions based upon specific institutional characteristics and their allocation and revenue expenditures. This work falls closely in line with the theoretical foundations of both Cameron's Domain of Organizational Effectiveness and Berger's Organizational Behavior model. Additionally, connections are present within the Financial Resources model indicator of the *U.S. News* methodology section which supports the integration of this model with components of the rankings methodology for the development of a new evaluation tool. However, the following delves into the specifics of the BMIEE for analysis, critique and recommendation.

Background. Powell et al. (2012) conjoined many factors that contribute to the overall performance of a higher education institution. Based on their efforts, they developed the BMIEE with guidance from Kim Cameron's measurement of organizational effectiveness in higher education linking institutional characteristics, expenditures, efficiency, and effectiveness in ways that can improve the overall performance of the institution. Using data from IPEDS and the National Study of Postsecondary Faculty (NSOPF), the researchers first evaluated the complex interrelationships between the predicting variables for effectiveness and efficiency using structural equation modeling. After elimination of insignificant variables contributing to the model, they determined the following predicting variables define the measurement of the four constructs (Table 2), which are common and consistent among other researchers and presented accordingly within this literature review.

8	
Institutional Characteristics	Efficiency
Institution Size	Number of for-credits classes
	taught by semesters
Carnegie Classification	Faculty total hours per week
	teaching
Perent of Students Receiving	FTE students to FTE faculty
Federal Grant Aid	
Expenditures	Effectiveness
Instruction expenses per FTE	Six-year graduation rate
student	
Academic support expenses	Four-year graduation rate
per FTE student	
Student Services expenses per	First year full-time retention rate
FTE student	
Powell Gilleland and Pearson (	(2012)

**Table 2: Predicting Variables of the BMIEE Model Predicting variables of institutions** 

rowell, Gilleland and rearson (2012).

Powell et al. (2012) found that by using the strengths of relationships between the constructs (institution characteristics, expenditures, effectiveness and efficiency) in their initial data analysis, institutional characteristics and expenditures do affect the predictability of institutional efficiency and effectiveness. With the understanding of Bowen's equilibrium theory, they discovered an equilibrium point of expenditures that serves as an optimum point for efficiency and effectiveness; hence, institutions that expense below the optimum point may not be reaching their effective and efficient maximum levels.

The BMIEE model was able to find justification "indicating that the widely held belief that increased expenditures required for improved outcomes is not necessarily true...thus, inefficient and identified specific areas can be addressed without reducing quality or requiring additional investments" (Powell, et al., 2012, p. 122) and in turn, improve the performance of higher education institutions.

Given that Powell, et al. (2012) found that institutions should focus on the major expenditure categories: instructional expenses, academic support expenses, and student services expenses when allocating resources to effectively retaining incoming freshmen and producing graduates, this finding makes a supportive contribution in identifying what methods researchers adopt to measure the performance of higher education institutions.

### Part 3: Connecting Essential Components of Models

In summation of Parts 1 and 2, a review of theories examining the evaluation process of institutions and the assessment of the two models evaluating the performance of higher education institutions were presented. By using the review of the *US News* and the BMIEE models that detailed a critique of each methodological category (supported by current literature and theories),

the following summarizes the advantages and limitations of each area to assist in proposing a refined framework for evaluating higher education institutions.

## Advantages to the Models

The following key methodological areas are supported by research and theories and should be incorporated in the proposed framework. They are considered advantages to the methodological approach.

1) Retention Rate - This component of the *US News* methodology is identified as a critical component when evaluating institutions. Research supports a retention rate as being a key indicator of institutional performance. In connection with the theoretical framework, retention coincides with the effectiveness of an organization (particularly within Cameron's Domains of Organizational Effectiveness) and is essential when evaluating institutions.

2) Financial Resources - This model indicator demonstrates clear connections to the performance of an institution by linking Berger's Organizational Behavior theory. The financial allocations by institutions reflect the acts or actions of those who lead the organization and in essence should be incorporated into the new model for evaluation.

Additionally, the findings of appropriate financial allocations remain consistent within the BMIEE model. Many researchers support the work of Powell et al. by connecting expenditures of institutions to overall performance via effectiveness and efficiency. These areas are critical when evaluating institutions and are necessary in the newly developed model.

3) Graduation Rate - This model indicator coincides with Cameron's Domains of Organizational Effectiveness whereby demonstrating institutions reaching specific goals and should be included in the proposed framework. If institutions can effectively produce high graduation rates, then efforts of effectiveness yield high results.

# Limitations to the Models

The following methodological areas are considered limitations and should not be included in the proposed framework. They present conflicting results in literature or are not supported in literature by researchers within the field. They include:

1) Undergraduate Academic Reputation - This component of the *US News* methodology is not supported with empirical studies, nor is it supported by researchers within the field and should not be part of the newly proposed evaluation model of institutions.

2) Faculty Resources - This methodology component presents conflicting results from researchers on the effects of class size, average faculty salaries, proportion of highest degrees among faculty members, student-faculty ratio and full-time status of faculty. Although these areas are based on the premise that the more satisfied students are with their professors, the more they will learn and graduate (which coincides with Cameron's Domains of Organizational Effectiveness), the contradictions by researchers suggest not including these measures within the new evaluation model.

3) Alumni Giving – This model indicator attempts to connect Astin's Student Involvement Theory whereby demonstrating student satisfaction and involvement based on giving beyond graduation. Research does not support such a linkage and therefore, this indicator should not be part of the new evaluation model.

4) Student Selectivity - This component (student selectivity) within the rankings focuses on the abilities and ambitions of students. Although researchers demonstrate the effect of student selectivity on graduation rates, the purpose of the evaluation model is to measure institutional performance. The recommendation is to not directly include this component in the new evaluation model; however, student selectivity variables may be incorporated when controlling for specific institutional factors.

Multiple researchers provided insight on the varying methodological approaches to both the model indicators within the institutional rankings and the constructs within the BMIEE. The following recommendations in Table 3 specify which indicators or variables are necessary to include within the new evaluation model.

Indicator	Source	Description	
Retention Rate	US News	Retention of First Time Freshmen	
Financial Resources	US News	News Instruction, Academic Support, Student	
		Services Expenses	
Graduation Rate	US News	6 year Graduation Rate	
Expenditures	BMIEE	Instruction, Academic Support, Student	
		Services Expenses	
Effectiveness	BMIEE	Retention and Graduation Rate	
Efficiency	BMIEE	Tuition Revenue	
Institutional	BMIEE &	Size, Carnegie Classification	
Characteristics	US News		

Table 3: Recommended indicators for a new evaluation model

Based on the model indicators of *U.S. News* supported by empirical research as well as the constructs within the BMIEE, this review reveals recommended comprehensive list of variables that can potentially address the current gaps within the research in evaluating institutional performance. These recommended variables may produce a better model of how an institution is performing: how institutions allocate funds and direct available resources, how institutions are effective and efficient, how institutions are selective within the field, and what institutional characteristics are most influential. Therefore, by capitalizing on the established BIMEE model of Powell et al. (2012) that focuses on the inner-relationships between institutional characteristics, expenditures, effectiveness and efficiency of higher education institutions and addressing the key model indicators within the ranking methodology from *U.S. News*, I propose a conceptual model that can be tested and institutions may gain a comprehensive insight on their performance as an organization.

## Part 4: Proposed Conceptual Model

The proposed conceptual model (Figure 1) is hypothesized to serve as an evaluation tool that can comprehensively measure institution performance. This model, otherwise known as the Tri-E Model, connects major components as identified in the research as critical and predictive measurements for higher education outcomes: efficiency, effectiveness, and expenditures.





In no preferred order, the first component (**Efficiency**) is incorporated in the model measuring whether institutions are able to maximize their fiscal obligations (i.e. expenses) at an appropriate rate (i.e. cost of tuition). According to the U.S. Department of Education's publication of *A Test for Leadership: Charting the Future of U.S. Higher Education*, "we want post-secondary institutions to provide high-quality instruction while improving their efficiency in order to be more affordable to the students, taxpayers and donors who sustain them" (2006, p. 8).

The integration of the second component (**Effectiveness**) focuses on measuring the outcomes of the institution through retention and/or graduation rates. Consistent with *U.S. News* this measurement is based upon how effective the institution produces its product (i.e. retaining students during their first year on campus and/or graduate students within a given time frame). Understanding the effectiveness of an institution can assist prospective students in calculating the probability of their persistence through graduation.

**Expenditures** are incorporated into the model to measure the allocation of funds within the institution. Given the vast research using expenditures addresses the ongoing debate of whether applying financial means to a problem creates a solution. College presidents "believe that if one wants to improve the quality of higher education, one must put either more money in the system or be prepared to see higher education become less accessible to students...as cutting costs eventually lead to cuts in either quality or access" (National Center for Public Policy and Higher Education, 2008, p. 5). With this general mentality, institutional leaders are forced to make budgetary decisions that will inherently impact the overall performance of the institution (i.e. its effectiveness). Moreover, some leaders may allocate their funds in a more cost-effective and efficient manner in comparison to other institutions, producing a greater efficiency component as well. Finally, and in further support of the proposed model, the following (Table 4) outlines various researchers, as identified through the literature, that conducted investigations related to the Tri-E Model by area of concentration. Each researcher listed demonstrates a concerted effort by contributing to a specific area of research, and in essence, aid in the development of a comprehensive approach towards evaluating higher education institutions.

Researchers by Tri-E Model Components						
Efficiency						
Hamrick, et al., 2004						
Powell, Gilleland, and Pearson, 2012						
Ryan, 2004						
Tsang, 1997						
Expenditures	Effectiveness					
Gansemer-Topf and Schuch, 2006	Alexander, 2000					
Hamrick, et al., 2004	Astin, 1997					
Hayek, 2001	Burke, 1998					
Kotamraju and Blackman, 2011	Cameron, 1981					
Powell, Gilleland, and Pearson, 2012	Gansemer-Topf and Schuch, 2006					
Ryan, 2004	Globe, et al,. 2008					
Scott, et al., 2006	Hosch, 2008					
Singer and Stater, 2006	Powell, Gilleland, and Pearson, 2012					
Toutkoushian and Smart, 2001	Toutkoushian and Smart, 2001					
Webber and Ehrenberg, 2010						
Institutional Selectivity						
Berger and Braxton, 1998	Synder et al., 2012					
McDonough, Antonio, Walpole and Perez, 1998	Taylor and Massy, 1996					
Pascarella and Terenzini, 1991	U.S. News and World Report, 2013					
Powell, Gilleland, and Pearson, 2012	Wilson and Adelson, 2012					
Singer and Stater, 2006						

Table 4: List of Researchers by Tri-E Model Components

Given the three "E" components presented, the model will also require the integration of institutional characteristics that contribute to a comprehensive review. Taking into account the selectivity of an institution that drives most decisions of prospective students, a thorough analysis of variables that distinctively define institutions will be incorporated. For example, this evaluation tool must take into account various contributing factors of performance between small, liberal arts colleges from large tier-one doctoral research intensive institutions. Therefore, using the guidelines adopted by *U.S. News* will be used for comparison purposes (i.e. National Universities, National Liberal Arts Colleges, Regional Universities, etc.).

In turn, a performance output value is expected to be generated given the various inputs. By establishing a rating system for each "E," institutions will generate a value that reflects their overall performance based on their efficiency, effectiveness, and expenditures of their institution (controlled for institutional characteristics) in efforts of maintaining an evaluation mechanism. Therefore, in the following chapter, an in-depth explanation of the methodology for the proposed study will be presented.

## **Chapter 3**

## METHODOLOGY

This chapter outlines the methodological approach for the proposed research study that expands upon the work of the BMIEE model and the institutional rankings from *US News*. This approach combines variables supported in theory and by research into a comprehensive evaluation method, based on the proposed conceptual model (Tri-E Model) presented in chapter 2 and in efforts of addressing the research questions posed.

### Data

The selection of data used for this study includes the same representative sample used from the BMIEE model and *US News*. Both sources (including this study) used the Integrated Postsecondary Education Data System (IPEDS) which contains public use information on more than 7,500 Title IV public and private institutions that capture annual surveys reported to the federal government and provides a well-established representative sample for the study. The database offers information within a number of areas for analysis including post-secondary finance, enrollment, staffing, completions and student aid from 1986-2012 (National Center for Education Statistics, 2013) which is both pertinent in evaluating institutions and accessible for analysis. This public use data is readily available by accessing its data center and creating group statistics files of institutions using established variables by the system -

http://nces.ed.gov/ipeds/datacenter/Default.aspx .

## Sample

The final sample of the study is determined using both preliminary access and analysis of IPEDS data in efforts of understanding the nature and scope of the sample. The first factor

considered is the level of institutions. Although IPEDS data include both 2-year and 4-year institutions, this study will focus on 4-year public and private institutions only. This decision is based on the fact that *US News* does not produce rankings for community colleges and an analysis of comparing institutions to the rankings will not be possible. The only information provided by *US News* on community colleges is limited to a comprehensive list of all community colleges in the country and their academic degrees. There is no information detailing why community colleges are not part of the higher education institutional ranking categories (US News Staff, 2013a).

The second query within the IPEDS Data Center focused on determining number of institutions available in the system for review. By using the "basic classification" variable, key institutions critical to this study were able to be identified. This variable is an adapted version from the 1970 Carnegie Commission on Higher Education that was initially developed to establish classification of institutions for categorical and research purposes.

The basic classification separates institutions based upon numerous factors such as degrees conferred, institutional selectivity, size, organization status, etc. (IPEDS Dictionary, 2014). To determine the sample, the first step was to use the basic classification to narrow down the institutions of interest for the study. Doctorate-granting universities, master's colleges and universities and baccalaureate colleges are the three main categories that meet the sample criteria and initially establish the sample query. Using the Carnegie classification breakdown, the following were selected to determine the initial sample size of 4-year public and private not-for profit institutions (N = 2,318) of the study: RU/VH: Research Universities (very high research activity); RU/H: Research Universities (high research activity); DRU: Doctoral/Research Universities; Master's/L: Master's Colleges and Universities (larger programs); Master's/M:

Master's Colleges and Universities (medium programs); Master's/S: Master's Colleges and Universities (smaller programs); Bac/A&S: Baccalaureate Colleges—Arts & Sciences; and Bac/Diverse: Baccalaureate Colleges—Diverse Fields.<sup>4</sup>

The second query for the sample included the addition of the graduation and retention rate of those selected institutions. For the graduation rate, IPEDS captures full-time, first-time degree/certificate-seeking undergraduates in both 4-year and two year institutions. For the most recent final released data from the year 2012, the data includes the number of bachelor degreeseeking students who were enrolled in 2006 and who completed any degree/certificate within 150 percent of normal time including the number who completed a bachelor's degree within 100 and 125 percent of normal time.

For the retention rate, IPEDS calculates the percent of the fall full-time freshmen cohort of students from the prior year and that re-enrolled at the institution as either full-time or parttime within the current year. A thorough review of the data was conducted to investigate any outliers (i.e. those institutions reporting 0 and 100 percent) which would require reviewing the institutional profile of those institutions within the data center separately.

Additionally, those institutions that did not report a graduation or retention rate are flagged as missing, but require an additional review of the perspective institutional profile. Since data from IPEDS is based on the submission of data from institutions, there may be cases where some information is inadvertently omitted. A review of prior year graduation and retention rates was reviewed to determine if such data will be captured for the analysis. If the data is not found, the institution is eliminated from the analysis.

<sup>&</sup>lt;sup>4</sup>. For the purposes of determining the ranking differences between the conceptual Tri-E model and US News, institutions will be re-organized consistent with US News.

Based on the data capture, the sample size for this study representing 4-year public and private not-for profit institutions is 1,351 as noted below in Table 5. For-profit institutions are excluded from this study due to a majority of institutions with an unranked position within *US News* ranking for this data capture year. A review of the for-profit institutions such as University of Phoenix, Walden University, and American Public University all maintain an unranked status with *US News*.

	Category	Number of Institutions
1	National Universities	270
2	National Liberal Arts Colleges	239
3	Regional Universities - North	182
4	Regional Universities - South	128
5	Regional Universities - Midwest	150
6	Regional Universities - West	119
7	Regional Colleges - North	46
8	Regional Colleges - South	85
9	Regional Colleges - Midwest	91
10	Regional Colleges - West	41
	Total	1,351

Table 5: Number of Institutions based on US News Categorization

Additionally, tests for external validity are conducted to ensure generalizability from the nationally represented sample. However, since the sample size used in this study is made up of the large majority of 4 year institutions, using population validity as a test measure will most likely determine high confidence in generalizing from the sample to the population.

# **Defined selected variables**

By using the secondary data of IPEDS, several major variables are used for the analysis. The IPEDS database offers variables for effectiveness (graduation and retention rates), expenditures (measured how funds are allocated) and efficiency (measured by tuition revenue). The following defined selected variables detail the data to be captured and measured for the proposed evaluation tool, by specific E component.

**Effectiveness.** The effectiveness of an institution is measured by the overall graduation and retention rate of the institution. This decision is based on having both institutional ranking and BMIEE model supporting these measures as a key indicator of institutional performance. Additionally, other researchers within the field as noted in Chapter 2 demonstrate these outcome variables in many empirical studies. For this study, those institutions with higher graduation and retention values are expected to be "more effective" and produce a higher evaluation score or performance output than those institutions with lower values. The following two defined variables will be used for this study.

*Graduation rate* – captured within IPEDS graduation rates database and measured as the 2012 rate of students graduating within 150% of normal time at 4-year public and private institutions within the U.S. The time frame of 6 years is a standard measure that all higher education institutions with first-time full time students report to IPEDS.

*Retention rate* – captured within IPEDS fall enrollment database and measured as the 2012 full-time retention rate being the percent of the fall full-time freshmen cohort that reenrolled at the institution as either full or part-time in the current year at 4-year public and private institutions within the U.S. (IPEDS Dictionary, 2014). **Efficiency.** The efficiency of an institution is measured by the current year tuition and fees set by the institution. This approach mirrors the work within the BMIEE by assessing the expected income of students based on tuition and fees and its correlation to the expenditures of the institutions. Ideally, institutions who charge less tuition and who have a high graduation/retention rate compared to those with high tuition and low graduation/retention rate are perceived to have a better performance rating and in turn, will produce a higher score within the Tri-E model. However, how much an institution charges students (i.e. sticker price of tuition) does not truly measure that revenue received by students based on tuition and therefore, the following variables are used by the basic classification system by IPEDS and is used for measuring the efficiency component.

*Revenues from tuition and fees per FTE enrollment* – captured within IPEDS finance database and measured as the revenue from all tuition and fees assessed against students (net of refunds and discounts and allowances) for educational purposes. If tuition or fees are remitted to the state as an offset to the state appropriation, the total of such tuition or fees are deducted from the total state appropriation and added to the total for tuition and fees. The full-time-equivalent (FTE) enrollment is incorporated into the value when divided by the total amount of tuition revenue received by the institution (IPEDS Dictionary, 2014).

**Expenditures.** The use of an institution's expenditures will reveal how institutions are spending their funds based on the number of full-time students on campus and relative to the overall revenue received by the institution. As indicated in the literature review, those institutions that allocate more dollars to instruction and instructional type expenses tend to produce higher graduation and retention rates (BMIEE, 2012). Therefore, those institutions with higher values will generate a better performance output than those institutions with lower values.

The reported expenditures of an institution are categorized within IPEDS using the Governmental Accounting Standards Boards (GASB), which is a set of financial reporting measures for public colleges and universities or the Financial Accounting Standards Board (FASB), which is dedicated to the private sector of colleges and universities, although a small number of public institutions use FASB such as University of Delaware and Pennsylvania State University. In both systems, institutions report detailed information on revenues and expenses on an annual basis. The key expense categories that are critical for this study and consistent with the previous analysis of the BMIEE model and existing literature include: instructional expenses per FTE; academic support expenses per FTE, and student services expenses per FTE. Each category calculates the full-time-equivalent (FTE) enrollment variable option as the sum of the institutions' FTE undergraduate enrollment and FTE graduate enrollment (as calculated from or reported on the 12-month Enrollment component) plus the estimated FTE of first-professional students. The undergraduate and graduate FTE are estimated using 12-month instructional activity (credit and/or contact hours). Administrative expenses and other non-instructional expenses are not incorporated into the analysis.

*Instruction expenses per FTE* – captured within IPEDS finance database and measured as the instructional expenses per full-time enrollment for 4 year public and private institutions using GASB and FASB standards. The instruction expense is a functional expense category that includes expenses of the colleges, schools, departments, and other instructional divisions of the institution and expenses for departmental research and public service that are not separately budgeted. It includes general academic instruction, occupational and vocational instruction, community education, preparatory and adult basic education, and regular, special, and extension sessions. This category also includes expenses for both credit and non-credit activities and

excludes expenses for academic administration where the primary function is administration (e.g., academic deans).

Academic support expenses per FTE – captured within IPEDS finance database and measured as the academic expenses per full-time enrollment for public and private institutions using GASB and FASB 34/35 standards. Academic support is a functional expense category that includes expenses of activities and services that support the institution's primary missions of instruction, research, and public service. It includes the retention, preservation, and display of educational materials (for example, libraries, museums, and galleries); organized activities that provide support services to the academic functions of the institution (such as a demonstration school associated with a college of education or veterinary and dental clinics if their primary purpose is to support the instructional program); media such as audiovisual services; academic administration (including academic deans but not department chairpersons); and formally organized and separately budgeted academic personnel development and course and curriculum development expenses. Also included are information technology expenses related to academic support activities; if an institution does not separately budget and expense information technology resources, the costs associated with the three primary programs will be applied to this function and the remainder to institutional support.

Student services expenses per FTE – captured within IPEDS finance and measured as student services expenses per full-time enrollment for public institutions using GASB and FASB 34/35 standards. Student services (expenses) is a functional expense category that includes expenses for admissions, registrar activities, and activities whose primary purpose is to contribute to students emotional and physical well - being and to their intellectual, cultural, and social development outside the context of the formal instructional program. Examples include student activities, cultural events, student newspapers, intramural athletics, student organizations, supplemental instruction outside the normal administration, and student records. Intercollegiate athletics and student health services may also be included except when operated as self - supporting auxiliary enterprises.

*Total Revenue* – captured within IPEDS finance and measured the sum of all revenues and other additions to net assets for public institutions using GASB and FASB 34/35 standards. The 'hospital revenue' is removed from this variable and analysis as this additional revenue can skew the data when comparing institutions. The majority of institutions do not have a hospital as part of the mission of higher learning (IPEDS Dictionary, 2014).

### **Data Analysis**

**Merging and Cleaning of Data.** The analysis of the sampled data includes a cross sectional investigation of the most recent data available from the IPEDS database system. It is critical to the integrity of the study to thoroughly examine all data before conducting any statistical analysis. Therefore, data coding and an exploratory analysis helps determine any errors with the data and/or identify any missing data, per variable (Leech, Barrett and Morgan, 2011). The following demonstrates the process for cleaning and coding of the data.

By using the unit identification number, data from both national database files (IPEDS and *US News* rankings) are merged together into SPSS and variables are consolidated for analysis. The first step of analyzing the data once inputted into the system is coding. The coding of the data includes converting any string variables into a numeric form. Some variables may require dummy coding, where variables are given a numeric value for descriptive statistic purposes.
Next, an exploratory analysis of the data was conducted generating descriptive statistics of each variable. This helps determine a valid N for each variable and identify any possible outliers or abnormal distributions of the data. Additionally, any missing entries within each variable were investigated. For example, if data shows a sample institution reporting two out of the three major expense categories, a review of that institution within the IPEDS Data Center will need to be investigated separately. Each institution can be investigated by using the feature "looking up an institution" and searching for the information.

This approach was performed for every variable that indicates a missing value or an outlier value. The outlier values are referenced using the minimum and maximum value feature in SPSS during the exploratory analysis. By locating the mean or measure of central tendency for each variable and referencing the minimum and maximum values in the descriptive statistics output, this approach served as a guide in initially understanding the data more closely and outliers are easily detected. Those with outlier values also require further investigation of referencing the corresponding institutional profile through IPEDS. In the event that the missing data cannot be located, the sample was omitted from the study; however, every attempt was made to locate all information necessary.

Beyond the descriptive analysis of the data is a more thorough investigation that focuses on the relation among the variables. An exploratory factor analysis examines each variable and pinpoints variables that have high collinearity and investigates how the variables relate with one another. Values for each variable and their correlation with each other are provided in the output from SPSS. Each E component value for each institution are analyzed using a bivariate correlational test. This test, a Pearson correlation coefficient, helps determine the relationship between each of the E categories. This analysis measures the strength of the linear association between two variables and is displayed within a correlational matrix for output discussion (Laerd Statistics, 2013).

According to Leech, Barrett and Morgan (2011), values that are either + or -.60 or greater indicate a strong correlation with one another and should be grouped together as one variable. Those variables that are closer to the value of zero have minimal correlation (Leech, Barrett and Morgan, 2011).

A review of the Chronbach's alpha is also examined to determine the internal consistency of the variables. The higher the value is to 1.0, the greater the consistency. Overall, if high correlations are present, then a new variable that combined the two highly correlated variables will be created and documented within the syntax file of SPSS.

**Categorizing the data.** Each major "E" component of the conceptual Tri-E Model will generate a valued score, based on the assigned variables defining the category. Each component is analyzed separately, based on the values represented. For example, when measuring Effectiveness, each institution generates a value for retention and for graduation based on the most recent year of data, year 2012. After all institutions are calculated, a standardized value (or *z* score) is determined for each institution. All E component categories will undergo the same standardization calculation of scores. The following demonstrates the standard score of *x*:

$$z_{inst} = \frac{[x - \mu]}{\sigma}$$

where: x is the raw score of the institution;  $\mu$  is the mean;  $\sigma$  is the standard deviation.

All institutions are ranked from highest standardized score to the lowest and a rank value is determined. By standardizing the raw score, the determination of institutions above or below the national average is available for review. Thus, the standardized score is the new Effectiveness score and is used when conducting a correlational matrix to determine the strength of the relationships between each E component.

For the effectiveness component, those institutions with a high graduation rate and high retention rate will generate a higher standardized score (above the national average), suggesting a greater performance by the institution. This is demonstrated with the following statistical model.

"Effectiveness<sub>inst</sub> = 
$$\mu$$
[Grad Rate<sub>inst</sub> + Retention Rate<sub>inst</sub>]"

Every E category undergoes the same approach (converting values into a standardized score) as demonstrated below. Based on the values and data, standardized scores ensure an equal comparison of normal distributions from each E component. Below is the formula used for the efficiency category.

$$Efficiency_{inst} = \frac{[Tuition Revenue_{inst}]}{FTE} * (-1)$$

The tuition revenue per FTE value is pre-calculated within the IPEDS database and available as a selected variable. The standardized scores are calculated; however, this value is multiplied by -1 so that the overall Tri-E score would represent consistent output values (i.e. all high standardized values representing positive output of performance by institutions). The expenditure category is represented with the following formula. Like the other E components, the scores are placed in order from highest value to lowest value to determine the rank.

$$Expenditures_{inst} = \frac{\left[\frac{Inst. Exp._{inst}}{FTE} + \frac{Acad. Exp._{inst}}{FTE} + \frac{Stud. Srv. Exp._{inst}}{FTE}\right]}{\left[\frac{Total Revenue_{inst} - Hospital Revenue_{inst}}{FTE}\right]}$$

**Statistical model for the data.** Once all E component standardized values are generated for each institution, an overall value (by combining the scores) serves as the final score of the institution. However, using all of the institutional ranking sources (*US News, Washington Monthly, Forbes, Money*) as a guide to determine the weights of the categories, there is no official common theme or official research support method to adopt. Therefore, examining the values of each E component at an equal weight of (1/3) value is the starting point of analysis.

Some modifications to the weights are investigated. Given that the literature consistently supports graduation and retention rates (effectiveness) as a key outcome variable measuring performance, this category is given a greater weight beyond the initial analysis. However, other research supports different variables as key indicators and thus, to remain consistent, different weight combinations are investigated among each E component to investigate whether specific components play a greater impact on the overall evaluation of higher education institutions.

Rather than the 33.33% which is represented in the initial analysis, the effectiveness component may represent 50% with other components as a lower value. This arbitrary amount is a beginning recommendation to the study and is analyzed to review how institutions change in

rank with different weight combinations<sup>5</sup>. The following demonstrates four weight distribution options.

## Weight Distribution #1 – Equal at 33.33%

 $"Evaluation_{inst} = \mu [Effectiveness_{inst} + Efficiency_{inst} + Expenditures_{inst}]"$ 

# Weight Distribution #2 – Emphasis on Effectiveness

 $Evaluation_{inst}$ 

$$= [.50(Effectiveness_{inst}) + .25(Efficiency_{inst}) + .25(Efficiency_{inst})]$$
$$+ .25(Expenditures_{inst})]"$$

## Weight Distribution #3 – Emphasis on Efficiency

*Evaluation*<sub>inst</sub>

$$= [.25(Effectiveness_{inst}) + .50(Efficiency_{inst}) + .25(Expenditures_{inst})]"$$

# Weight Distribution #4 – Emphasis on Expenditures

*Evaluation*<sub>inst</sub>

$$= [.25(Effectiveness_{inst}) + .25(Efficiency_{inst}) + .50(Expenditures_{inst})]"$$

<sup>&</sup>lt;sup>5</sup> The determined weights are based on equal distribution. Locating a source to reference for this type of study was unsuccessful.

Determining the appropriate weight distribution for the Tri-E model is critical; however, some modifications to the data were required since the standardized values within each E component are not within close range of each other. For example, if high standardized values are found in one E category (i.e. highest effectiveness standardized score 3.78, highest efficiency standardized score 1.45 and highest expenditures score 1.75), then those institutions within the effectiveness category are at a greater advantage in comparison to others, regardless of the weight distribution.

Given this result, before conducting the Tri-E model results, a percentile value within each category is required. By taking the raw score of the each of the E components, a new percentile scale is established (with the highest value receiving a 1 and other institutions reflecting a lower percentage). Then, each E component value can reflect similar scales for comparison purposes and can combine based on the various weight distributions. A correlational matrix, using Pearson r, then provides the strength relationships between each E component and a determination of the most appropriate weight distribution for the Tri-E model is found.

Additionally, a ranking value is also created for each evaluation weight distribution and assigned to each institution. These values are sorted in SPSS from the highest value to the lowest value (to the ten-thousandth decimal) and a ranking value is assigned from 1 to the N<sup>th</sup> institution.

**Comparing the data.** Once the total Tri-E values were assigned to each institution, a comparison to the rankings of *US News* is analyzed. Using the classification system of institutions established by *US News*, ranks values are calculated using their scores (highest to lowest value). The results of the Tri-E model are used to determine the difference in rank based on the change posed on institutions.

In order to determine if there is a significant relationship in rank order between the US *News* rankings and that of the Tri-E model, the Spearman's rank-order correlation (Spearman's rho) test is necessary for each of the 10 categories. The Spearman's rho is a rank randomized test and nonparametric version of the Pearson r correlation that measures the strength of association between two ranked variables (Laerd Statistics, 2013) where the value r = 1 means a perfect positive correlation and the value r = -1 means a perfect negative correlation. For the rank calculations, the original sample size is reduced considering the number of 'rank not published' or 'unranked' designations from *US News*; however, the values are reported and those with a significant difference are noted.

#### Limitations to the Study

The development of the Tri-E model and this analysis is limited based on the lack of including student engagement data. As mentioned in Chapters 1 and 2, the NSSE does not release student engagement data to the public. Researchers have noted, based on Astin's Student Involvement Theory that student engagement on campus is related to the overall outcome of graduation and retention rates (1993). Additionally, student learning outcomes, student-faculty interactions, and student involvement on campus is not measured within the Tri-E model. Researchers (Schubert, 2009) have indicated similar limitations to their empirical studies for the same reasons of not being able to access critical data for analysis.

Determining the appropriate weights for each category is also a limitation to the study. Empirical data is not currently available to determine accurate weights for the analysis and thus, an objective measurement is not attainable. The current weights are based on a subjective judgment based on literature. *US News* addresses this concern by claiming that 'experts within the field take to into account a number of factors to determine the weight percentages.' Other institutional ranking publications state their weight percentages, but remain conservative regarding justification.

The efficiency component only examines institutions from the revenue generated solely from tuition, which is narrow in scope. This does not take into account the state appropriations received by public institutions, which places private institutions at a disadvantage when measured by the Tri-E Model. Providing a more in-depth analysis of the various revenue generating sources is key to ensure a more balanced and fair approach to the efficiency measure.

This study is also limited by only studying 4-year institutions and not including community colleges into the analysis. Although *US News* does not rank institutions, the Tri-E Model can be compared to Aspen's Institute which conducts an institutional performance analysis of community schools.

Finally, each year, all institutions are required to provide information on other expense categories (public service, research, and institutional support) to IPEDS in addition to the academic support, instructional, and student services expenses. By referencing the major findings of the BMIEE model, those expense categories were not found to be correlated with significant outcomes related to graduation rates of institutions and are therefore, not included in this study. **Summary** 

This chapter outlined the methodology used in this research. A description of the IPEDS database, along with the variables used for the Tri-E model, was outlined. In addition, the analytical procedures used in analyzing the data and limitation of the study were described in detail. The following (Chapter Four) presents the results of the analysis.

#### **Chapter 4**

#### RESULTS

As noted in chapter one, the research questions for this study focus on the evaluation of colleges and universities based on a set of variables that collectively measure the effectiveness, efficiency and expenditures of institutions. The results presented in this chapter are divided into two major sections, each focusing on the results from research questions. The first focuses on how institutions compare with one another based on the proposed evaluation model, Tri-E, incorporating the three major components (effectiveness, efficiency, expenditures). The second major section focuses on the rank of institutions with the Tri-E model and compares those results with the rankings of *US News*.

#### **Descriptive Statistics**

Table 5 presents the total number of institutions that contained all the necessary data required for the analysis of this study. The categories are listed based on the categorization of *US News* that combines Carnegie Foundation classification standards based on specific definitions: **National Universities** offer many undergraduate majors as well as masters and doctoral programs, coupled with faculty research and are defined by the Carnegie Foundation as Research Universities (very high research activity), Research Universities (high research activity) and Doctoral/Research Universities; **National Liberal Arts Colleges** target undergraduate education and award over 50 percent of degrees within the arts and sciences and are defined by the Carnegie Foundation as Baccalaureate Colleges – Arts and Sciences; **Regional Universities** are defined by the Carnegie Foundation as Master's Colleges and Universities (larger programs), Master's Colleges and Universities (medium programs) and Master's Colleges and Universities

(smaller programs) and provide a full range of undergraduate programs, some master's level programs and few, if any, doctoral programs; and lastly, **Regional Colleges** also focus on undergraduate education, just as the National Liberal Arts Colleges do, but grant less than 50 percent of their degrees in liberal arts disciplines. At these schools, at least 10 percent of undergraduate degrees awarded are bachelor's degrees. These schools are defined by the Carnegie Foundation as Baccalaureate Colleges – Diverse Fields and Baccalaureate/Associate's Colleges (Morse, 2014).

Additionally, the Regional Universities and Regional Colleges are then subcategorized by geographical boundaries of North, South, Midwest and West. As indicated, *U.S. News* categorizes institutions so that smaller liberal arts universities do not compete with larger, research intensive institutions (Morse and Flanigan, 2013). The total number of 4-year degree granting (public and private not-for-profit) institutions based on the various classifications and that maintained data for all areas of the analysis is noted in Table 6 (N = 1,351). Those institutions that were excluded from the analysis include those that did not provide data to IPEDS as well as 4 year for-profit institutions due to their unranked status with *US News*.

	Category	Number of Institutions
1	National Universities	270
2	National Liberal Arts Colleges	239
3	Regional Universities - North	182
4	Regional Universities - South	128
5	Regional Universities - Midwest	150
6	Regional Universities - West	119
7	Regional Colleges - North	46
8	Regional Colleges - South	85
9	Regional Colleges - Midwest	91
10	Regional Colleges - West	41
	Total	1,351

Table 6: Number of Institutions based on US News Categorization

### **Research Question 1**

How do four-year higher education institutions compare with one another based on a new evaluation model representing effectiveness, efficiency, and expenditures?

To address this research question, the following section is subcategorized based on the *US News* classifications. Within each sub section, a review of the top 20 institution rankings by E category (Effectiveness, Efficiency, Expenditures) is displayed in tables and an analytical summary supports the findings. A correlation matrix is also provided showing the relationship between each of the three E categories. Following, a table depicting all four weight distributions is provided, along with a correlation matrix demonstrating the best weight distribution for the Tri E model. The complete list of all institutions (by *US News* classification) containing standardized scores and ranks for each E component is found in the appendix section.

## How an Institution Receives a Score

Within each respective category, each institution score is calculated using the methodological approach detailed within Chapter Three of this study. Below is an example calculation of a raw score using one institution for demonstration purposes.

**Seton Hall University** 

**National Universities Category** 

### **Effectiveness Calculation**

$$Effectiveness_{inst} = \mu[Grad Rate_{inst} + Retention Rate_{inst}]$$
$$Effectiveness_{SHU} = \mu[.67_{SHU} + .84_{SHU}]$$
$$Effectiveness_{SHU} = .755$$

After all institutions are calculated, a standardized value (or z score) is determined for Seton Hall University. Each category undergoes the same standardization calculation of scores. The following demonstrates the standard score of x:

$$z_{inst} = \frac{[x - \mu]}{\sigma}$$

where: x is the raw score of the institution;  $\mu$  is the mean;  $\sigma$  is the standard deviation.

Effectiveness 
$$z_{SHU} = \frac{[.755 - .7297]}{.1444}$$
  
Effectiveness  $z_{SHU} = .1746$ 

All institutions are then ranked from highest standardized score to the lowest and a rank value is determined. Seton Hall University is .1746 above the national mean within the effectiveness category and given a 120<sup>th</sup> position rank among its competitors.

**Efficiency Calculation** 

$$Efficiency_{inst} = \frac{[Tuition Revenue_{inst}]}{FTE} * (-1)$$

The tuition revenue per FTE value is pre-calculated within the IPEDS database and available as a selected variable. The standardized scores were then calculated; however, this value was multiplied by -1 so that the overall Tri-E score would represent consistent output values (i.e. all high standardized values representing positive output of performance by institutions).

$$Efficiency_{SHU} = 22,078$$
$$z_{SHU} = \frac{[22,078 - 13,477]}{7,241} * (-1)$$
$$Efficiency \ z_{SHU} = -1.187$$

For the efficiency category, Seton Hall University is found below the national mean by 1.187 standard deviations and a position rank of 228<sup>th</sup> among its competitors.

# **Expenditures Calculation**

$$Expenditures_{inst} = \frac{\left[\frac{Inst. Exp._{inst}}{FTE} + \frac{Acad. Exp._{inst}}{FTE} + \frac{Stud. Srv. Exp._{inst}}{FTE}\right]}{\left[\frac{Total Revenue_{inst} - Hospital Revenue_{inst}}{FTE}\right]}$$

$$Expenditures_{SHU} = \frac{\left[10,840 + 4,429 + 4,231\right]}{\left[\frac{243,620,000 - 0}{9,830}\right]}$$

$$Expenditures_{SHU} = .7868$$

By standardizing the score,

$$z_{SHU} = \frac{[.7868 - .5611]}{.1517}$$
  
Expenditures  $z_{SHU} = 1.488$ 

Within this category, Seton Hall University is 1.488 standard deviations above the national mean and holds a position rank of 18<sup>th</sup> among its competitors. Moreover, by combining and averaging each z score from all E components (as demonstrated with an equal weight distribution), a Tri-E model score is calculated.

$$TriE \ Score_{SHU} = \mu[Effectiveness \ z_{SHU} + Efficiency \ z_{SHU} + Expenditures \ z_{SHU}]$$
$$Tri \ E \ Score_{SHU} = \mu[.\ 1746 + (-1.187) + 1.488]$$
$$Tri \ E \ Score_{SHU} = .\ 1582$$

A final rank is then detailed with the highest Tri-E score maintaining the 1<sup>st</sup> rank and the lowest Tri-E score holding the last rank position. For this example, Seton Hall University falls at rank position 73 out of 270 within the National Universities category at equal weight distributions.

#### **National Universities**

Below, Table 7 highlights the results from the first classification of institutions (National Universities) and effectiveness category from the Tri-E model. Out of the 270 institutions within this classification, the top 20 colleges and universities are presented for comparison purposes.

institution name	Effectiveness Score/Rank		Efficier Score/R	ncy ank	Expend Score/	itures Rank
Yale University	1.6975	1	-0.0082	164	0.648	68
Dartmouth College	1.6629	2	-1.8595	256	-0.229	147
Harvard University	1.6629	2	-1.5114	242	0.072	119
Princeton University	1.6629	2	0.1870	153	-0.611	187
University of Pennsylvania	1.6629	2	-2.5268	269	0.476	84
Stanford University	1.6282	6	-1.2791	233	-0.929	223
Brown University	1.5936	8	-2.0538	262	0.200	109
Duke University	1.5936	8	-1.3276	237	-0.462	167
University of Notre Dame	1.5936	8	-1.0934	225	-0.901	222
Columbia University in the City of New York	1.5590	10	-2.3759	266	-0.065	132
Massachusetts Institute of Technology	1.5590	10	-1.6803	248	-1.700	266
University of Chicago	1.5590	10	-1.6870	250	-1.261	249
University of Virginia-Main Campus	1.5590	10	-0.4323	193	-1.147	244
Washington University in St Louis	1.5244	14	-1.2675	232	0.876	51
Cornell University	1.4898	15	-1.2897	234	-0.948	226
Georgetown University	1.4898	15	-2.6905	270	0.977	44
Johns Hopkins University	1.4898	15	-1.1554	227	-1.280	251
Northwestern University	1.4898	15	-1.9982	261	-0.274	153
Tufts University	1.4898	15	-1.8750	257	0.601	71
California Institute of Technology	1.4552	20	-0.2298	179	-2.973	270
Rice University	1.4552	20	-0.7415	205	0.511	81
University of California-Los Angeles	1.4552	20	-0.1123	170	-0.300	155
University of California-San Diego	1.4552	20	-0.1123	169	-1.372	257
University of Michigan-Ann Arbor	1.4552	20	-0.8787	209	-0.546	177
Vanderbilt University	1.4552	20	-1.0838	222	2.713	4

Table 7: National Universities Top 20 School Rankings by Category (Effectiveness)

The effectiveness score measures the combined mean value of both first year retention and six year graduation rate of institutions. Table 7 shows the majority of institutions within the top 20 as private institutions with large enrollment. The first ranking school with the highest standardized value of 1.69, meaning Yale University is 1.69 standard deviations above the mean value of .7297 (or 72.97%). Yale University scored the highest effectiveness raw score of 97.5% combined retention and graduation rate. The lowest value within the category is -3.84 by Union Institute and University, representing a .175 (or 17.5%) combined graduation and retention rate.

The corresponding values of how this institution scored within the efficiency and expenditures categories are also depicted in the table. With efficiency, Yale University ranked 164 out of 270 or in the bottom 40% of institutions. This category measures the standardized score of tuition revenue per full time student equivalency, meaning those institutions with low net tuition revenue per full time student will receive a higher standardized score as the values are altered to reflect a positive result.

Initially, low tuition revenue per student standardized value would result in a negative outcome; however, the values were multiplied by -1 to change the number sign. This means that those institutions whose tuition revenue is lower than the national average will demonstrate a positive standardized value. Within the Tri-E model, institutions are rewarded with a high efficiency score by not having a large dependency on tuition revenue. This can create some disparity among private and public institutions, especially with state appropriations for public schools in the mix; however, institutions can focus on other streams of revenue to maintain operations.

Additionally, within the expenditures category, Yale University did not rank within the top 20 schools and received rank 68. The expenditure category measures the standardized values on three key expense categories (instruction, academic support, student services) based on the full time student equivalency population and relative to the total revenue received of each institution. This measure initially reviews how much of the total revenue (for the exception of hospital revenue) is spent on the three expenditures, based on full-time equivalency. Thus, those institutions that spend more per student based on all incoming revenue suggest that they are

using as many resources possible (grants, gifts, endowment) towards the three key expenses categories. The presented values in the table show the standardized score, which suggests that those institutions with high values spend more money per student than average institutions within the three key expense categories. Yale University is ranked 68 with a standardized score of 0.648, which indicates a value slightly above the national average.

Table 8 ranks top 20 National Universities that scored highest on the efficiency category (tuition revenue, per full time student equivalency). Rather than using the net tuition price (similar to *US News*), this category measures the true revenue generated from tuition. With the net tuition price, many state institutions receive appropriations that help offset the cost for students, further aiding state institution operations. Private schools; however, are not eligible for to receive state appropriations and tend to provide institutional support by reducing or discounting tuition price. This difference can certainly affect an institution's score and rank showing higher scores for public schools and lower for private. Within this category, public institutions do not have as much pressure to rely on tuition like most privates.

institution name	Effectiveness Score/Rank		Efficier Score/R	ncy ank	Expend Score/	litures Rank
New Mexico State University-Main Campus	-1.0368	224	1.3391	1	-1.002	231
University of Wyoming	-0.5522	184	1.2723	2	-0.422	163
North Carolina A & T State University	-1.0022	221	1.2491	3	-0.671	197
University of Louisiana at Lafayette	-0.9676	218	1.2481	4	-0.047	127
Bowie State University	-1.3829	249	1.2471	5	-0.264	151
SUNY College of Environmental Science and Forestry	0.2438	112	1.2413	6	1.021	42
Utah State University	-0.8291	213	1.2361	7	-0.653	195
University of Central Florida	0.2438	112	1.2130	8	-0.066	133
Florida International University	-0.5176	181	1.2040	9	0.294	100
Florida Atlantic University	-0.9330	217	1.2038	10	0.542	78
Florida Agricultural and Mechanical University	-0.8983	215	1.1833	11	-0.634	190
The University of West Florida	-1.0368	224	1.1730	12	0.976	45
Florida State University	0.6938	76	1.1668	13	-0.767	206
University of New Mexico-Main Campus	-0.8291	213	1.1637	14	-1.283	253
Morgan State University	-1.5559	256	1.1590	15	-1.105	242
University of North Carolina at Greensboro	-0.5522	184	1.1581	16	0.213	107
Louisiana Tech University	-0.7945	207	1.1509	17	-0.203	144
Brigham Young University-Provo	0.6938	76	1.1480	18	-0.343	158
Texas A & M University-Kingsville	-1.8328	263	1.1440	19	-2.065	268
Georgia Southern University	-0.6561	196	1.1212	20	0.356	97

 Table 8: National Universities Top 20 School Rankings by Category (Efficiency)

Hence, by analyzing the actual revenue generated per student, both private and public institutions are measure more efficiently. The values used for the ranking demonstrate how the institutions score relative to the national average of tuition revenue generated per full-time student. New Mexico State University –Main Campus ranks at the top with a raw standardized score of 1.3391 that is based on tuition revenue per full time student equivalency of \$3,781. The institution with the highest tuition revenue per student (ranking 270) was Carnegie Mellon University at \$33,294.

Of all the institutions within the top 20, Brigham Young University – Provo is the only private institution. This suggests that state appropriations affect the values of tuition revenue per

FTE. Private schools must maintain other sources of revenue to help reduce its dependency on tuition revenue. Table 8 also shows the comparison of values with effectiveness and expenditures, based on the efficiency rankings. None of the top 20 rankings institutions in the effectiveness or expenditures category are also in the efficiency category.

Table 9 shows the ranking of 20 National Universities based on the standardized expenditure score. Regent University is ranked as the institution that spends the most within the three expense categories (instructional, academic support, student services per full time enrollment) with a value of \$14,227. The total raw score is based on a ratio of these expenses based on total revenue received by the institution (with the exception of hospital revenue).

Given the standardized score for Regent University to be 3.472, this means the university spends well above the average among other national universities. Other revenue sources such as alumni giving, federal and state grants, state appropriations, and auxiliary services may be acquired to assist with the expenditures at this institution. In turn, this effort boosts the score and elevates the rank of institutions that allocate more towards these expense areas and not just limited to tuition revenue.

However, the corresponding value for effectiveness (N=-1.0714) falls below the 75<sup>th</sup> percentile among other institutions. This suggests that despite the institution's focus on allocating revenue towards the three main expense categories, other efforts are necessary to boost graduation and retention rates (effectiveness score).

institution name	Effectiveness Score/Rank		Efficier Score/R	ncy ank	Expend Score/	litures Rank
Regent University	-1.0714	229	-0.0975	168	3.472	1
Our Lady of the Lake University	-2.0405	267	-0.2347	180	3.303	2
Worcester Polytechnic Institute	1.1783	38	-2.1857	264	2.926	3
Vanderbilt University	1.4552	20	-1.0838	222	2.713	4
University of Missouri-St Louis	-0.7253	201	0.7878	71	2.574	5
Edgewood College	-0.4830	180	-0.2847	182	2.478	6
Cardinal Stritch University	-1.2791	242	0.1468	156	2.426	7
Union Institute & University	-3.8403	271	-0.7353	204	2.381	8
Polytechnic Institute of New York University	0.1400	124	-1.2606	230	2.178	9
University of Missouri-Kansas City	-1.1406	233	0.4097	125	2.062	10
Wilmington University	-1.6598	260	0.6001	93	1.753	11
Benedictine University	-0.6907	197	0.3668	131	1.749	12
Maryville University of Saint Louis	0.3823	100	-0.1420	173	1.727	13
Barry University	-1.4867	252	-0.3642	187	1.674	14
Widener University-Main Campus	-0.6907	197	-1.0929	224	1.648	15
National Louis University	-0.7945	207	-0.2160	178	1.520	16
Stevens Institute of Technology	0.6938	76	-1.9617	259	1.501	17
Seton Hall University	0.1746	120	-1.1877	228	1.488	18
University of Massachusetts-Boston	-1.0022	221	0.2990	140	1.463	19
University of Southern California	1.4206	26	-2.0751	263	1.437	20

Table 9: National Un	iversities Top 20	School Rankings by	y Category	(Expenditures)
	1			

Seton Hall University ranked 18<sup>th</sup>, indicating this institution focuses on allocating revenue towards the three key educational expense categories. However, the low graduation and retention rates (effectiveness) and high dependency on tuition revenue limit its competitiveness among other institutions. In order for Seton Hall University to raise in the Tri-E Model ranks, the institution would need to maintain it expense appropriations and boost its effectiveness all the while creating new revenue streams to reduce its dependency on tuition and fees.

When evaluating the other categories in relation to the expenditure scores and rankings, one institution within the effectiveness category (Vanderbilt University) also scored high. Vanderbilt University serves a relatively equal amount of undergraduate and graduate students (totaling a tad over 12,000) yet greatly relies on tuition for operations. This institution fits within the projected assumptions of the Tri-E Model suggesting an institution that allocates its resources within the three key educational expense categories will mirror a high retention and graduation rate. This private institution does not receive state funding to help offset tuition dependency, although it is the second largest private employer within the State of Tennessee (Quick Facts, 2014).

Also noteworthy within the top 20 institutions are two University of Missouri institutions (St. Louis and Kansas City). They are similar in size with an enrollment of over 16,000, yet the St. Louis campus allocates 7.7% more dollars per FTE towards expenses than Kansas City, even though the revenue generated at Kansas City is \$115,000,000 in comparison. These institutions are part of the University of Missouri System (comprised of four) that may operate similarly regarding financial allocation and business operations. The third institution (University of Missouri – Columbia) is ranked well below the national average in this category which can be attributed to it being the largest within the system (larger than the others combined) and the first institution established. The total revenue generated by Columbia far exceeds that of the other institutions by 50% combined.

#### **The Pearson r Correlation**

In order to determine the relationship between each of the E categories, a Pearson correlation coefficient was conducted. This analysis measures the strength of the linear association between two variables. Table 10 shows significant relationships between the different E categories; however, all relationships suggest a negative correlation, meaning that as one variable increases, the corresponding variable decreases. Within the National Universities scores, there is a strong, negative correlation between effectiveness and efficiency scores, which is statistically significant (r = -.595, N = 270, p < .001).

This relationship suggests that those universities with high graduation and retention rates (effectiveness score) tend to not be very efficient, meaning the institutions receive higher tuition revenue than the nation average. This finding makes sense when the majority of top ranking effectiveness score institutions are private. National University institutions are rewarded a high efficiency score by having low dependency on tuition revenue; however, this does effect both their efficiency and expenditures scores.

	Effectiveness Score	Efficiency Score	Expenditures Score					
Effectiveness Score	1.00	595**	293**					
Efficiency Score	595**	1.00	167**					
Expenditures Score	293**	167**	1.00					
** Correlation is significant at the 0.001 level (2-tailed) N = 270								

 Table 10: National Universities Correlation of E Category Scores (Pearson r)

With the analysis of each E category combined, the comprehensive analysis of the scores is depicted in the table below (Table 11). As mentioned in Chapter 3, determining the appropriate weight for the Tri-E model is critical; thus, a review of each weight distribution model is shown, along with a correlation matrix on the following page. However, upon an initial output of scores, the results were very similar to the expenditures ranking. An additional review of the E scores shows the highest values to be Effectiveness 1.697, Efficiency 1.339, and Expenditures 3.472. When averaged together, the initial ranking results looked very similar to the expenditures category as those institutions are at a greater advantage, regardless of the weight distribution.

This challenges the initial analytical approach of averaging the standardized values as demonstrated earlier within this chapter. Therefore, before conducting the Tri-E model results for each weight distribution, a percentile value within each category is necessary. By taking the raw score of the each of the E components, a new percentile scale is generated (with the highest value receiving a 1 and other institutions reflecting a lower percentage). These values are then combined using the appropriate weight distribution to produce the Tri-E Model score (and corresponding rank).

The first weight distribution (WD) shows the score and rank of institutions based on equal weights (33.33% of each E category). Each of the E categories are combined equally (using their standardized score) and averaged together for the first weight distribution. The second WD shows the score and rank with an emphasis on effectiveness meaning that greater weight (.50) was applied to the effectiveness score and a smaller percentage (.25) was applied to the efficiency and expenditures scores. The same methodological approach to WD #3 and WD #4 was applied (emphasis of .50 weight) based on the category presented. Refer to Chapter Three weight distribution formulas if necessary.

institution name	Tri E WD#1 (Equal) Score/Rank		#1 Tri-E WD#2 (Effectiveness) 1k Score/Rank		Tri-E V (Efficie Score/I	VD#3 ency) Rank	Tri-E V (Expend Score/I	VD#4 itures) Rank
SUNY at Binghamton*	0.7908	1	0.8121	3	0.8248	2	0.7353	7
Yale University	0.7602	2	0.8215	1	0.7375	47	0.7217	10
SUNY College of Environmental Science and Forestry*	0.8076	3	0.8028	4	0.8497	1	0.7702	4
Vanderbilt University	0.7563	4	0.8095	2	0.6686	148	0.7907	2
San Diego State University*	0.7881	5	0.7908	7	0.8183	3	0.7551	5
Stony Brook University*	0.7676	6	0.7819	9	0.7988	7	0.7221	16
Brigham Young University-Provo	0.7589	7	0.7831	8	0.8074	6	0.6861	31
University of Florida	0.7345	8	0.7841	6	0.7762	18	0.6431	63
Princeton University	0.7159	9	0.7869	5	0.7163	79	0.6445	59
University of Missouri-St Louis	0.7946	10	0.7570	22	0.8121	4	0.8146	1
Florida State University	0.7407	11	0.7694	11	0.7950	9	0.6577	57
University of Central Florida	0.7547	12	0.7632	14	0.8083	5	0.6927	28
University at Buffalo	0.7487	13	0.7638	13	0.7831	14	0.6992	25
Missouri University of Science and Technology	0.7539	14	0.7587	16	0.7682	25	0.7348	11
Maryville University of Saint Louis	0.7342	15	0.7529	19	0.7098	89	0.7398	8
University of California-Los Angeles	0.6956	16	0.7639	10	0.6827	129	0.6401	64
Clark University	0.7125	17	0.7560	15	0.6811	132	0.7004	19
University of Nevada-Reno	0.7545	18	0.7372	37	0.7891	12	0.7371	13
George Mason University	0.7312	19	0.7443	24	0.7449	42	0.7045	21
The University of Texas at Austin	0.7028	20	0.7488	18	0.7230	70	0.6366	72

Table 11: Tri-E Model Results - National Universities Weight Distributions

Upon review of all the ranked scores, SUNY at Binghamton appears to maintain high ranking regardless of the weight distribution whereby receiving a high rank within all four different weight distributions. Approximately four institutions fall within the top 20 rankings in all three categories (SUNY at Binghamton, SUNY College of Environmental Science and Forestry, San Diego State University, and Stony Brook University). A mixture of both private and public institutions make up this list with the State of New York representing four institutions, two within the SUNY system.

The standardized scores within each Tri-E weight distribution model, using the Pearson r correlation test, displayed in Table 12 show strong, positive statistically significant relationships

when compared to each other. When the various E components are combined, the results reveal low, moderate and strong positive relationships between the different weight distributions. This finding suggests that within the National University category weight distributions, there are similar relationships.

The Tri-E Weight Distribution #1 (calculation based on an equal distribution) appears to have the strongest, positive relationship when compared to the other weight distributions. The correlations among the other weight distributions presents positive relationships, but not with the same strength. This suggests that within this category of National Universities, WD#1 (Equal) presents the best weight combination for the Tri E model. This finding helps support the original project of determining the most appropriate weight distribution for the Tri-E Model, yet requires similar results among the other categories. The strongest positive correlation is seen between weight distribution #1 (Equal) and #3 (Efficiency) at r = .904, N = 270, p < .001.

	Tri-E WD#1 (Equal) Score	Tri-E WD#2 (Effectiveness) Score	Tri-E WD#3 (Efficiency) Score	Tri-E WD#4 (Expenditures) Score			
Tri-E WD#1 (Equal) Score	1.00	.731**	.904**	.863**			
Tri-E WD#2 (Effectiveness) Score	.731**	1.00	.469**	.545**			
Tri-E WD#3 (Efficiency) Score	.904**	.469**	1.00	.657**			
Tri-E WD#4 (Expenditures) Score	.863**	.545**	.657**	1.00			
** Correlation is significant at the 0.001 level (2-tailed) N = 270							

 Table 12: National Universities Correlation of Weight Distribution Scores (Pearson r)

# **National Liberal Arts Colleges**

Taking a similar approach to report findings as in the National Universities category, below, Table 13 highlights the results from the first classification of institutions (National Liberal Arts Colleges) and effectiveness category from the Tri-E model. Out of the 239 institutions within this classification, the top 20 colleges and universities are presented for comparison purposes.

institution name	Effective Score/R	eness ank	Efficier Score/R	ncy ank	Expenditures Score/Rank			
Amherst College	1.4805	1	-0.8603	192	0.1047	69		
Pomona College	1.4805	1	-0.8203	188	0.1698	56		
Bowdoin College	1.4500	3	-1.9228	233	-0.0057	94		
Carleton College	1.4500	3	-1.5941	225	0.1701	55		
Williams College	1.4500	3	-1.2499	210	-0.0670	112		
Middlebury College	1.4196	6	-3.1008	237	-0.4975	207		
Soka University of America	1.4196	6	1.3010	25	0.5544	16		
Haverford College	1.3892	8	-1.2620	211	0.1214	65		
Davidson College	1.3587	9	-0.3307	163	-0.3995	191		
Swarthmore College	1.3587	9	-1.1419	203	-0.0178	97		
College of the Holy Cross	1.3283	11	-1.2218	208	-0.1986	138		
Barnard College	1.2979	12	-1.7344	228	-0.2334	149		
Claremont McKenna College	1.2979	12	-1.5869	223	-0.5423	216		
Hamilton College	1.2979	12	-1.9386	234	0.7976	9		
Vassar College	1.2979	12	-1.0636	201	0.1012	70		
Harvey Mudd College	1.2674	16	-1.3026	214	-0.0475	104		
Lafayette College	1.2674	16	-1.2398	209	0.0513	81		
Wesleyan University	1.2674	16	-1.4238	217	-0.3721	183		
Bucknell University	1.2370	19	-1.7752	231	0.1470	58		
Colby College	1.2370	19	-1.9768	235	0.0191	87		
Colgate University	1.2370	19	-1.6753	227	0.0137	91		
Colorado College	1.2370	19	-1.2927	213	-0.3149	173		
Grinnell College	1.2370	19	0.2813	106	6.6194	2		
Washington and Lee University	1.2370	19	-1.4589	218	-0.2798	163		
Wellesley College	1.2370	19	-0.3257	162	0.1464	59		
Wheaton College	1.2370	19	-0.2172	151	-0.0806	116		

 Table 13: National Liberal Arts Colleges Top 20 School Rankings by Category (Effectiveness)

The effectiveness category (measuring graduation and retention rates) shows both Amherst College and Pomona College with the highest standardized scores of 1.48, meaning that these liberal arts colleges are well above the mean values. Both colleges had a combined graduation and retention rate of 96.5%. Of these high ranking institutions, Soka University of America also ranked 16<sup>th</sup> within the expenditures category as well as Hamilton College (9<sup>th</sup>) and Grinnel College (2<sup>nd</sup>).

The efficiency category, shown in Table 14, reveals a different set of institutions within the top 20 rankings. Berea College ranks among the highest (1.98 standard deviations above the national average) with an IPEDS reported tuition revenue per full time equivalency student of \$1,842. This institution maintains the lowest dependency within this category on tuition as it appears to rely on other funding sources for operations (total enrollment of 1,658 and \$54.1M in total revenue, minus hospital revenue). It is noteworthy to mention that at Berea College, every student is awarded a Tuition Promise Scholarship whereby covering the entire cost of tuition, totaling \$21,880 for the year. Berea is the only one of America's top colleges that awards every enrolled student a no-tuition promise (Berea Tuition Promise Scholarship, 2015). Although the no-cost tuition exists, the reported tuition revenue value from IPEDS of \$1,842 may be a combination of dedicated or earmarked funds from private donors for tuition.

institution name	Effectiveness Score/Rank		Efficier Score/R	ıcy ank	Expenditures Score/Rank	
Berea College	0.1108	123	1.9856	1	0.1679	57
Grove City College	0.8717	47	1.9724	2	6.9040	1
Savannah State University	-1.2285	207	1.8990	3	-0.4984	208
University of Science and Arts of Oklahoma	-1.3198	208	1.8669	4	-0.5645	217
New College of Florida	0.2325	115	1.8048	5	-0.4494	198
SUNY College at Old Westbury	-0.8936	190	1.7170	6	-0.0510	106
Louisiana State University-Alexandria	-2.6590	237	1.7115	7	0.5225	17
West Virginia State University	-2.2329	233	1.7014	8	-0.6143	223
University of Wisconsin-Parkside	-1.5937	221	1.5782	9	0.1348	63
University of Maine at Machias	-1.4720	216	1.5635	10	0.5180	18
Fort Lewis College	-1.3806	213	1.5233	11	-0.1445	128
Granite State College	-1.0763	201	1.5227	12	0.3771	26
University of Minnesota-Morris	-0.1936	148	1.5212	13	-0.2077	140
Massachusetts College of Liberal Arts	-0.6806	185	1.4564	14	-0.2981	169
University of North Carolina at Asheville	-0.3458	164	1.4476	15	-0.4079	192
Shawnee State University	-2.2938	234	1.4417	16	-0.3047	171
Colorado Mesa University	-1.5633	220	1.4411	17	0.0418	83
The University of Virginia's College at Wise	-0.9545	194	1.4378	18	-0.4444	197
SUNY at Purchase College	-0.0718	140	1.4181	19	-0.2569	158
Western State Colorado University	-1.3502	211	1.3719	20	0.1191	67

 Table 14: National Liberal Arts Colleges Top 20 School Rankings by Category (Efficiency)

Other institutions that also ranked within the top 20 within the expenditures category, (based on the efficiency category) include Grove City Colleges (1<sup>st</sup>) (which does not receive Title IV federal funding, Louisiana State University – Alexandria (17<sup>th</sup>) ,and University of Maine at Machias (18<sup>th</sup>). There are no highly ranking institutions within the effectiveness category.

The expenditure ranks, shown in Table 15, reveals three highly ranking institutions within the effectiveness category as well as two different institutions within the efficiency category. Grove City College ranked the highest among competitors within the expenditures category, demonstrating a high allocation of revenue spent on instruction, academic support, and student services (per full-time equivalency and relative to total revenue received with the exception of hospital revenue).

institution name	Effectiveness Score/Rank		Efficier Score/R	ıcy ank	Expendi Score/F	tures Rank
Grove City College	0.8717	47	1.9724	2	6.9040	1
Grinnell College	1.2370	19	0.2813	106	6.6194	2
Bryn Athyn College of the New Church	-0.5893	180	1.3485	21	3.7547	3
Harrisburg University of Science and Technology	-2.2024	232	-0.9511	196	1.8512	4
Randolph College	-0.2240	150	0.5116	80	1.3408	5
Macalester College	1.2065	27	-0.7046	183	0.9645	6
Wesleyan College	-0.4675	170	1.0350	33	0.9312	7
Hanover College	0.1108	123	0.6686	59	0.8972	8
Hamilton College	1.2979	12	-1.9386	234	0.7976	9
Bryn Mawr College	0.8413	53	-0.6155	173	0.7758	10
Centre College	1.0239	36	-0.2322	153	0.7751	11
Agnes Scott College	0.0499	132	0.6230	66	0.7008	12
Beloit College	0.7500	60	-0.3025	160	0.6380	13
Hendrix College	0.4152	95	0.4848	89	0.6051	14
Sweet Briar College	-0.2545	155	-0.2960	158	0.5777	15
Soka University of America	1.4196	6	1.3010	25	0.5544	16
Louisiana State University-Alexandria	-2.6590	237	1.7115	7	0.5225	17
University of Maine at Machias	-1.4720	216	1.5635	10	0.5180	18
Willamette University	0.5674	83	-0.4505	168	0.4823	19
Sarah Lawrence College	0.6587	67	-1.2086	207	0.4551	20

Table 15: National Liberal Arts Colleges Top 20 School Rankings by Category (Expenditures)

Upon review of the Pearson r correlation between the different E categories, Table 16 shows only one statistically significant relationship between effectiveness and efficiency (r = -.636, N = 239, p < .001). This strong, negative relationship indicates the more effective an institution, those institutions tend to have a lower efficiency score. This relationship mirrors the National Universities sub category; however, although positive, the other E categories did not result in a statistically significant outcome.

	Effectiveness Score	Efficiency Score	Expenditures Score						
Effectiveness Score	1.00	636**	.119						
Efficiency Score	636**	1.00	.098						
Expenditures Score	.119	.098	1.00						
** Correlation is	** Correlation is significant at the 0.001 level (2-tailed)								
N = 239									

 Table 16: National Liberal Arts Colleges Correlation of E Category Scores (Pearson r)

The weight distribution of the Tri-E model, shown in Table 17, identifies seven institutions that possess a top ranking within each of the four weights. The first two colleges (Grove City College and Grinnell College) received the same ranking for each of the four weight distributions. These two institutions contribute outlying values that are attributed to their institutional characteristics such as not charging tuition or not receiving federal Title IV funding.

institution name	Tri E WD#1 (Equal) Score/Rank		Tri-E WD#2 (Effectiveness) Score/Rank		Tri-E WD#3 (Efficiency) Score/Rank		Tri-E WD#4 (Expenditures ) Score/Rank	
Grove City College*	0.9647	1	0.9476	1	0.9729	1	0.9735	1
Grinnell College*	0.7521	2	0.8037	2	0.7363	2	0.7163	2
Soka University of America*	0.6749	3	0.7536	3	0.7249	3	0.5462	4
Bryn Athyn College of the New Church*	0.6427	4	0.6440	14	0.7030	5	0.5813	3
Berea College*	0.6327	5	0.6663	4	0.7246	4	0.5074	5
New College of Florida*	0.6134	6	0.6570	6	0.7018	6	0.4815	6
Westminster College*	0.5784	7	0.6320	18	0.6404	12	0.4628	12
University of Minnesota-Morris	0.5779	8	0.6122	51	0.6623	7	0.4594	16
SUNY at Purchase College	0.5774	9	0.6170	37	0.6571	8	0.4580	17
Hanover College	0.5706	10	0.6197	34	0.6179	23	0.4743	7
Hendrix College	0.5695	11	0.6318	19	0.6086	27	0.4680	9
The College of Idaho	0.5676	12	0.6161	43	0.6258	19	0.4609	14
Westminster College	0.5665	13	0.6386	16	0.6084	28	0.4526	20
Centre College	0.5646	14	0.6540	10	0.5722	70	0.4675	11
Wofford College	0.5643	15	0.6473	13	0.5915	49	0.4540	18
Wesleyan College	0.5609	16	0.5878	102	0.6273	18	0.4677	10
Ave Maria University	0.5603	17	0.5964	85	0.6310	17	0.4535	19
University of North Carolina at Asheville	0.5599	18	0.5922	91	0.6454	11	0.4421	39
Agnes Scott College	0.5595	19	0.6088	57	0.6075	29	0.4623	13
Salem College	0.5582	20	0.5896	99	0.6378	14	0.4470	30
*Denotes institution ranks in top 20 within all weight distributions.								

Table 17: Tri-E Model Results - National Liberal Arts Colleges Weight Distributions

The standardized scores within each Tri-E weight distribution model, using the Pearson r correlation test, displayed in Table 18 show strong, positive statistically significant relationships when compared to each other. This finding suggests that within the National Liberal Arts category weight distributions, there are similar relationships (same finding found within the National Universities category).

Additionally, the Tri-E Weight Distribution #1 (calculation based on an equal distribution) shown in Table 18 appears to have the strongest, positive relationship when compared to the other weight distributions. Although the correlations among the other weight

distributions present strong, positive relationships, the WD#1 possesses the strongest correlation. This suggests that within this category of National Liberal Arts Colleges, WD#1 (Equal) presents the best weight combination for the Tri E model. However, the strongest positive correlation is found between weight distribution #1 (Equal) and #4 (Expenditures) at r = .969, N = 239, p < .001.

Tri-E WD#1 Tri-E WD#2 Tri-E WD#3 Tri-E WD#4 (Equal) Score (Effectiveness) Score (Efficiency) Score (Expenditures) Score Tri-E WD#1 .969\*\* .835\*\* .851\*\* 1.00 (Equal) Score Tri-E WD#2 .835\*\* 1.00 .439\*\* .792\*\* (Effectiveness) Score Tri-E WD#3 .851\*\* .439\*\* .793\*\* 1.00 (Efficiency) Score Tri-E WD#4 .969\*\* .792\*\* .793\*\* 1.00 (Expenditures) Score \*\* Correlation is significant at the 0.001 level (2-tailed) N = 239

 Table 18: National Liberal Arts Colleges Correlation of Weight Distribution Scores (Pearson r)

# **Regional Universities (North, South, MidWest, West)**

This category of institutions (Regional Universities) as defined by the US News classification offer a full range of undergraduate degrees, but maintain a limited number of master's and very few doctoral programs. The institutions are then subcategorized by geographical boundaries of North, South, Midwest and West.

For the continuation of this analysis, correlation matrices are presented identifying statistical significance between the E category scores and the Tri-E model weight distributions. A complete listing of institutions (by sub category) including standardized score and rank for all E components and weight distributions can be referenced within the appendix section.

Tuble 197 Regionar emiterside		a category see		
	Effectiveness Score	Efficiency Score	Expenditures Score	
North (N=182)				
Effectiveness Score	1.00	303**	172*	
Efficiency Score	303**	1.00	146*	
Expenditures Score	172*	146*	1.00	
South (N=128)				
Effectiveness Score	1.00	420**	120	
Efficiency Score	420**	1.00	115	
Expenditures Score	120	115	1.00	
MidWest (N=150)				
Effectiveness Score	1.00	391**	241**	
Efficiency Score	391**	1.00	.123	
Expenditures Score	241**	.123	1.00	
	1	1		
West (N=119)				
Effectiveness Score	1.00	528**	.100	
Efficiency Score	528**	1.00	118	
Expenditures Score	.100	118	1.00	
* Correlation is significant at the 0.01 level (2-tailed)				
** Correlation is significant at the 0.001 level (2-tailed)				

 Table 19: Regional Universities Correlation of E Category Scores (Pearson r)

Within the Regional Universities classification, results show that there is a significant relationship between the effectiveness score and efficiency score among all geographical boundaries. The statistically significant, low to moderate, negative relationship among the subgroups parallels with findings from the National Universities and National Liberal Arts Colleges.

This finding suggests that institutions with high graduation and retention rates tend to score and rank low within the efficiency category. This can be attributed to institutions that receive high tuition revenue per full-time student equivalency tend to produce higher graduation and retention rates. How institutions allocate their revenue towards expenses is a contributing factor to the findings and thus, it is critical to evaluate the findings from the Tri-E model.

On the following page, Table 20 shows the four weight distributions of the Regional Universities by geographical boundary. The relationship between each of the weight distributions (in all sub group geographical boundaries) resulted in strong, positive statistically significant values. Consistent with the National Universities and National Liberal Arts Colleges, the weight distribution #1 that evenly calculates the three E components shows the strongest correlation among the other weight distributions. This finding also supports validating which weight distribution is the most appropriate for the Tri-E Model.

Tuble 20. Regional Oniversities	correlation	or weight bisti	ibution beore	b (I carbon I)
	Tri-E WD#1	Tri-E WD#2	Tri-E WD#3	Tri-E WD#4
	(Equal)	(Effectiveness)	(Efficiency)	(Expenditures)
	Score	Score	Score	Score
North (N=182)				
Tri-E WD#1 (Equal) Score	1.00	.892**	.942**	.925**
Tri-E WD#2 (Effectiveness) Score	.892**	1.00	.732**	.787**
Tri-E WD#3 (Efficiency) Score	.942**	.732**	1.00	.806**
Tri-E WD#4 (Expenditures) Score	.925**	.787**	.806**	1.00
South (N=128)				
Tri-E WD#1 (Equal) Score	1.00	.862**	.911**	.917**
Tri-E WD#2 (Effectiveness) Score	.862**	1.00	.632**	.748**
Tri-E WD#3 (Efficiency) Score	.911**	.632**	1.00	.749**
Tri-E WD#4 (Expenditures) Score	.917**	.748**	.749**	1.00
MidWest (N=150)				
Tri-E WD#1 (Equal) Score	1.00	.878**	.944**	.943**
Tri-E WD#2 (Effectiveness) Score	.878**	1.00	.714**	.776**
Tri-E WD#3 (Efficiency) Score	.944**	.714**	1.00	.845**
Tri-E WD#4 (Expenditures) Score	.943**	.776**	.845**	1.00
West (N=119)				
Tri-E WD#1 (Equal) Score	1.00	.881**	.905**	.934**
Tri-E WD#2 (Effectiveness) Score	.881**	1.00	.642**	.833**
Tri-E WD#3 (Efficiency) Score	.905**	.642**	1.00	.741**
Tri-E WD#4 (Expenditures) Score	.934**	.833**	.741**	1.00
** Correlation is significant at the 0.001 level (2-tailed)				

 Table 20: Regional Universities Correlation of Weight Distribution Scores (Pearson r)

Overall, each of the weight distributions correspond with one another in a positive direction; however, these results contribute to the potential finding that weight distribution #1 should be the primary method for calculating the Tri-E Model.

# **Regional Colleges – North, South, MidWest, West**

This category of institutions (Regional Colleges) as defined by the *US News* classification focus on undergraduate education, just as the National Liberal Arts Colleges do, but grant less than 50 percent of their degrees in liberal arts disciplines. At these schools, at least 10 percent of undergraduate degrees awarded are bachelor's degrees. The institutions are then subcategorized by geographical boundaries of North, South, Midwest and West, similar to the Regional University category. The results from the Pearson r correlation measuring the relationship between the E components are detailed in Table 21, below.

Tuble 21. Regional Coneges	Correlation of E	cutegory score		
	Effectiveness Score	Efficiency Score	Expenditures Score	
North (N=46)				
Effectiveness Score	1.00	058	.054	
Efficiency Score	058	1.00	.213	
Expenditures Score	.054	.213	1.00	
South (N=85)				
Effectiveness Score	1.00	369**	.041	
Efficiency Score	369**	1.00	013	
Expenditures Score	.041	013	1.00	
MidWest (N=91)				
Effectiveness Score	1.00	516**	109	
Efficiency Score	516**	1.00	.119	
Expenditures Score	109	.119	1.00	
West (N=41)				
Effectiveness Score	1.00	228	370	
Efficiency Score	282	1.00	062	
Expenditures Score	370	062	1.00	
** Correlation is significant at the 0.001 level (2-tailed)				

Table 21: Regional Colleges Correlation of E Category Scores (Pearson r)
Only the geographical boundary of South and MidWest yielded a statistically significant negative relationship between effectiveness and efficiency (r = -.369, N = 85, p < .001) and (r = -.516, N = 91, p < .001). The small subpopulation size of the North and West geographical boundaries may be a contributing factor to a non-significant finding.

A review of the correlations between the weight distributions within the Tri-E model are detailed in Table 22. Similar to the results found within the previous *US News* classification of institution groups, all of the geographical areas within the Regional Colleges resulted in a strong, positive statistically significant relationship between all weight distributions.

Table 22. Regional Coneges		Weight District	Julion Scores	(I carson I)
	Tri-E WD#1	Tri-E WD#2	Tri-E WD#3	Tri-E WD#4
	(Equal)	(Effectiveness)	(Efficiency)	(Expenditures)
	Score	Score	Score	Score
North (N=46)				
Tri-E WD#1 (Equal) Score	1.00	.952**	.964**	.966**
Tri-E WD#2 (Effectiveness) Score	.952**	1.00	.864**	.901**
Tri-E WD#3 (Efficiency) Score	.964**	.864**	1.00	.893**
Tri-E WD#4 (Expenditures) Score	.966**	.901**	.893**	1.00
South (N=85)				
Tri-E WD#1 (Equal) Score	1.00	.913**	.914**	.946**
Tri-E WD#2 (Effectiveness) Score	.913**	1.00	.727**	.839**
Tri-E WD#3 (Efficiency) Score	.914**	.727**	1.00	.785**
Tri-E WD#4 (Expenditures) Score	.946**	.839**	.785**	1.00
MidWest (N=91)				
Tri-E WD#1 (Equal) Score	1.00	.872**	.923**	.949**
Tri-E WD#2 (Effectiveness) Score	.872**	1.00	.666**	.800**
Tri-E WD#3 (Efficiency) Score	.923**	.666**	1.00	.812**
Tri-E WD#4 (Expenditures) Score	.949**	.800**	.812**	1.00
West (N=119)				
Tri-E WD#1 (Equal) Score	1.00	.882**	.947**	.905**
Tri-E WD#2 (Effectiveness) Score	.882**	1.00	.754**	.716**
Tri-E WD#3 (Efficiency) Score	.947**	.754**	1.00	.781**
Tri-E WD#4 (Expenditures) Score	.905**	.716**	.781**	1.00
** Correlation is significant at the 0.0	01 level (2-taile	d)		

Table 22: Regional Colleges Correlation of Weight Distribution Scores (Pearson r)

Additionally, Tri-E WD#1 (equal weight distribution of each E component) is found to have the strongest correlation output in each of the four geographical areas. This finding confirms that all ten categories of institutions within the Tri-E model have stronger, positive relationship among an equal weight distribution between the effectiveness, efficiency and expenditure components and will be used as the Tri-E Model for reporting results.

Thus, by referencing Research Question 1 (*How do four-year higher education institutions compare with one another based on a new evaluation model representing effectiveness, efficiency, and expenditures?*), the following table identifies the top 20 institutions using the new Tri-E Model.

National Universities	
SUNY at Binghamton	1
Yale University	2
SUNY College of Environmental Science and Forestry	3
Vanderbilt University	4
San Diego State University	5
Stony Brook University	6
Brigham Young University-Provo	7
University of Florida	8
Princeton University	9
University of Missouri-St Louis	10
Florida State University	11
University of Central Florida	12
University at Buffalo	13
Missouri University of Science and Technology	14
Maryville University of Saint Louis	15
University of California-Los Angeles	16
Clark University	17
University of Nevada-Reno	18
George Mason University	19
The University of Texas at Austin	20

Table 23: Tri-E Model Top 20 Institutions by Classification

National Liberal Arts Colleges	
Grove City College	1
Grinnell College	2
Soka University of America	3
Bryn Athyn College of the New Church	4
Berea College	5
New College of Florida	6
Westminster College	7
University of Minnesota-Morris	8
SUNY at Purchase College	9
Hanover College	10
Hendrix College	11
The College of Idaho	12
Westminster College	13
Centre College	14
Wofford College	15
Wesleyan College	16
Ave Maria University	17
University of North Carolina at Asheville	18
Agnes Scott College	19
Salem College	20
	]

Regional Universities - North	
CUNY Brooklyn College	1
CUNY Queens College	2
SUNY College at Geneseo	3
CUNY Bernard M Baruch College	4
SUNY College at Brockport	5
SUNY Institute of Technology at Utica-Rome	6
College of Staten Island CUNY	7
State University of New York at New Paltz	8
Rowan University	9
CUNY Hunter College	10
Saint Joseph's College-New York	11
SUNY Oneonta	12
CUNY Lehman College	13
SUNY College at Cortland	14
Worcester State University	15
West Chester University of Pennsylvania	16
Fitchburg State University	17
CUNY City College	18
Southern New Hampshire University	19
SUNY College at Plattsburgh	20
Regional Universities - South	
Regional Universities - South orehead State University	1
Regional Universities - South           orehead State University           Appalachian State University	1 2
Regional Universities - South         orehead State University         Appalachian State University         Tennessee Technological University	1 2 3
Regional Universities - South         orehead State University         Appalachian State University         Tennessee Technological University         James Madison University	1 2 3 4
Regional Universities - South         orehead State University         Appalachian State University         Tennessee Technological University         James Madison University         Union University	1 2 3 4 5
Regional Universities - South         orehead State University         Appalachian State University         Tennessee Technological University         James Madison University         Union University         University of Mary Washington	1 2 3 4 5 6
Regional Universities - South         orehead State University         Appalachian State University         Tennessee Technological University         James Madison University         Union University         Union University         University of Mary Washington         Bethel University	1 2 3 4 5 6 7
Regional Universities - South         orehead State University         Appalachian State University         Tennessee Technological University         James Madison University         Union University         Union University         Bethel University         Florida Gulf Coast University	1 2 3 4 5 6 7 8
Regional Universities - South         orehead State University         Appalachian State University         Tennessee Technological University         James Madison University         Union University         Union University         University of Mary Washington         Bethel University         Florida Gulf Coast University         The University of Tennessee-Martin	1 2 3 4 5 6 7 8 9
Regional Universities - South         orehead State University         Appalachian State University         Tennessee Technological University         James Madison University         Union University         Union University         Bethel University         Florida Gulf Coast University         The University of Tennessee-Martin         University of North Florida	1 2 3 4 5 6 7 8 9 10
Regional Universities - South         orehead State University         Appalachian State University         Tennessee Technological University         James Madison University         Union University         Union University         University of Mary Washington         Bethel University         Florida Gulf Coast University         The University of Tennessee-Martin         University of North Florida         Louisiana State University-Shreveport	1 2 3 4 5 6 7 8 9 10 11
Regional Universities - Southorehead State UniversityAppalachian State UniversityTennessee Technological UniversityJames Madison UniversityUnion UniversityUnion UniversityBethel UniversityFlorida Gulf Coast UniversityThe University of Tennessee-MartinUniversity of North FloridaLouisiana State University-ShreveportUniversity of North Georgia	1 2 3 4 5 6 7 8 9 10 11 12
Regional Universities - Southorehead State UniversityAppalachian State UniversityTennessee Technological UniversityJames Madison UniversityUnion UniversityUnion UniversityUniversity of Mary WashingtonBethel UniversityFlorida Gulf Coast UniversityThe University of Tennessee-MartinUniversity of North FloridaLouisiana State University-ShreveportUniversity of North GeorgiaUniversity of North Carolina Wilmington	1           2           3           4           5           6           7           8           9           10           11           12           13
Regional Universities - Southorehead State UniversityAppalachian State UniversityTennessee Technological UniversityJames Madison UniversityUnion UniversityUnion UniversityBethel UniversityFlorida Gulf Coast UniversityThe University of Tennessee-MartinUniversity of North FloridaLouisiana State University-ShreveportUniversity of North GeorgiaUniversity of North Carolina WilmingtonKennesaw State University	1 2 3 4 5 6 7 8 9 10 11 12 13 14
Regional Universities - Southorehead State UniversityAppalachian State UniversityTennessee Technological UniversityJames Madison UniversityUnion UniversityUnion UniversityUniversity of Mary WashingtonBethel UniversityFlorida Gulf Coast UniversityThe University of Tennessee-MartinUniversity of North FloridaLouisiana State University-ShreveportUniversity of North GeorgiaUniversity of North Carolina WilmingtonKennesaw State UniversityDelta State University	1           2           3           4           5           6           7           8           9           10           11           12           13           14
Regional Universities - Southorehead State UniversityAppalachian State UniversityTennessee Technological UniversityJames Madison UniversityUnion UniversityUnion UniversityBethel UniversityFlorida Gulf Coast UniversityThe University of Tennessee-MartinUniversity of North FloridaLouisiana State University-ShreveportUniversity of North GeorgiaUniversity of North Carolina WilmingtonKennesaw State UniversityDelta State University	1           2           3           4           5           6           7           8           9           10           11           12           13           14           15           16
Regional Universities - Southorehead State UniversityAppalachian State UniversityTennessee Technological UniversityJames Madison UniversityUnion UniversityUnion UniversityUniversity of Mary WashingtonBethel UniversityFlorida Gulf Coast UniversityThe University of Tennessee-MartinUniversity of North FloridaLouisiana State University-ShreveportUniversity of North GeorgiaUniversity of North Carolina WilmingtonKennesaw State UniversityDelta State UniversityNicholls State UniversityAustin Peay State University	1           2           3           4           5           6           7           8           9           10           11           12           13           14           15           16           17
Regional Universities - Southorehead State UniversityAppalachian State UniversityTennessee Technological UniversityJames Madison UniversityUnion UniversityUnion UniversityUniversity of Mary WashingtonBethel UniversityFlorida Gulf Coast UniversityThe University of Tennessee-MartinUniversity of North FloridaLouisiana State University-ShreveportUniversity of North GeorgiaUniversity of North GeorgiaUniversity of North Carolina WilmingtonKennesaw State UniversityDelta State UniversityNicholls State UniversityAustin Peay State UniversityWinthrop University	1           2           3           4           5           6           7           8           9           10           11           12           13           14           15           16           17           18
Regional Universities - Southorehead State UniversityAppalachian State UniversityTennessee Technological UniversityJames Madison UniversityUnion UniversityUnion UniversityUniversity of Mary WashingtonBethel UniversityFlorida Gulf Coast UniversityThe University of Tennessee-MartinUniversity of North FloridaLouisiana State University-ShreveportUniversity of North GeorgiaUniversity of North Carolina WilmingtonKennesaw State UniversityDelta State UniversityNicholls State UniversityAustin Peay State UniversityGeorgia College and State University	1           2           3           4           5           6           7           8           9           10           11           12           13           14           15           16           17           18           19

Peru State College	1
Marygrove College	2
Truman State University	3
MidAmerica Nazarene University	4
Southwest Baptist University	5
University of Wisconsin-La Crosse	6
University of Nebraska at Kearney	7
Southwest Minnesota State University	8
University of Northern Iowa	9
University of Wisconsin-Eau Claire	10
University of Wisconsin-Stevens Point	11
Wayne State College	12
University of Wisconsin-Green Bay	13
University of Wisconsin-Whitewater	14
University of Wisconsin-Oshkosh	15
Winona State University	16
University of Wisconsin-Stout	17
Pittsburg State University	18
Saint Cloud State University	19
Missouri State University-Springfield	20
<b>Regional Universities - West</b>	
0	
California State University-Long Beach	1
California State University-Long Beach California State Polytechnic University-Pomona	1
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands	1 2 3
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno	1 2 3 4
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University	1 2 3 4 5
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton	1 2 3 4 5 6
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-San Marcos	1 2 3 4 5 6 7
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-San Marcos California State University-Chico	1 2 3 4 5 6 7 8
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-San Marcos California State University-Chico Western Governors University	1 2 3 4 5 6 7 8 9
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-San Marcos California State University-Chico Western Governors University Weber State University	1 2 3 4 5 6 7 8 9 10
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-Fullerton California State University-San Marcos California State University-Chico Western Governors University Weber State University California State University	1 2 3 4 5 6 7 8 9 10 11
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-San Marcos California State University-Chico Western Governors University Weber State University California State University California State University California State University California State University-Los Angeles California State University-Northridge	1 2 3 4 5 6 7 8 9 10 11 12
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-Fullerton California State University-Chico Western Governors University Weber State University California State University California State University California State University California State University California State University-Northridge California State University-Sacramento	1           2           3           4           5           6           7           8           9           10           11           12           13
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-San Marcos California State University-Chico Western Governors University Weber State University California State University California State University California State University California State University-Los Angeles California State University-Northridge California State University-Sacramento California State University-Monterey Bay	1           2           3           4           5           6           7           8           9           10           11           12           13           14
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-Fullerton California State University-Chico Western Governors University Weber State University California State University California State University California State University California State University-Northridge California State University-Saramento California State University-Monterey Bay California State University-San Bernardino	1           2           3           4           5           6           7           8           9           10           11           12           13           14           15
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-San Marcos California State University-Chico Western Governors University Weber State University California State University California State University California State University-Los Angeles California State University-Northridge California State University-Sacramento California State University-Monterey Bay California State University-San Bernardino California State University-Bakersfield	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-Fullerton California State University-Chico Western Governors University Weber State University California State University California State University California State University California State University-Northridge California State University-Northridge California State University-Saramento California State University-San Bernardino California State University-Bakersfield Trinity University	1           2           3           4           5           6           7           8           9           10           11           12           13           14           15           16           17
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University-Fresno California State University-Fullerton California State University-San Marcos California State University-Chico Western Governors University Weber State University California State University California State University-Los Angeles California State University-Northridge California State University-Sacramento California State University-Monterey Bay California State University-San Bernardino California State University-Bakersfield Trinity University Colorado Christian University	1           2           3           4           5           6           7           8           9           10           11           12           13           14           15           16           17           18
California State University-Long Beach California State Polytechnic University-Pomona California State University-Channel Islands California State University-Fresno San Jose State University California State University-Fullerton California State University-Fullerton California State University-Chico Western Governors University Weber State University California State University California State University California State University California State University-Northridge California State University-Saramento California State University-Saramento California State University-San Bernardino California State University-Bakersfield Trinity University Colorado Christian University California State University-Stanislaus	1           2           3           4           5           6           7           8           9           10           11           12           13           14           15           16           17           18           19

Regional Colleges - North	
Cooper Union for the Advancement of S&A	1
Farmingdale State College	2
CUNY York College	3
Wilson College	4
University of Maine at Fort Kent	5
University of Maine at Presque Isle	6
University of Maine at Farmington	7
College of Our Lady of the Elms	8
Massachusetts Maritime Academy	9
Thomas College	10
SUNY Maritime College	11
St Francis College	12
Geneva College	13
Colby-Sawyer College	14
Messiah College	15
Cazenovia College	16
Keystone College	17
Seton Hill University	18
Wentworth Institute of Technology	19
Lebanon Valley College	20
Regional Colleges - South	
University of South Carolina-Aiken	1
University of South Carolina-Upstate	2
Clayton State University	3
John Brown University	4
Bluefield State College	5
Brescia University	6
Elizabeth City State University	7
Concord University	8
Bryan College-Dayton	9
University of South Carolina-Beaufort	10
North Greenville University	11
Glenville State College	12
Asbury University	13
University of the Ozarks	14
Coker College	15
Blue Mountain College	16
West Virginia Wesleyan College	17
Mid-America Christian University	18
West Liberty University	19
Martin Methodist College	20

Regional Colleges – Mid West	
College of the Ozarks	1
Grace Bible College	2
Northern State University	3
University of Minnesota-Crookston	4
Indiana University-Kokomo	5
Chadron State College	6
Purdue University-North Central Campus	7
Grace College and Theological Seminary	8
Indiana University-East	9
Missouri Western State University	10
Saint Mary-of-the-Woods College	11
Martin Luther College	12
Missouri Southern State University	13
Valley City State University	14
Mount Marty College	15
Morningside College	16
Bluffton University	17
Urbana University	18
Notre Dame College	19
Lake Superior State University	20
Regional Colleges – West	
Brigham Young University-Idaho	1
Oregon Institute of Technology	2
Nevada State College	3
Metropolitan State University of Denver	4
University of the Southwest	5
The University of Montana-Western	6
Jarvis Christian College	7
California Maritime Academy	8
Brigham Young University-Hawaii	9
Hope International University	10
Montana Tech of the University of Montana	11
Oklahoma Baptist University	12
Lewis-Clark State College	13
Montana State University-Northern	14
Utah Valley University	15
Oklahoma Panhandle State University	16
Trinity Lutheran College	17
Mid-Atlantic Christian University	18
Northwest Christian University	19
University of Houston-Downtown	20

# **Research Question 2**

How do the institutional ranking results from U.S. News compare to those from the new Tri-E evaluation tool/model?

As determined within research question 1 by referencing the strongest correlation results of each weight distribution, the equal weight distribution of the scores is applied as the most appropriate for the Tri-E Model. Based on those findings, the results of the highest ranked institutions from *US News* and results of the highest ranked institutions from the Tri-E Model are detailed by classification in the following tables.

For the National Universities category, three institutions (Princeton University, Yale University and Vanderbilt University) are found ranked in the top 20 by both models and detailed in Table 24 on the following page. Additionally, a listing of the top 20 *US News* institutions by rank is detailed in Table 25 along with the corresponding rank of those institutions with the Tri E Model.

US News institution name	US News Rank	Tri-E Model institution name	Tri-E Rank
Princeton University*	1	SUNY at Binghamton	1
Harvard University	2	Yale University*	2
Yale University*	3	SUNY College of Environmental Science and Forestry	3
Columbia University in the City of New York	4	Vanderbilt University*	4
Stanford University	5	San Diego State University	5
University of Chicago	5	Stony Brook University	6
Duke University	7	Brigham Young University-Provo	7
Massachusetts Institute of Technology	7	University of Florida	8
University of Pennsylvania	7	Princeton University*	9
California Institute of Technology	10	University of Missouri-St Louis	10
Dartmouth College	10	Florida State University	11
Johns Hopkins University	12	University of Central Florida	12
Northwestern University	12	University at Buffalo	13
Brown University	14	Missouri University of Science and Technology	14
Washington University in St Louis	14	Maryville University of Saint Louis	15
Cornell University	16	University of California-Los Angeles	16
Vanderbilt University*	17	Clark University	17
Rice University	18	University of Nevada-Reno	18
University of Notre Dame	18	George Mason University	19
Emory University	20	The University of Texas at Austin	20
Georgetown University	20		
University of California-Berkeley	20		
*Denotes top ranking institution by both US New	s and Tri-E n	nodel	

Table 24: US News Ranking and Tri E Model top 20 Institutions – National Universities

Source: National University Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

Institution	Tri E Rank	US News Rank
Princeton University*	9	1
Harvard University	101	2
Yale University*	2	3
Columbia University in the City of New York	237	4
Stanford University	159	5
University of Chicago	235	5
Duke University	136	7
Massachusetts Institute of Technology	252	7
University of Pennsylvania	215	7
California Institute of Technology	201	10
Dartmouth College	184	10
Johns Hopkins University	193	12
Northwestern University	226	12
Brown University	189	14
Washington University in St Louis	32	14
Cornell University	187	16
Vanderbilt University*	4	17
Rice University	21	18
University of Notre Dame	139	18
Emory University	194	20
Georgetown University	221	20
University of California-Berkeley	94	20
*Denotes top ranking institution by both US News and Tri-E	model	

Table 25: US News Ranking of Institutions – National Universities

The National Liberal Arts Colleges results, displayed in Table 26, shows one institution (Grinnell College) as the only to receive a top ranking by both models. The United States Naval Academy (originally ranked as 12<sup>th</sup> for *US News*) was eliminated from the ranking scores due to the lack of data required for the Tri-E methodology. In addition, a listing of the top 20 *US News* institutions for the National Liberal Arts Colleges by rank is detailed in Table 27 along with the corresponding rank of those institutions with the Tri E Model.

Source: National University Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

US News institution name	US News Rank		Tri-E Model institution name	Tri-E Rank
Williams College	1		Grove City College	1
Amherst College	2		Grinnell College*	2
Swarthmore College	3		Soka University of America	3
Bowdoin College	4		Bryn Athyn College of the New Church	4
Middlebury College	4		Berea College	5
Pomona College	4		New College of Florida	6
Carleton College	7		Westminster College	7
Wellesley College	7		University of Minnesota-Morris	8
Claremont McKenna College	9		SUNY at Purchase College	9
Davidson College	9		Hanover College	10
Haverford College	9		Hendrix College	11
Vassar College	13		The College of Idaho	12
Hamilton College	14		Westminster College	13
Washington and Lee University	14		Centre College	14
Harvey Mudd College	16		Wofford College	15
Grinnell College*	17		Wesleyan College	16
Wesleyan University	17		Ave Maria University	17
Colgate University	20		University of North Carolina at Asheville	18
Smith College	20		Agnes Scott College	19
			Salem College	20
*Denotes top ranking institution by bo	th US News a	and '	Tri-E model	

# Table 26: US News Ranking and Tri E Model top 20 Institutions – National Liberal Arts Colleges

# For US News Data:

Source: National Liberal Arts Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Tri E Rank	US News Rank
Williams College	120	1
Amherst College	53	2
Swarthmore College	113	3
Bowdoin College	186	4
Middlebury College	231	4
Pomona College	46	4
Carleton College	151	7
Wellesley College	23	7
Claremont McKenna College	188	9
Davidson College	35	9
Haverford College	118	9
Vassar College	101	13
Hamilton College	170	14
Washington and Lee University	173	14
Harvey Mudd College	147	16
Grinnell College*	2	17
Wesleyan University	169	17
Colgate University	180	20
Smith College	78	20
*Denotes top ranking institution by both US Ne	ws and Tri-E model	

Table 27: US News Ranking of Institutions – National Liberal Arts Colleges

Source: National Liberal Arts Colleges Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

The Regional Universities categorizes institutions into smaller sub groups based on

geographical boundary. The following table (Table 28) identifies those institutions that rank the

highest on both the Tri-E model and US News rankings.

US News institution name	US News Rank		Tri E Model Rank
<b>Regional Universities - North</b>			
SUNY College – Geneseo	15		3
Rowan University	18		9
<b>Regional Universities - South</b>			
James Madison University	6		4
Appalachian State University	9		2
Union University	13		5
University of Mary Washington	13		6
<b>Regional Universities - MidWest</b>			
Truman State University	10		3
University of Northern Iowa	13		9
<b>Regional Universities - West</b>			
None			
		1	

Table 28: US News Ranking and Tri E Model top 20 Institutions – Regional Universities

Source: Regional University Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

Each sub group within the Region University category resulted in institutions that ranked in both models for the exception of the West geographical boundary. The sub group that maintains the highest number of institutions (in both models) is the South geographical boundary with 4 out of 20 or 20%.

The Regional Colleges top institutions that ranked within the top 20 for both models are detailed in Table 29. A greater number of institutions is found within this category in comparison to the other *US News* classification group of institutions. The North geographical boundary resulted in 10 institutions that ranked in the top 20 for both models meaning that within the top 20 US News ranking institutions, 50% were also found highly ranked within the Tri-E model. Similarly, the West geographical boundary yielded 8 institutions or 40%.

US News institution name	US News Rank		Tri E Model Rank	
Regional Colleges - North				
Cooper Union for the Advancement of Science and Art	1		1	
Messiah College	5		15	
Lebanon Valley College	6		20	
Massiah Maritime Academy	7		9	
Seton Hill University	12		18	
Wentworth Institute of Technology	12		19	
Wilson College	16		4	
College of Our Lady of the Elms	17		8	
Geneva College	17		13	
Colby-Sawyer College	20		14	
Regional Colleges – South				
John Brown University	2		4	
Asbury University	4		13	
University of the Ozarks	6		14	
West Virginia Wesleyan College	14		17	
Coker College	16		15	
Regional Colleges – MidWest				
College of the Ozarks	10		1	
Saint Mary-of-the-Woods College	18		11	
Regional Colleges – West				
California Maritime Academy	2		8	
Oklahoma Baptist University	5		12	
Oregon Institute of Technology	6		2	
Brigham Young University – Idaho	13		1	
University of Montana Western	17		6	
Brigham Young University – Hawaii	18		9	
Lewis-Clark State College	20		13	
Northwest Christian University	20		19	

Table 29: US News Ranking and Tri E Model top 20 Institutions – Regional Colleges

Source: Regional Colleges Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

### **Spearman's rho Correlation**

In order to determine if there is a significant relationship in rank order between the US *News* rankings and that of the Tri-E model, the Spearman's rank-order correlation (Spearman's rho) test was conducted for each of the 10 categories. The Spearman's rho is a rank randomized test and nonparametric version of the Pearson r correlation that measures the strength of association between two ranked variables (Laerd Statistics, 2014) where the value r = 1 means a perfect positive correlation and the value r = -1 means a perfect negative correlation.

Table 30, shown below, provides the correlation output for *US News* and the Tri-E model ranks. The sample size of the various categories of institutions is less than the original sample size presented in research question 1 and the first section of addressing research question 2. The reduction is due to the number of 'rank not published' or 'unranked' designations from *US News*. Each category varies by published ranks of institutions, depending on the number of institutions within the group.

Institution Category	N	US News/Tri-E Rank		
National Universities	204	.014		
National Liberal Arts Colleges	177	170*		
Regional Universities – North	134	156		
Regional Universities – South	95	323**		
Regional Universities – MidWest	109	299**		
Regional Universities – West	85	394**		
Regional Colleges – North	34	.230		
Regional Colleges – South	68	.078		
Regional Colleges – MidWest	71	125		
Regional Colleges - West	24	093		
* Correlation is significant at the 0.01 level (2-tailed) ** Correlation is significant at the 0.001 level (2-tailed)				

 Table 30: Tri E Model Rank and US News Rank (Spearman's rho)

The results of significant findings detailed in Table 27 are found within the National Liberal Arts Colleges and Regional Universities – South, MidWest and West classifications. Each result demonstrates a statistically negative relationship with Regional Universities – West having the strong relationship at (r = -.374, N = 85, p < .001). This suggests that those institutions in the high ranking order for *US News* maintain a low ranking within the Tri-E Model.

This result suggests that by referencing the ranks of institutions, the Tri-E Model is significantly different than *US News*. Approximately, four out the ten categories were found statistically significant.

#### Summary

The purpose of this study was to identify a thorough and comprehensive evaluation tool for measuring institutional performance of colleges and universities. With the development of the Tri-E Model which evaluates and measures the performance of institutions based on effectiveness, efficiency, and expenditures, this investigative, non-experimental study addressed two critical research questions in this chapter.

In order to address the first research question (How do four-year higher education institutions compare with one another based on a new evaluation model representing effectiveness, efficiency, and expenditures?), determining the most appropriate weight distribution for the Tri-E Model was critical. The results identified an equal weight distribution of each E component in calculating the Tri-E Model score. Using a percentile scale of the raw score for each E component, a value for the Tri-E Model was determined and a rank from highest to lowest within the categories of institutions was established, addressing research question 1. The second research question required the comparison of the Tri-E Model rankings with the rankings of *US News*. These results showed some statistical significance of rank order relationships between the two models, but not throughout all of the 10 institutional categories. This result suggests that the methodologies between the two ranking models are different. The Tri-E Model focuses on three specific components that are solely derived from a quantitative data collection source (IPEDS) and not a combination of IPEDS and survey data, like *US News*.

Additionally, the weight methodology in *US News* is identified with various values based on the multitude of variables measured. The reasoning justifying the various weight values in *US News* is not driven by any statistical measure, but by a percentage weight consistent with the perceived judgment "about how much a measure matters" (Morse and Flanigan, 2013, para 3). The given percentage weights in each category are chosen by analysts at *U.S. News* which are based on "years of reporting about education, on reviews of research about education and after consultation with experts in higher education" (U.S. News Staff, 2013, para 4).

The results in this chapter presented a statistical test approach towards identifying the best weight distribution for the Tri-E model, far from a subjective approach. Although the evidence showed limited significant differences between the two models by rank output of institutions, the methodological variable and weight difference between the two models are clear.

The final chapter discusses in more detail these results found in chapter four and suggests implications and directions for future research.

#### **Chapter Five**

### CONCLUSION

Ongoing debatable issues continue to surround American higher education that fuel researchers' efforts in further examining the contemporary system. Whether driven by accountability or policy formation, many areas within the field require investigative action. Given that the National Center for Education Statistics projects by the year 2021, enrollment in postsecondary degree granting institutions will rise by 15 percent to 24 million (Hussar and Bailey, 2013), addressing critical issues within the system remains vital. As the system grows, so does the list of necessary benchmarks for checks and balances. One area lacking with the system is a comprehensive evaluation model that can directly benefit many contributors and stakeholders within the higher education field.

For years, university rankings have been the main source of institutional performance and evaluation (Pusser and Marignson, 2013). The perceived popularity of rankings by *US News* has grown since the early 1980's as well as other well-known sources such as *Forbes, Washington Monthly*, and *Money*. Each institutional ranking system differs by methodology, selection criteria of institutions, and weighting of variables used; however, the underpinning draw is that institutions and prospective undergraduate seekers are eager to know how well institutions perform.

With institutional ranking serving as the current method and the anticipated growth of higher education, prospective students should have a comprehensive evaluating mechanism that can assist their decision making process in identifying the best college or university. Additionally, institution leaders should have an instrument or measuring tool evaluating annual performance to help guide strategic decision making, academic programming, or policy formation as well as monitoring its position among competitors.

Therefore, this study focused on the development of a new institutional ranking model for colleges and universities by demonstrating significant differences within the methodological approach and ranking results against *US News*. The creation of a comprehensive model that contains variables measured and supported by research helps substantiate credibility of its findings. This study helped validate that approach by creating a three component model that captured elements of effectiveness (high graduation and retention rates), efficiency (low dependency on tuition revenue per enrollment), and expenditures (key educational expense allocations of instruction, academic support and student services per enrollment and relative to total revenue received by the institution<sup>6</sup>) and calling it the Tri-E Model.

This study showed a new variation of institutional rankings that was built upon the work of the BMIEE model and incorporated key elements that other researchers within the field supported as critical components for evaluating colleges and universities (See Table 4). By connecting existing theory (Cameron's Domain of Organizational Effectiveness Theory, Berger's Organization Behavior Theory, and Astin's Student Involvement Theory) to help address a critical area within the higher education field and by examining the gamete of quantitative variables available, the Tri-E Model was developed.

#### **Summary of Findings**

The following summarizes the key outcomes from the investigative study for both research questions posed. First, this study reviewed findings of institution scores based on each E component and listed the top 20 institutions within each classification to investigate any patterns or unusual outcomes, specifically when the corresponding rank position was determined. One

<sup>&</sup>lt;sup>6</sup> Total revenue excludes 'hospital revenue' received by the institution.

consistent pattern exhibited in many classifications was the number of public institutions that scored higher than most private institutions within the efficiency score. Given that most public institutions receive state appropriations to help offset the rising costs of tuition, the corresponding value within the 'tuition revenue per enrollment' is lower than most private institutions. Although public institutions seek additional funding sources to help operations, private institutions must work at a faster pace with higher income target goals to help counterweigh the state appropriation income. Private institutions (not all) tend to have a strong dependency on tuition revenue to help stay afloat. This outcome was apparent in most classifications within the Tri-E Model.

Another finding from the study was attributed to a Pearson r correlational test that was conducted to explore the relationship between each E component. The results showed, regardless of classification, a statistically negative relationship between the effectiveness and efficiency components, suggesting that within the Tri-E Model, increases in an institution's effectiveness score, produces decreases in an efficiency score. This means that those institutions that have high graduation and retention rates may be depending heavily on tuition revenue. The strongest correlation outcome was found within the National Liberal Arts Colleges (r = -636, N = 239, p < .001). The pattern among the list of institutions detailed many private institutions within the high ranking effectiveness category, yet low efficiency category (specifically within the National Universities, National Liberal Arts Colleges and Regional Universities classifications). This outcome was anticipated considering the efficiency measure rewards institutions that operate with a low dependency on tuition (given that most private institutions rely heavily on tuition revenue).

This study also focused on defining the most appropriate weight distribution for the model. This critical determination is a key element that distinctively compares to the methodological approach of *US News*. Rather than claiming a random, subjective approach to the weight distribution that is supported by "years of experience in the field" (US News Editors, 2013a, para 4), this study tested four different weight distributions and found the most appropriate approach for the Tri-E Model. Using a Pearson r bivariate correlational test, the results presented the strongest, positive statistically significant relationship of an equal distribution calculation among the three E components. Although the other weight distributions were all statistically significant, the equal distribution remained the strongest within each of the 10 classifications. Therefore, the equal distribution outcome was used to address the second research question of this study.

A review of the institutional ranking results from the Tri-E Model compared to the ranking results from *US News* found similar institutions within the top 20 in all classifications, except the Regional Universities – West. Ranging from two to ten institutions within both ranking systems among the nine classifications, the determination of a significant difference was warranted. Thus, by using the Spearman's rho non-parametric test that measures the strength of association between two ranked variables, a significant relationship was found within the National Liberal Arts Colleges and Regional Universities – South, MidWest and West classifications.

Each result demonstrated a statistically negative relationship with Regional Universities – West having the strong relationship at (r = -.374, N = 85, p < .001). This finding suggests that those institutions in the high ranking order for *US News* maintain a low ranking within the Tri-E Model. This result suggests that by referencing the ranks of institutions, the Tri-E Model is

significantly different than *US News*. Approximately, four out the ten categories were found statistically significant. Although the evidence showed limited significant differences between the two models by rank output of institutions, the methodological variable and weight difference between the two models are clear.

#### **Differences between the Models**

The initial intention of this study was to neither prove differences between the newly proposed conceptual model (Tri-E Model) and *US News* nor demonstrate similarities. The intention was to develop a model that is based on empirical findings and supported by research within the field, given that the most popular ranking source (*US News*) does not build its methodology on these foundations. The higher education community and public tend to rely on annual performance based on a questionable methodological approach by *US News*.

By demonstrating a new model and comparing the results of the rankings to *US News*, it is interesting to find some similarities and differences (based on the classifications). Many factors can be attributed to the similarities and differences. Graduation and retention rates are both significant components of both models and based on the effectiveness component results with *US News* results, the greatest similarities are present (within most classifications).

Consequently, one of the largest weighted components (the undergraduate academic reputation component) from *US News* is not included with the Tri-E Model. This may be attributed to the statistical significant different findings from the rankings. Others may be attributed to the decisions made as a result of the literature review findings in Chapter Two. For example, student selectivity was not incorporated in the final methodology of the Tri-E Model. Initially, the intention was to include student selectivity as a factor within the Tri-E Model which focuses on the abilities and ambitions of students. This component is included within *US News* 

rankings (Average ACT/SAT scores, those who graduated in to 10% of high school class, and acceptance rate); however, the purpose of the Tri-E model is to evaluate the performance of an institution at the institution level, not student level. Hence, it was not included. Considering that researchers demonstrate the effect of student selectivity on graduation rates and that graduation rates are an integral part of the Tri-E Model, the student selectivity variables were not included.

Additionally, the financial resources component of *US News* was weighted at 10% within the methodology and the Tri-E Model placed greater emphasis on the proper allocation of revenue towards key expense categories. The Tri-E Model increased the weight to one-third of the final score, thus adjusting the rank position of institutions. How effectively an institution directs its resources is a strong factor for the Tri-E Model and is both supported by other researchers and reinforced by theoretical models of organizational effectiveness such as Berger.

## **Implications of this Study**

The findings of this study have important implications for many stakeholders within the higher education field including college seekers, researchers, and institutional leaders. Given that so many college seekers use institutional rankings as a source when determining which college or university is the best fit (Wilson and Adelson, 2012), the Tri-E Model provides a more reliable source in comparison to *US News*. Rather than focusing on the academic reputation game or a source that may lack support from other researchers within the field, college seekers now have a resource that is built on measurable variables that are used by other investigational studies. These researchers agree that the methodological framework should be based on empirical, objective data (Myers and Robe, 2009; Tierney, 2003; Gladwell, 2011; Diver, 2005; Thompson, 2003; Gater, 2002; Ascione, 2012) and in essence, reliable so that college seekers can be better informed.

For researchers, these findings help support those who express arguments against *US News* and criticize its flaws. Given that so many classifications demonstrated statistically significant differences between both models, the Tri-E Model favors the argument to reform *US News* methodology. In addition, the Tri-E Model is yet another resource that joins the list of many addressing the shortfalls and gaps among institutional rankings by developing a more sound methodology based on institutional behavior and institutional outcomes. Fellow researchers can use the Tri-E Model methodology when creating new investigational studies in further addressing the shortfalls and gaps.

For institutional leaders, the findings support those leaders who make strategic decisions based on ranking outcomes in efforts of improving and climbing position. Knowing that the reputation component is no longer an essential piece of the methodology, leaders can rely on these set of measures as a basis of benchmarking comparison among peers. Given that all bias and subjective opinions are removed and an objective, quantitative comparative analysis serves as the primary measure, more leaders may alter their opinion of institutional ranking from being critical to supportive.

Conversely, what remains within the Tri-E Model is the homogenous classifications of institutions, which contradicts the premise that most post-secondary institutions work to be different from one another and strive to work towards a specific vision, supported by their mission and purpose. Leaders would; however, have access to the full list of institution scores and rank for each measure, something not available by *US News*. By gaining access, each institution is available to select key institutions for peer analysis, competitor analysis, and aspirant analysis.

## **Suggestions for Future Research**

While this study attempted to develop a comprehensive evaluation tool for institutions, there are other factors that can be incorporated within the methodological framework. The Tri-E Model's exhibits a methodological approach without subjective elements such as data from an academic reputation survey, nor random and unsupportive weight calculations of its components, something *US News* cannot endorse.

Researchers agree that prospective students should information that is based on empirical, objective data and not subjective (based on reputational rankings) (see for example, Myers and Robe, 2009; Tierney, 2003; Gladwell, 2011; Diver, 2005; Thompson, 2003, Gater, 2002; Ascione, 2012). Hence, the Tri-E Model focuses on three specific components that are solely derived from a quantitative data collection source (IPEDS) and not a combination of IPEDS and survey data. However, other areas of improvement are necessary and hopefully, this study will initiate other research questions that could assist in further evaluation of institutions, enhance a better model for ranking and formulate new research questions for investigational study.

First, one suggestion for future research would be to include student engagement data into the Tri-E Model, converting it to 4-EM. Researchers have noted, based on Astin's Student Involvement Theory that student engagement on campus is related to the overall outcome of graduation and retention rates (1993). Additionally, student learning outcomes, student-faculty interactions, and student involvement on campus are integral to the overall evaluation of an institution and should be taken into account. By taking the results of this study, a future analysis can focus on one classification of institutions and incorporate student engagement data and determine if the incorporation of the engagement data makes a statistical difference. Second, expanding the elements of this study and focus on community colleges would worthwhile. Since *US News* does not include community colleges into the analysis, the Tri-E Model can be compared to Aspen Institute, which conducts an institutional performance analysis of community colleges and schools. This organization ranks institutions based on the Aspen Prize for Community College Excellence rubric; thus, some investigation and research on the methodology of Aspen's Institute is required for the comparative analysis, but manageable.

Third, delving further into the appropriate weights for each category can be explored. Given that empirical data is not currently available to determine accurate weights for analysis, an initial objective measurement is not attainable. The current weights in this study were based on a subjective judgment with influence from literature, and supported by statistical analysis; however, greater specificity is warranted. Probing into the most statistically sound weight distribution can further enhance the results and be used as a guide for future research. Other institutional ranking publications state their weight percentages, but many remain conservative regarding justification.

Fourth, a comparative analysis can be done using the Tri-E Model against the rankings of *Washington Monthly, Forbes,* and *Money* (to name a few). It would be interesting to discover how the Tri-E Model compares, based on statistically significant differences, with other institutional rankings sources. The classification of institutions, based on each source would be necessary. Then, an additional study investigating the results of the comparable difference between the Tri-E Model against all sources can be conducted.

Fifth, from this study, the efficiency category that evaluates tuition revenue, per full time student equivalency, demonstrated similar findings among private institutions. Most of the outcomes appeared to penalize private institutions due to their high dependence on tuition whereas public institutions generally receive state appropriations to offset the tuition costs. To better measure this component, one recommendation for future research is to investigate the change in tuition costs from the year prior. Those institutions with no or minimal increases would score higher than others who contribute to the rising costs in higher education.

Another recommendation for future research (sixth) includes redefining the efficiency measure entirely. Considering the Tri-E Model incorporates the a review of all revenue, relative to three key expense categories within the expenditures category, the efficiency component can be redefined as an academic efficiency measure. By measuring the 'academic efficiency' of an institution, rather than a revenue generating measure, other variables can be investigated. Contingent upon additional research, other variables can be combined to redefine the efficiency component including, but not limited to, class size (Chapman and Ludlow, 2010), academic staff to non-academic staff ratios, as well as academic library usage and facilities<sup>7</sup> (Soria, Fransen, & Nackerud, 2014). Based on an academic approach, this may provide a better balance of institutional measures rather than a high focus on revenue and costs.

#### **Concluding Comments**

Most colleges and universities function independently and lack the wherewithal of measuring performance areas of effectiveness or efficiency. This study aided in the development of a new institutional ranking model based on thorough and comprehensive measures, supported in research, that evaluate a college or university. With the assistance of other researchers within the field as noted within this study and the current methodological framework of *US News*, this new model can help institutions gauge their efforts among competitors based on effectiveness, efficiency, and their expenditures, based on revenue.

<sup>&</sup>lt;sup>7</sup> Academic Libraries is a new IPEDS component that will be available for analysis in the Fall of 2015.

The goal was to conjoin many factors that contribute to the overall performance of a higher education institution and provide a comparative view against current ranking models. In turn, and because of this study, insight into institutional performance continues to flourish and expand, serving as an influential mechanism for prospective students when deciding what institution best meets their academic needs. Additionally, university leaders gained an additional resource to reference when measuring their position among competitors across the country.

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## APPENDIX

#### Table 31: National Universities Score and Rank

institution name	Effectiv Standar Score/I	eness dized Rank	Efficie Standar Score/I	ency dized Rank	Expend Standar Score/I	itures dized Rank	Tri E V (Equ Score/2	VD#1 (al) Rank	Tri-E V (Effectiv Score/F	VD#2 eness) Rank	Tri-E \ (Effici Score/	WD#3 ency) Rank	Tri-E V (Expend Score/I	VD#4 itures) Rank	US News Rank
Adelphi University	0.0708	133	-1.0423	216	0.784	59	0.6012	208	0.6416	204	0.5548	219	0.6071	136	152
American University	0.7284	75	-2.3894	266	0.453	85	0.5083	256	0.5964	240	0.4025	267	0.5260	250	75
Andrews University	-0.2753	161	-0.1855	175	0.520	79	0.6418	167	0.6592	177	0.6378	178	0.6284	103	181
Arizona State University-Tempe	-0.3100	163	0.2822	142	0.031	123	0.6556	145	0.6683	157	0.6769	136	0.6217	116	142
Ashland University	-0.5176	181	0.2452	149	0.806	57	0.6783	114	0.6776	145	0.6917	116	0.6658	60	RNP
Auburn University	0.4169	96	0.1624	153	-0.962	228	0.6357	135	0.6804	109	0.6546	163	0.5722	201	91
Azusa Pacific University	0.0015	142	-0.5845	197	1.131	32	0.6513	131	0.6767	133	0.6205	187	0.6569	61	173
Ball State University	-0.4138	171	0.8712	64	0.093	116	0.7015	61	0.6988	89	0.7474	38	0.6583	65	181
Barry University	-1.4867	252	-0.3642	186	1.674	14	0.6207	249	0.5983	253	0.6111	193	0.6528	81	RNP
Baylor University	0.5553	88	-0.6503	198	1.225	27	0.6778	53	0.7171	47	0.6363	180	0.6800	35	75
Benedictine University	-0.6907	197	0.3668	130	1.749	12	0.7235	48	0.7050	84	0.7330	54	0.7326	17	RNP
Biola University	0.0708	133	-0.7880	206	0.106	115	0.5905	228	0.6336	217	0.5624	216	0.5755	202	177
Boston College	1.4206	26	-1.7852	251	0.222	104	0.5813	174	0.6770	95	0.4943	247	0.5726	181	31
Boston University	1.0399	46	-1.7961	252	0.704	66	0.5839	191	0.6648	137	0.4956	246	0.5914	149	41
Bowie State University	-1.3829	249	1.2471	5	-0.264	151	0.6676	190	0.6373	230	0.7450	41	0.6204	139	RNP
Bowling Green State University-Main Campus	-0.6215	193	0.7340	76	-0.247	149	0.6642	151	0.6631	175	0.7110	87	0.6184	131	181
Brandeis University	1.3514	31	-0.7014	200	0.027	124	0.6575	40	0.7315	25	0.6179	190	0.6230	84	32
Brigham Young University-Provo	0.6938	76	1.1480	18	-0.343	158	0.7589	7	0.7831	8	0.8074	6	0.6861	31	62
Brown University	1.5936	8	-2.0538	261	0.200	109	0.5669	189	0.6726	99	0.4671	258	0.5611	199	14
California Institute of Technology	1.4552	20	-0.2298	178	-2.973	270	0.5617	201	0.6635	125	0.5750	209	0.4465	267	10
Cardinal Stritch University	-1.2791	242	0.1468	155	2.426	7	0.7078	104	0.6713	172	0.7077	94	0.7444	14	RNP

Carnegie Mellon University	1.2475	33	-2.7366	270	-0.083	137	0.4808	260	0.5951	237	0.3606	268	0.4866	260	23
Case Western Reserve University	0.8322	67	-1.4938	240	-0.427	166	0.5458	246	0.6284	215	0.4856	251	0.5234	252	37
Catholic University of America	0.1746	120	-1.3066	235	0.920	48	0.5911	220	0.6379	210	0.5310	228	0.6043	140	121
Central Michigan University	-0.4484	174	0.6145	90	0.585	73	0.7017	62	0.6977	90	0.7318	58	0.6756	49	190
Clark Atlanta University	-1.5559	256	-0.3958	190	-0.763	205	0.5014	268	0.5062	269	0.5196	232	0.4783	266	RNP
Clark University	0.9014	58	-0.3440	183	1.063	39	0.7125	17	0.7560	15	0.6811	132	0.7004	19	75
Clarkson University	0.3130	106	-0.0311	164	0.148	113	0.6664	80	0.6995	73	0.6657	152	0.6339	82	121
Clemson University	0.9360	56	-0.0651	165	-1.026	233	0.6399	89	0.7029	61	0.6438	175	0.5731	187	62
Cleveland State University	-1.6252	258	0.4319	122	0.728	65	0.6350	238	0.6038	250	0.6706	147	0.6306	124	RNP
College of William and Mary	1.3860	29	-0.4442	194	-0.882	219	0.6380	64	0.7182	36	0.6191	189	0.5767	174	32
Colorado School of Mines	0.3476	104	-0.4323	193	-0.640	191	0.5986	203	0.6500	182	0.5903	200	0.5556	230	91
Colorado State University-Fort Collins	0.0361	138	0.2639	145	-0.852	217	0.6303	169	0.6621	163	0.6567	159	0.5719	210	121
Columbia University in the City of New York	1.5590	10	-2.3759	265	-0.065	132	0.5265	237	0.6410	173	0.4170	264	0.5215	248	4
Cornell University	1.4898	15	-1.2897	233	-0.948	226	0.5709	187	0.6717	102	0.5169	235	0.5240	246	16
Dartmouth College	1.6629	2	-1.8595	255	-0.229	147	0.5663	184	0.6747	93	0.4785	254	0.5457	220	10
DePaul University	0.2438	112	-1.0516	218	1.157	30	0.6264	161	0.6670	149	0.5731	210	0.6391	77	121
Drexel University	0.1400	124	-1.2954	234	-0.841	215	0.5084	262	0.5746	256	0.4697	257	0.4809	263	97
Duke University	1.5936	8	-1.3276	236	-0.462	167	0.5955	136	0.6941	64	0.5331	226	0.5595	205	7
Duquesne University	0.5553	88	-0.8270	207	0.388	94	0.6245	149	0.6771	116	0.5855	201	0.6108	121	121
East Carolina University	-0.3446	165	1.0132	39	-0.939	225	0.6686	118	0.6767	143	0.7315	61	0.5976	166	181
East Tennessee State University	-1.3483	246	1.0425	32	1.130	33	0.7173	91	0.6759	164	0.7698	23	0.7063	32	RNP
Edgewood College	-0.4830	180	-0.2847	181	2.478	6	0.7144	52	0.7059	77	0.6862	125	0.7512	6	190
Emory University	1.3514	31	-1.0166	214	-1.281	252	0.5709	194	0.6665	122	0.5336	225	0.5124	254	20
Florida Agricultural and Mechanical University	-0.8983	215	1.1833	11	-0.634	190	0.6692	155	0.6565	193	0.7423	44	0.6087	152	RNP
Florida Atlantic University	-0.9330	217	1.2038	10	0.542	78	0.7238	56	0.6962	106	0.7846	13	0.6907	38	RNP
Florida Institute of Technology	-0.4138	171	-0.9565	212	-0.054	129	0.5452	257	0.5816	255	0.5181	234	0.5359	251	167
Florida International University	-0.5176	181	1.2040	9	0.294	100	0.7329	28	0.7185	60	0.7914	11	0.6889	36	RNP
Florida State University	0.6938	76	1.1668	13	-0.767	206	0.7407	11	0.7694	11	0.7950	9	0.6577	57	91
Fordham University	0.7976	72	-1.6870	248	0.119	114	0.5536	233	0.6330	206	0.4796	253	0.5483	233	57

George Mason University	0.2092	117	0.4663	117	0.778	60	0.7312	19	0.7443	24	0.7449	42	0.7045	21	141
George Washington University	0.9014	58	-1.8069	253	1.248	26	0.6015	168	0.6728	120	0.5081	239	0.6236	92	52
Georgetown University	1.4898	15	-2.6905	269	0.977	44	0.5459	221	0.6529	152	0.4122	266	0.5724	179	20
Georgia Institute of Technology-Main Campus	0.9706	52	0.3583	132	-1.867	267	0.6372	93	0.7021	62	0.6677	149	0.5417	238	36
Georgia Southern University	-0.6561	196	1.1212	20	0.356	97	0.7222	49	0.7053	82	0.7783	17	0.6830	42	RNP
Georgia State University	-0.4138	171	0.9078	55	-0.082	136	0.6964	70	0.6950	97	0.7458	39	0.6484	74	RNP
Harvard University	1.6629	2	-1.5114	241	0.072	119	0.6088	101	0.7066	45	0.5317	227	0.5880	143	2
Hofstra University	-0.2407	157	-1.4538	239	0.238	103	0.5267	261	0.5742	259	0.4737	256	0.5323	253	135
Howard University	-0.0677	147	-0.1993	176	0.818	56	0.6649	109	0.6842	114	0.6543	165	0.6561	62	142
Idaho State University	-1.8328	263	0.9642	46	0.171	112	0.6423	236	0.6016	254	0.7087	91	0.6166	155	RNP
Illinois Institute of Technology	0.3130	106	-0.6664	199	-0.084	138	0.6036	198	0.6524	178	0.5797	205	0.5787	189	109
Illinois State University	0.2438	112	0.5768	102	-0.343	157	0.6898	51	0.7145	54	0.7206	73	0.6343	83	152
Immaculata University	-0.4484	174	0.3083	138	0.207	108	0.6591	147	0.6657	166	0.6811	131	0.6305	101	190
Indiana State University	-1.4521	251	1.0838	26	0.042	122	0.6650	197	0.6328	232	0.7331	52	0.6291	123	RNP
Indiana University of Pennsylvania-Main Campus	-0.7253	201	0.9114	54	0.871	53	0.7255	46	0.7052	85	0.7679	26	0.7035	27	177
Indiana University-Bloomington	0.5899	86	-0.2934	182	-0.540	176	0.6267	142	0.6801	107	0.6199	188	0.5801	183	75
Indiana University-Purdue University- Indianapolis	-1.2444	240	0.4883	114	0.297	99	0.6384	222	0.6206	238	0.6766	137	0.6181	141	RNP
Iowa State University	0.3823	100	0.6264	88	-0.670	196	0.6855	50	0.7165	51	0.7204	74	0.6197	106	101
Jackson State University	-0.9676	218	1.1075	23	-0.599	186	0.6612	178	0.6479	214	0.7317	59	0.6039	165	RNP
Johns Hopkins University	1.4898	15	-1.1554	226	-1.280	251	0.5664	193	0.6684	110	0.5218	231	0.5091	255	12
Kansas State University	-0.2753	161	0.6503	85	-0.292	154	0.6724	107	0.6821	124	0.7121	86	0.6230	114	135
Kent State University at Kent	-0.5868	188	0.6580	81	0.044	121	0.6732	126	0.6711	158	0.7131	84	0.6353	96	201
Lamar University	-2.0751	268	0.8895	59	0.072	118	0.6196	254	0.5755	263	0.6871	123	0.5961	204	RNP
Lehigh University	1.2129	34	-1.5197	242	1.319	23	0.6438	65	0.7161	40	0.5575	218	0.6577	53	41
Louisiana State University and Agricultural & Mechanical College	0.0708	133	0.7577	73	-1.097	240	0.6609	106	0.6864	104	0.7100	88	0.5864	180	135
Louisiana Tech University	-0.7945	207	1.1509	17	-0.203	144	0.6918	103	0.6773	151	0.7573	31	0.6407	90	190
Loyola University Chicago	0.3823	100	-1.1257	225	-0.255	150	0.5615	245	0.6235	225	0.5200	233	0.5412	242	101
Lynn University	-1.2791	242	-1.0416	215	0.687	67	0.5297	266	0.5378	264	0.5013	242	0.5502	247	RNP
Marquette University	0.7630	74	-0.9274	211	0.396	93	0.6269	127	0.6867	88	0.5812	203	0.6129	112	75

Maryville University of Saint Louis	0.3823	100	-0.1420	172	1.727	13	0.7342	15	0.7529	19	0.7098	89	0.7398	8	161
Massachusetts Institute of Technology	1.5590	10	-1.6803	247	-1.700	266	0.5074	252	0.6267	203	0.4454	262	0.4502	265	7
Miami University-Oxford	0.7976	72	-0.1830	173	-0.350	159	0.6549	71	0.7089	53	0.6478	171	0.6079	122	75
Michigan State University	0.8322	67	-0.1834	174	-0.681	198	0.6412	95	0.6999	68	0.6375	179	0.5860	164	73
Michigan Technological University	0.1054	129	0.3161	137	-0.697	200	0.6451	138	0.6759	131	0.6711	146	0.5885	176	117
Middle Tennessee State University	-1.0714	229	1.1181	22	0.620	70	0.7136	81	0.6834	146	0.7716	21	0.6857	43	RNP
Mississippi State University	-0.2407	157	1.0200	35	-1.613	264	0.6429	160	0.6613	169	0.7126	85	0.5549	236	142
Missouri University of Science and Technology	0.1400	124	0.5693	103	1.159	29	0.7539	14	0.7587	16	0.7682	25	0.7348	11	128
Montana State University	-0.7945	207	0.6529	84	-0.812	212	0.6227	223	0.6255	233	0.6749	140	0.5676	227	201
Morgan State University	-1.5559	256	1.1590	15	-1.105	242	0.6127	253	0.5897	257	0.6985	109	0.5499	249	RNP
National Louis University	-0.7945	207	-0.2160	177	1.520	16	0.6600	166	0.6535	200	0.6496	168	0.6769	55	RNP
New Jersey Institute of Technology	-0.3446	165	0.5640	105	-0.852	216	0.6359	181	0.6522	191	0.6794	133	0.5762	209	150
New Mexico State University-Main Campus	-1.0368	224	1.3391	1	-1.002	231	0.6579	185	0.6429	220	0.7435	43	0.5874	197	190
New York University	1.0745	44	-2.3998	267	-1.361	256	0.4403	267	0.5583	260	0.3509	270	0.4117	270	32
North Carolina A & T State University	-1.0022	221	1.2491	3	-0.671	197	0.6677	164	0.6515	208	0.7452	40	0.6063	159	RNP
North Carolina State University at Raleigh	0.5899	86	0.8877	60	-0.949	227	0.7042	23	0.7382	27	0.7505	35	0.6240	95	101
North Dakota State University-Main Campus	-0.4484	174	0.8368	65	-1.004	232	0.6460	172	0.6559	187	0.7037	99	0.5784	207	190
Northeastern University	1.0053	48	-1.3922	237	-0.749	202	0.5477	232	0.6363	196	0.4933	248	0.5136	256	49
Northern Arizona University	-0.7253	201	0.9615	49	0.185	110	0.6977	88	0.6844	132	0.7501	36	0.6587	69	RNP
Northern Illinois University	-0.7599	205	0.8750	63	-0.092	139	0.6761	134	0.6668	168	0.7286	63	0.6328	104	177
Northwestern University	1.4898	15	-1.9982	260	-0.274	153	0.5443	226	0.6518	153	0.4535	261	0.5276	244	12
Nova Southeastern University	-1.1060	232	-0.3812	189	0.177	111	0.5687	258	0.5734	261	0.5710	211	0.5616	239	RNP
Oakland University	-1.1406	233	0.5870	98	1.114	35	0.6897	132	0.6629	188	0.7211	72	0.6850	44	RNP
Ohio State University-Main Campus	0.9706	52	0.3612	131	-1.227	246	0.6672	47	0.7246	35	0.6904	120	0.5865	160	52
Ohio University-Main Campus	-0.1369	152	0.4904	113	0.022	125	0.6808	83	0.6936	94	0.7085	92	0.6403	80	135
Oklahoma State University-Main Campus	-0.1715	153	0.5152	110	-0.963	229	0.6354	176	0.6582	176	0.6760	139	0.5719	213	142
Old Dominion University	-0.5868	188	1.0784	28	0.930	47	0.7488	22	0.7278	49	0.7956	8	0.7230	18	RNP
Oregon State University	-0.0677	147	0.6566	82	-0.896	221	0.6552	128	0.6770	134	0.6995	107	0.5891	178	142
Our Lady of the Lake University	-2.0405	267	-0.2347	179	3.303	2	0.6796	204	0.6218	243	0.6631	154	0.7538	12	RNP

Pace University-New York	-0.5522	184	-0.9129	209	1.285	25	0.6042	231	0.6206	234	0.5650	214	0.6268	109	173
Pennsylvania State University-Main Campus	1.1091	41	-1.2660	230	-1.228	247	0.5409	241	0.6351	197	0.4959	245	0.4918	259	37
Pepperdine University	0.9014	58	-1.5466	244	0.452	86	0.5858	196	0.6610	148	0.5123	236	0.5840	170	57
Polytechnic Institute of New York University	0.1400	124	-1.2606	229	2.178	9	0.6516	119	0.6820	115	0.5793	207	0.6936	29	128
Portland State University	-1.0714	229	0.7476	75	0.771	62	0.6903	125	0.6659	180	0.7314	60	0.6735	58	RNP
Princeton University	1.6629	2	0.1870	152	-0.611	187	0.7159	9	0.7869	5	0.7163	79	0.6445	59	1
Purdue University-Main Campus	0.4861	93	-0.1305	170	-0.792	207	0.6231	152	0.6735	127	0.6272	184	0.5686	208	68
Regent University	-1.0714	229	-0.0975	167	3.472	1	0.7468	33	0.7083	86	0.7220	71	0.8101	3	RNP
Rensselaer Polytechnic Institute	1.1091	41	-1.6375	246	-0.057	130	0.5650	210	0.6531	159	0.4912	249	0.5507	223	41
Rice University	1.4552	20	-0.7415	204	0.511	81	0.6819	21	0.7537	12	0.6338	182	0.6582	47	18
Rutgers University-New Brunswick	0.8322	67	0.0029	161	-0.797	208	0.6510	74	0.7073	56	0.6563	160	0.5894	156	69
Saint John Fisher College	0.4169	96	-0.3556	185	0.411	90	0.6572	90	0.6965	76	0.6390	177	0.6362	79	142
Saint Louis University	0.4169	96	-0.7487	205	0.859	54	0.6459	115	0.6880	92	0.6063	195	0.6433	70	101
Saint Mary's University of Minnesota	-0.3100	163	0.4683	116	1.100	37	0.7205	34	0.7170	59	0.7370	48	0.7077	24	173
Sam Houston State University	-0.7945	207	1.0191	36	-0.186	141	0.6817	122	0.6698	165	0.7417	45	0.6337	102	RNP
San Diego State University	0.3130	106	0.9687	45	1.007	43	0.7881	5	0.7908	7	0.8183	3	0.7551	5	152
Seton Hall University	0.1746	120	-1.1877	227	1.488	18	0.6272	165	0.6650	154	0.5654	212	0.6512	67	128
South Carolina State University	-1.7636	262	0.5474	106	-1.121	243	0.5516	264	0.5361	265	0.6151	192	0.5035	262	RNP
South Dakota State University	-0.5176	181	0.9174	53	-0.749	203	0.6610	150	0.6645	167	0.7199	76	0.5985	169	201
Southern Illinois University-Carbondale	-1.2791	242	0.5833	100	1.116	34	0.6826	153	0.6524	211	0.7156	80	0.6798	56	177
Southern Methodist University	0.8322	67	-1.4347	238	0.088	117	0.5746	209	0.6500	170	0.5108	237	0.5629	211	60
Spalding University	-1.1752	235	-0.0955	166	0.776	61	0.6164	243	0.6067	246	0.6243	185	0.6183	138	RNP
St John's University-New York	-0.3792	168	-1.0153	213	1.421	21	0.6107	216	0.6320	224	0.5636	215	0.6365	91	152
Stanford University	1.6282	6	-1.2791	232	-0.929	223	0.5795	159	0.6834	79	0.5240	230	0.5312	241	5
Stevens Institute of Technology	0.6938	76	-1.9617	258	1.501	17	0.5903	199	0.6566	161	0.4902	250	0.6240	94	82
Stony Brook University	0.4861	93	0.9004	57	0.501	83	0.7676	6	0.7819	9	0.7988	7	0.7221	16	82
SUNY at Albany	0.0361	138	1.1045	24	-0.811	211	0.7009	43	0.7151	57	0.7613	28	0.6263	100	128
SUNY at Binghamton	0.8322	67	1.0415	33	0.382	95	0.7908	1	0.8121	3	0.8248	2	0.7353	7	97
SUNY College of Environmental Science and Forestry	0.2438	112	1.2413	6	1.021	42	0.8076	3	0.8028	4	0.8497	1	0.7702	4	86

Syracuse University	0.9706	52	-1.0514	217	0.568	74	0.6351	96	0.7005	65	0.5797	206	0.6250	86	62
Temple University	0.2438	112	-0.7165	202	0.559	76	0.6260	162	0.6666	150	0.5934	198	0.6179	113	121
Tennessee State University	-1.9021	265	0.9760	43	0.875	52	0.6726	207	0.6217	241	0.7322	57	0.6639	73	RNP
Texas A & M University-College Station	0.9014	58	0.6018	91	-1.273	250	0.6813	31	0.7326	29	0.7157	81	0.5955	144	69
Texas A & M University-Commerce	-1.3829	249	0.8950	58	0.444	88	0.6717	180	0.6403	228	0.7265	65	0.6481	88	RNP
Texas A & M University-Corpus Christi	-1.5213	255	0.9864	42	-0.572	182	0.6250	247	0.6002	251	0.6971	112	0.5777	219	RNP
Texas A & M University-Kingsville	-1.8328	263	1.1440	19	-2.065	268	0.5531	265	0.5346	267	0.6528	166	0.4717	268	RNP
Texas Christian University	0.6591	81	-1.2343	228	0.937	46	0.6218	146	0.6790	108	0.5585	217	0.6280	87	82
Texas Southern University	-2.5250	270	1.0155	38	-0.206	146	0.5946	263	0.5400	268	0.6761	138	0.5677	243	RNP
Texas Tech University	-0.1023	150	0.6608	80	-0.647	192	0.6654	110	0.6833	121	0.7074	97	0.6054	146	161
Texas Woman's University	-1.0368	224	1.0543	30	1.081	38	0.7315	54	0.6981	103	0.7812	16	0.7152	22	RNP
The New School	0.0708	133	-1.8363	254	1.304	24	0.5605	250	0.6111	235	0.4756	255	0.5948	162	135
The University of Alabama	0.2092	117	0.2579	148	-0.563	180	0.6518	117	0.6847	105	0.6725	145	0.5982	151	86
The University of Montana	-0.7945	207	0.8364	66	-0.528	173	0.6509	182	0.6467	213	0.7073	96	0.5987	172	201
The University of Tennessee-Knoxville	0.1746	120	0.4924	112	-0.563	181	0.6692	85	0.6965	83	0.7000	106	0.6112	128	101
The University of Texas at Arlington	-1.1752	235	0.8204	69	0.507	82	0.6788	154	0.6534	207	0.7273	64	0.6557	75	RNP
The University of Texas at Austin	0.9014	58	0.4576	120	-0.556	179	0.7028	20	0.7488	18	0.7230	70	0.6366	72	52
The University of Texas at Dallas	0.1054	129	0.5669	104	-0.524	172	0.6737	79	0.6973	81	0.7079	95	0.6160	120	142
The University of Texas at El Paso	-1.2444	240	1.0886	25	-0.205	145	0.6642	186	0.6399	226	0.7328	55	0.6199	137	RNP
The University of Texas at San Antonio	-1.9021	265	0.8288	67	-0.186	142	0.6112	255	0.5757	262	0.6771	135	0.5808	222	RNP
The University of West Florida	-1.0368	224	1.1730	12	0.976	45	0.7363	45	0.7017	96	0.7921	10	0.7152	23	RNP
Trevecca Nazarene University	-0.6215	193	0.1622	154	0.440	89	0.6494	177	0.6520	199	0.6649	153	0.6313	105	RNP
Trinity International University-Illinois	-0.7945	207	0.3567	133	0.220	105	0.6464	192	0.6433	216	0.6746	141	0.6214	127	RNP
Tufts University	1.4898	15	-1.8750	256	0.601	71	0.5951	143	0.6898	69	0.4991	244	0.5962	132	28
Tulane University of Louisiana	0.6245	83	-1.0917	222	-0.166	140	0.5805	214	0.6467	183	0.5363	224	0.5585	217	52
Union Institute & University	-3.8403	271	-0.7353	203	2.381	8	0.5064	270	0.4249	270	0.5026	241	0.5918	235	Unran ked
University at Buffalo	0.3823	100	0.8759	62	0.250	102	0.7487	13	0.7638	13	0.7831	14	0.6992	25	109
University of Akron Main Campus	-1.3483	246	0.5949	94	-0.070	134	0.6250	240	0.6066	249	0.6731	143	0.5952	190	RNP
University of Alabama at Birmingham	-0.6215	193	0.7315	77	-0.515	170	0.6515	173	0.6536	194	0.7013	104	0.5996	168	152

University of Alabama in Huntsville	-0.6907	197	0.7567	74	-0.628	189	0.6449	188	0.6460	212	0.6979	110	0.5907	185	181
University of Alaska Fairbanks	-1.3483	246	0.9979	40	-0.742	201	0.6267	234	0.6079	247	0.6991	108	0.5731	228	RNP
University of Arizona	-0.1715	153	0.3198	136	-0.891	220	0.6227	195	0.6487	195	0.6545	164	0.5649	218	119
University of Arkansas	-0.1715	153	1.0171	37	-1.063	238	0.6717	100	0.6855	112	0.7340	51	0.5956	167	128
University of Arkansas at Little Rock	-2.0751	268	1.0306	34	0.347	98	0.6439	248	0.5937	258	0.7140	82	0.6239	148	RNP
University of California-Berkeley	1.4206	26	-0.3747	188	-1.390	260	0.6217	94	0.7073	48	0.6112	194	0.5467	224	20
University of California-Davis	0.9360	56	0.0922	158	-0.577	184	0.6737	38	0.7282	33	0.6788	134	0.6140	107	39
University of California-Irvine	1.1437	39	0.1064	156	-0.576	183	0.6852	24	0.7446	20	0.6883	121	0.6227	89	49
University of California-Los Angeles	1.4552	20	-0.1123	169	-0.300	155	0.6956	16	0.7639	10	0.6827	129	0.6401	64	23
University of California-Riverside	0.2784	111	0.2621	147	-0.650	194	0.6515	112	0.6871	98	0.6726	144	0.5949	157	112
University of California-San Diego	1.4552	20	-0.1123	168	-1.372	257	0.6457	55	0.7266	30	0.6453	174	0.5654	193	39
University of California-Santa Barbara	0.8668	66	0.0914	159	-0.938	224	0.6534	69	0.7104	52	0.6635	155	0.5862	163	41
University of California-Santa Cruz	0.6591	81	0.2624	146	-1.328	255	0.6389	111	0.6918	80	0.6632	156	0.5618	214	86
University of Central Florida	0.2438	112	1.2130	8	-0.066	133	0.7547	12	0.7632	14	0.8083	5	0.6927	28	170
University of Chicago	1.5590	10	-1.6870	249	-1.261	249	0.5273	235	0.6416	171	0.4598	260	0.4804	261	5
University of Cincinnati-Main Campus	0.0708	133	0.2676	144	-0.422	164	0.6523	121	0.6799	123	0.6735	142	0.6034	147	135
University of Colorado Boulder	0.1746	120	-0.3523	184	-0.648	193	0.5962	212	0.6417	202	0.5934	197	0.5535	234	86
University of Colorado Denver	-1.0368	224	0.2711	143	0.564	75	0.6434	206	0.6321	231	0.6671	150	0.6312	110	190
University of Connecticut	1.0053	48	0.4083	125	-1.054	237	0.6808	29	0.7361	23	0.7035	100	0.6028	129	57
University of Dayton	0.6938	76	-0.7162	201	-0.350	160	0.6061	175	0.6685	136	0.5785	208	0.5713	196	112
University of Delaware	0.9014	58	-0.4018	191	-0.271	152	0.6458	82	0.7060	58	0.6275	183	0.6038	130	75
University of Denver	0.5553	88	-1.5325	243	0.635	69	0.5782	219	0.6424	192	0.5075	240	0.5847	175	91
University of Florida	1.2129	34	0.9368	51	-1.051	235	0.7345	8	0.7841	6	0.7762	18	0.6431	63	49
University of Georgia	1.0053	48	0.5332	107	-1.544	263	0.6682	42	0.7267	34	0.7017	103	0.5762	182	60
University of Hawaii at Manoa	-0.3792	168	0.5986	93	-0.078	135	0.6730	116	0.6787	138	0.7093	90	0.6310	99	158
University of Houston	-0.5868	188	0.5195	109	-0.059	131	0.6571	157	0.6591	184	0.6925	115	0.6197	125	190
University of Idaho	-0.4484	174	0.7688	72	-0.810	210	0.6494	163	0.6585	181	0.7021	102	0.5878	186	161
University of Illinois at Chicago	-0.3446	165	0.2840	141	-0.823	213	0.6144	211	0.6360	219	0.6460	172	0.5610	231	128
University of Illinois at Urbana-Champaign	1.1091	41	0.0553	160	-1.302	254	0.6455	68	0.7135	43	0.6554	161	0.5677	195	41
University of Iowa	0.3476	104	0.1029	157	-0.869	218	0.6318	148	0.6748	128	0.6480	170	0.5724	203	73

University of Kansas	-0.1023	150	0.5213	108	-0.625	188	0.6550	130	0.6755	141	0.6911	119	0.5984	158	101
University of Kentucky	-0.2407	157	0.5884	97	-1.655	265	0.6057	217	0.6334	221	0.6582	158	0.5255	257	119
University of La Verne	-0.0331	145	-0.3689	187	-0.394	162	0.5964	225	0.6341	218	0.5925	199	0.5625	221	161
University of Louisiana at Lafayette	-0.9676	218	1.2481	4	-0.047	127	0.6984	102	0.6758	156	0.7682	24	0.6511	78	RNP
University of Louisville	-0.5868	188	0.4625	118	1.038	40	0.7034	67	0.6938	101	0.7238	69	0.6927	34	161
University of Maryland-Baltimore County	0.0015	142	0.8233	68	-0.523	171	0.6896	58	0.7053	70	0.7355	50	0.6279	98	158
University of Maryland-College Park	1.0399	46	0.3394	134	-1.045	234	0.6773	30	0.7348	26	0.6966	113	0.6004	134	62
University of Massachusetts-Amherst	0.4169	96	0.3365	135	-0.509	169	0.6710	63	0.7069	63	0.6918	117	0.6144	117	91
University of Massachusetts-Boston	-1.0022	221	0.2990	139	1.463	19	0.6892	120	0.6677	174	0.7031	101	0.6969	33	RNP
University of Massachusetts-Lowell	-0.3792	168	0.3775	127	0.906	50	0.7007	60	0.6995	87	0.7165	78	0.6860	37	158
University of Memphis	-1.0368	224	0.9247	52	0.846	55	0.7100	86	0.6820	147	0.7571	32	0.6909	40	RNP
University of Miami	0.9014	58	-1.9719	259	-0.799	209	0.4928	259	0.5913	242	0.4165	265	0.4707	264	47
University of Michigan-Ann Arbor	1.4552	20	-0.8787	208	-0.546	177	0.6215	92	0.7084	46	0.5801	204	0.5760	173	28
University of Minnesota-Twin Cities	0.6245	83	0.3730	128	-1.105	241	0.6566	77	0.7038	66	0.6832	128	0.5829	177	69
University of Mississippi	-0.2407	157	0.7268	79	-0.423	165	0.6743	99	0.6849	119	0.7182	77	0.6199	118	150
University of Missouri-Columbia	0.3130	106	0.5797	101	-1.215	245	0.6529	105	0.6894	91	0.6931	114	0.5762	194	97
University of Missouri-Kansas City	-1.1406	233	0.4097	124	2.062	10	0.7192	73	0.6850	144	0.7324	56	0.7402	15	201
University of Missouri-St Louis	-0.7253	201	0.7878	70	2.574	5	0.7946	10	0.7570	22	0.8121	4	0.8146	1	RNP
University of Nebraska at Omaha	-0.9676	218	1.0597	29	0.543	77	0.7104	78	0.6848	140	0.7656	27	0.6806	50	RNP
University of Nebraska-Lincoln	0.1054	129	0.7298	78	-1.383	258	0.6471	133	0.6773	129	0.6980	111	0.5660	216	101
University of Nevada-Las Vegas	-1.0022	221	0.9621	48	0.789	58	0.7121	76	0.6849	142	0.7610	29	0.6905	41	RNP
University of Nevada-Reno	-0.4484	174	0.9031	56	1.213	28	0.7545	18	0.7372	37	0.7891	12	0.7371	13	181
University of New Hampshire-Main Campus	0.6245	83	0.2356	150	-1.082	239	0.6465	97	0.6962	74	0.6672	151	0.5760	188	97
University of New Mexico-Main Campus	-0.8291	213	1.1637	14	-1.283	253	0.6409	200	0.6379	223	0.7199	75	0.5648	232	181
University of New Orleans	-1.6252	258	0.9876	41	0.368	96	0.6637	205	0.6253	236	0.7262	66	0.6395	108	RNP
University of North Carolina at Chapel Hill	1.3860	29	0.2972	140	-1.401	261	0.6744	25	0.7455	17	0.6919	118	0.5859	153	30
University of North Carolina at Charlotte	-0.5522	184	0.9553	50	-0.054	128	0.6947	84	0.6886	117	0.7475	37	0.6481	76	201
University of North Carolina at Greensboro	-0.5522	184	1.1581	16	0.213	107	0.7237	39	0.7103	71	0.7817	15	0.6791	45	190
University of North Dakota	-0.6907	197	0.6181	89	0.760	64	0.6981	87	0.6859	126	0.7293	62	0.6790	48	173

University of North Texas	-0.7599	205	0.8864	61	1.100	36	0.7324	37	0.7091	75	0.7716	22	0.7166	20	RNP
University of Northern Colorado	-1.1752	235	0.6490	86	1.032	41	0.6892	137	0.6612	190	0.7246	68	0.6818	51	RNP
University of Notre Dame	1.5936	8	-1.0934	224	-0.901	222	0.5943	139	0.6931	67	0.5465	221	0.5432	229	18
University of Oklahoma-Norman Campus	0.1400	124	0.4880	115	0.445	87	0.7140	26	0.7288	39	0.7333	53	0.6799	39	101
University of Oregon	0.2092	117	-0.0024	162	-0.697	199	0.6243	170	0.6641	155	0.6359	181	0.5728	206	109
University of Pennsylvania	1.6629	2	-2.5268	268	0.476	84	0.5445	215	0.6584	135	0.4212	263	0.5539	212	7
University of Pittsburgh-Pittsburgh Campus	0.9014	58	-0.2704	180	-0.839	214	0.6301	113	0.6942	72	0.6239	186	0.5722	191	62
University of Rhode Island	-0.0677	147	0.2313	151	-1.051	236	0.6132	202	0.6454	201	0.6419	176	0.5521	237	152
University of Rochester	1.2129	34	-0.9261	210	-0.536	175	0.6060	141	0.6878	78	0.5656	213	0.5648	200	32
University of San Diego	0.6938	76	-1.7485	250	-0.001	126	0.5379	251	0.6173	229	0.4640	259	0.5323	245	91
University of San Francisco	0.3130	106	-1.5984	245	1.152	31	0.5849	224	0.6384	205	0.5085	238	0.6077	133	117
University of South Alabama	-1.4867	252	0.9640	47	-0.247	148	0.6400	229	0.6128	244	0.7070	98	0.6003	184	RNP
University of South Carolina-Columbia	0.4515	95	0.5028	111	-0.502	168	0.6867	44	0.7199	44	0.7137	83	0.6264	93	112
University of South Dakota	-0.8983	215	0.9729	44	0.600	72	0.7094	75	0.6867	130	0.7596	30	0.6819	46	190
University of South Florida-Main Campus	0.0361	138	1.1202	21	-0.548	178	0.7144	27	0.7252	42	0.7724	20	0.6456	71	170
University of Southern California	1.4206	26	-2.0751	262	1.437	20	0.6141	108	0.7016	55	0.5012	243	0.6396	66	23
University of Southern Mississippi	-0.7253	201	1.0447	31	-0.358	161	0.6793	123	0.6705	162	0.7414	46	0.6259	115	RNP
University of St Thomas	0.5553	88	-0.5836	196	1.346	22	0.6889	36	0.7254	38	0.6487	169	0.6925	26	112
University of the Pacific	0.0015	142	-2.2490	264	-0.533	174	0.4379	269	0.5165	266	0.3583	269	0.4387	269	112
University of Toledo	-1.3137	245	0.3898	126	0.218	106	0.6233	242	0.6066	248	0.6592	157	0.6040	171	RNP
University of Tulsa	0.1400	124	-0.5606	195	0.398	92	0.6261	171	0.6629	160	0.6030	196	0.6123	126	86
University of Utah	0.0361	138	0.5941	95	-2.067	269	0.6008	213	0.6400	209	0.6549	162	0.5074	258	121
University of Vermont	0.5207	92	-1.0525	219	-0.192	143	0.5773	227	0.6405	198	0.5363	223	0.5552	226	82
University of Virginia-Main Campus	1.5590	10	-0.4323	192	-1.147	244	0.6352	59	0.7225	32	0.6177	191	0.5653	192	23
University of Washington-Seattle Campus	0.9706	52	-0.1363	171	-0.753	204	0.6485	72	0.7106	50	0.6459	173	0.5891	154	52
University of Wisconsin-Madison	1.0745	44	0.4600	119	-1.387	259	0.6730	35	0.7328	28	0.7008	105	0.5853	161	41
University of Wisconsin-Milwaukee	-1.1752	235	0.7788	71	0.916	49	0.6944	124	0.6652	185	0.7365	49	0.6817	52	RNP
University of Wyoming	-0.5522	184	1.2723	2	-0.422	163	0.7035	66	0.6952	100	0.7735	19	0.6418	85	161
Utah State University	-0.8291	213	1.2361	7	-0.653	195	0.6760	140	0.6643	179	0.7507	34	0.6132	142	190
Vanderbilt University	1.4552	20	-1.0838	221	2.713	4	0.7563	4	0.8095	2	0.6686	148	0.7907	2	17

Virginia Commonwealth University	-0.1715	153	0.5898	96	-0.305	156	0.6720	98	0.6857	111	0.7081	93	0.6223	111	167
Virginia Polytechnic Institute and State University	1.0053	48	0.3721	129	-1.534	262	0.6555	57	0.7171	41	0.6823	130	0.5671	198	69
Wake Forest University	1.2129	34	-1.9599	257	0.768	63	0.5821	183	0.6698	118	0.4842	252	0.5923	145	23
Washington State University	0.1054	129	0.5859	99	-1.238	248	0.6421	144	0.6736	139	0.6853	127	0.5673	215	128
Washington University in St Louis	1.5244	14	-1.2675	231	0.876	51	0.6593	32	0.7393	21	0.5846	202	0.6539	54	14
Wayne State University	-1.4867	252	0.6456	87	0.261	101	0.6376	230	0.6109	245	0.6857	126	0.6162	150	RNP
West Virginia University	-0.4484	174	0.4123	123	-0.977	230	0.6125	218	0.6308	227	0.6525	167	0.5542	240	170
Western Michigan University	-0.5868	188	0.4481	121	0.050	120	0.6563	158	0.6585	186	0.6876	122	0.6229	119	181
Wichita State University	-1.2098	239	1.0793	27	0.411	91	0.6938	129	0.6634	189	0.7544	33	0.6636	68	RNP
Widener University-Main Campus	-0.6907	197	-1.0929	223	1.648	15	0.5995	244	0.6120	239	0.5504	220	0.6360	97	181
Wilmington University	-1.6598	260	0.6001	92	1.753	11	0.6947	156	0.6473	222	0.7257	67	0.7111	30	Unran ked
Worcester Polytechnic Institute	1.1783	38	-2.1857	263	2.926	3	0.6623	41	0.7287	31	0.5305	229	0.7277	9	62
Wright State University-Main Campus	-1.7290	261	0.6550	83	0.515	80	0.6382	239	0.6023	252	0.6867	124	0.6255	135	RNP
Yale University	1.6975	1	-0.0082	163	0.648	68	0.7602	2	0.8215	1	0.7375	47	0.7217	10	3
Yeshiva University	1.1437	39	-1.0733	220	-0.592	185	0.5880	179	0.6716	113	0.5430	222	0.5492	225	47

For US News Data:

National University Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Effective Standarc Score/R	eness lized ank	Efficio Standar Score/J	ency rdized Rank	Expendi Standar Score/F	itures dized Rank	Tri E V (Equ Score/2	VD#1 1al) Rank	Tri-E W (Effective Score/R	/D#2 eness) ank	Tri-E V (Efficie Score/2	WD#3 ency) Rank	Tri-E (Expend ) Score	WD#4 ditures /Rank	US News Rank
Agnes Scott College	0.0499	132	0.6230	66	0.7008	12	0.5595	19	0.6088	57	0.6075	29	0.4623	13	89
Albion College	0.0195	137	0.2049	113	0.2278	40	0.5207	84	0.5783	120	0.5593	93	0.4245	67	100
Albright College	-0.5284	174	0.1529	120	-0.2249	146	0.4753	174	0.5210	187	0.5228	145	0.3820	174	176
Allegheny College	0.6891	63	-0.3830	165	0.1348	62	0.5206	85	0.6068	60	0.5324	131	0.4227	72	82
Allen University	-1.8981	227	0.6089	69	-0.3554	181	0.4221	222	0.4228	228	0.5037	167	0.3397	223	RNP
Alma College	0.0804	127	0.4934	85	0.4305	23	0.5467	39	0.6004	76	0.5919	47	0.4477	27	126
American Jewish University	-0.2240	150	0.1090	123	-0.9888	238	0.4710	179	0.5307	177	0.5176	150	0.3647	198	167
Amherst College	1.4805	1	-0.8603	192	0.1047	69	0.5357	53	0.6518	11	0.5219	148	0.4335	47	2
Augustana College	0.5369	87	-0.1298	141	-0.2522	156	0.5178	94	0.5982	82	0.5419	120	0.4135	100	100
Austin College	0.2934	106	-0.2027	148	0.0811	74	0.5078	115	0.5803	115	0.5310	132	0.4121	101	82
Ave Maria University	-0.2545	155	1.1256	29	0.1932	49	0.5603	17	0.5964	85	0.6310	17	0.4535	19	RNP
Bard College	0.6282	74	-0.1751	144	-0.2439	152	0.5205	86	0.6041	64	0.5418	121	0.4156	92	38
Barnard College	1.2979	12	-1.7344	228	-0.2334	149	0.4639	192	0.5901	96	0.4281	224	0.3733	189	32
Bates College	1.1761	29	-3.2023	238	0.2031	46	0.3784	232	0.5208	188	0.2971	238	0.3173	231	22
Bay Path College	-0.6197	182	0.4853	88	0.1893	50	0.5005	130	0.5360	170	0.5569	96	0.4086	115	RNP
Beacon College	0.6587	67	-1.5289	221	-0.3738	184	0.4366	213	0.5425	163	0.4171	230	0.3503	218	Unran ked
Beloit College	0.7500	60	-0.3025	160	0.6380	13	0.5414	44	0.6250	26	0.5516	105	0.4476	28	59
Bennett College	-1.5024	219	1.0185	35	-0.1501	129	0.4745	175	0.4789	212	0.5618	88	0.3828	172	RNP
Bennington College	0.0804	127	-1.9088	232	-0.2967	168	0.3826	230	0.4774	213	0.3592	235	0.3112	232	100
Berea College	0.1108	123	1.9856	1	0.1679	57	0.6327	5	0.6663	4	0.7246	4	0.5074	5	76
Berry College	-0.2240	150	0.5850	73	-0.6308	227	0.5088	112	0.5591	151	0.5677	78	0.3997	143	126
Bethany College	-0.9850	196	0.7912	47	0.2496	37	0.4999	131	0.5200	189	0.5704	75	0.4093	112	RNP
Bethany Lutheran College	-0.6501	183	0.6517	63	-0.0703	113	0.5025	125	0.5362	169	0.5660	81	0.4053	124	RNP
Birmingham Southern College	0.0804	127	0.4033	97	-0.0854	120	0.5285	69	0.5868	103	0.5742	67	0.4245	66	115
Bloomfield College	-1.3198	208	-0.1845	145	-0.1414	127	0.4119	224	0.4398	221	0.4599	202	0.3360	225	RNP

 Table 32: National Liberal Arts Colleges Score and Ranks

Bowdoin College	1.4500	3	-1.9228	233	-0.0057	94	0.4666	186	0.5987	81	0.4216	226	0.3796	178	4
Brevard College	-1.8372	26	0.6318	64	-0.0136	96	0.4354	214	0.4353	223	0.5147	153	0.3560	210	RNP
Bridgewater College	-0.3153	161	0.6629	61	-0.1676	133	0.5198	87	0.5634	145	0.5795	63	0.4165	86	RNP
Bryn Athyn College of the New Church	-0.5893	180	1.3485	21	3.7547	3	0.6427	4	0.6440	14	0.7030	5	0.5813	3	RNP
Bryn Mawr College	0.8413	53	-0.6155	173	0.7758	10	0.5309	60	0.6210	32	0.5295	135	0.4423	38	30
Bucknell University	1.2370	19	-1.7752	231	0.1470	58	0.4673	185	0.5901	97	0.4289	222	0.3829	171	32
Burlington College	-1.7459	222	-1.0010	199	0.1165	68	0.3444	238	0.3710	236	0.3720	234	0.2902	237	RNP
Calvin College	0.5674	83	0.0312	127	0.0273	85	0.5363	50	0.6133	49	0.5630	86	0.4324	48	100
Carleton College	1.4500	3	-1.5941	225	0.1701	55	0.4910	151	0.6169	38	0.4549	207	0.4011	137	7
Carthage College	-0.3458	164	0.1998	115	-0.5255	213	0.4811	167	0.5331	174	0.5293	136	0.3808	177	167
Castleton State College	-1.0154	199	0.6716	57	-0.2702	160	0.4781	168	0.5023	197	0.5486	111	0.3833	170	RNP
Centenary College of Louisiana	-0.5893	180	0.8568	44	0.0784	76	0.5221	81	0.5535	157	0.5901	51	0.4228	71	167
Central College	0.2325	115	0.2372	109	-0.0198	100	0.5286	68	0.5934	88	0.5667	80	0.4259	59	134
Centre College	1.0239	36	-0.2322	153	0.7751	11	0.5646	14	0.6540	10	0.5722	70	0.4675	11	49
Claflin University	-0.8023	187	0.8888	41	-0.6295	226	0.4945	143	0.5237	185	0.5708	74	0.3890	163	RNP
Claremont McKenna College	1.2979	12	-1.5869	223	-0.5423	216	0.4652	188	0.5911	93	0.4359	218	0.3686	192	9
Clearwater Christian College	-1.0763	201	0.7640	51	-0.5173	210	0.4742	176	0.4968	200	0.5499	110	0.3758	186	RNP
Coe College	0.1412	119	0.4856	87	-0.3757	186	0.5298	65	0.5903	95	0.5789	64	0.4201	82	120
Colby College	1.2370	19	-1.9768	235	0.0191	87	0.4519	199	0.5785	119	0.4081	232	0.3690	191	22
Colgate University	1.2370	19	-1.6753	227	0.0137	91	0.4701	180	0.5922	89	0.4355	219	0.3826	173	20
College of Saint Benedict	0.7804	59	-0.2986	159	-0.2501	154	0.5214	82	0.6113	53	0.5368	127	0.4162	89	94
College of the Atlantic	0.0804	127	-2.2758	236	-1.0084	239	0.3427	239	0.4474	218	0.3126	236	0.2681	239	93
College of the Holy Cross	1.3283	11	-1.2218	208	-0.1986	138	0.4976	136	0.6167	39	0.4769	193	0.3993	145	25
Colorado College	1.2370	19	-1.2927	213	-0.3149	173	0.4853	159	0.6036	66	0.4644	200	0.3879	164	31
Colorado Mesa University	-1.5633	220	1.4411	17	0.0418	83	0.5015	126	0.4966	201	0.6013	33	0.4066	121	RNP
Concordia College at Moorhead	0.1108	123	-0.0799	134	-0.5168	209	0.4902	153	0.5593	150	0.5234	144	0.3878	165	138
Connecticut College	0.9935	40	-1.6597	226	-0.3749	185	0.4476	205	0.5650	139	0.4194	228	0.3585	207	45
Cornell College	0.3239	101	0.6684	60	-0.2761	161	0.5537	26	0.6161	45	0.6052	31	0.4399	41	97
Davidson College	1.3587	9	-0.3307	163	-0.3995	191	0.5486	35	0.6563	7	0.5558	98	0.4338	45	9
Denison University	1.0239	36	-0.7118	184	0.1198	66	0.5192	89	0.6200	33	0.5163	152	0.4214	78	50

DePauw University	0.6891	63	0.0309	128	0.1727	54	0.5467	38	0.6264	22	0.5709	73	0.4430	37	54
Dickinson College	0.9630	43	-1.3355	215	-0.2930	166	0.4677	183	0.5787	117	0.4492	211	0.3751	187	45
Dillard University	-1.3806	213	1.0374	32	-0.1813	137	0.4818	165	0.4896	208	0.5681	77	0.3877	166	RNP
Doane College-Crete	-0.1327	144	0.6776	55	0.1791	52	0.5396	47	0.5861	104	0.5950	43	0.4378	42	156
Drew University	-0.0110	138	-0.3152	161	0.4306	22	0.4923	150	0.5558	156	0.5142	155	0.4069	118	107
Earlham College	0.3239	101	-0.2640	155	0.2590	36	0.5102	109	0.5834	108	0.5300	133	0.4172	85	65
Eastern Mennonite University	-0.1327	144	0.2795	107	0.2341	38	0.5167	95	0.5689	135	0.5597	92	0.4216	77	180
Eastern Nazarene College	-0.6501	183	0.3223	102	0.0996	71	0.4867	157	0.5243	183	0.5391	126	0.3966	150	RNP
East-West University	-3.2069	239	0.9145	37	-0.2442	153	0.3691	234	0.3274	238	0.4780	190	0.3021	234	RNP
Eckerd College	-0.1023	141	-0.5183	170	-0.4780	203	0.4524	198	0.5219	186	0.4750	194	0.3602	203	141
Emory & Henry College	-0.8023	187	0.5054	82	0.0138	90	0.4871	155	0.5181	191	0.5477	115	0.3953	152	173
Erskine College	-0.4980	172	0.9377	36	-0.0589	109	0.5288	67	0.5624	146	0.5988	39	0.4253	62	180
Fisk University	-0.1631	147	0.7902	48	-0.1735	135	0.5360	51	0.5821	112	0.5975	40	0.4286	53	146
Fort Lewis College	-1.3806	213	1.5233	11	-0.1445	128	0.5123	104	0.5124	193	0.6131	25	0.4113	105	RNP
Franklin and Marshall College	0.9326	45	-1.7509	230	-0.2269	147	0.4423	210	0.5584	153	0.4112	231	0.3573	209	45
Furman University	0.8109	55	-0.6767	181	0.0414	84	0.5074	116	0.6020	72	0.5090	161	0.4110	107	52
Georgetown College	-0.2849	159	0.5707	74	-0.0658	111	0.5184	92	0.5637	144	0.5743	66	0.4173	84	146
Gettysburg College	0.9326	45	-1.4780	219	-0.0843	117	0.4624	194	0.5735	125	0.4388	216	0.3750	188	50
Gordon College	0.2934	106	-0.0624	132	-0.2995	170	0.5070	117	0.5797	116	0.5368	129	0.4044	128	138
Goshen College	0.3543	100	0.4247	92	0.1354	61	0.5508	32	0.6152	47	0.5919	48	0.4453	33	141
Goucher College	0.1717	118	-0.2252	152	0.2161	42	0.5029	123	0.5715	131	0.5263	141	0.4109	110	110
Granite State College	-1.0763	201	1.5227	12	0.3771	26	0.5424	43	0.5480	161	0.6357	15	0.4435	36	Unran ked
Green Mountain College	-0.9545	194	0.2019	114	0.0468	82	0.4608	195	0.4920	206	0.5142	158	0.3762	185	RNP
Grinnell College	1.2370	19	0.2813	106	6.6194	2	0.7521	2	0.8037	2	0.7363	2	0.7163	2	17
Grove City College	0.8717	47	1.9724	2	11.9040	1	0.9647	1	0.9476	1	0.9729	1	0.9735	1	141
Guilford College	-0.4980	172	0.5705	75	-0.4752	202	0.4962	139	0.5380	167	0.5576	95	0.3931	155	173
Gustavus Adolphus College	0.8717	47	-0.1883	147	-0.2084	141	0.5344	57	0.6249	27	0.5516	106	0.4267	57	76
Hamilton College	1.2979	12	-1.9386	234	0.7976	9	0.4769	170	0.5999	77	0.4286	223	0.4021	136	14
Hampden-Sydney College	0.0499	132	0.1357	122	-0.0801	115	0.5106	107	0.5721	128	0.5485	112	0.4112	106	97

Hampshire College	0.0499	132	-0.8142	187	-0.3216	174	0.4469	207	0.5243	184	0.4574	205	0.3589	206	110
Hanover College	0.1108	123	0.6686	59	0.8972	8	0.5706	10	0.6197	34	0.6179	23	0.4743	7	115
Harrisburg University of Science and Technology	-2.2024	232	-0.9511	196	1.8512	4	0.3643	235	0.3665	237	0.3892	233	0.3372	224	RNP
Hartwick College	-0.4675	170	-0.6191	175	-0.1551	131	0.4335	217	0.4922	205	0.4562	206	0.3520	216	161
Harvey Mudd College	1.2674	16	-1.3026	214	-0.0475	104	0.4930	147	0.6107	54	0.4697	198	0.3986	147	16
Haverford College	1.3892	8	-1.2620	211	0.1214	65	0.5065	118	0.6260	24	0.4817	186	0.4119	102	9
Hendrix College	0.4152	95	0.4848	89	0.6051	14	0.5695	11	0.6318	19	0.6086	27	0.4680	9	82
Hiram College	-0.1936	148	0.1803	119	0.1382	60	0.5049	121	0.5574	154	0.5463	116	0.4110	108	156
Hobart William Smith Colleges	0.6282	74	-1.1419	204	0.3701	27	0.4768	171	0.5713	133	0.4649	199	0.3942	154	61
Hollins University	-0.5588	176	0.6593	62	-0.5353	214	0.4967	137	0.5357	172	0.5620	87	0.3924	156	110
Holy Cross College	-1.8068	225	0.2955	105	-0.3312	176	0.4088	225	0.4167	231	0.4795	189	0.3302	227	RNP
Hope College	0.6891	63	-0.0155	129	-0.4093	193	0.5296	66	0.6135	48	0.5559	97	0.4193	83	100
Houghton College	0.3239	101	0.3201	103	-0.3550	180	0.5306	61	0.5987	80	0.5719	71	0.4211	80	141
Huston-Tillotson University	-1.8981	227	0.6689	58	-0.0853	118	0.4324	218	0.4305	225	0.5142	157	0.3525	214	RNP
Illinois College	-0.3153	161	0.8083	45	-0.0984	123	0.5304	62	0.5713	132	0.5940	44	0.4257	60	156
Illinois Wesleyan University	0.8109	55	-0.4255	166	-0.2773	162	0.5148	97	0.6076	58	0.5261	142	0.4107	111	65
Johnson C Smith University	-0.9241	193	0.6114	68	-0.8218	232	0.4660	187	0.4972	199	0.5368	128	0.3640	199	RNP
Judson College	-1.1067	204	1.2417	27	-0.0385	102	0.5133	100	0.5249	182	0.6010	34	0.4140	98	RNP
Juniata College	0.6282	74	-0.1854	146	-0.2581	159	0.5195	88	0.6034	68	0.5405	124	0.4146	96	100
Kalamazoo College	0.8717	47	-0.1236	139	-0.3415	177	0.5350	56	0.6254	25	0.5550	99	0.4247	65	61
Kentucky State University	-2.5981	236	1.0907	31	-0.6275	225	0.4050	227	0.3801	235	0.5129	159	0.3218	230	RNP
Kenyon College	1.2065	27	-1.0614	200	-0.2508	155	0.4992	133	0.6127	50	0.4853	181	0.3995	144	32
Knox College	0.7500	60	-0.1371	143	-0.2214	145	0.5302	63	0.6166	40	0.5508	108	0.4233	69	82
Lafayette College	1.2674	16	-1.2398	209	0.0513	81	0.4992	132	0.6154	46	0.4772	192	0.4051	125	36
Lake Forest College	0.2630	112	0.1491	121	-0.0271	101	0.5248	77	0.5918	92	0.5598	91	0.4229	70	110
Lane College	-1.7763	223	1.1425	28	-0.8538	233	0.4492	203	0.4483	217	0.5484	113	0.3508	217	RNP
Lawrence University	0.5674	83	-0.6568	178	0.0087	93	0.4939	145	0.5816	113	0.4999	172	0.4004	142	59
Lewis & Clark College	0.6282	74	-0.8443	191	0.2784	35	0.4926	148	0.5832	109	0.4903	177	0.4044	129	74
Life University	-1.3502	211	-0.0820	136	-0.6029	221	0.4050	226	0.4333	224	0.4594	203	0.3223	229	RNP

Linfield College-McMinnville Campus	0.3239	101	-0.4456	167	-0.3514	178	0.4841	161	0.5638	142	0.5021	169	0.3863	167	123
Louisiana State University-Alexandria	-2.6590	237	1.7115	7	0.5225	17	0.4676	184	0.4246	227	0.5882	53	0.3901	161	RNP
Luther College	0.6282	74	-0.0801	135	-0.2056	139	0.5272	71	0.6091	56	0.5511	107	0.4213	79	94
Lycoming College	0.0499	132	0.3324	101	-0.4152	194	0.5143	98	0.5749	124	0.5603	90	0.4078	117	161
Lyon College	-0.7415	186	0.8043	46	-0.2324	148	0.5026	124	0.5324	175	0.5731	69	0.4024	134	167
Macalester College	1.2065	27	-0.7046	183	0.9645	6	0.5509	31	0.6515	12	0.5404	125	0.4607	15	24
Marlboro College	-0.3458	164	-0.8623	193	-0.0854	119	0.4273	220	0.4928	204	0.4405	214	0.3486	219	RNP
Martin University	-2.9025	238	0.4434	91	-0.6400	228	0.3480	237	0.3245	239	0.4406	213	0.2789	238	Unran ked
Marymount Manhattan College	-1.1067	204	-0.6650	179	0.0674	77	0.3999	229	0.4398	220	0.4290	221	0.3309	226	RNP
Maryville College	-0.5588	176	0.5668	76	-0.2564	157	0.4980	134	0.5367	168	0.5587	94	0.3985	148	176
Massachusetts College of Liberal Arts	-0.6806	185	1.4564	14	-0.2981	169	0.5441	40	0.5661	138	0.6340	16	0.4323	49	176
McDaniel College	0.3543	100	0.3683	98	0.3244	31	0.5520	30	0.6161	44	0.5902	50	0.4498	22	126
Middlebury College	1.4196	6	-3.1008	237	-0.4975	207	0.3811	231	0.5332	173	0.3037	237	0.3064	233	4
Millsaps College	0.1412	119	0.6283	65	0.1818	51	0.5522	29	0.6072	59	0.6022	32	0.4473	29	82
Monmouth College	-0.3153	161	0.4076	96	-0.2876	165	0.5013	127	0.5496	160	0.5540	101	0.4004	141	165
Moravian College	0.1412	119	-0.1203	138	-0.0475	105	0.5010	129	0.5688	137	0.5297	134	0.4046	127	138
Morehouse College	-0.2240	150	0.5892	72	-0.6001	220	0.5098	111	0.5598	149	0.5686	76	0.4010	138	126
Mount Holyoke College	0.8717	47	-0.0381	130	0.2167	41	0.5540	25	0.6396	15	0.5731	68	0.4492	23	38
Muhlenberg College	1.1152	31	-0.7789	185	-0.2933	167	0.5102	110	0.6171	36	0.5065	165	0.4069	119	65
Nebraska Wesleyan University	-0.1327	144	0.5961	71	0.2073	44	0.5354	54	0.5829	110	0.5881	54	0.4351	44	146
New College of Florida	0.2325	115	1.8048	5	-0.4494	198	0.6134	6	0.6570	6	0.7018	6	0.4815	6	89
Northland College	-0.3762	167	0.7039	54	0.0798	75	0.5250	75	0.5647	140	0.5852	56	0.4249	63	180
Oberlin College	1.0544	34	-1.1707	205	0.2023	47	0.4951	142	0.6032	70	0.4773	191	0.4048	126	25
Occidental College	1.0239	36	-0.9628	197	-0.2202	144	0.4956	141	0.6023	71	0.4871	180	0.3973	149	41
Oglethorpe University	-0.2545	155	0.6114	67	-0.4733	201	0.5126	103	0.5606	148	0.5717	72	0.4054	123	165
Ohio Wesleyan University	0.2021	117	0.2178	111	0.0139	89	0.5266	72	0.5905	94	0.5642	83	0.4249	64	100
Ouachita Baptist University	-0.2849	159	0.8739	42	-0.1690	134	0.5343	58	0.5756	123	0.6000	36	0.4274	54	173
Pacific Union College	-0.8023	187	-0.1110	137	-0.5764	218	0.4350	215	0.4791	211	0.4806	188	0.3453	220	RNP
Pine Manor College	-2.0198	230	0.7724	50	-0.3086	172	0.4263	221	0.4207	229	0.5143	154	0.3437	221	RNP

Pitzer College	0.9935	40	-3.4928	239	0.2810	34	0.3523	236	0.4935	203	0.2642	239	0.2992	236	35
Pomona College	1.4805	1	-0.8203	188	0.1698	56	0.5398	46	0.6548	9	0.5268	140	0.4377	43	4
Presbyterian College	0.2934	106	0.5007	83	0.2944	33	0.5559	22	0.6164	42	0.5991	38	0.4521	21	126
Principia College	0.3847	98	0.5113	81	-0.9866	237	0.5301	64	0.6009	75	0.5803	62	0.4091	114	107
Randolph College	-0.2240	150	0.5116	80	1.3408	5	0.5530	27	0.5922	90	0.5975	41	0.4693	8	134
Randolph-Macon College	-0.2545	155	0.0811	124	-0.2128	142	0.4867	156	0.5412	164	0.5281	137	0.3909	158	134
Reed College	0.6587	67	-1.3519	216	-0.5241	212	0.4437	208	0.5478	162	0.4305	220	0.3528	213	74
Rhodes College	0.8109	55	-0.1249	140	0.3640	28	0.5489	34	0.6332	17	0.5654	82	0.4481	25	54
Ripon College	0.4152	95	0.4583	90	-0.4809	205	0.5411	45	0.6105	55	0.5861	55	0.4266	58	120
Roanoke College	0.0499	132	0.1930	117	-0.3898	188	0.5065	119	0.5690	134	0.5480	114	0.4024	135	126
Rust College	-1.4111	215	1.3211	23	-0.7224	231	0.4840	162	0.4899	207	0.5827	59	0.3794	179	RNP
Saint Anselm College	0.5369	87	-0.5312	171	0.0595	79	0.5011	128	0.5857	105	0.5110	160	0.4067	120	120
Saint John's University	0.6587	67	-0.2078	150	-0.2147	143	0.5209	83	0.6057	61	0.5406	123	0.4165	87	76
Saint Mary's College	0.6587	67	-0.2512	154	0.1959	48	0.5284	70	0.6113	52	0.5442	119	0.4297	52	76
Saint Michael's College	0.8413	53	-0.8845	194	-0.3295	175	0.4873	154	0.5883	101	0.4845	184	0.3891	162	89
Saint Norbert College	0.4456	93	0.0790	125	-0.5216	211	0.5187	90	0.5950	86	0.5520	104	0.4091	113	134
Saint Vincent College	0.2934	106	0.5160	79	-0.5380	215	0.5363	49	0.6017	73	0.5851	57	0.4220	74	146
Salem College	-0.3762	157	1.3109	24	-0.0711	114	0.5582	20	0.5896	99	0.6378	14	0.4470	30	156
San Diego Christian College	-1.0458	200	-0.2949	157	0.4103	24	0.4343	216	0.4682	215	0.4717	196	0.3631	200	RNP
Sarah Lawrence College	0.6587	67	-1.2086	207	0.4551	20	0.4766	172	0.5724	127	0.4617	201	0.3956	151	Unran ked
Savannah State University	-1.2285	207	1.8990	3	-0.4984	208	0.5350	55	0.5360	171	0.6473	10	0.4218	75	RNP
Scripps College	1.1457	30	-1.5488	222	-0.0126	95	0.4720	178	0.5897	98	0.4427	212	0.3835	169	25
Sewanee-The University of the South	0.5978	80	-0.5778	172	-0.3856	187	0.4907	152	0.5805	114	0.5011	171	0.3907	159	38
Shawnee State University	-2.2938	234	1.4417	16	-0.3047	171	0.4515	200	0.4280	226	0.5638	84	0.3628	201	RNP
Shimer College	-1.4720	216	-0.4741	169	-0.5951	219	0.3744	233	0.4052	232	0.4186	229	0.2996	235	RNP
Shorter University	-1.3198	208	1.1101	30	0.0873	72	0.4963	138	0.5031	196	0.5823	60	0.4036	130	RNP
Siena College	0.5369	87	-0.0533	131	-0.1534	130	0.5249	76	0.6035	67	0.5507	109	0.4206	81	126
Simpson College	0.1412	119	0.5975	70	0.1782	53	0.5503	33	0.6057	62	0.5994	37	0.4457	31	154
Simpson University	-0.8936	190	0.4981	84	0.1268	64	0.4842	160	0.5121	194	0.5453	118	0.3953	153	RNP

Skidmore College	1.0848	33	-1.7428	229	-0.1343	125	0.4537	197	0.5734	126	0.4201	227	0.3675	193	45
Smith College	1.0239	36	-0.6719	180	0.2157	43	0.5240	78	0.6236	29	0.5218	149	0.4268	56	20
Soka University of America	1.4196	6	1.3010	25	0.5544	16	0.6749	3	0.7536	3	0.7249	3	0.5462	4	41
Southwestern University	0.5065	91	-0.1335	142	0.0637	78	0.5237	80	0.6013	74	0.5461	117	0.4237	68	65
Spelman College	0.5674	83	0.4087	95	-0.4419	196	0.5477	37	0.6219	31	0.5888	52	0.4323	50	65
St John's College	0.1108	123	-0.8070	186	-0.3969	190	0.4489	204	0.5284	179	0.4592	204	0.3591	205	123
St Lawrence University	0.8717	47	-0.9105	195	-0.0576	108	0.4941	144	0.5947	87	0.4884	179	0.3993	146	56
St Olaf College	1.0544	34	-0.8312	189	0.0841	73	0.5128	102	0.6165	41	0.5061	166	0.4159	91	52
Sterling College	-0.9850	196	0.2347	110	-0.8712	235	0.4384	212	0.4739	214	0.4989	173	0.3424	222	Unran ked
Stillman College	-1.7763	223	0.7886	49	-0.3537	179	0.4400	211	0.4414	219	0.5253	143	0.3532	212	RNP
Stonehill College	0.6587	67	-0.6815	182	0.0114	92	0.4977	135	0.5883	100	0.5016	170	0.4032	132	115
SUNY at Purchase College	-0.0718	140	1.4181	19	-0.2569	158	0.5774	9	0.6170	37	0.6571	8	0.4580	17	156
SUNY College at Old Westbury	-0.8936	190	1.7170	6	-0.0510	106	0.5540	24	0.5645	141	0.6532	9	0.4443	35	RNP
Susquehanna University	0.4152	95	-0.2046	149	-0.3700	182	0.5035	122	0.5823	111	0.5277	138	0.4005	140	115
Swarthmore College	1.3587	9	-1.1419	203	-0.0178	97	0.5087	113	0.6263	23	0.4888	178	0.4109	109	3
Sweet Briar College	-0.2545	155	-0.2960	158	0.5777	15	0.4833	164	0.5386	166	0.5084	162	0.4029	133	110
Talladega College	-2.4459	235	0.9052	39	0.4385	21	0.4286	219	0.4044	234	0.5222	147	0.3593	204	RNP
The College of Idaho	0.0804	127	0.8920	40	0.2958	32	0.5676	12	0.6161	43	0.6258	19	0.4609	14	167
The College of Wooster	0.6587	67	-0.0766	133	0.3926	25	0.5439	41	0.6229	30	0.5638	85	0.4449	34	65
The King's College	-0.5284	174	0.7059	53	-0.0191	99	0.5140	99	0.5500	159	0.5771	65	0.4149	95	RNP
The University of Virginia's College at Wise	-0.9545	194	1.4378	18	-0.4444	197	0.5239	79	0.5393	165	0.6179	22	0.4144	97	RNP
Thomas Aquinas College	0.4760	92	-0.3402	164	-0.8912	236	0.4858	158	0.5716	130	0.5082	163	0.3776	183	61
Thomas More College of Liberal Arts	-1.1676	206	0.9128	38	-0.8655	234	0.4694	181	0.4894	209	0.5531	103	0.3658	195	Unran ked
Tougaloo College	-0.4371	169	1.2604	26	-0.6226	224	0.5380	48	0.5719	129	0.6204	21	0.4217	76	RNP
Transylvania University	0.5369	87	0.4137	94	-0.1792	136	0.5527	28	0.6244	28	0.5928	46	0.4410	40	76
Trinity College	0.8109	55	-1.5869	224	-0.1603	132	0.4470	206	0.5567	155	0.4222	225	0.3620	202	36
Union College	0.9935	40	-1.5227	220	-0.0515	107	0.4639	191	0.5772	122	0.4379	217	0.3767	184	41
University of Hawaii at Hilo	-1.0763	201	1.3400	22	-0.1367	126	0.5186	91	0.5301	178	0.6095	26	0.4162	90	RNP
University of Maine at Machias	-1.4720	216	1.5635	10	0.5180	18	0.5259	74	0.5188	190	0.6252	20	0.4337	46	RNP

University of Minnesota-Morris	-0.1936	148	1.5212	13	-0.2077	140	0.5779	8	0.6122	51	0.6623	7	0.4594	16	154
University of North Carolina at Asheville	-0.3458	164	1.4476	15	-0.4079	192	0.5599	18	0.5922	91	0.6454	11	0.4421	39	146
University of Pikeville	-1.9589	229	0.3651	100	0.3487	30	0.4212	223	0.4195	230	0.4919	175	0.3521	215	RNP
University of Puget Sound	0.5978	80	-1.1747	206	0.0141	88	0.4643	190	0.5607	147	0.4540	208	0.3782	180	76
University of Richmond	0.9630	43	-0.8374	190	-0.4791	204	0.4934	146	0.5980	83	0.4912	176	0.3909	157	25
University of Science and Arts of Oklahoma	-1.3198	208	1.8669	4	-0.5645	217	0.5263	73	0.5255	181	0.6393	13	0.4140	99	RNP
University of Wisconsin-Parkside	-1.5937	221	1.5782	9	0.1348	63	0.5104	108	0.5020	198	0.6142	24	0.4150	94	RNP
Ursinus College	0.5978	80	-0.6183	174	-0.0654	110	0.4962	140	0.5846	107	0.5033	168	0.4007	139	82
Vassar College	1.2979	12	-1.0636	201	0.1012	70	0.5129	101	0.6269	21	0.4955	174	0.4163	88	13
Virginia Intermont College	-2.0198	230	0.4865	86	-0.4705	200	0.4049	228	0.4047	233	0.4852	182	0.3247	228	RNP
Virginia Military Institute	0.2630	112	0.6767	56	-0.6045	222	0.5427	42	0.6052	63	0.5973	42	0.4256	61	65
Virginia Wesleyan College	-0.8936	190	0.0608	126	0.2038	45	0.4595	196	0.4936	202	0.5068	164	0.3781	181	176
Wabash College	0.4456	93	0.2115	112	0.3611	29	0.5486	36	0.6174	35	0.5805	61	0.4478	26	57
Warren Wilson College	-0.5588	176	0.1874	118	-0.6703	229	0.4647	189	0.5117	195	0.5164	151	0.3658	194	167
Wartburg College	-0.1023	141	0.3053	104	-0.2432	151	0.5083	114	0.5638	143	0.5545	100	0.4064	122	146
Washington & Jefferson College	0.3847	98	-0.6510	177	-0.3941	189	0.4740	177	0.5589	152	0.4852	183	0.3779	182	97
Washington and Lee University	1.2370	19	-1.4589	218	-0.2798	163	0.4760	173	0.5967	84	0.4498	210	0.3816	175	14
Washington College	0.2934	106	-0.6466	176	-0.4282	195	0.4682	182	0.5507	158	0.4811	187	0.3730	190	107
Wellesley College	1.2370	19	-0.3257	162	0.1464	59	0.5555	23	0.6562	8	0.5611	89	0.4491	24	7
Wells College	-0.5588	176	0.4141	93	-0.4585	199	0.4837	163	0.5260	180	0.5410	122	0.3840	168	141
Wesleyan College	-0.4675	170	1.0350	33	0.9312	7	0.5609	16	0.5878	102	0.6273	18	0.4677	10	161
Wesleyan University	1.2674	16	-1.4238	217	-0.3721	183	0.4776	169	0.5991	79	0.4526	209	0.3811	176	17
West Virginia State University	-2.2329	233	1.7014	8	-0.6143	223	0.4632	193	0.4393	222	0.5844	58	0.3657	196	RNP
Western State Colorado University	-1.3502	211	1.3719	20	0.1191	67	0.5113	106	0.5130	192	0.6055	30	0.4154	93	RNP
Westminster College	0.2630	112	1.0346	34	-0.0409	103	0.5784	7	0.6320	18	0.6404	12	0.4628	12	146
Westminster College	0.6282	74	0.5284	78	-0.1115	124	0.5665	13	0.6386	16	0.6084	28	0.4526	20	115
Westmont College	0.6891	63	-0.2919	156	-0.2846	164	0.5158	96	0.6032	69	0.5329	130	0.4113	104	94
Wheaton College	1.2370	19	-0.2172	151	-0.0806	116	0.5565	21	0.6570	5	0.5668	79	0.4456	32	57
Wheaton College	0.7195	62	-0.9948	198	-0.0180	98	0.4814	166	0.5786	118	0.4750	195	0.3904	160	65
Whitman College	1.1152	31	-1.2801	212	0.2308	39	0.4926	149	0.6039	65	0.4704	197	0.4034	131	41

Whittier College	0.2934	106	-1.1409	202	-0.2389	150	0.4428	209	0.5316	176	0.4395	215	0.3574	208	126
Willamette University	0.5674	83	-0.4505	168	0.4823	19	0.5182	93	0.5998	78	0.5275	139	0.4273	55	61
William Jewell College	-0.1023	141	0.8622	43	-0.4923	206	0.5360	52	0.5846	106	0.6007	35	0.4226	73	146
William Peace University	-1.4720	216	0.5638	77	-0.0889	121	0.4501	202	0.4619	216	0.5227	146	0.3657	197	RNP
Williams College	1.4500	3	-1.2499	210	-0.0670	112	0.5061	120	0.6283	20	0.4819	185	0.4081	116	1
Wisconsin Lutheran College	-0.2240	150	0.7311	52	0.0260	86	0.5339	59	0.5779	121	0.5932	45	0.4307	51	RNP
Wittenberg University	-0.0414	139	0.2396	108	-0.0936	122	0.5114	105	0.5688	136	0.5539	102	0.4116	103	123
Wofford College	0.8717	47	0.1957	116	0.0578	80	0.5643	15	0.6473	13	0.5915	49	0.4540	18	65
Xavier University of Louisiana	-0.9850	196	0.3655	99	-0.6881	230	0.4509	201	0.4832	210	0.5142	156	0.3552	211	161

For US News Data:

National Liberal Arts Colleges Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Effectiv Standar Score/J	veness rdized Rank	Efficier Standard Score/R	ncy lized ank	Expend Standar Score/J	itures rdized Rank	Tri-E (Equ Score/	WD#1 1al) Rank	Tri-E V (Effectiv Score/	WD#2 veness) Rank	Tri E (Effic Score/	WD #3 iency) Ranks	Tri E V (Expend s) Score	VD#4 diture /Rank	US News Rank
Albertus Magnus College	-1.0541	160	0.1741	75	-2.3866	182	0.4971	174	0.5184	175	0.5246	133	0.4483	180	131
Alfred University	0.0014	95	0.6557	59	-0.7275	143	0.6388	69	0.6590	79	0.6589	61	0.5984	88	30
Alvernia University	-0.2097	110	-0.4939	123	-0.3872	118	0.5524	141	0.5874	140	0.5272	132	0.5426	143	116
American International College	-1.3074	167	0.5318	64	-1.2357	167	0.5545	140	0.5532	166	0.5885	90	0.5217	161	RNP
Anna Maria College	-0.9696	158	-0.4422	116	0.9384	26	0.5702	125	0.5760	151	0.5435	117	0.5910	98	RNP
Arcadia University	0.5502	53	-0.5803	128	1.5488	15	0.6469	66	0.6830	50	0.5930	87	0.6647	31	48
Assumption College	1.0568	19	-0.1740	89	-0.8856	152	0.6146	87	0.6752	59	0.5924	89	0.5761	115	30
Bentley University	2.0279	3	-2.0678	180	0.7664	34	0.5679	130	0.6718	64	0.4472	169	0.5848	103	4
Bloomsburg University of Pennsylvania	0.4658	61	0.9702	49	-0.4997	125	0.6914	37	0.7136	27	0.7167	39	0.6439	51	95
Bridgewater State University	0.1703	84	0.9975	45	-0.1253	87	0.6939	34	0.7059	32	0.7202	37	0.6557	38	RNP
Bryant University	1.5635	10	-1.6110	172	-1.2882	168	0.5108	169	0.6139	119	0.4309	173	0.4876	172	14
Buffalo State SUNY	-0.3364	127	1.5571	7	-0.3228	105	0.7084	25	0.7003	38	0.7636	15	0.6613	34	101
Cabrini College	-0.3786	129	-0.5718	127	-0.2205	96	0.5449	146	0.5762	150	0.5170	139	0.5414	144	131
Cairn University-Langhorne	0.2969	77	0.2140	72	0.1760	71	0.6492	63	0.6765	57	0.6410	68	0.6301	62	RNP
Caldwell College	0.0858	86	-0.5356	124	0.2464	68	0.5843	108	0.6209	110	0.5487	114	0.5833	107	126
California University of Pennsylvania	0.0436	89	0.9898	47	-0.8458	150	0.6624	56	0.6781	55	0.6961	50	0.6130	77	135
Canisius College	0.8035	36	-0.3213	102	0.9328	28	0.6563	61	0.6983	39	0.6152	77	0.6555	39	27
Carlow University	-0.2097	110	-0.3330	104	0.4278	55	0.5936	101	0.6183	114	0.5675	101	0.5951	92	RNP
Centenary College	-0.0830	98	-0.4480	118	-1.4025	172	0.5256	161	0.5714	154	0.5098	143	0.4957	170	RNP
Central Connecticut State University	-0.1253	103	0.9567	50	0.4885	50	0.6996	31	0.7005	37	0.7220	35	0.6762	21	116
Chatham University	0.1703	84	-0.6233	135	-0.2257	98	0.5645	132	0.6088	126	0.5287	130	0.5560	132	48
Chestnut Hill College	-0.4630	134	-0.3193	101	0.0391	79	0.5700	127	0.5923	135	0.5505	112	0.5671	122	131
Cheyney University of Pennsylvania	-1.8140	176	1.7534	2	-1.4027	173	0.6215	80	0.5870	141	0.7098	44	0.5676	121	RNP
Clarion University of Pennsylvania	-0.5052	136	1.0202	42	-0.1252	86	0.6664	52	0.6632	73	0.7008	48	0.6350	58	RNP
College of Mount Saint Vincent	-0.1253	103	-0.8184	145	-0.6580	141	0.5213	163	0.5668	158	0.4850	159	0.5121	167	116

# Table33: Regional Universities – North Score and Rank

College of Spint Elizabeth	0 2796	120	0.9715	147	2 0007	0	0,6000	07	0 6175	115	0.5400	110	0 6 4 1 5	56	DND
Conege of Saint Enzabeth	-0.3780	129	-0.8/13	14/	2.0007	9	0.0000	97	0.0173	115	0.3409	119	0.0413	50	KINP
College of St Joseph	-1.6873	175	0.1095	76	0.2420	69	0.5573	137	0.5430	168	0.5660	103	0.5630	128	RNP
College of Staten Island CUNY	-0.1253	103	1.5997	4	0.4103	57	0.7467	7	0.7359	14	0.7948	2	0.7095	11	135
Coppin State University	-2.0251	177	1.8607	1	-1.0234	161	0.6340	72	0.5895	138	0.7255	31	0.5870	99	RNP
CUNY Bernard M Baruch College	1.0146	20	1.1252	36	0.2905	65	0.7551	4	0.7792	2	0.7735	9	0.7126	9	22
CUNY Brooklyn College	0.2969	77	1.4800	11	0.7160	37	0.7665	1	0.7645	8	0.8027	1	0.7324	4	69
CUNY City College	-0.2097	110	1.4875	9	-0.1360	89	0.7151	18	0.7094	30	0.7646	14	0.6713	25	43
CUNY Hunter College	0.0436	89	1.2505	28	0.6836	38	0.7366	10	0.7338	15	0.7669	12	0.7091	12	48
CUNY John Jay College of Criminal Justice	-0.4208	132	1.5902	5	-0.5445	127	0.6995	32	0.6908	42	0.7589	18	0.6488	46	131
CUNY Lehman College	-0.5897	141	1.4736	13	0.8445	31	0.7321	13	0.7098	29	0.7765	8	0.7100	10	126
CUNY Queens College	0.4658	61	1.3871	19	0.6109	42	0.7629	2	0.7673	6	0.7946	3	0.7269	6	43
Curry College	-0.8008	151	-1.4521	170	0.8044	33	0.4944	175	0.5246	173	0.4279	175	0.5306	155	RNP
Daemen College	-0.3364	127	0.1051	77	0.9530	24	0.6407	68	0.6495	87	0.6283	73	0.6443	49	RNP
Delaware State University	-1.6029	174	1.2593	27	-0.9876	159	0.6069	93	0.5829	143	0.6701	58	0.5676	120	RNP
DeSales University	0.8458	33	-0.3493	106	-0.4086	120	0.6086	92	0.6639	72	0.5778	97	0.5842	104	85
Dominican College of Blauvelt	-1.4340	169	-0.6148	134	-0.5923	134	0.4826	177	0.4952	178	0.4678	165	0.4849	174	RNP
Dowling College	-1.2651	165	-0.9279	151	1.7112	11	0.5469	143	0.5489	167	0.4978	152	0.5940	94	RNP
D'Youville College	-0.8008	151	-0.6522	137	1.1868	20	0.5700	128	0.5813	146	0.5311	127	0.5974	90	RNP
East Stroudsburg University of Pennsylvania	-0.1675	107	0.7188	56	-0.4165	121	0.6473	65	0.6600	77	0.6690	59	0.6131	76	116
Eastern Connecticut State University	-0.0830	98	1.1632	32	-0.4061	119	0.6859	41	0.6916	41	0.7238	33	0.6422	53	108
Eastern University	0.3391	71	0.0154	79	1.6079	14	0.6861	40	0.7055	34	0.6571	62	0.6957	15	95
Edinboro University of Pennsylvania	-0.8008	151	1.2491	29	0.4539	52	0.6917	36	0.6727	63	0.7332	27	0.6694	27	126
Emerson College	1.6479	6	-1.6862	173	-1.3488	170	0.5065	171	0.6134	121	0.4233	176	0.4827	175	11
Emmanuel College	0.3391	71	-0.5980	129	-0.5810	132	0.5613	134	0.6119	122	0.5278	131	0.5442	140	54
Endicott College	1.0146	20	-0.1979	92	-0.5481	128	0.6228	79	0.6800	53	0.5972	85	0.5912	97	74
Fairfield University	1.5635	10	-1.7547	175	-0.2576	102	0.5360	154	0.6328	101	0.4414	170	0.5337	150	3
Fairleigh Dickinson University-Metropolitan Campus	-0.5897	141	-0.7515	143	1.6414	13	0.5874	105	0.6013	130	0.5385	121	0.6226	68	69
Felician College	-0.6319	145	-1.3391	166	0.3051	64	0.4929	176	0.5290	170	0.4333	172	0.5163	164	RNP
Fitchburg State University	-0.2097	110	1.2684	24	0.4983	49	0.7204	17	0.7134	28	0.7558	20	0.6921	17	RNP

Framingham State University	-0.2097	110	1.2873	23	0.1709	72	0.7104	22	0.7058	33	0.7494	23	0.6759	22	RNP
Franklin Pierce University	-0.7585	150	-0.4780	121	0.7560	36	0.5701	126	0.5828	144	0.5414	118	0.5862	102	126
Frostburg State University	-0.6319	145	1.3623	21	-0.9338	154	0.6589	59	0.6535	83	0.7152	40	0.6080	82	135
Gallaudet University	-0.8852	156	0.5426	63	-0.6551	140	0.5941	99	0.5967	133	0.6188	76	0.5668	123	22
Gannon University	0.5924	50	-0.4414	115	-0.2335	99	0.5967	98	0.6467	89	0.5634	104	0.5799	112	54
Georgian Court University	-0.4630	134	-0.9092	149	0.9752	23	0.5572	139	0.5827	145	0.5066	147	0.5823	110	111
Goddard College	-2.7850	180	-0.2214	93	-0.0053	80	0.4753	178	0.4457	181	0.4852	158	0.4949	171	Unran ked
Gwynedd Mercy University	0.8035	36	-0.3140	100	-0.4305	122	0.6088	91	0.6626	74	0.5799	95	0.5838	105	111
Holy Family University	0.2969	77	-0.6121	133	1.7830	10	0.6417	67	0.6709	65	0.5873	91	0.6670	29	109
Hood College	0.2547	81	-0.1656	88	1.4454	16	0.6627	55	0.6852	49	0.6290	72	0.6738	23	37
Husson University	-0.7163	148	-0.1319	84	-0.7310	145	0.5464	144	0.5664	160	0.5437	116	0.5290	157	RNP
Iona College	0.6347	47	-0.9125	150	-0.3674	115	0.5572	138	0.6185	113	0.5064	148	0.5468	137	66
Ithaca College	1.2679	14	-1.3708	169	-0.4806	124	0.5451	145	0.6300	103	0.4706	163	0.5347	149	8
Johnson & Wales University-Providence	-0.1253	103	-0.1535	86	-2.3697	181	0.5125	167	0.5602	163	0.5171	138	0.4603	179	74
Johnson State College	-1.4762	170	0.4464	66	-0.2481	101	0.5753	119	0.5634	161	0.5991	83	0.5635	127	RNP
Kean University	-0.3786	129	0.8340	52	0.4222	56	0.6767	44	0.6751	60	0.6977	49	0.6573	36	RNP
Keene State College	0.2969	77	0.3324	68	-1.3563	171	0.6043	95	0.6428	94	0.6143	79	0.5559	133	87
Keuka College	-0.2097	110	-1.0131	154	1.6637	12	0.5844	107	0.6114	124	0.5209	136	0.6209	70	Unran ked
King's College	0.5924	50	-0.3049	99	0.0514	78	0.6173	85	0.6622	75	0.5869	93	0.6029	86	37
Kutztown University of Pennsylvania	-0.2519	119	1.0161	43	-0.3630	113	0.6686	51	0.6732	62	0.7023	47	0.6304	60	116
La Salle University	0.7191	41	-0.6363	136	0.6319	40	0.6176	84	0.6665	67	0.5678	100	0.6185	72	27
Le Moyne College	0.9724	23	-0.4388	114	0.1801	70	0.6279	76	0.6825	51	0.5871	92	0.6143	75	24
Lesley University	-0.2519	119	-0.5616	126	0.9446	25	0.5923	102	0.6159	117	0.5531	111	0.6078	83	101
Lincoln University of Pennsylvania	-1.1385	162	-0.1920	91	0.3052	63	0.5600	136	0.5628	162	0.5504	113	0.5666	124	RNP
LIU Post	-0.8852	156	-1.2337	164	4.2124	1	0.6279	77	0.6220	109	0.5407	120	0.7209	7	123
Lock Haven University	-0.5474	138	1.1074	37	-0.3667	114	0.6628	54	0.6592	78	0.7032	46	0.6260	67	RNP
Loyola University Maryland	1.7323	5	-1.9241	178	-0.2232	97	0.5314	159	0.6348	99	0.4281	174	0.5312	154	5
Manhattan College	1.3524	13	-1.1224	161	-0.0412	83	0.5835	109	0.6616	76	0.5139	141	0.5751	117	17
Manhattanville College	0.0014	95	-0.6961	141	0.5394	46	0.5785	114	0.6138	120	0.5350	124	0.5867	100	74

Mansfield University of Pennsylvania	-0.4630	134	1.1938	30	-0.1249	85	0.6817	43	0.6761	58	0.7224	34	0.6465	48	135
Marist College	1.6057	8	-1.2019	162	0.5822	44	0.6103	88	0.6899	45	0.5294	129	0.6117	79	10
Marywood University	0.8880	28	-0.3785	108	-0.3558	111	0.6101	89	0.6663	68	0.5771	98	0.5867	101	48
Medaille College	-0.8430	154	-0.1385	85	-0.8921	153	0.5347	156	0.5535	165	0.5346	125	0.5160	165	RNP
Mercy College	-1.2651	165	-0.4211	113	-0.1845	91	0.5194	165	0.5283	171	0.5067	146	0.5232	160	RNP
Mercyhurst University	0.7613	39	0.0935	78	0.4448	53	0.6695	50	0.7068	31	0.6492	64	0.6524	43	37
Metropolitan College of New York	-3.0383	182	-0.3678	107	-1.5500	177	0.3984	182	0.3799	182	0.4191	178	0.3964	182	RNP
Millersville University of Pennsylvania	0.5502	53	0.9816	48	-0.3856	117	0.7000	29	0.7228	21	0.7238	32	0.6533	42	81
Misericordia University	0.9724	23	-0.3983	110	0.3916	59	0.6386	70	0.6905	44	0.5974	84	0.6278	65	43
Molloy College	0.8035	36	-1.3546	167	0.9272	29	0.5759	118	0.6379	95	0.4947	155	0.5950	93	60
Monmouth University	0.5080	56	-1.0798	159	-0.3712	116	0.5386	150	0.6004	131	0.4827	161	0.5327	152	30
Montclair State University	0.5502	53	0.7518	54	-0.5685	129	0.6757	46	0.7046	35	0.6922	52	0.6303	61	54
Mount Saint Mary College	-0.2097	110	-0.7191	142	-0.5914	133	0.5277	160	0.5688	156	0.4955	154	0.5187	163	111
Mount St Mary's University	0.6769	45	-0.4561	119	-0.5276	126	0.5888	104	0.6435	93	0.5567	107	0.5662	126	20
Nazareth College	1.0146	20	-0.8865	148	-0.3324	106	0.5769	116	0.6456	91	0.5227	135	0.5625	129	27
Neumann University	-0.2519	119	-0.6716	140	-0.3614	112	0.5377	152	0.5749	152	0.5058	149	0.5323	153	RNP
New England College	-1.0541	160	0.6491	60	-1.0653	162	0.5806	112	0.5810	147	0.6149	78	0.5458	138	RNP
New Jersey City University	-1.1807	163	0.9916	46	1.3336	18	0.6863	39	0.6562	82	0.7141	41	0.6886	18	RNP
New York Institute of Technology	-0.6319	145	-1.7806	176	-0.9391	155	0.4147	181	0.4704	179	0.3490	181	0.4247	181	48
Niagara University	0.7191	41	-0.0215	81	-0.4590	123	0.6268	78	0.6734	61	0.6105	80	0.5965	91	54
Norwich University	0.3391	71	-0.4464	117	-0.2141	94	0.5860	106	0.6304	102	0.5551	109	0.5724	119	74
Notre Dame of Maryland University	-0.5474	138	-0.3796	109	2.1018	7	0.6344	71	0.6379	96	0.5953	86	0.6700	26	60
Nyack College	-0.9696	148	-0.0493	83	1.0627	22	0.6051	94	0.6022	129	0.5926	88	0.6205	71	RNP
Philadelphia University	0.3814	68	-1.0643	158	-1.1898	166	0.5054	172	0.5714	155	0.4587	167	0.4862	173	81
Plymouth State University	-0.0830	98	0.4087	67	-0.3378	108	0.6297	75	0.6495	86	0.6377	70	0.6019	87	111
Point Park University	-0.2941	124	-0.7708	144	-0.1263	88	0.5364	153	0.5726	153	0.4991	151	0.5375	148	111
Providence College	1.9434	4	-1.7244	174	-1.6087	179	0.5072	170	0.6235	108	0.4216	177	0.4764	177	2
Quinnipiac University	1.1835	17	-2.4323	182	-0.5802	131	0.4555	180	0.5600	164	0.3416	182	0.4648	178	11
Ramapo College of New Jersey	1.2679	14	0.6816	57	-1.4279	174	0.6710	48	0.7244	18	0.6846	54	0.6041	84	33
Rhode Island College	-0.5474	138	1.1878	31	-0.3105	104	0.6710	49	0.6653	71	0.7141	42	0.6336	59	126

Rider University	0.5080	56	-1.3030	165	0.1052	75	0.5381	151	0.6000	132	0.4693	164	0.5449	139	18
Rivier University	-0.0830	98	-0.2259	94	2.2874	5	0.6730	47	0.6820	52	0.6333	71	0.7038	13	RNP
Robert Morris University	-0.0408	97	-0.5985	130	-0.6190	136	0.5434	147	0.5861	142	0.5143	140	0.5297	156	85
Roberts Wesleyan College	0.3391	71	-0.4684	120	0.5040	48	0.6096	90	0.6481	88	0.5716	99	0.6091	80	74
Rochester Institute of Technology	0.8880	28	-1.0220	156	0.2869	66	0.5828	110	0.6459	90	0.5192	137	0.5832	108	7
Roger Williams University	0.3391	71	-1.3626	168	0.3561	62	0.5350	155	0.5922	136	0.4635	166	0.5492	136	37
Rosemont College	0.4236	64	-0.2936	98	-0.9748	158	0.5747	120	0.6247	107	0.5555	108	0.5438	142	101
Rowan University	1.0991	18	0.5895	62	0.8872	30	0.7382	9	0.7693	5	0.7296	29	0.7157	8	18
Sacred Heart University	0.6347	47	-1.0976	160	-0.2192	95	0.5481	142	0.6116	123	0.4888	157	0.5438	141	33
Saint Francis University	0.5080	56	-0.2644	96	-1.1434	164	0.5747	121	0.6274	106	0.5572	106	0.5393	146	43
Saint Joseph's College of Maine	-0.2097	110	0.7443	55	-2.0730	180	0.5891	103	0.6149	118	0.6268	74	0.5255	159	81
Saint Joseph's College-New York	0.9302	26	-0.1893	90	2.7242	3	0.7352	11	0.7616	9	0.6820	56	0.7621	1	48
Saint Joseph's University	1.5635	10	-1.8430	177	1.2492	19	0.5823	111	0.6675	66	0.4710	162	0.6083	81	11
Saint Peter's University	-0.1675	107	-0.6078	132	0.3816	60	0.5725	122	0.6038	127	0.5356	123	0.5780	113	101
Salem State University	-0.5052	136	1.1321	35	0.1679	73	0.6854	42	0.6775	56	0.7216	36	0.6571	37	RNP
Salisbury University	0.8458	33	1.2639	26	-1.5914	178	0.6922	35	0.7266	16	0.7344	26	0.6156	74	66
Salve Regina University	0.9302	26	-0.9832	153	-0.3461	109	0.5653	131	0.6341	100	0.5084	144	0.5534	134	43
Shippensburg University of Pennsylvania	-0.2519	119	1.0371	41	-0.2042	93	0.6759	45	0.6786	54	0.7089	45	0.6401	57	93
Simmons College	0.8880	28	-1.0165	155	-0.0365	82	0.5718	123	0.6376	97	0.5113	142	0.5664	125	16
Slippery Rock University of Pennsylvania	0.5080	56	1.1441	33	-0.6241	138	0.7023	27	0.7232	19	0.7350	25	0.6488	45	93
Southern Connecticut State University	-0.5897	141	0.8361	51	0.2573	67	0.6619	57	0.6571	80	0.6868	53	0.6418	55	RNP
Southern New Hampshire University	0.0436	89	0.3112	69	2.0939	8	0.7134	19	0.7164	26	0.6948	51	0.7290	5	Unran ked
Springfield College	0.8458	33	-0.4805	122	-1.4666	175	0.5611	135	0.6283	104	0.5345	126	0.5206	162	37
St Bonaventure University	0.5924	50	-0.2910	97	-0.3514	110	0.6042	96	0.6523	85	0.5778	96	0.5824	109	33
St Thomas Aquinas College	-0.2941	124	-0.6615	138	0.8100	32	0.5779	115	0.6038	128	0.5366	122	0.5934	96	135
State University of New York at New Paltz	1.2257	16	1.2880	22	-0.7933	147	0.7387	8	0.7738	3	0.7707	11	0.6716	24	33
Stevenson University	0.0858	86	-0.0388	82	0.0828	76	0.6171	86	0.6455	92	0.6022	82	0.6036	85	87
Suffolk University	0.0436	89	-1.9614	179	-0.1457	90	0.4579	179	0.5248	172	0.3709	180	0.4782	176	60
SUNY at Fredonia	0.4658	61	1.4834	10	-1.3355	169	0.7018	28	0.7214	23	0.7544	21	0.6296	64	60

SUNY College at Brockport	0.7191	41	1.4686	14	-0.2477	100	0.7500	5	0.7658	7	0.7896	5	0.6945	16	54
SUNY College at Cortland	0.7613	39	1.4112	16	-0.7302	144	0.7303	14	0.7524	12	0.7716	10	0.6670	30	69
SUNY College at Geneseo	1.6057	8	1.3932	18	-0.9715	157	0.7570	3	0.7999	1	0.7906	4	0.6807	20	15
SUNY College at Oswego	0.2547	81	1.4681	15	-0.7809	146	0.7110	21	0.7214	22	0.7604	17	0.6511	44	69
SUNY College at Plattsburgh	0.3391	71	1.4066	17	-0.7048	142	0.7125	20	0.7253	17	0.7580	19	0.6543	41	81
SUNY College at Potsdam	-0.2097	110	1.4773	12	-0.6517	139	0.6961	33	0.6952	40	0.7498	22	0.6434	52	98
SUNY Empire State College	-2.8694	181	1.5883	6	2.7486	2	0.7093	23	0.6185	112	0.7661	13	0.7432	3	Unran ked
SUNY Institute of Technology at Utica-Rome	-1.1807	163	1.3738	20	2.2795	6	0.7493	6	0.7035	36	0.7836	6	0.7609	2	109
SUNY Oneonta	0.8880	28	1.5066	8	-0.9681	156	0.7348	12	0.7599	10	0.7805	7	0.6641	32	66
The College of New Jersey	2.1123	2	0.2989	70	-0.8091	149	0.6998	30	0.7735	4	0.6839	55	0.6420	54	5
The College of New Rochelle	-2.1517	178	0.2130	73	-0.0605	84	0.5345	157	0.5108	176	0.5549	110	0.5379	147	RNP
The College of Saint Rose	0.6347	47	-0.4042	112	1.1143	21	0.6489	64	0.6873	47	0.6048	81	0.6547	40	37
The Richard Stockton College of New Jersey	0.7191	41	1.0544	39	-1.0671	163	0.6889	38	0.7200	25	0.7197	38	0.6270	66	60
Touro College	0.3814	68	0.0149	80	0.9364	27	0.6642	53	0.6905	43	0.6407	69	0.6615	33	123
Towson University	0.8880	28	1.1348	34	-0.8806	151	0.7091	24	0.7406	13	0.7395	24	0.6471	47	54
Trinity Washington University	-1.5607	171	-0.3289	103	-0.5767	130	0.4999	173	0.5040	177	0.4974	153	0.4982	169	RNP
University of Bridgeport	-1.5607	171	-0.6629	139	0.7595	35	0.5211	164	0.5199	174	0.4939	156	0.5495	135	RNP
University of Hartford	-0.5897	141	-0.3990	111	0.4076	58	0.5713	124	0.5892	139	0.5469	115	0.5778	114	98
University of Maryland Eastern Shore	-1.3074	167	1.6394	3	-1.4970	176	0.6313	74	0.6108	125	0.7106	43	0.5724	118	RNP
University of Maryland-University College	-4.1360	183	0.2361	71	2.5322	4	0.5417	149	0.4516	180	0.5617	105	0.6118	78	Unran ked
University of Massachusetts-Dartmouth	-0.2941	124	0.6297	61	-0.8002	148	0.6214	81	0.6364	98	0.6443	66	0.5834	106	87
University of New England	0.0858	86	-1.2032	163	-0.3360	107	0.5119	168	0.5666	159	0.4555	168	0.5136	166	87
University of New Haven	0.0436	89	-0.9769	152	-0.1893	92	0.5328	158	0.5810	148	0.4844	160	0.5332	151	101
University of Saint Joseph	0.2969	77	-0.3443	105	0.5292	47	0.6183	83	0.6533	84	0.5853	94	0.6163	73	95
University of Scranton	1.6479	6	-0.8601	146	-1.1712	165	0.5769	117	0.6662	69	0.5242	134	0.5402	145	8
University of Southern Maine	-1.5607	171	0.6678	58	0.6463	39	0.6204	82	0.5944	134	0.6459	65	0.6210	69	RNP
University of the District of Columbia	-2.7006	179	1.0890	38	0.3726	61	0.5940	100	0.5376	169	0.6506	63	0.5939	95	RNP
Utica College	-0.7163	148	-0.5474	125	0.6144	41	0.5616	133	0.5778	149	0.5310	128	0.5760	116	116
Villanova University	2.1545	1	-2.3415	181	0.4776	51	0.5420	148	0.6565	81	0.4118	179	0.5577	130	1

Wagner College	0.6769	45	-1.5933	171	-0.0114	81	0.5187	166	0.5910	137	0.4379	171	0.5273	158	24
Waynesburg University	0.5080	56	0.1810	74	0.0750	77	0.6522	62	0.6856	48	0.6414	67	0.6297	63	87
West Chester University of Pennsylvania	0.9724	23	0.8037	53	0.1093	74	0.7219	16	0.7530	11	0.7299	28	0.6829	19	74
Western Connecticut State University	-0.8430	154	1.0102	44	-0.6058	135	0.6340	73	0.6280	105	0.6760	57	0.5980	89	RNP
Western New England University	0.3814	68	-1.0484	157	0.5970	43	0.5697	129	0.6196	111	0.5078	145	0.5816	111	60
Westfield State University	0.4236	64	1.0407	40	-0.2704	103	0.7031	26	0.7210	24	0.7296	30	0.6588	35	123
Wheelock College	-0.1675	107	-0.6010	131	-1.0170	160	0.5237	162	0.5672	157	0.4994	150	0.5044	168	69
Wilkes University	0.4236	64	-0.2626	95	1.3629	17	0.6595	58	0.6883	46	0.6210	75	0.6693	28	74
William Paterson University of New Jersey	-0.2519	119	0.5252	65	0.4326	54	0.6586	60	0.6656	70	0.6662	60	0.6440	50	101
Worcester State University	-0.0830	98	1.2652	25	0.5555	45	0.7277	15	0.7230	20	0.7611	16	0.6990	14	RNP
York College Pennsylvania	0.0436	89	-0.1652	87	-0.6240	137	0.5805	113	0.6167	116	0.5674	102	0.5575	131	98

For US News Data:

Regional University Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Effective Standard Score/R	eness lized ank	Efficiency Standardized Score/Rank		Expenditures Standardized Score/Rank		Tri-E WD#1 (Equal) Score/Rank		Tri-E WD#2 (Effectiveness) Score/Rank		Tri E WD#3 (Efficiency) Score/Rank		Tri E WD#4 (Expenditure s) Score/Rank		US News Rank
Alabama A & M University	-0.7745	101	0.4918	54	-0.9674	111	0.5712	92	0.5729	106	0.6460	75	0.4948	103	RNP
Alabama State University	-1.3602	121	0.1674	66	-0.5015	93	0.5445	110	0.5356	117	0.6115	91	0.4865	110	RNP
Albany State University	-0.4816	84	1.0859	9	-0.8288	106	0.6227	58	0.6202	69	0.7110	32	0.5368	79	84
Alcorn State University	-0.7745	101	1.0017	17	-1.2023	118	0.5936	81	0.5897	94	0.6854	57	0.5056	97	77
Appalachian State University	1.8613	8	0.6476	45	-0.6755	100	0.6943	2	0.7433	4	0.7452	6	0.5944	23	9
Arkansas State University-Main Campus	-0.3352	73	1.0756	10	-0.7777	103	0.6296	51	0.6297	60	0.7157	26	0.5433	71	61
Arkansas Tech University	-0.3840	75	1.1232	5	-0.4569	89	0.6412	40	0.6370	56	0.7266	15	0.5601	53	RNP
Armstrong Atlantic State University	-0.7745	101	0.7541	37	-0.3111	79	0.6088	72	0.6011	87	0.6858	56	0.5395	76	RNP
Auburn University at Montgomery	-1.3114	119	0.3497	60	-0.5590	95	0.5553	102	0.5451	115	0.6277	87	0.4931	105	84
Austin Peay State University	-0.6280	94	0.6713	43	1.3350	5	0.6649	17	0.6475	43	0.7242	17	0.6230	7	69
Belhaven University	0.2505	45	0.0012	71	0.6947	26	0.6384	43	0.6536	32	0.6745	62	0.5870	31	59
Bellarmine University	1.3244	15	-1.2603	112	1.0260	16	0.6171	64	0.6695	25	0.6025	94	0.5793	37	16
Belmont University	1.5684	12	-2.8129	126	0.2281	51	0.5079	122	0.5948	92	0.4515	127	0.4773	114	7
Bethel University	-1.4090	122	-1.2714	113	6.3297	1	0.6865	7	0.6406	51	0.6540	73	0.7649	1	RNP
Brenau University	-0.1888	64	-0.7336	105	-2.2674	128	0.4781	126	0.5204	124	0.5216	118	0.3922	127	49
Campbell University	0.3482	41	-0.6458	103	1.3724	4	0.6266	54	0.6477	42	0.6369	79	0.5952	22	27
Campbellsville University	-0.4328	80	-0.0413	74	1.1976	8	0.6258	55	0.6239	66	0.6632	69	0.5902	28	69
Charleston Southern University	-1.0673	114	-0.4763	94	-0.0962	63	0.5315	115	0.5345	118	0.5731	107	0.4869	109	RNP
Christian Brothers University	0.7874	25	-0.2361	82	-1.7866	126	0.5622	98	0.6124	75	0.6069	92	0.4674	118	24
Christopher Newport University	1.7636	9	0.4764	56	-1.4541	121	0.6542	27	0.7103	6	0.7075	39	0.5447	69	18
Citadel Military College of South Carolina	1.6660	10	-0.2940	83	-0.4732	90	0.6376	45	0.6949	12	0.6608	72	0.5570	57	4
Coastal Carolina University	-0.4328	80	-0.5278	97	0.1541	54	0.5619	99	0.5760	103	0.5936	100	0.5160	90	62
College of Charleston	1.6660	10	-0.6269	102	-0.4776	91	0.6177	61	0.6800	18	0.6311	83	0.5419	73	12
Columbia College	-0.4816	84	-0.5696	98	0.6064	34	0.5727	90	0.5827	100	0.5999	96	0.5355	81	46
Columbia International University	1.4708	13	-0.3879	90	-1.6144	124	0.5860	85	0.6505	39	0.6179	88	0.4896	108	55

# Table 34: Regional Universities – South Score and Rank

Columbus State University	-0.8233	105	0.5944	48	1.0565	13	0.6433	36	0.6255	64	0.7046	43	0.5998	18	92
Converse College	0.5922	32	0.1425	67	-0.3657	85	0.6247	57	0.6535	33	0.6705	65	0.5500	66	20
Cumberland University	-0.8721	107	-0.3964	91	0.1260	58	0.5514	105	0.5552	112	0.5916	101	0.5074	96	RNP
Delta State University	-0.5792	91	0.7708	33	1.2236	7	0.6690	15	0.6520	35	0.7317	11	0.6232	6	73
Eastern Kentucky University	-0.5304	88	0.5642	51	0.6459	30	0.6393	42	0.6312	59	0.7003	50	0.5864	32	55
Elon University	2.7887	1	-3.0079	127	0.3635	46	0.5490	107	0.6618	27	0.4737	126	0.5116	94	1
Embry-Riddle Aeronautical University-Daytona Beach	0.9339	21	-4.4004	128	-1.5340	122	0.3296	128	0.4423	128	0.2472	128	0.2993	128	11
Fairmont State University	-0.8721	107	1.1127	8	-0.0302	61	0.6356	46	0.6184	73	0.7219	21	0.5667	49	RNP
Fayetteville State University	-0.4328	80	1.1980	3	-0.3186	80	0.6484	31	0.6409	50	0.7352	9	0.5689	45	RNP
Florida Gulf Coast University	0.2505	45	0.8484	26	0.6083	33	0.6857	8	0.6891	13	0.7477	4	0.6203	8	79
Florida Memorial University	-0.2376	67	-1.3748	115	-0.8273	105	0.4864	124	0.5252	120	0.4994	122	0.4347	125	Unra nked
Francis Marion University	-0.3840	75	0.5895	49	1.1319	10	0.6629	20	0.6532	34	0.7191	23	0.6163	10	73
Freed-Hardeman University	0.4458	35	-0.3084	84	-0.2244	75	0.5969	80	0.6283	62	0.6296	84	0.5327	82	35
Gardner-Webb University	-0.1888	64	-0.2005	81	0.5229	38	0.6033	77	0.6143	74	0.6393	78	0.5563	58	41
Georgia College and State University	1.3244	15	0.2931	63	-0.3394	82	0.6634	19	0.7042	7	0.7063	40	0.5797	36	29
Georgia Southwestern State University	-1.1650	117	0.8210	28	-1.0802	115	0.5716	91	0.5616	110	0.6609	71	0.4922	106	RNP
Grambling State University	-0.7745	101	1.0433	12	-0.7354	101	0.6117	68	0.6033	84	0.7009	47	0.5310	83	RNP
Hampton University	0.3970	38	-0.3640	87	-1.5666	123	0.5466	109	0.5892	95	0.5895	102	0.4612	120	Unra nked
Harding University	1.2755	18	-0.4469	93	0.7957	23	0.6557	25	0.6970	9	0.6676	67	0.6025	15	22
Henderson State University	-1.0185	112	1.1912	4	-0.5494	94	0.6171	63	0.6001	89	0.7115	30	0.5397	75	92
Hodges University	-2.1900	127	-1.1847	110	0.4851	42	0.4647	127	0.4511	127	0.4915	125	0.4514	121	Unra nked
Jacksonville State University	-0.9697	111	0.5460	52	0.2108	52	0.6063	74	0.5934	93	0.6747	61	0.5507	63	RNP
Jacksonville University	-0.6769	95	-0.7680	106	1.0304	15	0.5674	94	0.5730	105	0.5871	103	0.5422	72	62
James Madison University	2.6910	2	0.1029	68	-0.7743	102	0.6915	4	0.7657	1	0.7189	24	0.5898	29	6
Kennesaw State University	0.1041	52	0.6389	46	0.8020	22	0.6740	14	0.6760	22	0.7296	12	0.6164	9	69
King University	0.3970	38	-0.0703	76	0.6335	31	0.6379	44	0.6576	31	0.6710	64	0.5850	33	73
Lee University	0.2505	45	-0.5103	96	0.7884	24	0.6112	69	0.6333	58	0.6314	82	0.5689	46	51
Liberty University	-0.0911	59	-0.1183	80	-0.9027	109	0.5642	96	0.5879	96	0.6136	90	0.4911	107	89
Lincoln Memorial University	-0.2376	67	-1.0871	109	0.1651	53	0.5368	112	0.5630	108	0.5500	113	0.4975	102	66

Lindsey Wilson College	-1.2626	118	-0.0225	72	0.1495	55	0.5589	100	0.5493	113	0.6139	89	0.5137	91	RNP
Lipscomb University	0.7874	25	-1.7992	121	-0.1168	64	0.5256	117	0.5849	98	0.5099	121	0.4819	113	20
Longwood University	1.2755	18	0.4820	55	-1.1668	117	0.6449	35	0.6889	14	0.7008	48	0.5450	68	31
Louisiana State University-Shreveport	-1.1161	115	1.1164	7	1.4425	3	0.6757	11	0.6411	49	0.7521	3	0.6337	3	Unra nked
Loyola University New Orleans	0.7874	25	-1.6750	120	0.5424	37	0.5551	103	0.6071	80	0.5375	116	0.5206	88	9
Lynchburg College	0.6898	31	-1.2459	111	0.5169	39	0.5758	88	0.6197	70	0.5721	108	0.5356	80	32
Marshall University	-0.0423	58	0.6354	47	-0.1721	69	0.6353	47	0.6427	46	0.7005	49	0.5629	51	39
Mary Baldwin College	0.1041	52	-0.5989	99	-0.9424	110	0.5421	111	0.5771	102	0.5756	106	0.4735	116	36
Marymount University	0.4458	35	-1.8828	124	0.5943	35	0.5310	116	0.5789	101	0.5102	120	0.5039	98	46
McNeese State University	-0.4816	84	1.0361	14	-0.0325	62	0.6464	32	0.6380	54	0.7266	14	0.5747	41	92
Mercer University	1.4220	14	-1.3977	116	-0.1202	65	0.5743	89	0.6403	52	0.5643	111	0.5184	89	8
Mississippi College	0.9339	21	-0.6046	101	0.4281	44	0.6205	60	0.6604	28	0.6342	81	0.5668	48	27
Mississippi University for Women	-0.1399	62	0.9732	18	-0.3250	81	0.6464	33	0.6481	41	0.7238	18	0.5673	47	51
Mississippi Valley State University	-1.6043	125	1.0556	11	-1.2074	119	0.5639	97	0.5428	116	0.6655	68	0.4832	112	RNP
Montreat College	-1.1161	115	-0.1144	79	-0.1774	71	0.5483	108	0.5456	114	0.6018	95	0.4975	101	RNP
Morehead State University	-0.2864	70	0.6760	42	2.0425	2	0.7024	1	0.6858	15	0.7526	2	0.6689	2	59
Murray State University	0.3970	38	0.3767	58	0.5068	40	0.6601	22	0.6743	23	0.7075	38	0.5985	20	25
Nicholls State University	-0.2864	70	0.9353	20	0.4782	43	0.6653	16	0.6579	30	0.7363	8	0.6017	16	RNP
Norfolk State University	-0.2864	70	0.7815	30	-1.1485	116	0.6016	78	0.6102	76	0.6816	60	0.5130	92	RNP
North Carolina Central University	-0.0911	59	0.7526	38	-0.1908	73	0.6397	41	0.6445	45	0.7090	35	0.5657	50	68
Northern Kentucky University	-0.5792	91	0.0803	69	1.1538	9	0.6257	56	0.6196	71	0.6686	66	0.5890	30	77
Northwestern State University of Louisiana	-0.5792	91	0.7728	32	0.8286	21	0.6559	24	0.6422	47	0.7220	20	0.6035	14	92
Our Lady of Holy Cross College	-0.7257	98	-0.6994	104	-0.9769	112	0.5022	123	0.5226	122	0.5412	114	0.4428	124	RNP
Palm Beach Atlantic University	0.1529	50	-1.4585	118	0.2689	48	0.5337	113	0.5722	107	0.5311	117	0.4977	100	44
Pfeiffer University	-0.1888	64	-0.3084	85	1.1014	11	0.6163	65	0.6241	65	0.6442	77	0.5807	34	73
Piedmont College	0.5434	33	0.1678	65	0.6591	28	0.6586	23	0.6775	21	0.6971	51	0.6013	17	51
Queens University of Charlotte	0.2993	42	-0.9723	108	1.3297	6	0.6039	75	0.6292	61	0.6054	93	0.5771	39	18
Radford University	0.8851	23	0.6649	44	-0.9887	113	0.6463	34	0.6784	20	0.7100	34	0.5505	64	32
Rollins College	1.9589	6	-1.8291	123	-0.2575	76	0.5653	95	0.6494	40	0.5384	115	0.5082	95	1

Saint Leo University	0.0065	56	-0.0744	77	-2.2493	127	0.5255	118	0.5617	109	0.5865	104	0.4282	126	55
Samford University	2.0565	5	-1.8099	122	0.8844	18	0.6086	73	0.6848	16	0.5717	110	0.5694	44	3
Shenandoah University	0.0553	55	-1.3604	114	0.8813	19	0.5562	101	0.5862	97	0.5523	112	0.5300	84	44
Shepherd University	-0.4816	84	0.8719	24	-0.3096	78	0.6274	52	0.6237	67	0.7050	42	0.5535	61	RNP
Southeastern Louisiana University	-0.7257	98	0.9446	19	0.6780	27	0.6552	26	0.6374	55	0.7291	13	0.5992	19	RNP
Southern Arkansas University Main Campus	-1.0185	112	1.1195	6	-0.1295	66	0.6269	53	0.6075	79	0.7157	27	0.5576	55	RNP
Southern Polytechnic State University	-0.1399	62	0.5895	50	0.4983	41	0.6513	29	0.6517	37	0.7104	33	0.5917	26	89
Southern University and A & M College	-0.9209	110	1.0272	15	-0.4516	88	0.6145	67	0.6011	88	0.7023	46	0.5402	74	RNP
Southern University at New Orleans	-1.8483	126	1.2176	2	-1.6327	125	0.5496	106	0.5249	121	0.6620	70	0.4618	119	RNP
Southern Wesleyan University	0.1529	50	-0.6007	100	-0.2005	74	0.5688	93	0.5986	90	0.5956	98	0.5122	93	RNP
Spring Hill College	0.9827	20	-0.3756	89	-0.6269	99	0.6006	79	0.6470	44	0.6294	85	0.5254	86	16
St Thomas University	-0.6769	95	-1.4995	119	-0.1302	67	0.4851	125	0.5112	126	0.4928	124	0.4512	122	62
Stetson University	1.3244	15	-2.1724	125	0.1463	57	0.5335	114	0.6068	81	0.4992	123	0.4945	104	5
Tennessee Technological University	0.2993	42	0.9306	21	0.6526	29	0.6940	3	0.6968	11	0.7576	1	0.6276	4	32
The University of Tampa	0.7386	29	-1.4278	117	-1.0766	114	0.5135	121	0.5744	104	0.5173	119	0.4487	123	22
The University of Tennessee-Chattanooga	-0.5304	88	0.8148	29	0.6162	32	0.6532	28	0.6416	48	0.7218	22	0.5961	21	49
The University of Tennessee-Martin	0.2017	49	0.8981	22	0.4249	45	0.6806	9	0.6838	17	0.7461	5	0.6118	12	46
Thomas More College	-0.0911	59	-0.8040	107	0.9661	17	0.5863	84	0.6044	83	0.5996	97	0.5547	59	41
Troy University	-0.4328	80	0.2265	64	-0.3488	83	0.5897	83	0.5969	91	0.6481	74	0.5242	87	80
Tusculum College	-1.5066	123	-0.0676	75	-0.5765	96	0.5223	120	0.5145	125	0.5844	105	0.4679	117	RNP
Union College	-1.3114	119	-0.3585	86	-0.2804	77	0.5227	119	0.5206	123	0.5718	109	0.4756	115	84
Union University	2.1053	3	-0.4846	95	0.8315	20	0.6874	5	0.7453	2	0.6897	54	0.6272	5	13
University of Arkansas at Monticello	-2.5316	128	1.2211	1	0.0861	59	0.5805	86	0.5278	119	0.6853	58	0.5282	85	Unra nked
University of Central Arkansas	-0.2376	67	0.8565	25	-0.4207	87	0.6324	50	0.6347	57	0.7081	36	0.5544	60	66
University of Louisiana at Monroe	-0.5304	88	0.7638	34	0.1476	56	0.6344	49	0.6275	63	0.7055	41	0.5702	43	RNP
University of Mary Washington	2.1053	3	0.3223	62	-0.6012	98	0.6872	6	0.7451	3	0.7254	16	0.5909	27	13
University of Montevallo	0.4458	35	0.4381	57	0.0655	60	0.6509	30	0.6688	26	0.7033	44	0.5805	35	36
University of North Alabama	-0.7257	98	0.5271	53	0.2887	47	0.6174	62	0.6090	77	0.6822	59	0.5610	52	80
University of North Carolina at Pembroke	-0.8721	107	1.0252	16	-0.4955	92	0.6148	66	0.6027	85	0.7024	45	0.5394	77	80
University of North Carolina Wilmington	1.9101	7	0.3472	61	-0.7901	104	0.6746	13	0.7299	5	0.7171	25	0.5767	40	15
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University of North Florida	0.7386	29	0.8422	27	-0.1898	72	0.6778	10	0.6977	8	0.7415	7	0.5943	24	51
University of North Georgia	0.7874	25	0.7256	40	-0.1335	68	0.6747	12	0.6968	10	0.7340	10	0.5934	25	55
University of South Florida-St Petersburg	-0.6769	95	0.7615	35	-0.3792	86	0.6108	70	0.6055	82	0.6877	55	0.5393	78	80
University of the Cumberlands	-0.3840	75	-0.0755	78	0.5442	36	0.6037	76	0.6089	78	0.6451	76	0.5572	56	84
University of West Alabama	-1.5554	124	-0.0334	73	1.0956	12	0.5785	87	0.5553	111	0.6281	86	0.5521	62	RNP
University of West Georgia	-0.3840	75	0.7592	36	0.2423	50	0.6431	37	0.6384	53	0.7118	29	0.5791	38	89
Valdosta State University	-0.3840	75	0.7500	39	-0.3580	84	0.6224	59	0.6229	68	0.6959	53	0.5485	67	69
Virginia State University	-0.3352	73	0.7131	41	-1.2484	120	0.5923	82	0.6017	86	0.6716	63	0.5035	99	84
Warner University	-0.8233	105	0.8966	23	0.2585	49	0.6344	48	0.6189	72	0.7114	31	0.5730	42	RNP
Western Carolina University	0.2993	42	0.7778	31	-0.5974	97	0.6430	38	0.6585	29	0.7125	28	0.5579	54	39
Western Kentucky University	0.2505	45	0.3664	59	0.7212	25	0.6609	21	0.6705	24	0.7077	37	0.6045	13	30
William Carey University	0.8851	23	-0.4050	92	-0.1738	70	0.6102	71	0.6513	38	0.6353	80	0.5440	70	36
Wingate University	0.0065	56	-0.3688	88	-0.8678	108	0.5544	104	0.5834	99	0.5951	99	0.4846	111	41
Winston-Salem State University	0.1041	52	1.0390	13	-0.8677	107	0.6417	39	0.6518	36	0.7232	19	0.5501	65	62
Winthrop University	0.4946	34	0.0667	70	1.0511	14	0.6639	18	0.6800	19	0.6966	52	0.6150	11	25

## For US News Data:

Regional University Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Effective Standard Score/ R	eness lized ank	Efficier Standard Score/R	ncy dized ank	Expendit Standard Score/R	tures lized ank	Tri-E V (Equ Score/I	VD#1 al) Rank	Tri-E W (Effective Score/R	/D#2 eness) ank	Tri-E V (Efficie Score/I	VD#3 ency) Rank	Tri-E W (Expendit Score/R	/D#4 tures) ank	US News Rank
Alverno College	-0.4455	102	-1.4002	140	-0.2662	105	0.3749	144	0.4509	139	0.3634	145	0.3105	145	68
Anderson University	0.4706	48	-0.4582	95	-0.2095	85	0.4845	88	0.5634	74	0.4959	94	0.3943	89	38
Aquinas College	0.3790	50	-0.5143	100	-0.2911	112	0.4735	99	0.5521	89	0.4846	102	0.3837	100	57
Augsburg College	0.7912	31	-0.8495	115	-0.2637	103	0.4688	104	0.5622	77	0.4632	111	0.3810	103	26
Aurora University	0.0125	75	-0.0121	79	-0.8351	146	0.4728	100	0.5395	102	0.5109	87	0.3680	121	RNP
Avila University	-0.5829	111	-0.3996	94	0.5899	10	0.4720	101	0.5192	118	0.4896	98	0.4072	77	102
Baker University	0.3790	50	0.1544	71	-1.0120	148	0.4942	81	0.5677	69	0.5359	75	0.3792	108	62
Baldwin Wallace University	1.2951	15	-1.0852	127	-0.1300	64	0.4792	93	0.5867	54	0.4584	112	0.3925	90	17
Bellevue University	-3.3770	150	0.0751	75	-0.2254	89	0.3522	148	0.3369	150	0.4252	128	0.2946	148	Unran ked
Bemidji State University	-0.3997	98	1.2994	10	-0.2113	86	0.5712	27	0.5996	39	0.6548	22	0.4593	29	92
Bethel University	1.4783	12	-1.2041	134	-0.1584	70	0.4778	94	0.5917	50	0.4510	114	0.3907	93	21
Black Hills State University	-1.0868	133	1.0772	29	0.6460	9	0.5570	32	0.5663	71	0.6323	34	0.4726	16	RNP
Bradley University	1.9363	3	-1.5991	143	-0.1905	77	0.4687	105	0.6000	38	0.4231	130	0.3829	101	5
Butler University	1.9363	3	-2.2140	148	0.0704	33	0.4346	129	0.5744	66	0.3647	144	0.3646	124	2
Calumet College of Saint Joseph	-1.4990	139	-0.6232	107	0.0311	37	0.3949	139	0.4310	146	0.4199	131	0.3338	138	RNP
Capital University	0.5622	44	-1.0555	122	-0.2910	111	0.4430	125	0.5353	108	0.4329	123	0.3609	128	35
Carroll University	0.7454	34	-0.6999	111	-0.5493	141	0.4668	108	0.5592	81	0.4697	107	0.3715	115	38
Chicago State University	-2.4151	148	0.6935	50	-0.1601	71	0.4411	127	0.4354	145	0.5248	79	0.3631	125	RNP
College of Mount St Joseph	0.6080	39	-1.0965	129	-0.2820	109	0.4425	126	0.5364	106	0.4303	124	0.3607	129	60
College of Saint Mary	-0.8578	121	-0.8729	116	-0.5775	143	0.3827	142	0.4431	143	0.3974	139	0.3077	146	Unran ked
Columbia College-Chicago	-0.8120	118	-1.9395	146	-0.4311	137	0.3142	150	0.3933	148	0.2891	149	0.2604	150	Unran ked
Concordia University-Chicago	-0.3997	98	-0.6472	108	0.4525	13	0.4573	116	0.5142	122	0.4654	109	0.3924	92	83
Concordia University-Nebraska	0.9286	26	-0.0247	81	-0.1287	62	0.5386	45	0.6191	30	0.5596	68	0.4371	44	51
Concordia University-Saint Paul	-0.1707	89	0.0463	76	-0.1227	60	0.4954	80	0.5503	95	0.5310	77	0.4049	80	92

# Table 35: Regional Universities – MidWest Score and Rank

Concordia University-Wisconsin	0.5164	46	-0.3258	90	0.1679	24	0.5100	68	0.5840	59	0.5221	80	0.4240	61	68
Cornerstone University	-0.1707	89	-0.0071	78	-0.3430	124	0.4834	89	0.5413	100	0.5192	81	0.3897	94	RNP
Creighton University	1.9821	1	-2.9393	150	0.0041	39	0.3825	143	0.5369	103	0.2869	150	0.3237	141	1
Dakota State University	-0.9036	123	0.8435	43	0.2055	20	0.5321	51	0.5536	87	0.6011	45	0.4415	40	86
Davenport University	-0.5829	111	-1.0706	126	-0.0278	43	0.4012	137	0.4661	136	0.4007	137	0.3369	137	RNP
Dominican University	1.1118	20	-0.8048	113	0.1708	23	0.5023	73	0.5979	42	0.4907	95	0.4182	66	13
Drake University	1.7531	8	-1.3778	139	-0.3243	118	0.4714	102	0.5959	45	0.4369	121	0.3812	102	3
Drury University	0.6996	37	-1.1123	130	-0.3359	122	0.4434	124	0.5401	101	0.4301	125	0.3599	130	8
Eastern Illinois University	0.7912	31	0.4976	56	-0.3631	126	0.5610	31	0.6314	21	0.6043	43	0.4474	37	36
Eastern Michigan University	-0.4455	102	0.3203	63	0.1856	22	0.5143	65	0.5554	84	0.5598	67	0.4276	56	77
Elmhurst College	1.3867	14	-0.8745	117	0.0020	40	0.5032	72	0.6077	32	0.4877	99	0.4142	71	11
Emporia State University	-0.4455	102	0.9645	34	-0.0024	41	0.5532	34	0.5846	57	0.6234	37	0.4515	33	92
Ferris State University	0.0583	68	0.2635	67	-0.0529	47	0.5236	58	0.5790	61	0.5637	64	0.4280	54	62
Fontbonne University	-0.8120	118	-0.9258	118	0.1267	29	0.4072	135	0.4630	137	0.4129	136	0.3457	136	102
Fort Hays State University	-0.5371	109	1.2454	17	0.1588	26	0.5751	25	0.5980	41	0.6548	21	0.4725	18	RNP
Franciscan University of Steubenville	1.9821	1	-0.6983	110	-0.4111	135	0.5266	54	0.6450	15	0.5146	83	0.4202	63	28
Friends University	-1.3616	137	-0.5585	102	0.1878	21	0.4114	134	0.4479	142	0.4357	122	0.3505	134	RNP
Graceland University-Lamoni	-0.1707	89	0.0937	73	-0.1187	59	0.4989	77	0.5530	88	0.5362	74	0.4076	76	92
Grand Valley State University	1.2034	16	0.1986	69	-0.2553	100	0.5619	30	0.6457	14	0.5890	51	0.4511	34	30
Hamline University	1.0202	23	-1.0907	128	-0.1007	54	0.4678	106	0.5690	68	0.4496	115	0.3848	99	11
Heidelberg University	-0.3081	96	-0.3693	93	-0.2646	104	0.4545	118	0.5151	121	0.4781	104	0.3702	118	53
Indiana University-Northwest	-1.4990	139	1.2341	18	0.2625	19	0.5357	47	0.5367	105	0.6247	36	0.4459	38	RNP
Indiana University-Purdue University-Fort Wayne	-1.7281	143	1.0470	30	-0.1511	69	0.4969	78	0.5000	127	0.5856	53	0.4052	79	RNP
Indiana University-South Bend	-1.6365	141	1.1759	22	0.2992	16	0.5269	53	0.5255	115	0.6150	40	0.4403	41	RNP
Indiana University-Southeast	-1.6365	141	1.2527	16	0.1110	30	0.5254	55	0.5243	116	0.6179	38	0.4339	47	RNP
Indiana Wesleyan University	1.0202	23	-0.0179	80	-1.0595	150	0.5085	70	0.5996	40	0.5374	73	0.3885	97	17
John Carroll University	1.8447	6	-0.6080	105	-0.1703	74	0.5359	46	0.6474	12	0.5265	78	0.4339	46	7
Kettering University	1.2034	16	-1.4328	141	-0.1703	73	0.4489	123	0.5609	78	0.4172	133	0.3687	119	24
Lake Erie College	-0.4455	102	-0.2660	87	-0.3196	117	0.4537	119	0.5100	123	0.4831	103	0.3681	120	106

Lakeland College	0.2415	59	0.2030	68	-0.1476	68	0.5238	57	0.5853	55	0.5607	66	0.4255	60	108
Lawrence Technological University	0.1957	60	-1.7599	145	0.4555	12	0.4045	136	0.4943	130	0.3663	143	0.3528	133	53
Lewis University	0.8828	29	-1.0639	124	-0.2925	113	0.4565	117	0.5560	83	0.4425	119	0.3710	116	4
Lincoln University	-2.8274	149	1.7418	1	0.3156	15	0.5153	63	0.4774	134	0.6365	31	0.4320	50	Unran ked
Lindenwood University	-0.3997	98	-0.1611	84	-0.2355	94	0.4663	109	0.5210	117	0.4981	91	0.3799	106	RNP
Lourdes University	-1.8197	145	-0.8355	114	0.0397	35	0.3659	146	0.3987	147	0.3868	141	0.3123	144	Unran ked
Madonna University	-0.0791	81	-0.3634	92	0.4954	11	0.4933	83	0.5518	91	0.5075	88	0.4205	62	RNP
Maharishi University of Management	0.6080	39	0.4355	58	-0.5678	142	0.5409	43	0.6102	31	0.5859	52	0.4266	57	RNP
Malone University	0.1499	65	-0.2887	89	-0.4222	136	0.4746	98	0.5453	98	0.4975	92	0.3809	104	42
Marian University	-0.0333	79	-0.2845	88	-0.0692	50	0.4799	92	0.5433	99	0.5017	89	0.3947	88	86
Marygrove College	-2.0487	147	0.5173	55	7.5151	2	0.7304	2	0.6645	10	0.7324	2	0.7944	2	RNP
McKendree University	-0.1707	89	0.0852	74	-0.1936	79	0.4955	79	0.5504	94	0.5332	76	0.4030	84	68
Metropolitan State University	-0.8120	118	1.3010	7	0.0338	36	0.5623	29	0.5793	60	0.6482	26	0.4594	27	RNP
MidAmerica Nazarene University	0.1041	67	0.3491	62	3.1611	3	0.6513	4	0.6764	6	0.6641	15	0.6135	3	RNP
Minnesota State University-Mankato	0.0125	75	1.2076	21	-0.1628	72	0.5847	21	0.6234	25	0.6600	19	0.4707	21	75
Minnesota State University-Moorhead	-0.3539	97	1.3001	9	-0.2378	95	0.5723	26	0.6020	36	0.6557	20	0.4594	28	108
Minot State University	-1.0410	131	1.2845	13	-0.2017	82	0.5423	41	0.5567	82	0.6323	35	0.4378	43	105
Missouri Baptist University	-0.9952	129	0.4108	60	0.6489	8	0.5137	67	0.5368	104	0.5642	63	0.4402	42	RNP
Missouri State University-Springfield	0.3790	50	1.0195	31	-0.2301	93	0.5850	20	0.6357	19	0.6501	24	0.4690	24	68
Mount Mary University	-0.9036	123	-0.9588	120	-0.3158	116	0.3843	141	0.4428	144	0.3940	140	0.3162	143	106
Mount Vernon Nazarene University	0.3790	50	-0.5118	99	-0.1954	80	0.4772	95	0.5549	86	0.4875	100	0.3892	95	77
Muskingum University	-0.2623	95	0.1588	70	-0.0598	49	0.5017	74	0.5520	90	0.5417	72	0.4114	73	57
Newman University	-0.3997	98	0.4243	59	0.1290	28	0.5216	59	0.5624	76	0.5708	60	0.4315	51	108
North Central College	1.1118	20	-1.2678	135	-0.2884	110	0.4522	120	0.5604	79	0.4284	126	0.3679	122	13
North Park University	0.2873	57	-1.1824	131	-0.1134	57	0.4285	130	0.5153	120	0.4152	134	0.3549	132	53
Northeastern Illinois University	-1.7739	144	0.8758	41	0.0912	31	0.4917	84	0.4946	129	0.5726	57	0.4081	74	RNP
Northern Michigan University	-0.2165	94	0.7636	46	-0.3981	134	0.5342	49	0.5779	63	0.5984	46	0.4263	58	76
Northwest Missouri State University	-0.1249	84	1.0839	28	-0.1749	75	0.5694	28	0.6073	34	0.6419	29	0.4589	30	102
Oakland City University	0.7912	31	0.9226	38	-0.6364	145	0.5811	22	0.6464	13	0.6421	28	0.4548	32	92

Ohio Dominican University	-0.6746	116	-0.1833	85	-0.1041	55	0.4575	115	0.5053	125	0.4903	96	0.3770	109	92
Olivet Nazarene University	0.5164	46	-0.4706	96	-0.1912	78	0.4864	86	0.5663	70	0.4966	93	0.3962	86	51
Otterbein University	0.6080	39	-1.1957	132	-0.1466	67	0.4404	128	0.5349	109	0.4234	129	0.3630	126	17
Park University	-0.9036	123	0.6334	51	-1.0580	149	0.4701	103	0.5071	124	0.5434	70	0.3598	131	RNP
Peru State College	-1.0868	133	1.6481	2	7.6383	1	0.8580	1	0.7920	1	0.8885	1	0.8935	1	RNP
Pittsburg State University	-0.1249	84	1.3906	6	-0.2560	101	0.5882	18	0.6215	26	0.6724	11	0.4707	20	77
Purdue University-Calumet Campus	-1.1784	136	0.8722	42	0.0670	34	0.5168	62	0.5331	111	0.5912	49	0.4262	59	RNP
Quincy University	0.1957	60	0.3741	61	-0.3835	130	0.5252	56	0.5848	56	0.5709	59	0.4199	64	77
Robert Morris University Illinois	-0.0791	81	-1.3553	137	-0.2670	106	0.3943	140	0.4775	133	0.3803	142	0.3250	139	92
Rockford University	-1.0410	131	-0.5627	103	-0.4645	140	0.4009	138	0.4507	140	0.4276	127	0.3245	140	RNP
Rockhurst University	1.5241	11	-0.9542	119	-0.6133	144	0.4807	91	0.5953	46	0.4665	108	0.3801	105	20
Roosevelt University	-0.9952	129	-1.9961	147	0.0089	38	0.3185	149	0.3904	149	0.2893	148	0.2759	149	77
Saginaw Valley State University	-0.6287	115	0.7077	49	-0.2582	102	0.5173	61	0.5516	92	0.5827	54	0.4175	67	RNP
Saint Ambrose University	0.8828	29	-1.0665	125	-0.1386	66	0.4621	113	0.5602	80	0.4466	116	0.3794	107	30
Saint Cloud State University	-0.1249	84	1.2731	14	-0.1135	58	0.5851	19	0.6192	29	0.6638	16	0.4724	19	83
Saint Xavier University	0.0583	68	-0.5384	101	-0.2300	92	0.4599	114	0.5313	112	0.4731	105	0.3752	114	42
Siena Heights University	-0.5829	111	0.2816	65	-0.1298	63	0.4937	82	0.5354	107	0.5423	71	0.4034	82	RNP
Southeast Missouri State University	-0.0791	81	0.7908	45	-0.3867	132	0.5426	40	0.5888	52	0.6062	41	0.4329	49	86
Southern Illinois University-Edwardsville	0.0583	68	0.5938	53	-0.3701	128	0.5353	48	0.5878	53	0.5902	50	0.4279	55	42
Southwest Baptist University	-0.0333	79	0.4967	57	2.8009	4	0.6424	5	0.6651	9	0.6653	14	0.5967	4	RNP
Southwest Minnesota State University	-0.5371	109	1.5597	3	0.7466	6	0.6194	8	0.6312	22	0.7048	4	0.5221	6	RNP
Southwestern College	-0.4913	107	-0.0889	82	-0.3321	119	0.4639	111	0.5161	119	0.5001	90	0.3754	113	83
Spring Arbor University	0.3790	50	0.2653	66	-0.2068	84	0.5321	50	0.5961	44	0.5702	62	0.4301	53	60
St Catherine University	0.9286	26	-1.2039	133	0.1308	27	0.4643	110	0.5634	75	0.4409	120	0.3886	96	13
The College of Saint Scholastica	1.0660	22	-0.4795	97	-0.2037	83	0.5095	69	0.6018	37	0.5135	85	0.4132	72	33
The University of Findlay	0.1957	60	-0.7581	112	-0.2531	99	0.4494	122	0.5280	114	0.4536	113	0.3668	123	62
Tiffin University	-1.0868	133	0.9604	35	-0.2757	107	0.5144	64	0.5343	110	0.5941	47	0.4149	70	RNP
Truman State University	1.8905	5	1.2958	11	-0.1871	76	0.6729	3	0.7516	2	0.7308	3	0.5362	5	10
University of Central Missouri	-0.1707	89	0.9462	36	-0.9279	147	0.5295	52	0.5759	65	0.6046	42	0.4080	75	92
University of Detroit Mercy	0.6538	38	-2.3927	149	-0.0592	48	0.3605	147	0.4764	135	0.2995	147	0.3054	147	25

University of Dubuque	-0.4455	102	-1.6213	144	0.0711	32	0.3718	145	0.4485	141	0.3492	146	0.3176	142	RNP
University of Evansville	1.4325	13	-0.5826	104	-0.2136	87	0.5180	60	0.6203	27	0.5143	84	0.4192	65	9
University of Illinois at Springfield	-0.1249	84	0.8202	44	-0.1284	61	0.5523	36	0.5945	47	0.6150	39	0.4474	36	28
University of Indianapolis	0.1957	60	-0.4962	98	-0.0422	45	0.4759	96	0.5479	96	0.4874	101	0.3925	91	38
University of Mary	-1.4074	138	-0.6147	106	0.7266	7	0.4254	131	0.4569	138	0.4432	118	0.3761	112	86
University of Michigan-Dearborn	0.5622	44	-0.0037	77	0.2819	17	0.5392	44	0.6075	33	0.5612	65	0.4490	35	36
University of Michigan-Flint	-0.4913	107	0.3187	64	-0.0044	42	0.5051	71	0.5470	97	0.5528	69	0.4154	69	92
University of Minnesota-Duluth	0.3332	55	0.5613	54	-0.4515	138	0.5421	42	0.6020	35	0.5935	48	0.4307	52	42
University of Nebraska at Kearney	0.6080	39	1.3929	5	-0.2169	88	0.6221	7	0.6711	8	0.6980	5	0.4973	8	48
University of Northern Iowa	1.1576	19	1.1414	24	-0.4625	139	0.6193	9	0.6872	4	0.6824	7	0.4883	10	13
University of Rio Grande	-2.0029	146	0.9902	32	-0.0465	46	0.4847	87	0.4817	132	0.5733	56	0.3989	85	Unran ked
University of Saint Francis-Fort Wayne	-0.1249	84	-1.0619	123	-0.1076	56	0.4191	133	0.4946	128	0.4146	135	0.3481	135	86
University of Saint Mary	-0.9494	126	-0.0944	83	-0.1353	65	0.4506	121	0.4910	131	0.4899	97	0.3709	117	RNP
University of Southern Indiana	-0.8578	121	1.2864	12	-0.3847	131	0.5437	37	0.5638	73	0.6334	33	0.4338	48	RNP
University of St Francis	0.6080	39	-0.6898	109	-0.3876	133	0.4675	107	0.5552	85	0.4707	106	0.3765	111	38
University of Wisconsin-Eau Claire	1.2034	16	0.9217	39	-0.2390	97	0.6140	10	0.6848	5	0.6667	13	0.4906	9	30
University of Wisconsin-Green Bay	0.1499	65	1.3001	8	-0.0943	52	0.5999	13	0.6393	18	0.6763	8	0.4840	13	65
University of Wisconsin-La Crosse	1.5699	10	0.8997	40	-0.3110	115	0.6259	6	0.7058	3	0.6745	9	0.4975	7	26
University of Wisconsin-Oshkosh	0.1957	60	1.1265	25	-0.0318	44	0.5919	15	0.6348	20	0.6610	18	0.4798	14	65
University of Wisconsin-Platteville	0.2873	57	0.9381	37	-0.0942	51	0.5802	23	0.6291	23	0.6422	27	0.4693	23	72
University of Wisconsin-River Falls	0.0583	68	1.1097	26	-0.2258	90	0.5774	24	0.6194	28	0.6493	25	0.4635	26	72
University of Wisconsin-Stevens Point	0.9286	26	1.0946	27	-0.3555	125	0.6099	11	0.6726	7	0.6728	10	0.4842	12	42
University of Wisconsin-Stout	0.0125	75	1.2655	15	-0.0960	53	0.5913	17	0.6283	24	0.6680	12	0.4775	15	57
University of Wisconsin-Superior	-0.6746	116	1.2142	20	-0.2274	91	0.5525	35	0.5765	64	0.6362	32	0.4447	39	92
University of Wisconsin-Whitewater	0.7454	34	0.9746	33	-0.3420	123	0.5938	14	0.6544	11	0.6543	23	0.4725	17	42
Upper Iowa University	-0.5829	111	0.5995	52	-0.1964	81	0.5139	66	0.5506	93	0.5744	55	0.4167	68	RNP
Ursuline College	0.0583	68	-1.3698	138	0.3324	14	0.4216	132	0.5026	126	0.4000	138	0.3622	127	53
Valparaiso University	1.7989	7	-1.5796	142	-0.2400	98	0.4621	112	0.5905	51	0.4192	132	0.3767	110	6
Viterbo University	0.3332	55	-0.1879	86	-0.3760	129	0.4915	85	0.5641	72	0.5156	82	0.3949	87	RNP

Walsh University	0.7454	34	-0.3604	91	-0.3026	114	0.5002	76	0.5842	58	0.5129	86	0.4034	81	48
Washburn University	-0.9494	126	1.2296	19	0.1606	25	0.5559	33	0.5699	67	0.6395	30	0.4581	31	77
Wayne State College	0.0583	68	1.5407	4	-0.2385	96	0.6076	12	0.6421	17	0.6950	6	0.4858	11	72
Webster University	0.9744	25	-1.0477	121	0.2805	18	0.4830	90	0.5789	62	0.4633	110	0.4068	78	21
Western Illinois University	0.0125	75	0.7210	48	-0.3350	121	0.5436	38	0.5926	49	0.6032	44	0.4351	45	48
William Woods University	0.0583	68	0.1102	72	0.7679	5	0.5432	39	0.5938	48	0.5703	61	0.4656	25	86
Winona State University	0.4248	49	1.1581	23	-0.3664	127	0.5918	16	0.6423	16	0.6627	17	0.4703	22	65
Xavier University	1.6615	9	-1.2839	136	-0.2765	108	0.4758	97	0.5962	43	0.4452	117	0.3859	98	4
Youngstown State University	-0.9494	126	0.7216	47	-0.3346	120	0.5013	75	0.5290	113	0.5715	58	0.4034	83	RNP

For US News Data:

Regional University Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Effective Standard Score/R	eness dized ank	Efficie Standar Score/R	ncy dized Cank	Expendi Standaro Score/ F	tures lized Rank	Tri-E V (Equ Score/I	VD#1 al) Rank	Tri-E V (Effectiv ) Score/	VD#2 veness Rank	Tri-E (Effici Score/	WD#3 ency) Rank	Tri-E V (Expend s) Score	VD#4 diture /Rank	US News Rank
Abilene Christian University	0.0483	33	-0.5930	82	-0.7859	103	0.5881	91	0.6262	79	0.5751	85	0.5631	96	19
Adams State University	-0.1119	108	0.8078	35	-0.2005	70	0.6380	62	0.5945	96	0.6983	50	0.6212	63	RNP
Alaska Pacific University	-0.0062	60	-0.4227	77	0.1330	57	0.6139	74	0.6220	83	0.6049	74	0.6149	69	80
Angelo State University	-0.0895	104	0.6485	51	-1.4296	110	0.5801	93	0.5608	108	0.6451	67	0.5344	108	RNP
Boise State University	-0.0607	93	0.7270	46	-0.5325	87	0.6453	55	0.6221	82	0.6988	49	0.6149	68	65
California State Polytechnic University-Pomona	0.0675	23	0.9399	20	1.1848	11	0.8170	2	0.8061	2	0.8407	2	0.8043	4	33
California State University-Bakersfield	-0.0254	74	1.1334	6	0.4925	33	0.7469	16	0.7135	22	0.7999	9	0.7273	18	90
California State University-Channel Islands	0.0515	29	0.6996	48	1.6701	5	0.8110	3	0.7947	3	0.8214	4	0.8169	2	66
California State University-Chico	0.0803	19	0.8591	28	0.3499	42	0.7786	8	0.7828	6	0.8069	5	0.7460	13	42
California State University-Dominguez Hills	-0.0446	84	0.7837	39	0.6864	28	0.7164	24	0.6823	32	0.7556	26	0.7112	24	RNP
California State University-East Bay	-0.0094	63	0.5780	56	0.1280	58	0.6936	36	0.6804	34	0.7259	41	0.6744	36	90
California State University-Fresno	0.0387	38	1.0343	14	0.8728	21	0.7935	4	0.7761	7	0.8288	3	0.7756	9	36
California State University-Fullerton	0.0643	25	0.6940	49	1.0957	14	0.7909	6	0.7852	5	0.8060	6	0.7815	7	35
California State University-Long Beach	0.0835	17	0.8291	30	1.6693	6	0.8400	1	0.8303	1	0.8511	1	0.8386	1	32
California State University-Los Angeles	-0.0062	60	1.0478	13	0.7149	27	0.7614	11	0.7327	16	0.8056	7	0.7460	14	RNP
California State University-Monterey Bay	-0.0062	60	0.9567	19	0.7674	26	0.7564	14	0.7289	18	0.7962	10	0.7441	17	66
California State University-Northridge	0.0130	53	0.7236	47	1.0406	16	0.7613	12	0.7408	12	0.7856	16	0.7574	11	60
California State University-Sacramento	0.0130	53	0.8197	32	0.7810	25	0.7569	13	0.7376	14	0.7882	13	0.7450	16	66
California State University-San Bernardino	0.0419	36	0.7407	45	0.3956	40	0.7489	15	0.7440	11	0.7774	17	0.7254	19	57
California State University-San Marcos	0.0258	46	0.5290	59	1.6314	7	0.7805	7	0.7608	9	0.7881	14	0.7926	6	70
California State University-Stanislaus	0.0387	38	0.9064	23	-0.2528	74	0.7301	19	0.7285	19	0.7735	19	0.6884	30	57
Cameron University	-0.1375	112	1.0493	12	0.1591	53	0.6599	50	0.5999	92	0.7295	37	0.6503	46	RNP
Central Washington University	0.0258	46	0.5982	55	-0.8829	105	0.6680	47	0.6764	38	0.7080	47	0.6196	64	5
Chaminade University of Honolulu	-0.0446	84	-0.4094	76	-0.5300	86	0.5617	104	0.5663	104	0.5665	90	0.5523	103	80
City University of Seattle	-0.1568	116	-2.0990	117	2.3242	2	0.4934	116	0.4668	118	0.4118	117	0.6017	78	Unran ked

# Table 36: Regional Universities – West Score and Rank

Colorado Christian University	-0.0318	77	-0.3698	74	2.8440	1	0.7309	18	0.6988	26	0.6959	53	0.7982	5	RNP
Colorado State University-Pueblo	-0.0863	101	0.9377	21	0.2347	50	0.6838	40	0.6399	66	0.7406	36	0.6709	37	RNP
Concordia University-Portland	-0.0126	65	-0.4728	79	-1.3797	108	0.5350	113	0.5601	109	0.5426	98	0.5024	112	80
Concordia University-Texas	-0.0959	105	-0.3177	69	0.5291	32	0.5896	90	0.5651	106	0.5930	78	0.6106	73	RNP
Dallas Baptist University	0.0194	52	-0.5265	80	1.1725	12	0.6690	46	0.6744	39	0.6398	69	0.6928	28	49
Dominican University of California	0.0611	27	-1.6704	112	0.5413	31	0.5699	99	0.6180	84	0.4954	111	0.5962	80	31
East Central University	-0.0863	101	1.0232	15	-1.4436	111	0.6119	75	0.5860	101	0.6919	54	0.5577	102	RNP
Eastern New Mexico University-Main Campus	-0.0863	101	1.2030	4	0.3049	47	0.7088	28	0.6586	50	0.7756	18	0.6921	29	RNP
Eastern Oregon University	-0.0735	98	0.8916	25	0.2577	49	0.6885	38	0.6489	59	0.7413	35	0.6752	35	RNP
Eastern Washington University	0.0098	56	0.5627	57	-0.8811	104	0.6560	51	0.6605	48	0.6968	52	0.6106	72	60
George Fox University	0.0867	16	-0.6966	87	0.0783	60	0.6424	60	0.6834	31	0.6094	73	0.6343	55	24
Gonzaga University	0.1796	2	-1.2451	105	-0.6262	95	0.6179	72	0.7051	25	0.5574	92	0.5910	84	4
Hardin-Simmons University	-0.0190	70	-0.1530	67	0.4506	37	0.6435	58	0.6387	68	0.6436	68	0.6483	48	39
Hawaii Pacific University	-0.0318	77	-0.3634	73	1.0227	17	0.6459	54	0.6349	72	0.6324	70	0.6702	38	71
Heritage University	-0.1472	114	-0.6364	84	0.1576	54	0.5166	115	0.4883	115	0.5188	106	0.5427	105	Unran ked
Holy Names University	-0.0254	74	-0.9671	93	-0.0373	62	0.5504	108	0.5661	105	0.5239	103	0.5612	98	75
Houston Baptist University	-0.0190	70	-0.3195	70	0.3324	44	0.6244	68	0.6243	81	0.6190	72	0.6297	59	63
Humboldt State University	-0.0190	70	0.8513	29	0.3340	43	0.7201	22	0.6961	28	0.7625	23	0.7016	26	53
La Sierra University	0.0098	56	-2.4383	118	-0.7581	100	0.4166	119	0.4809	116	0.3333	119	0.4354	118	88
Langston University	-0.1119	108	1.2808	2	-2.1194	116	0.5864	92	0.5558	112	0.6886	55	0.5148	111	RNP
LeTourneau University	0.0643	25	-0.6966	88	-0.2390	73	0.6146	73	0.6529	57	0.5886	81	0.6022	77	27
Loyola Marymount University	0.1444	5	-2.7797	119	0.9553	19	0.5466	109	0.6365	71	0.4099	118	0.5933	82	3
Lubbock Christian University	-0.0350	80	0.2673	64	-0.2273	72	0.6368	64	0.6268	78	0.6643	63	0.6193	65	RNP
Marylhurst University	-0.0318	77	-1.0402	98	0.4135	39	0.5619	103	0.5720	103	0.5280	102	0.5858	87	Unran ked
Midwestern State University	-0.0254	74	0.7831	40	0.1356	56	0.7015	29	0.6794	37	0.7444	31	0.6806	32	RNP
Mills College	0.0675	23	-1.4974	110	0.8999	20	0.6045	80	0.6468	64	0.5320	100	0.6348	54	5
Montana State University-Billings	-0.0991	106	0.7947	37	-0.1392	66	0.6472	53	0.6069	88	0.7044	48	0.6302	58	88
Mount St Mary's College	0.0739	20	-1.7745	113	0.6804	29	0.5753	95	0.6276	77	0.4930	112	0.6052	75	20
Naropa University	-0.1311	111	-1.4362	108	0.0873	59	0.4571	118	0.4506	119	0.4252	116	0.4957	113	Unran ked

New Mexico Highlands University	-0.1536	115	1.1046	7	-0.7664	102	0.6117	76	0.5568	111	0.6968	51	0.5815	89	Unran ked
New Mexico Institute of Mining and Technology	0.0066	58	0.8602	27	-3.1636	119	0.5711	98	0.5955	95	0.6514	66	0.4665	117	24
Northeastern State University	-0.0799	99	1.0595	11	-0.2108	71	0.6765	45	0.6372	70	0.7426	34	0.6497	47	RNP
Northwest Nazarene University	0.0515	29	-0.3632	72	1.1376	13	0.6992	33	0.7108	23	0.6724	59	0.7142	22	39
Northwestern Oklahoma State University	-0.0831	100	1.2211	3	0.0397	61	0.6996	32	0.6532	55	0.7698	20	0.6758	33	RNP
Notre Dame de Namur University	0.0290	44	-1.3076	106	-0.1102	65	0.5505	107	0.5896	98	0.5030	110	0.5587	101	60
Oklahoma Christian University	0.0419	36	-0.0019	65	-0.5576	89	0.6435	59	0.6649	45	0.6528	65	0.6127	70	42
Oklahoma City University	0.0547	28	-0.9748	94	0.8243	24	0.6363	65	0.6651	44	0.5878	82	0.6560	43	24
Oral Roberts University	0.0387	38	-0.1095	66	-2.2078	117	0.5553	105	0.5974	93	0.5800	84	0.4883	115	54
Pacific Lutheran University	0.1091	11	-1.0098	96	-0.6092	92	0.5974	83	0.6593	49	0.5565	94	0.5763	91	15
Pacific University	0.0835	17	-1.9816	115	0.4864	34	0.5547	106	0.6163	85	0.4650	115	0.5829	88	20
Point Loma Nazarene University	0.1252	9	-1.1180	101	-0.4078	78	0.6072	78	0.6736	41	0.5572	93	0.5908	85	17
Prairie View A & M University	-0.0510	87	0.7742	41	-1.5970	112	0.6046	79	0.5957	94	0.6712	60	0.5469	104	RNP
Regis University	0.0739	20	-1.0568	99	0.4841	35	0.6247	67	0.6646	46	0.5741	86	0.6353	53	27
Saint Edward's University	0.0931	14	-1.4675	109	-0.1728	68	0.5713	97	0.6329	75	0.5089	108	0.5721	92	15
Saint Martin's University	0.0290	44	-0.5686	81	-0.1470	67	0.6091	77	0.6336	74	0.5923	79	0.6014	79	49
Saint Mary's College of California	0.0931	14	-1.8091	114	0.4530	36	0.5728	96	0.6340	73	0.4891	114	0.5953	81	11
San Francisco State University	0.0258	46	0.6043	54	0.2309	51	0.7208	21	0.7160	21	0.7480	28	0.6985	27	54
San Jose State University	0.0355	42	0.4611	61	1.8926	3	0.7928	5	0.7741	8	0.7931	12	0.8110	3	36
Santa Clara University	0.1988	1	-1.5687	111	-0.7602	101	0.5962	84	0.6971	27	0.5213	104	0.5701	93	2
Seattle Pacific University	0.1188	10	-1.1081	100	-0.7173	98	0.5898	89	0.6578	51	0.5448	97	0.5668	95	14
Seattle University	0.1476	4	-2.0275	116	0.6307	30	0.5946	85	0.6739	40	0.4921	113	0.6179	66	6
Sierra Nevada College	0.0258	46	-0.3911	75	-0.6192	93	0.5996	82	0.6251	80	0.5960	76	0.5776	90	RNP
Sonoma State University	0.0515	29	0.6303	52	-0.2752	75	0.7139	26	0.7219	20	0.7444	32	0.6755	34	42
Southeastern Oklahoma State University	-0.1023	107	0.9941	16	-0.4950	84	0.6449	56	0.6038	89	0.7149	45	0.6159	67	RNP
Southern Nazarene University	-0.0671	95	-0.3607	71	-0.3299	77	0.5622	102	0.5570	110	0.5699	89	0.5598	99	80
Southern Oregon University	-0.0607	93	0.7612	43	0.1668	52	0.6809	42	0.6488	60	0.7276	40	0.6663	39	RNP
Southern Utah University	-0.0542	90	0.8917	24	-0.5097	85	0.6635	49	0.6385	69	0.7225	43	0.6294	60	71
Southwestern Assemblies of God University	-0.0510	87	-0.1760	68	-1.6016	113	0.5267	114	0.5373	113	0.5546	96	0.4883	116	RNP

Southwestern Oklahoma State University	-0.0575	92	1.0825	10	-0.4773	83	0.6787	44	0.6485	61	0.7457	30	0.6420	50	RNP
St John's College	0.0355	42	-1.1542	103	-0.6002	91	0.5436	110	0.5873	99	0.5073	109	0.5363	107	57
St Mary's University	0.0483	33	-0.6888	86	0.1416	55	0.6239	69	0.6530	56	0.5960	75	0.6226	61	27
Stephen F Austin State University	-0.0382	81	0.7928	38	-0.4703	82	0.6664	48	0.6476	63	0.7187	44	0.6330	56	75
Sul Ross State University	-0.1600	117	0.8119	33	-1.7665	114	0.5371	112	0.4981	114	0.6229	71	0.4903	114	RNP
Tarleton State University	-0.0414	82	0.8056	36	-1.9997	115	0.5938	87	0.5917	97	0.6650	62	0.5245	110	RNP
Texas A & M International University	-0.0222	73	1.1379	5	-0.5350	88	0.7008	30	0.6803	35	0.7656	21	0.6565	42	87
Texas State University	0.0387	38	0.6284	53	-0.7204	99	0.6855	39	0.6950	29	0.7229	42	0.6384	51	51
Texas Wesleyan University	-0.0542	90	-0.4390	78	0.3250	45	0.5940	86	0.5864	100	0.5889	80	0.6067	74	39
The Evergreen State College	0.0226	51	0.5057	60	-1.2591	106	0.6409	61	0.6547	54	0.6820	57	0.5860	86	27
The University of Texas at Brownsville	-0.1375	112	0.9756	17	-0.1878	69	0.6376	63	0.5831	102	0.7083	46	0.6213	62	Unran ked
The University of Texas at Tyler	-0.0446	84	0.9290	22	0.4266	38	0.7160	25	0.6821	33	0.7643	22	0.7018	25	66
The University of Texas of the Permian Basin	-0.0510	87	1.1029	8	-0.3129	76	0.6918	37	0.6611	47	0.7567	25	0.6575	41	90
The University of Texas-Pan American	-0.0158	66	1.0950	9	-0.6245	94	0.6968	34	0.6800	36	0.7600	24	0.6503	45	75
Trinity University	0.1604	3	-0.9648	92	1.6941	4	0.7388	17	0.7875	4	0.6653	61	0.7635	10	1
University of Alaska Anchorage	-0.0703	96	0.8094	34	0.8641	22	0.7121	27	0.6681	42	0.7540	27	0.7143	21	71
University of Alaska Southeast	-0.1696	119	0.7483	44	1.5734	8	0.6834	41	0.6037	90	0.7287	38	0.7177	20	RNP
University of Central Oklahoma	-0.0703	96	0.8905	26	0.3923	41	0.6966	35	0.6564	53	0.7473	29	0.6860	31	75
University of Colorado Springs	-0.0158	66	0.2762	63	-0.0977	64	0.6546	52	0.6484	62	0.6782	58	0.6373	52	42
University of Dallas	0.0963	13	-0.6390	85	1.0832	15	0.6998	31	0.7307	17	0.6560	64	0.7128	23	13
University of Mary Hardin-Baylor	-0.0158	66	-0.9386	91	-0.4248	80	0.5400	111	0.5625	107	0.5178	107	0.5398	106	54
University of Portland	0.1412	6	-1.2130	104	-1.3333	107	0.5651	101	0.6490	58	0.5198	105	0.5266	109	8
University of Redlands	0.1412	6	-0.9860	95	-0.0441	63	0.6443	57	0.7084	24	0.5931	77	0.6314	57	12
University of St Thomas	0.0258	50	-0.8409	89	0.2661	48	0.6044	81	0.6287	76	0.5721	87	0.6124	71	33
University of the Incarnate Word	0.0130	53	-0.6115	83	-0.5783	90	0.5761	94	0.6020	91	0.5649	91	0.5614	97	71
Walla Walla University	0.0451	35	-1.0133	97	-0.4582	81	0.5673	100	0.6092	87	0.5337	99	0.5591	100	38
Wayland Baptist University	-0.1151	110	0.4396	62	-2.9462	118	0.4770	117	0.4724	117	0.5550	95	0.4036	119	RNP
Weber State University	0.0002	59	0.9683	18	0.8453	23	0.7647	10	0.7379	13	0.8032	8	0.7531	12	80
West Texas A & M University	-0.0414	82	0.8206	31	-1.4014	109	0.6231	70	0.6137	86	0.6879	56	0.5676	94	80

Western Governors University	-0.0094	63	0.6712	50	1.5617	9	0.7686	9	0.7367	15	0.7879	15	0.7812	8	Unran ked
Western New Mexico University	-0.1600	117	1.3006	1	1.4252	10	0.7270	20	0.6406	65	0.7953	11	0.7453	15	Unran ked
Western Oregon University	-0.0158	66	0.7709	42	-0.4095	79	0.6804	43	0.6678	43	0.7278	39	0.6456	49	80
Western Washington University	0.1059	12	0.5478	58	-0.6896	96	0.7190	23	0.7492	10	0.7431	33	0.6647	40	22
Westminster College	0.0515	29	-1.1434	102	0.9611	18	0.6271	66	0.6568	52	0.5706	88	0.6540	44	22
Whitworth University	0.1348	8	-0.8447	90	-0.6937	97	0.6216	71	0.6886	30	0.5848	83	0.5915	83	9
Woodbury University	0.0739	20	-1.3714	107	0.3201	46	0.5912	88	0.6396	67	0.5297	101	0.6045	76	48

For US News Data:

Regional University Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Effective Standard Score/R	eness lized ank	Efficien Standard Score/Ra	icy ized ank	Expendit Standard Score/ R	tures lized Cank	Tri-E V (Equ Score/I	VD#1 al) Rank	Tri-E V (Effectiv Score/I	VD#2 eness) Rank	Tri-E V (Efficie Score/I	VD#3 ency) Rank	Tri-E V (Expendi Score/F	VD#4 itures) Rank	US News Rank
Becker College	-1.1868	44	-1.0527	42	-0.2591	27	0.3961	44	0.4345	44	0.3485	45	0.4053	43	RNP
Boricua College	-1.0531	41	0.7625	11	-0.4144	33	0.5414	21	0.5479	32	0.5673	16	0.5090	24	Unran ked
Cazenovia College	-0.2509	26	0.7815	9	-0.5054	35	0.5739	16	0.5985	21	0.5929	12	0.5303	18	23
Cedar Crest College	0.4621	15	-0.6131	33	0.5463	11	0.5403	22	0.5967	22	0.4832	28	0.5408	17	15
Champlain College	0.9523	10	-1.9021	46	0.7436	9	0.4666	36	0.5576	29	0.3500	44	0.4923	27	14
Colby-Sawyer College	0.3730	17	0.1479	17	0.6072	10	0.6005	14	0.6390	14	0.5745	14	0.5881	11	20
College of Our Lady of the Elms	1.1306	7	0.4048	14	0.8001	8	0.6632	8	0.7108	3	0.6370	10	0.6417	8	17
Concordia College-New York	-0.2064	24	-0.8830	38	0.0781	17	0.4680	35	0.5206	35	0.4127	37	0.4707	34	32
Cooper Union for the Advancement of Science and Art	2.2447	1	2.2280	1	-0.5887	36	0.7960	1	0.8470	1	0.8470	1	0.6940	5	1
CUNY York College	-0.7857	34	2.2262	2	0.9214	7	0.7319	3	0.6995	4	0.7988	3	0.6973	4	RNP
Delaware Valley College	0.5067	13	-0.8138	36	-0.2029	25	0.4920	32	0.5620	28	0.4349	33	0.4791	30	22
Elizabethtown College	1.7545	3	-1.4545	44	-0.3556	31	0.4879	33	0.5999	20	0.3931	39	0.4709	33	4
Elmira College	0.5067	13	-0.5898	31	-0.0016	20	0.5192	27	0.5824	25	0.4689	29	0.5064	25	9
Farmingdale State College	0.1947	19	1.8322	3	1.4973	4	0.7691	2	0.7596	2	0.8029	2	0.7449	2	27
Geneva College	0.9077	11	0.1179	18	0.3414	13	0.6094	13	0.6632	10	0.5794	13	0.5858	12	17
Hilbert College	-0.1618	23	-0.2942	27	0.2278	15	0.5243	25	0.5642	27	0.4905	27	0.5180	20	46
Keystone College	-0.4292	31	0.4222	13	0.2962	14	0.5735	17	0.5924	23	0.5708	15	0.5572	15	43
La Roche College	-0.3400	28	-0.5288	30	-0.1235	24	0.4816	34	0.5264	34	0.4443	32	0.4740	32	33
Lasell College	-0.2064	24	-1.0167	41	-0.0973	23	0.4492	40	0.5065	38	0.3905	40	0.4507	39	25
Lebanon Valley College	1.6653	4	-0.9280	40	0.0075	19	0.5430	20	0.6383	15	0.4662	30	0.5246	19	6
Lyndon State College	-1.1422	42	0.5045	12	-0.0867	22	0.5315	24	0.5376	33	0.5443	19	0.5128	22	RNP
Maine Maritime Academy	1.2197	6	-0.2162	26	-1.2562	44	0.5236	26	0.6091	18	0.4948	23	0.4670	35	7
Massachusetts Maritime Academy	1.3088	5	1.0363	8	-1.0503	41	0.6379	9	0.6977	5	0.6563	9	0.5597	14	7
Merrimack College	1.0414	9	-1.1708	43	0.1176	16	0.5011	30	0.5864	24	0.4201	35	0.4969	26	10

# Table 37: Regional Colleges – North Score and Rank

Messiah College	1.8436	2	-0.8544	37	0.3986	12	0.5745	15	0.6677	9	0.4943	24	0.5615	13	5
Mitchell College	-0.9639	38	-0.8980	39	-0.4529	34	0.4095	42	0.4519	43	0.3679	42	0.4088	42	Unran ked
Mount Ida College	-0.4737	32	-0.7769	35	-0.0355	21	0.4597	38	0.5056	39	0.4129	36	0.4606	37	37
Newbury College	-0.8748	37	-0.6063	32	-0.2959	29	0.4441	41	0.4807	41	0.4115	38	0.4400	40	RNP
Nichols College	-0.3846	29	-0.4102	28	-0.7834	37	0.4592	39	0.5082	37	0.4347	34	0.4348	41	27
Paul Smiths College of Arts and Science	-0.0727	22	0.0264	21	-0.9002	40	0.5028	29	0.5511	31	0.4938	25	0.4635	36	44
Seton Hill University	0.6404	12	-0.1554	22	-0.2826	28	0.5474	18	0.6079	19	0.5163	20	0.5180	21	12
Sojourner-Douglass College	-2.3454	46	-0.2036	24	-1.8953	46	0.3397	45	0.3542	45	0.3576	43	0.3073	45	Unran ked
Southern Vermont College	-1.0085	40	-0.2151	25	-0.3667	32	0.4666	37	0.4932	40	0.4521	31	0.4545	38	RNP
St Francis College	0.4175	16	-0.1692	23	1.4735	5	0.6162	12	0.6522	12	0.5671	17	0.6294	9	25
SUNY Maritime College	0.1502	20	1.5609	6	-1.1222	42	0.6263	11	0.6510	13	0.6794	7	0.5486	16	21
Thiel College	-0.9639	38	0.0807	20	-0.2546	26	0.4975	31	0.5179	36	0.4932	26	0.4815	29	29
Thomas College	-0.3846	29	0.3683	15	1.6293	2	0.6316	10	0.6374	16	0.6111	11	0.6462	7	RNP
Unity College	-0.2955	27	-0.6411	34	-1.7722	45	0.3996	43	0.4664	42	0.3760	41	0.3564	44	41
University of Maine at Farmington	0.3730	17	1.3181	7	0.0459	18	0.6695	7	0.6907	7	0.6971	6	0.6207	10	Unran ked
University of Maine at Fort Kent	-0.8302	36	1.6403	5	1.5363	3	0.7105	5	0.6820	8	0.7473	4	0.7023	3	39
University of Maine at Presque Isle	-1.1422	42	1.8118	4	1.1912	6	0.6951	6	0.6602	11	0.7461	5	0.6789	6	41
Valley Forge Christian College	0.0610	21	0.0970	19	-0.8501	39	0.5166	28	0.5658	26	0.5085	21	0.4756	31	RNP
Washington Adventist University	-0.7857	34	0.7797	10	-0.8433	38	0.5350	23	0.5518	30	0.5636	18	0.4896	28	RNP
Wentworth Institute of Technology	1.1306	7	-0.4380	29	-0.3450	30	0.5432	19	0.6208	17	0.4960	22	0.5127	23	12
Wesley College	-1.9443	45	-1.6444	45	-1.2227	43	0.2715	46	0.3162	46	0.2192	46	0.2790	46	38
Wilson College	-0.6520	33	0.3289	16	3.9048	1	0.7200	4	0.6950	6	0.6751	8	0.7900	1	16

For US News Data:

Regional Colleges Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Effectiv Standar Score/F	eness dized Rank	Efficier Standard Score/R	ncy dized ank	Expendit Standard Score/ R	ures lized ank	Tri-E ' (Equ Score/	WD#1 1al) Rank	Tri-E (Effecti Score/	WD#2 veness) Rank	Tri-E V (Efficio Score/I	VD#3 ency) Rank	Tri-E W (Expendi Score/F	VD#4 itures) Rank	US News Rank
Alderson Broaddus University	0.2696	31	0.0913	40	0.1009	38	0.6137	39	0.6290	33	0.6040	36	0.6081	36	46
Alice Lloyd College	-0.7824	65	0.9246	16	-1.1716	75	0.5499	57	0.5452	62	0.5971	39	0.5073	68	40
Anderson University	1.0472	12	-0.4805	60	0.3374	31	0.6247	31	0.6638	20	0.5841	41	0.6262	30	20
Asbury University	2.6480	1	-0.8568	69	0.5946	23	0.6872	13	0.7654	2	0.6125	32	0.6837	13	4
Averett University	-0.0963	46	-1.1433	80	1.9695	2	0.6197	37	0.6210	37	0.5477	53	0.6903	12	23
Barton College	0.7727	21	-0.8713	70	-0.4391	58	0.5435	61	0.5936	50	0.5040	68	0.5330	61	30
Belmont Abbey College	0.2239	34	0.1799	32	0.3693	28	0.6323	27	0.6414	29	0.6223	30	0.6332	29	39
Benedict College	-0.7367	63	-0.2722	52	-1.3067	78	0.4659	78	0.4838	78	0.4753	76	0.4387	79	Unra nked
Bethune-Cookman University	-0.6452	61	-0.0713	47	-0.5150	61	0.5272	67	0.5329	65	0.5311	59	0.5176	66	41
Blue Mountain College	1.1844	11	0.1285	36	0.4888	27	0.6793	16	0.7095	8	0.6550	20	0.6734	16	23
Bluefield College	-0.9196	69	0.2566	28	0.1398	37	0.5725	52	0.5575	59	0.5813	43	0.5788	48	53
Bluefield State College	-1.1026	74	2.1726	2	0.6100	22	0.7160	5	0.6589	21	0.7831	1	0.7060	10	RNP
Brescia University	0.0866	36	-0.3217	53	2.5579	1	0.7145	6	0.6984	12	0.6593	18	0.7859	1	36
Brewton-Parker College	-1.7887	83	1.1354	12	1.1931	11	0.6490	22	0.5852	53	0.6819	14	0.6800	14	RNP
Bryan College-Dayton	1.0014	14	0.1430	33	1.1151	14	0.7067	9	0.7238	5	0.6763	15	0.7200	8	22
Carson-Newman University	0.5898	24	-0.5612	63	-0.0827	45	0.5753	50	0.6112	41	0.5431	54	0.5716	51	12
Catawba College	0.6812	23	-1.8664	82	-1.4295	79	0.4191	83	0.4971	74	0.3617	83	0.3985	81	17
Chowan University	-1.6057	81	-0.3272	54	-0.2142	50	0.4833	74	0.4672	82	0.4856	73	0.4972	70	RNP
Clayton State University	-0.2793	51	1.5634	7	0.9551	16	0.7327	3	0.6995	11	0.7657	5	0.7328	6	66
Coker College	1.0472	12	-0.7301	66	1.6769	5	0.6826	15	0.7073	9	0.6153	31	0.7253	7	16
Concord University	-0.0963	46	2.1094	3	-0.2904	52	0.7077	8	0.6871	15	0.7738	2	0.6623	22	47
Covenant College	2.0991	3	-1.0604	77	0.1544	36	0.6244	32	0.6996	10	0.5554	49	0.6183	31	11
Davis & Elkins College	0.0409	39	-0.1452	48	-0.1516	47	0.5738	51	0.5913	51	0.5624	45	0.5676	52	44
Edward Waters College	-1.1483	75	-0.3590	57	0.2679	34	0.5288	65	0.5169	71	0.5182	63	0.5514	57	Unra nked

# Table 38: Regional Colleges – South Score and Rank

Elizabeth City State University	0.9099	18	1.9559	4	-0.9169	70	0.7088	7	0.7222	6	0.7670	4	0.6370	27	21
Emmanuel College	0.1781	35	0.3901	23	0.0641	40	0.6271	28	0.6359	32	0.6287	26	0.6166	33	57
Everglades University	1.0014	14	-2.5361	84	-1.4674	80	0.3877	85	0.4845	77	0.3052	85	0.3733	84	Unra nked
Ferrum College	-0.7367	63	-1.1376	79	-0.3906	56	0.4600	80	0.4794	79	0.4282	81	0.4723	74	44
Flagler College-St Augustine	1.5045	7	-0.7840	68	-0.5272	62	0.5777	48	0.6442	27	0.5339	56	0.5549	55	8
Florida Southern College	1.3216	9	-1.4195	81	-0.5321	63	0.5274	66	0.6002	48	0.4649	79	0.5170	67	5
Fort Valley State University	-0.6909	62	1.8973	6	-1.4936	81	0.6000	40	0.5859	52	0.6826	13	0.5315	62	RNP
Glenville State College	-0.3250	52	1.9159	5	-0.2320	51	0.6879	12	0.6643	19	0.7494	7	0.6499	26	71
Greensboro College	-0.9196	69	-0.5410	62	-0.0493	44	0.5097	69	0.5104	72	0.4949	70	0.5238	64	60
High Point University	1.5503	5	-2.8293	85	-0.9698	71	0.4210	82	0.5283	67	0.3158	84	0.4190	80	1
John Brown University	2.2821	2	0.1356	35	0.2781	33	0.7181	4	0.7761	1	0.6845	12	0.6937	11	2
Kentucky Christian University	-0.1878	49	0.1151	38	-1.7433	83	0.4921	71	0.5222	68	0.5140	66	0.4402	78	66
Kentucky Wesleyan College	-0.5537	57	1.0442	14	-0.1986	49	0.6221	35	0.6072	44	0.6572	19	0.6019	39	18
LaGrange College	0.0409	39	-0.7761	67	1.0406	15	0.5985	41	0.6098	42	0.5499	52	0.6358	28	10
Lander University	-0.0506	44	1.2646	10	-0.8389	69	0.6240	33	0.6258	35	0.6694	17	0.5767	49	66
Le Moyne-Owen College	-2.0174	85	0.2689	26	-0.5659	64	0.4842	73	0.4538	83	0.5156	65	0.4832	72	RNP
Lees-McRae College	-0.5994	59	0.1413	34	-0.3395	54	0.5530	56	0.5538	60	0.5609	47	0.5442	59	70
Lenoir-Rhyne University	0.4068	28	-0.2087	50	0.8603	18	0.6424	24	0.6552	23	0.6107	33	0.6612	23	15
Limestone College	-0.2335	50	0.0620	42	-2.2998	84	0.4557	81	0.4933	75	0.4841	75	0.3897	82	56
Livingstone College	-1.4227	79	-0.5098	61	-1.5155	82	0.4075	84	0.4166	85	0.4198	82	0.3862	83	RNP
Louisiana College	0.0409	39	0.7790	18	0.3679	29	0.6632	21	0.6583	22	0.6750	16	0.6563	25	60
Mars Hill University	-0.0963	46	0.2779	25	-1.0742	73	0.5441	60	0.5643	57	0.5610	46	0.5070	69	30
Martin Methodist College	0.8185	20	0.1093	39	0.5652	25	0.6656	20	0.6867	16	0.6438	24	0.6663	20	60
Meredith College	1.2758	10	-2.2835	83	0.6915	20	0.5365	63	0.6055	46	0.4292	80	0.5747	50	2
Methodist University	-0.3708	53	-0.8757	72	0.0412	41	0.5178	68	0.5352	64	0.4845	74	0.5336	60	48
Mid-America Christian University	-0.5080	55	0.2620	27	1.5272	6	0.6686	18	0.6436	28	0.6536	21	0.7086	9	Unra nked
Mid-Continent University	-0.7824	65	0.2147	31	1.2104	10	0.6354	25	0.6094	43	0.6264	28	0.6705	18	RNP
Midway College	0.9557	16	-0.8973	74	0.3482	30	0.5938	43	0.6375	31	0.5404	55	0.6034	38	41
Milligan College	1.7332	4	-0.8792	73	-0.6033	65	0.5776	49	0.6520	24	0.5292	60	0.5517	56	8

Morris College	-1.4227	79	0.3121	24	-1.1345	74	0.4826	75	0.4729	80	0.5165	64	0.4583	76	Unra nked
Mount Olive College	-0.0048	42	0.4194	22	0.0752	39	0.6213	36	0.6253	36	0.6258	29	0.6127	35	51
Newberry College	0.2696	31	-0.0111	44	-0.1877	48	0.5910	44	0.6120	40	0.5819	42	0.5790	47	35
North Carolina Wesleyan College	-1.0111	72	-0.2405	51	0.7000	19	0.5668	54	0.5501	61	0.5525	51	0.5978	41	74
North Greenville University	0.9557	16	1.0095	15	-0.0280	43	0.6980	11	0.7157	7	0.7124	10	0.6660	21	30
Oakland University	0.4983	26	0.2229	30	-3.0102	85	0.4602	79	0.5217	70	0.4954	69	0.3635	85	48
Ohio Valley University	-0.5537	57	0.5776	21	-0.4173	57	0.5794	46	0.5751	56	0.6022	38	0.5608	53	27
Paine College	-1.2855	77	-0.0437	46	-1.0429	72	0.4706	76	0.4686	81	0.4900	72	0.4531	77	74
Philander Smith College	-0.3708	53	0.6069	20	-0.6276	66	0.5780	47	0.5803	55	0.6026	37	0.5510	58	72
Point University	-0.5994	59	-0.0259	45	1.1275	13	0.6234	34	0.6066	45	0.6055	34	0.6580	24	RNP
Reinhardt University	-0.5080	55	-0.1808	49	1.4088	8	0.6330	26	0.6169	38	0.6051	35	0.6769	15	60
Saint Augustine's University	-0.9654	71	0.2456	29	-0.4651	59	0.5362	64	0.5287	66	0.5535	50	0.5264	63	73
Shaw University	-1.6972	82	-0.3943	58	-0.3301	53	0.4684	77	0.4528	84	0.4711	77	0.4811	73	RNP
Southeastern University	0.0866	36	-0.9488	76	0.4986	26	0.5592	55	0.5819	54	0.5119	67	0.5837	43	36
Southern Adventist University	1.4131	8	-1.0771	78	-0.0259	42	0.5821	45	0.6444	26	0.5228	61	0.5791	46	30
Tennessee Wesleyan College	0.2696	31	0.0127	43	-0.1120	46	0.5967	42	0.6163	39	0.5874	40	0.5865	42	41
Thomas University	-1.8801	84	-0.3551	56	1.2366	9	0.5495	58	0.5074	73	0.5339	57	0.6071	37	RNP
Tuskegee University	0.7727	21	-0.8729	71	-1.2266	76	0.4997	70	0.5607	58	0.4711	78	0.4674	75	13
University of Arkansas at Pine Bluff	-0.8739	68	2.2509	1	-1.2984	77	0.6257	30	0.5990	49	0.7193	9	0.5589	54	60
University of Charleston	0.4068	28	-0.7293	65	0.2114	35	0.5722	53	0.6026	47	0.5325	58	0.5816	45	19
University of South Carolina-Aiken	0.3611	30	1.3472	9	1.1282	12	0.7572	1	0.7398	3	0.7735	3	0.7585	3	23
University of South Carolina-Beaufort	-1.3313	78	1.0798	13	1.8488	3	0.7026	10	0.6410	30	0.7193	8	0.7474	4	66
University of South Carolina-Upstate	0.0866	36	1.1751	11	1.4304	7	0.7502	2	0.7252	4	0.7597	6	0.7658	2	29
University of the Ozarks	0.5898	24	-0.4515	59	1.8014	4	0.6870	14	0.6949	13	0.6322	25	0.7338	5	6
Virginia Union University	-1.0568	73	-0.3551	55	-0.4886	60	0.4913	72	0.4919	76	0.4902	71	0.4918	71	53
Voorhees College	-1.2398	76	0.6356	19	-0.6327	67	0.5400	62	0.5222	69	0.5755	44	0.5223	65	RNP
Webber International University	-0.7824	65	-0.6480	64	0.6688	21	0.5488	59	0.5444	63	0.5189	62	0.5830	44	RNP
Welch College	-0.0048	42	0.0904	41	0.9231	17	0.6467	23	0.6444	25	0.6287	27	0.6671	19	53
West Liberty University	0.4525	27	1.4463	8	-0.6970	68	0.6667	19	0.6750	17	0.7104	11	0.6146	34	60

West Virginia Wesleyan College	0.9099	18	0.1274	37	0.5686	24	0.6712	17	0.6940	14	0.6489	23	0.6706	17	14
Wheeling Jesuit University	1.5503	5	-0.9167	75	0.2945	32	0.6166	38	0.6750	18	0.5566	48	0.6183	32	6
Williams Baptist College	-0.0506	44	0.8970	17	-0.3635	55	0.6262	29	0.6275	34	0.6530	22	0.5981	40	51

For US News Data:

Regional Colleges Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Effective Standar Score/F	eness dized Rank	Efficien Standard Score/Ra	icy ized ank	Expendi Standard Score/ F	tures dized Rank	Tri-E \ (Equ Score/	WD#1 1al) Rank	Tri-E W (Effective Score/R	D#2 eness) ank	Tri-E V (Efficie Score/I	VD#3 ency) Rank	Tri-E W (Expendit Score/R	'D#4 tures) ¦ank	US News Rank
Adrian College	0.5063	29	-0.8062	73	-0.7967	71	0.4733	78	0.5459	68	0.4153	76	0.458667	79	19
Augustana College	1.5494	6	-0.6676	65	-0.2778	54	0.5528	33	0.6404	14	0.4821	50	0.53598	42	3
Benedictine College	0.9598	16	0.1074	36	-0.9798	78	0.5485	35	0.6174	22	0.5192	36	0.508874	59	30
Bethany College	-0.8542	68	0.4118	25	-0.1991	53	0.5241	54	0.5386	71	0.5167	38	0.517135	51	64
Bethel College-Indiana	0.9598	16	-0.8806	77	-0.4670	59	0.5032	66	0.5835	42	0.4339	70	0.492352	71	19
Bethel College-North Newton	0.2342	36	-0.2758	50	-0.9891	79	0.4892	73	0.5487	65	0.4548	65	0.464078	77	19
Blackburn College	0.0528	44	-0.5825	61	-0.7021	67	0.4728	79	0.5304	75	0.4266	72	0.461573	78	49
Bluffton University	0.4156	32	0.0030	42	0.4475	28	0.5817	17	0.6241	18	0.5386	27	0.582244	19	25
Briar Cliff University	-0.6728	66	-0.0629	44	0.7367	18	0.5417	41	0.5578	60	0.5052	44	0.562104	27	39
Buena Vista University	0.5970	25	-0.0808	45	-2.2096	91	0.4636	81	0.5416	69	0.4457	68	0.403408	89	11
Cedarville University	1.9122	2	-1.2545	85	0.1283	41	0.5467	38	0.6479	12	0.4470	67	0.545186	35	5
Central Christian College of Kansas	-0.8995	71	-0.1163	46	0.2792	32	0.5072	65	0.5243	76	0.4766	52	0.520669	48	RNP
Central Methodist University-College of Liberal Arts and Sciences	0.3249	22	-0.9811	79	-0.8155	73	0.4522	83	0.5240	77	0.3904	82	0.442235	81	40
Central State University	-2.0333	90	1.7101	5	-1.7703	89	0.4904	72	0.4739	88	0.5590	24	0.438479	82	RNP
Chadron State College	-0.3100	61	2.0823	3	0.0400	44	0.6750	6	0.6699	8	0.7167	3	0.63841	11	67
Clarke University	1.3226	8	-1.6068	88	-0.4835	60	0.4683	80	0.5694	51	0.3699	88	0.465598	75	17
College of the Ozarks	1.5947	5	2.8426	1	0.4826	25	0.8326	1	0.8517	1	0.8745	1	0.771651	2	10
Concordia University-Ann Arbor	-0.2646	59	-0.5776	60	1.1791	11	0.5443	39	0.5733	50	0.4804	51	0.579043	21	52
Crown College	0.5063	29	-0.3448	53	0.6268	20	0.5697	22	0.6182	21	0.5116	41	0.579378	20	58
Culver-Stockton College	0.1435	40	0.2247	31	-0.0397	46	0.5628	27	0.6009	32	0.5360	29	0.551575	32	34
Dakota Wesleyan University	-0.0832	51	0.0438	40	0.3648	30	0.5585	29	0.5901	41	0.5234	33	0.56208	28	52
Defiance College	-0.1286	56	-0.8476	74	0.1716	38	0.4860	75	0.5342	72	0.4226	74	0.501092	65	40
Dickinson State University	-1.1716	77	1.5940	9	-1.1556	85	0.5486	34	0.5463	67	0.5966	15	0.502997	63	RNP
Dordt College	1.3226	8	-0.9859	80	-0.7430	68	0.4996	67	0.5929	39	0.4257	73	0.480247	73	6
Eureka College	0.0075	47	-0.8644	76	-1.0543	81	0.4353	86	0.5007	83	0.3838	84	0.421473	83	32

# Table 39: Regional Colleges – Mid West Score and Rank

Evangel University	-0.0832	51	0.0924	37	-0.4961	61	0.5229	55	0.5634	55	0.4992	46	0.506108	61	51
Finlandia University	-1.3984	85	-1.0566	81	-0.8707	75	0.3677	91	0.4030	90	0.3231	91	0.376984	90	RNP
Franklin College	0.9598	16	-0.7647	71	0.2213	36	0.5424	40	0.6129	26	0.4693	56	0.545144	36	6
Grace Bible College	-0.9449	72	1.0662	17	3.5088	1	0.7334	2	0.6925	6	0.7077	6	0.800073	1	RNP
Grace College and Theological Seminary	1.2773	10	0.7193	20	0.2524	35	0.6609	8	0.7123	5	0.6353	12	0.635013	13	48
Grace University	0.2342	26	0.3104	29	-0.3885	58	0.5570	30	0.5996	34	0.5361	28	0.535364	43	RNP
Grand View University	0.3249	22	-1.1846	84	0.4520	27	0.4955	69	0.5565	62	0.4123	77	0.517779	50	55
Greenville College	0.0528	44	-0.6608	64	0.4619	26	0.5201	57	0.5659	52	0.4580	63	0.536595	41	33
Hannibal-LaGrange University	-0.0832	51	0.3916	26	-0.6526	66	0.5366	45	0.5736	49	0.5250	32	0.511034	56	RNP
Harris-Stowe State University	-2.8496	91	2.3120	2	-0.9211	76	0.5343	48	0.4795	86	0.6231	13	0.500201	67	RNP
Hastings College	0.5517	27	0.2849	30	-1.0897	82	0.5376	44	0.5957	36	0.5203	35	0.496998	69	15
Huntington University	0.7784	21	-0.2574	48	0.2073	37	0.5689	24	0.6267	17	0.5155	39	0.564509	26	16
Indiana University-East	-1.0356	75	1.6153	6	1.0213	14	0.6548	9	0.6305	16	0.6773	8	0.656566	8	RNP
Indiana University-Kokomo	-1.3530	84	1.6017	8	2.2787	2	0.6966	5	0.6513	9	0.7080	5	0.730691	3	RNP
Iowa Wesleyan College	-1.8972	89	-0.3122	52	-1.3033	86	0.3775	90	0.3937	91	0.3691	89	0.369627	91	RNP
Judson University	0.1435	40	-0.7267	68	-0.0720	48	0.4954	70	0.5504	64	0.4360	69	0.499923	68	24
Kansas Wesleyan University	-1.2170	81	-0.4062	56	-1.0496	80	0.4128	89	0.4429	89	0.3907	81	0.404706	88	58
Kuyper College	0.7331	22	-0.7500	69	0.2681	33	0.5355	46	0.6001	33	0.4648	60	0.541516	38	71
Lake Superior State University	-0.2646	59	1.0438	18	-0.6138	64	0.5754	20	0.5967	35	0.5881	18	0.541512	39	69
Loras College	1.1866	11	-0.5842	62	-0.5315	63	0.5310	49	0.6119	28	0.4701	55	0.51096	57	11
MacMurray College	-0.4914	64	-0.8911	78	0.5642	21	0.4846	76	0.5210	78	0.4193	75	0.513389	55	63
Manchester University	0.4610	31	0.1259	34	-0.1303	49	0.5660	26	0.6139	25	0.5333	30	0.550888	33	22
Maranatha Baptist University	-0.0832	51	-0.7613	70	-0.7574	70	0.4519	84	0.5101	81	0.4016	79	0.443975	80	RNP
Marian University	0.5970	25	-0.7744	72	0.4195	29	0.5346	47	0.5949	37	0.4629	62	0.545989	34	25
Marietta College	1.0505	15	-1.4450	87	0.0668	43	0.4923	71	0.5783	47	0.3964	80	0.502316	64	4
Martin Luther College	1.9122	2	0.0365	41	0.0950	42	0.6347	12	0.7139	4	0.5801	19	0.610034	18	40
Mayville State University	-1.0809	76	1.4884	13	-0.6183	65	0.5697	23	0.5651	54	0.6069	14	0.537047	40	58
McPherson College	-0.3100	61	0.2008	32	0.3069	31	0.5567	31	0.5812	46	0.5302	31	0.558733	30	43
Midland University	-0.2193	58	-0.0425	43	-0.9263	77	0.4880	74	0.5327	74	0.4660	58	0.465325	76	67
Millikin University	0.8238	20	-0.7040	67	-0.1810	50	0.5224	56	0.5933	38	0.4574	64	0.516422	52	13

Missouri Southern State University	-0.9902	74	1.8526	4	0.1698	39	0.6347	13	0.6169	23	0.6745	9	0.612562	17	64
Missouri Valley College	-1.8519	88	1.1741	16	-0.0427	47	0.5396	42	0.5168	80	0.5680	21	0.534059	45	RNP
Missouri Western State University	-1.2170	81	1.5281	11	0.9933	15	0.6394	10	0.6129	27	0.6612	10	0.64407	9	71
Morningside College	0.5517	27	0.0586	39	0.8098	16	0.6080	16	0.6484	11	0.5613	22	0.6143	16	22
Mount Marty College	0.1889	39	0.3479	28	1.1022	13	0.6251	15	0.6491	10	0.5892	17	0.637083	12	43
Mount Mercy University	0.6424	24	-1.1432	83	0.5188	24	0.5155	60	0.5821	44	0.4294	71	0.535078	44	25
North Central University	-0.4914	64	-0.6949	66	-1.1162	84	0.4221	87	0.4741	87	0.3826	85	0.409412	85	71
Northern State University	0.0075	47	1.5852	10	1.5577	7	0.7234	3	0.7168	2	0.7272	2	0.726296	4	56
Northwestern College	1.1412	13	-0.4382	57	0.2678	34	0.5753	21	0.6436	13	0.5109	42	0.571341	25	6
Notre Dame College	-0.7181	67	-0.5084	59	2.2251	3	0.5762	19	0.5822	43	0.5080	43	0.638565	10	64
Ohio Christian University	-1.1716	77	0.4913	21	0.7882	17	0.5602	28	0.5550	63	0.5479	25	0.577747	22	71
Ohio Northern University	1.7308	4	-1.9662	91	0.7124	19	0.5158	59	0.6186	20	0.3868	83	0.541812	37	2
Olivet College	-0.0379	50	-0.3752	54	-0.0217	45	0.5140	63	0.5582	59	0.4682	57	0.515549	53	52
Presentation College	-0.9449	72	-0.4800	58	1.3648	8	0.5291	52	0.5393	70	0.4741	53	0.574014	23	RNP
Purdue University-North Central Campus	-1.5798	87	1.6039	7	1.8706	5	0.6682	7	0.6224	19	0.6868	7	0.695504	6	RNP
Rochester College	-1.1716	77	-0.2707	49	1.2979	10	0.5305	50	0.5327	73	0.4860	49	0.572765	24	70
Saint Joseph's College	0.0982	43	1.5136	12	-2.1678	90	0.5538	32	0.5926	40	0.5962	16	0.47247	74	28
Saint Mary-of-the-Woods College	1.1412	13	-0.6128	63	1.8740	4	0.6359	11	0.6891	7	0.5473	26	0.671399	7	18
Silver Lake College of the Holy Family	0.0528	44	-0.3031	51	-0.1970	52	0.5151	61	0.5621	56	0.4728	54	0.51042	58	RNP
Stephens College	0.6877	23	0.1077	35	-0.7516	69	0.5467	37	0.6070	30	0.5179	37	0.515306	54	30
Sterling College	-1.1716	77	0.4382	23	-0.5199	62	0.4973	68	0.5078	82	0.4980	47	0.486107	72	61
Tabor College	-0.4007	63	0.0895	38	-0.3099	55	0.5170	58	0.5484	66	0.4946	48	0.50801	60	50
Taylor University	2.2750	1	-1.6423	89	-0.3370	56	0.5149	62	0.6362	15	0.4030	78	0.50553	62	1
Trinity Christian College	0.8691	19	-1.6463	90	0.1637	40	0.4747	77	0.5590	58	0.3727	87	0.492373	70	28
Union College	0.3249	33	-1.2939	86	-1.1073	83	0.4173	88	0.4978	84	0.3479	90	0.406144	87	43
University of Jamestown	0.1435	40	0.8039	19	-0.8514	74	0.5662	25	0.6035	31	0.5687	20	0.526536	46	35
University of Minnesota-Crookston	0.2342	26	1.4361	15	1.2982	9	0.7115	4	0.7154	3	0.7105	4	0.708495	5	38
University of Mount Union	1.1866	11	-0.8596	75	-0.1822	51	0.5277	53	0.6094	29	0.4533	66	0.520372	49	6
University of Northwestern-St Paul	1.4133	7	-1.1148	82	-1.7646	88	0.4484	85	0.5575	61	0.3806	86	0.407163	86	13
University of Sioux Falls	-0.0832	51	-0.2199	47	0.5224	23	0.5474	36	0.5818	45	0.5013	45	0.559083	29	35

Urbana University	-1.4891	86	0.4263	24	1.6451	6	0.5804	18	0.5595	57	0.5597	23	0.621989	14	RNP
Valley City State University	-0.8995	70	1.4796	14	0.5302	22	0.6292	14	0.6158	24	0.6510	11	0.620687	15	43
Wilberforce University	-0.1739	57	0.4552	22	-0.8146	72	0.5296	51	0.5654	53	0.5231	34	0.500305	66	RNP
William Penn University	-1.2170	81	-0.4002	55	1.1196	12	0.5114	64	0.5169	79	0.4650	59	0.552403	31	RNP
Wilmington College	0.0075	47	0.1753	33	-0.3682	57	0.5385	43	0.5781	48	0.5152	40	0.522141	47	43
York College	-0.8542	68	0.3507	27	-1.5749	87	0.4576	82	0.4887	85	0.4637	61	0.420485	84	RNP

For US News Data:

Regional Colleges Rankings. (2012). Best Colleges 2012. U.S. News College Compass.

institution name	Effective Standard Score/R	eness dized Cank	Efficie Standar Score/F	ncy dized Rank	Expend Standar Score/	litures rdized Rank	Tri-E V (Equ Score/I	VD#1 (al) Rank	Tri-E V (Effectiv Score/I	VD#2 eness) Rank	Tri-E V (Efficie Score/I	VD#3 ency) Rank	Tri-E (Expend Score/	WD#4 litures) Rank	US News Rank
American Indian College of the Assemblies of God Inc	-0.1909	25	-0.0054	19	-0.3984	26	0.5402	26	0.5724	29	0.5486	23	0.4997	28	Unrank ed
Brigham Young University-Hawaii	0.2778	20	1.5650	2	-1.2196	39	0.6545	9	0.6750	8	0.7350	4	0.5536	18	18
Brigham Young University-Idaho	0.9808	7	1.6566	1	0.1129	14	0.7651	1	0.7833	1	0.8238	1	0.6881	2	13
California Maritime Academy	1.7307	2	0.5466	15	-0.8528	37	0.6562	8	0.7287	3	0.6710	13	0.5691	16	2
Carroll College	2.1057	1	-1.0481	34	-0.4839	29	0.5570	23	0.6677	9	0.4943	29	0.5089	25	1
Corban University	0.7933	9	-1.0730	35	-0.2556	21	0.5036	32	0.5804	27	0.4526	35	0.4777	32	6
East Texas Baptist University	-0.8939	31	-0.3573	26	0.3884	9	0.5170	30	0.5296	34	0.5086	26	0.5128	23	19
Hope International University	0.5121	15	-0.2201	25	1.3830	3	0.6477	10	0.6784	6	0.6154	18	0.6494	7	22
Howard Payne University	0.0434	22	-0.6330	29	0.0325	16	0.5201	28	0.5657	31	0.4932	30	0.5013	27	14
Humphreys College-Stockton and Modesto Campuses	0.6996	11	0.4326	16	-1.4571	40	0.5657	22	0.6236	16	0.5958	19	0.4777	33	Unrank ed
Jarvis Christian College	-1.6438	40	1.1598	6	1.3595	4	0.6609	7	0.6105	21	0.7138	7	0.6583	4	Unrank ed
Lewis-Clark State College	-1.2689	36	1.1393	7	0.2410	11	0.6193	13	0.5929	23	0.6813	8	0.5838	10	20
McMurry University	-0.2846	26	-1.1716	37	-0.6774	33	0.4215	39	0.4800	38	0.3848	38	0.3998	39	15
Menlo College	0.3246	18	-1.9767	40	-0.7213	35	0.3797	41	0.4706	39	0.3018	41	0.3668	40	10
Metropolitan State University of Denver	-0.6127	27	1.0457	10	0.9416	5	0.6791	4	0.6613	10	0.7201	5	0.6558	6	23
Mid-Atlantic Christian University	0.1372	21	0.7473	14	-0.8941	38	0.5947	18	0.6251	15	0.6377	14	0.5213	21	RNP
Montana State University-Northern	-1.3157	37	1.1373	8	0.2223	12	0.6159	14	0.5886	24	0.6787	10	0.5805	14	Unrank ed
Montana Tech of the University of Montana	0.5121	15	0.8129	13	-0.3558	25	0.6462	11	0.6772	7	0.6805	9	0.5808	13	Unrank ed
Nevada State College	-1.1283	33	1.5256	3	0.8022	7	0.6881	3	0.6496	12	0.7577	2	0.6572	5	Unrank ed
Northwest Christian University	0.3246	18	-0.1436	21	0.3877	10	0.5938	19	0.6312	14	0.5799	21	0.5703	15	20
Northwest University	1.2620	4	-1.1817	38	-0.0170	18	0.5291	27	0.6165	18	0.4648	34	0.5062	26	15
Oklahoma Baptist University	1.0745	6	0.0471	18	0.0966	15	0.6311	12	0.6862	5	0.6201	17	0.5870	9	5
Oklahoma Panhandle State University	-1.0814	32	1.2268	4	-0.4331	28	0.6010	16	0.5859	26	0.6732	12	0.5439	19	RNP

# Table 40: Regional Colleges – West Score and Rank

Oklahoma Wesleyan University	0.0434	22	-0.6863	31	-0.2681	22	0.5000	34	0.5506	32	0.4747	33	0.4745	34	8
Oregon Institute of Technology	0.6059	14	0.8245	11	0.9319	6	0.7182	2	0.7346	2	0.7353	3	0.6848	3	6
Rocky Mountain College	0.6996	11	-0.4524	28	-0.2913	23	0.5503	24	0.6121	20	0.5275	24	0.5114	24	12
Saint Gregory's University	-1.3626	39	-0.1723	22	-0.5822	30	0.4601	36	0.4701	40	0.4778	31	0.4325	37	23
Southwestern Adventist University	-0.6127	27	-0.7517	32	-0.4241	27	0.4548	38	0.4931	37	0.4366	37	0.4346	36	Unrank ed
Southwestern Christian University	-1.3157	37	-2.2415	41	3.6115	1	0.5023	33	0.5034	36	0.3767	39	0.6267	8	RNP
Texas College	-1.9719	41	0.2707	17	-0.8471	36	0.4550	37	0.4443	41	0.5024	27	0.4184	38	Unrank ed
Texas Lutheran University	0.4184	17	-0.8518	33	0.0079	17	0.5181	29	0.5778	28	0.4777	32	0.4988	29	3
The Master's College and Seminary	1.4026	3	-0.6559	30	-0.6534	31	0.5480	25	0.6356	13	0.5127	25	0.4956	31	4
The University of Montana-Western	0.7465	10	1.1195	9	-0.7125	34	0.6652	6	0.6999	4	0.7144	6	0.5812	12	17
Trinity Lutheran College	-0.1440	24	-0.0472	20	0.6954	8	0.5954	17	0.6155	19	0.5873	20	0.5835	11	Unrank ed
University of Great Falls	-0.7065	29	-0.4447	27	0.1917	13	0.5084	31	0.5299	33	0.4965	28	0.4987	30	Unrank ed
University of Houston-Downtown	-1.1283	33	0.8233	12	-0.1965	20	0.5764	20	0.5658	30	0.6289	16	0.5347	20	RNP
University of the Southwest	-0.7533	30	-0.1904	23	2.9793	2	0.6720	5	0.6509	11	0.6355	15	0.7295	1	Unrank ed
University of the West	0.6527	13	-0.2001	24	-0.3530	24	0.5664	21	0.6225	17	0.5558	22	0.5211	22	Unrank ed
Utah Valley University	-1.1751	35	1.1798	5	-0.1745	19	0.6058	15	0.5861	25	0.6738	11	0.5576	17	Unrank ed
Vanguard University of Southern California	1.2620	4	-1.1390	36	-0.6590	32	0.4996	35	0.5943	22	0.4454	36	0.4591	35	10
Warner Pacific College	0.9808	7	-1.6164	39	-1.4576	41	0.4040	40	0.5124	35	0.3431	40	0.3564	41	9

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