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Black Males' Self-efficacy and College Attendance: A Quantitative Study

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Submitted in Partial Fulfillment of the Requirements for the Degree
Doctor of Education

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COLLEGE OF EDUCATION & HUMAN SERVICES
DEPARTMENT OF EDUCATION LEADERSHIP MANAGEMENT & POLICY

APPROVAL FOR SUCCESSFUL DEFENSE

Shawanda W. Beale has successfully defended and made the required modifications to the text of the doctoral dissertation for the **Ed.D.** during this **Spring 2023** Semester.

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Abstract

This study will investigate the relationship between Black males' self-efficacy, college aspirations, and college attendance. Researchers have examined self-efficacy among racial groups and gender (Richardson et al., 2013). Yet, the researcher is interested in examining factors that relate to Black males aspiring to and attending college and the role of self-efficacy in those relationships. Self-efficacy involves belief in one's ability to accomplish goals (Bandura, 1997). Self-efficacy helps students see themselves as capable of achieving goals. Students with higher self-efficacy develop action plans to attend college, and students with lower self-efficacy are less likely to develop action plans to attend college.

Data reported from the National Center for Education Statistics (NCES) suggest that fewer Black males enroll in college compared to other racial and gender groups. National statistics for undergraduate enrollment of 18 to 24-year-old students in degree-granting colleges and universities show lower rates of Black males enrolled in college than White males and White, Black, and Hispanic females from 2000 to 2019 (NCES, 2021a).

College offers new opportunities for educational growth and influences generations within families (Pratt et al., 2019). When attending college is not an option for students, there is a potential impact on future career advancement and income potential. College degrees are associated with economic and social stability (Engle, 2007). Economic and social stability leads to quality housing, food security, and jobs with a living wage. This study will address the relationship between Black males' self-efficacy, college aspirations, and college attendance.

Acknowledgements

I am truly grateful for my educational growth, from attending college and obtaining a bachelor's degree and a master's degree to now completing the requirements for a Doctor of Education degree. This dissertation is dedicated to my children, especially my only son; I love you all dearly! I am passionate about setting an example for my children and instilling the value in them that one will only possess what one is willing to pursue.

Pursuing a Doctor of Education degree has been a labor of love. My husband's support and my children's understanding and love throughout this journey have been a blessing. I also recognize and appreciate my mother and grandmother for their prayers and unconditional love throughout my life.

I am thankful for my mentor, Dr. Jason Burns, and my dissertation committee members, Dr. Jennifer Timmer and Dr. Brenda Walton. They believed in me and helped me to dive deeper into my dissertation topic. I appreciate their knowledge, questions, and even their revisions, which helped me accomplish my goal of completing this study.

Most importantly, I am grateful to God for His blessings and grace. My faith is important to me, and I could not have accomplished this goal without it.

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Chapter 1

Black Males' Self-efficacy and College Attendance: A Quantitative Study

A person's thoughts influence their actions and self-efficacy (Bandura, 1997). Positive thoughts influence positive actions and increase self-efficacy, while negative thoughts influence negative actions and decrease self-efficacy. This study examines how self-efficacy affects college aspirations and college attendance for Black males. Self-efficacy guides goal-setting (Zimmerman et al., 1992). Therefore, this study will examine the extent to which self-efficacy has a positive or negative association with college aspiration and college attendance.

Self-efficacy involves belief in one's ability to accomplish goals (Bandura, 1997). Goals may relate to academic, career, or personal action plans. Academic goals may involve the pursuit of post-secondary options, such as attending college. Career goals may involve creating action plans to obtain a job, which will influence socioeconomic status in life, and personal goals are determined by individual interests.

This study will examine self-efficacy in students and the relationship self-efficacy has with students' aspiring to attend college and college attendance. Self-efficacy helps students of all ages define goals, work through challenges, and identify personal successes to achieve goals (National Association of School Psychologists, 2010). Higher self-efficacy helps students see themselves as capable of achieving goals (National Association of School Psychologists, 2010). Self-efficacy relies on the personal belief that skills have been acquired to reach goals (National Association of School Psychologists, 2010). Students with lower self-efficacy are less likely to see themselves as capable of achieving their goals, whereas students with higher self-efficacy are more likely to see themselves as capable of achieving their goals and will develop appropriate action plans (National Association of School Psychologists, 2010). Thus, self-efficacy affects goals and action plans set

by students. There are many factors that contribute to student self-efficacy. The researcher will examine the relationship between self-efficacy, college aspiration, and college attendance, especially for Black males.

Self-efficacy is significant in students' motivation to attend college because it encourages belief in their capabilities to develop and execute the required courses of action to achieve their goals (Bandura, 1997). The aspiration to attend college does not mean that the student will attend college, especially for non-White students and students from lower socioeconomic backgrounds (Pratt et al., 2019). It is worth examining the relationship between college aspiration and college attendance, especially when it affects racial groups disproportionately. College offers new opportunities for educational growth and influences socioeconomic status for generations within families (Pratt et al., 2019). When attending college is not an equal option for students, it impacts their future career advancement and income potential, as college degrees are associated with economic and social stability (Engle, 2007).

Like self-efficacy, academic achievement influences the goals set by students. Academic achievement begins with the student's educational experiences. The students' level of self-efficacy and how they view their academic achievement guide their goal-setting (Zimmerman et al., 1992). Self-efficacy may influence students' goal-setting in a positive or negative manner, depending on their belief in their ability to achieve higher academic achievement. Academic achievement directly impacts the options available for students after high school. Although, academic achievement is not the only factor determining students' post-secondary options, it plays a role in whether students receive college acceptances.

Academic achievement in the secondary school setting prepares students for college. College admissions committees review students' classes and the grades received in courses to

determine whether they will offer a letter of acceptance to students. College is a symbol of privilege that is not afforded to every student (Pratt et al., 2019). In the United States, 5.6% of Black students between the ages of 16 and 24 dropped out of high school, compared to 4.1 % of White students between the ages of 16 and 24 (NCES, 2019a). Although students drop out of high school for multiple reasons, one of the reasons involves a lack of belief in their ability to complete high school. Academic achievement in the secondary school setting directly impacts college degree attainment and future socioeconomic status (Bush & Bush, 2010).

Self-efficacy is developed through four domains, including academic success, modeling influence, verbal affirmations, and physiological states of mind (Reid, 2013). Each domain raises or lowers a student's level of self-efficacy (Pajares, 2002). Students may experience strengths in all domains or one domain, and the level of self-efficacy may be acquired during different stages of a student's personal or academic life.

Academic achievement involves engaging in tasks and activities, interpreting the results of one's actions, and then using those interpretations to develop beliefs about one's capabilities to complete tasks (Pajares, 2002). Academic success is measured in the school setting when students are given a task, evaluated on the task, and gain self-efficacy based on the task's performance. Modeling is utilized when someone is not confident in their abilities or lacks experience with tasks; therefore, they model someone completing tasks and gain the belief that they can also complete tasks (Pajares, 2002). Modeling is utilized in the school setting and outside of school. Students model school personnel, community leaders, and family members.

Verbal affirmations are a form of persuasion that encourages someone to believe in themselves. Positive persuasions increase self-efficacy, and negative persuasions decrease it (Pajares, 2002). Verbal affirmations encourage positive actions or inflict self-doubt in one's ability

to set goals and complete tasks. Lastly, physiological states of mind may increase positive attributes, such as confidence, or intensify negative attributes, such as anxiety and stress. Confidence, anxiety, and stress affect students' positive or negative beliefs in their abilities to complete tasks (Pajares, 2002). Academic success, modeling, verbal affirmations, and physiological states of mind increase or decrease self-efficacy in students.

In summary, academic success involves teaching and motivating students to engage in tasks and believe in their abilities to complete them. Modeling influences students' behaviors to complete tasks that they are not comfortable completing on their own. Verbal affirmations provide positive or negative reinforcement for students' actions, and physiological states of mind encompass positive or negative attributes that strengthen students' abilities to learn coping skills to complete tasks (Huang et al., 2020). Students attend college based on the four domains of self-efficacy, which involve their academic success in secondary school, modeling role models who attend college, perceived verbal affirmations that they can attend college, and the level of stress related to their belief that they can attend college. Data reported from the National Center for Education Statistics (NCES) suggest that fewer Black males have enrolled in college compared to other racial and gender groups.

The NCES collects and analyzes college attendance data and publishes reports on the education activities of young adults based on race and gender (NCES, 2022). National statistics for undergraduate enrollment of 18 to 24-year-old students in degree-granting colleges and universities show lower rates of Black males enrolled in college than White males and White, Black, and Hispanic females (NCES, 2021b). The researcher examined NCES data from 2000, 2010, and 2019 to determine trends in approximately 10-year intervals of undergraduate student enrollment. The approximate 10-year intervals compared Black males to other racial and gender

groups. Each year's data collected from the NCES, including data from 2000, 2010, and 2019, suggested that Black males did not attend college at a comparable rate to other races.

Table 1

Student college enrollment of 18 to 24 years old

	2000 Enrollment	*2010 Enrollment*	*2019 Enrollment*
Black Males	25%	35%	34%
White Males	36%	41%	37%
Hispanic Males	18%	28%	33%
Black Females	35%	41%	40%
White Females	41%	46%	45%
Hispanic Females	25%	36%	40%

Note. National Center for Education Statistics, 2020 and 2021

Although Black males' enrollment has increased from 2000 to 2019, including a 1% decrease from 2010 to 2019, Black males' college enrollment has been the second-lowest enrollment in college from 2000 to 2019 for 18 to 24-year-olds. In contrast, for 18 to 24-year-old White males, there was a 1% increase in college enrollment from 2000 to 2019, and White males had a higher college enrollment than Black males in 2019. Furthermore, More Black females and White females, 18 to 24 years old, enrolled in college than Black males in 2000, 2010, and 2019. In addition, Hispanic females, 18 to 24 years old, tied Black male enrollment in 2000 but surpassed Black male enrollment in 2010 and 2019. Hispanic males, 18 to 24 years old, enrolled in college less than Black males in 2000, 2010, and 2019.

Black males, 18 to 24 years old, had the second-lowest national enrollment rate in college over this 19-year time span. This data highlight significant disparities when comparing Black males' college enrollment to other racial and gender groups. The researcher will examine the relationship between self-efficacy and Black males' college aspirations and college attendance. A practical implication of this study is to examine variables to help the researcher identify relationships that support the importance of self-belief and the development of action plans for

Black males to aspire to attend college and follow through with it. Black males' aspirations and perceptions have an influence on their academic achievement and college enrollment. Although Hispanic male college enrollment is lower than that of Black males, future research may examine factors that specifically affect Hispanic male college enrollment.

Statement of the Problem

College enrollment data from the NCES suggest that Black males, 18 to 24 years old, were the second-lowest racial group to enroll in college from 2000 to 2019. Based on research showing that higher self-efficacy in students allows them to develop and act on their goals and lower self-efficacy hinders actions that limit the achievement of goals, it is important to examine self-efficacy. Self-efficacy is the belief in one's capabilities to develop and execute the required courses of action to achieve one's goals (Bandura, 1997).

The literature review will examine self-efficacy, the relationship between college aspiration and college attendance, and the influence of discrimination on self-efficacy. Research suggests Black males' lower college enrollment is due to a lack of socioeconomic resources and anti-Black discrimination in schools, which affects their self-efficacy (Graham, 2022). The researcher will examine the relationship between Black males' self-efficacy, college aspirations, and college attendance and those of other racial and gender groups.

Purpose of the Study

Self-efficacy is significant in a student's belief in their ability to attend college because it encourages the belief in one's capabilities to develop and execute the required courses of action to achieve their goals (Bandura, 1997). Students pursue goals that they believe are achievable through self-belief and creating formal action plans. The study is significant because Black males' college

enrollment has been the second-lowest from 2000 to 2019 compared to other racial and gender groups. There is a systemic problem when Black males are not enrolling in college equally with other racial and gender groups.

Researchers have examined self-efficacy among racial and gender groups (Richardson et al., 2013). Black students who experienced perceived discrimination are more likely to have lower self-efficacy and interest in education (Price & Tovar, 2014). Discrimination is a contributing factor in self-efficacy among races, particularly for Black Americans (Reid, 2013). Perceived discrimination lowers self-efficacy (Richardson et al., 2013). However, self-efficacy and the relationship between Black males' college aspiration and college attendance have not been examined. Based on NCES data on Black male college enrollment compared to other racial and gender groups, it is a topic worth examining. The researcher will examine the relationship between Black males' self-efficacy, college aspirations, and college attendance and those of other racial and gender groups.

Academic achievement is one of the domains that influences self-efficacy. In addition, socioeconomic status influences physiological states of mind, which is also a domain that influences self-efficacy. This study will examine self-efficacy in relation to Black males' college aspirations and college attendance. The goal is to examine the relationship between these variables and determine the relationship between self-efficacy and Black males' college aspiration and college attendance by answering three research questions.

Research Questions

The research questions will help to examine the relationship between Black male self-efficacy and their college aspiration and college attendance. The study will answer the following research questions:

1. What is the relationship between gender and self-efficacy, controlling for socioeconomic status and academic achievement among Black students?
2. What is the relationship between self-efficacy and college aspiration, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?
3. What is the relationship between self-efficacy and college attendance, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

Definitions of Terms

Academic Achievement: The National Center for Education Statistics (NCES) measures student knowledge and skills related to mathematics in the High School Longitudinal Study (NCES, 2022).

Black: Person having origins in any of the Black racial groups of Africa (NCES, 2022)).

College Aspirations: Student post-secondary college and work plans (NCES, 2022).

College Attendance: Student enrollment in degree-granting four-year colleges (NCES, 2022).

High School Longitudinal Study: A nationally representative longitudinal study of more than 23,000 ninth-grade students from 944 schools in 2009, with a follow-up study in 2012 and an additional follow-up study in 2016 (NCES, 2022.

Self-efficacy: The belief in one's capabilities to develop and execute the required courses of action to achieve their goals (Bandura, 1997).

Socioeconomic status: A person's or group's social standing based on education, income, and occupation (American Psychological Association, n.d.).

The gaps in literature related to self-efficacy and Black males' college aspiration and college attendance will be discussed in the remainder of this study. Chapter two reviews the theoretical framework and literature studying self-efficacy, anti-Black discrimination, academic achievement, and socioeconomic status related to college attendance. Chapter three includes a description of the data used for the study, the data source for the study, and the methodology used to answer the research questions. Chapter four discusses the findings related to the research questions, and chapter five provides a conclusion of the study with recommendations to further address the problem statement.

Chapter 2

Literature Review

Introduction

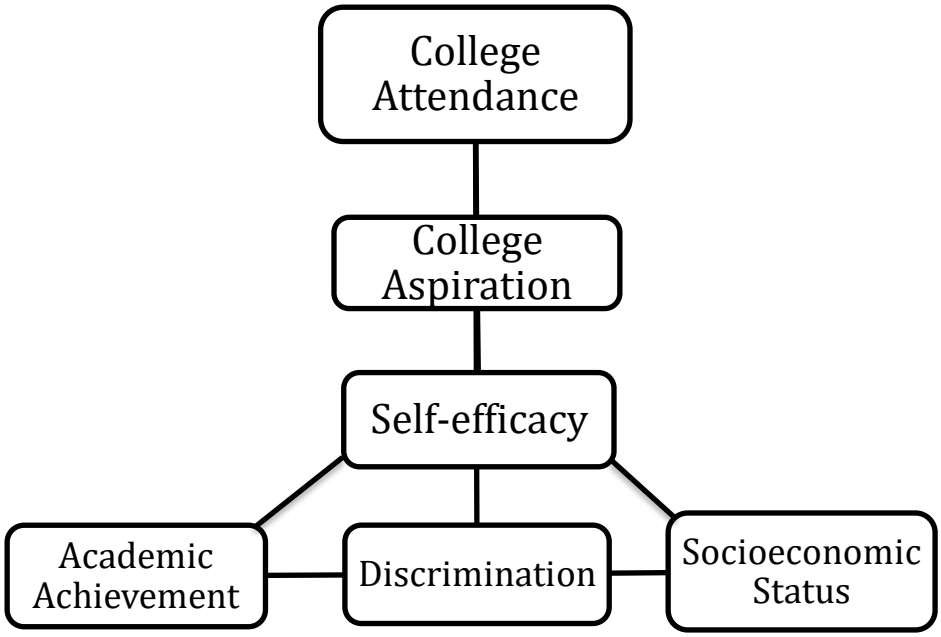
This study aims to examine the relationship between Black males' self-efficacy, college aspiration, and college attendance. The literature review builds upon studies related to self-efficacy but also reviews academic achievement, anti-Black discrimination, and socioeconomic status. Self-efficacy is important to this study because it is the belief in one's capabilities to develop and execute the required courses of action to achieve their goals (Bandura, 1997). The effects of discrimination negatively impact an individual's level of self-efficacy, which limits progress toward completing goals. When students have negative experiences based on the four domains of self-efficacy, they are less likely to complete the courses of action necessary to accomplish their goals. Discrimination affects students in the academic environment, their relationships with role models, and verbal affirmations received and causes increased anxiety (Gibson et al., 2014). Discrimination, especially toward Black Americans, is associated with disengagement in the school setting (Blondal & Adalbjarnardottir, 2012). Furthermore, anti-Black discrimination negatively affects a racial group of students and lowers their self-efficacy (Graham, 2022).

Discrimination affects students' academic achievement, perceived positive role models, verbal affirmations received by role models, and anxiety and stress, which influence overall health and wellness. Each domain may raise or lower a student's self-efficacy (Pajares, 2002). Students who experience lower self-efficacy are less likely to believe in their abilities to achieve goals, which affects goal-setting when planning for college. Self-efficacy is important in the pipeline to college because the pipeline to college requires goal-setting. It also requires planning, application material preparation, and follow-through with submitting the college application. Self-efficacy, as

it relates to college attendance, involves believing in one's ability to complete the application process, submit quality materials that are reviewed by a college admissions committee, and enroll in college.

Figure 1

Theoretical Framework



The theoretical framework of this study is based on Albert Bandura's self-efficacy theory. Self-efficacy is the personal belief that an individual has in their ability to complete a task (Bandura, 1997). Self-efficacy involves preparation and planning to determine goals and motivate action (Bandura, 1997). This motivation affects aspiration and positive affirmations that college attendance is possible. Individuals with higher self-efficacy increase their belief that they will achieve their goals more than individuals with lower self-efficacy (Bandura, 1997). Self-efficacy beliefs have influenced academic and career behavior (Lent et al., 1997). Students with a higher level of self-efficacy will set courses of action to prepare and plan for their future (Kirk, n.d.).

Anti-Black Discrimination

Self-efficacy is developed through four domains: Academic success, the influence of modeling, verbal affirmations, and physiological states of mind. There is a history of anti-Black discrimination in the United States' education system that has had a generational impact on Black males. Black Americans did not have the same access to educational materials and quality school facilities that White Americans had access to until a decision in Brown v. Board of Education. Brown v. Board of Education brought awareness to the inequality in public schools between Black and White Americans. The Civil Rights Act gave Black Americans the right to bring educational equality to schools (Altbach et al., 2011). Educational access in the secondary school setting affects Black Americans' ability to attend college and gain employment (Finn, 2006). Historically, Black males did not have the same legal rights as White males, which included access to education. Education in the United States is a sign of progress and growth for its citizens, which affects educational pursuits. The United States' education system was not intended for Black males because they were not originally allowed to become United States citizens (U.S. Department of Education, 1999). Black students were also prohibited from learning to read and write, and it was a punishable offense in many states until the late 19th century (U.S. Department of Education, 1999). Lack of educational access lowers students' exploration of post-secondary options and affects students' beliefs in their capabilities to set and accomplish goals.

Black males have faced challenges unlike other racial groups in the United States. European minority groups may blend with their White counterparts as simply Americans more than Black males, thus providing access to education (Jencks, 1985). However, discrimination against Black males has hindered their access to free public education and higher education. The legacy of discrimination is prevalent in the 21st century and contributes to Black males

discontinuing their education post-high school, exhibiting defiant behaviors in the school setting, and showing a lack of academic performance in school (Leath et al., 2019). Students who are not engaged in the school setting and who exhibit problematic behaviors will not want to continue their educational studies after high school.

Discrimination affects a person's self-efficacy and has negative effects on their overall health and well-being. Disengagement is not likely to increase academic advancement post-high school and negatively affects mental health and self-efficacy because it undermines resiliency and motivation and causes stress (Lewsley, 2020). Lack of resilience and motivation can affect generations of families. Anti-Black discrimination limited Black families from reaching a higher socioeconomic status (Hanks et al., 2018). Due to the historical lack of educational access for Black males, Black males have not had the same opportunities to build resources because they are not pursuing post-secondary options like other races (Hanks et al., 2018).

Self-efficacy encourages belief in one's capabilities to develop and execute the required courses of action to achieve goals (Bandura, 1997). Stress affects brain development, intensifies fear, and limits learning (Lewsley, 2020). When a student is in a state of fear, they are not thinking about steps to achieve their goals. The stress affects their ability to think and learn and limits their ability to be more efficacious. The stress associated with anti-Black discrimination has decreased their self-efficacy beliefs, which has affected their motivation to pursue post-secondary education.

Anti-Black discrimination affects the four domains of self-efficacy when minority students have negative experiences with teachers who lack cultural responsiveness (Bottiani et al., 2020). Consequently, students will not have positive modeling or verbal affirmations, which will lower academic success and cause stress. Anti-Black discrimination is also present in school settings where Black males do not have culturally responsive teachers (Bottiani et al., 2020). Awareness

of anti-Black discrimination is necessary to combat it. Culturally responsive teachers engage students with materials from their culture and encourage diversity in the learning environment, which encourages a sense of community and belonging for students (Bottiani et al., 2020). Students in classrooms with culturally responsive teachers are more engaged in school, which is linked to academic outcomes for students (Bottiani et al., 2020).

Practices including encouraging excellence in Black students and believing Black students when they have identified anti-Black discrimination, such as hostile teachers, lower academic standards, and harsher discipline, are steps to eliminate anti-Black discrimination (Howard, 2020). A sense of belonging and support are positive experiences students need in the school environment. Education and the school environment continue to foster anti-Black discrimination because of the lack of Black teachers in the school community (Lopez & Jean-Marie, 2021).

Anti-Black discrimination not only affects students' self-belief and academic outcomes, but it also influences setting short- and long-term goals. Negative school experiences involving racial discrimination have consequences for student self-efficacy (Howard, 2020). Racial discrimination is especially harmful for Black males because they become less interested in education when faced with it (Leath et al., 2019).

Discrimination is a key factor associated with poor mental health, coping skills, and long-term health conditions in adolescents (Lewsley, 2020). A student who experiences discrimination may feel unworthy and unmotivated. However, a student who has not experienced discrimination has more of an opportunity to set goals and work diligently toward achieving those goals without the physical and mental effects of discrimination because there are fewer physical attributes associated with stress, such as emotional distress and anxiety. Discrimination also has the potential

to have long-term effects. It causes health-related concerns, such as anxiety, depression, and chronic stress, which may lead to high blood pressure (Trent et al., 2019).

Leath et al. (2019) studied over 1,659 Black male and female students from two school districts in a midwestern metropolitan area and the effects of racial discrimination on the participants' academic motivation. The sample included 54% female participants. The surveys measured the participants' responses to questions about psychological adjustment, social and academic beliefs, self-awareness, goals, and academic experiences (Leath et al., 2019). A hierarchical linear regression was used to examine gender and race-related variables as predictors of the students' academic motivation (Leath et al., 2019). Although Leath et al.'s study analyzed responses related to more than self-efficacy, such as psychological adjustment and academic experiences, the study is relevant because she had firsthand accounts of how Black males and females perceived motivation in high school, which affected their post-secondary options. Black males and females who experienced discrimination had lower self-efficacy and academic stimulation (Allen et al., 2022).

Black males who experienced discrimination in school from teachers suffered more negative academic performance and lower self-esteem, and devalued school more than Black females (Leath et al., 2019). Academic performance impacts a student's experience in the school setting and impacts educational values and decisions about education post-high school. Students will pursue tasks when they have a belief in their abilities to accomplish them, have models to mimic completing the task, receive positive verbal affirmations, or have lower anxiety related to the task's completion.

Students who experience discrimination are also linked to mental health issues and chronic stress. Furthermore, it is worth studying in future research the effect that discrimination has on

peers of students who experience discrimination because bystanders of discrimination experience health-related issues (Trent et al., 2019). Bystanders who witness discrimination are also likely to suffer from physiological and psychological effects when recounting biased incidents (Trent et al., 2019).

There are medical consequences that affect student well-being when faced with discrimination (Trent et al., 2019). In addition, the life expectancy of Black males is shortened due to anti-Black discrimination. Black males who experience discrimination have a life expectancy of 71 years compared to 76 years for White males (Assari, 2020). The support that Black males receive during their secondary schooling also plays a role in their health and pursuit of college. Black males need encouragement, support, and exposure to institutions of higher education so that they may understand the expectations of college life and academic rigor.

Black children born to parents in the United States have the highest disparities in overall health and mental health due to discrimination (Okeke-Adeyanju et al., 2014). In addition, Black children are aware of negative attitudes toward Black people, and many Black children experience discrimination in social environments, such as in school or within the community (Okeke-Adeyanju et al., 2014). Indeed, it is not uncommon for Black children to experience discrimination during their adolescent years (Seaton et al., 2012). Although discrimination is not healthy for any race, Black children are exposed to it in elementary and middle school, and their self-esteem suffers (Okeke-Adeyanju et al., 2014).

Research suggests that anti-Black discrimination negatively lowers students' self-efficacy. Prior to entering college, Black males are twice as likely to be suspended from school (NCES, 2016 and 2019). When Black males are suspended from school for not achieving academic success, they are less likely to enroll in college (Lynch, 2017). The number of Black males enrolled

in college is the second-lowest among White males and females, Black females, and Hispanic females (NCES, 2019a).

Anti-Black discrimination, including stereotypes from teachers about Black males, does not help motivate Black males to pursue college. Obtaining a college degree has the potential to improve job prospects, which affects socioeconomic status. When Black males do not complete high school and attend college, they do not contribute positively to the secondary school and college environments, such as through academic achievement and college enrollment.

Unlike the application process, the pipeline to college varies for many students, especially Black males, based on their academic background and support systems. Challenges are prevalent in many educational settings; however, Black males also contend with stereotypes and stigmatization. Intelligent Black males are lost prior to entering college due to discrimination and non-supportive staff within secondary school systems (Bianco et al., 2011). Secondary school systems with staff that do not prepare and support student exploration hinder student self-belief. Black students are underrepresented in gifted programs and overrepresented in special education classes, and teachers may fail to identify the strengths of Black students (New York University, 2016). Discrimination affects self-efficacy and has negatively affected Black Americans. Black male and female students who have experienced discrimination in similar settings internalize and externalize the effects of discrimination differently. Although access to educational institutions for Black males has increased, their college attendance is not comparable to other races or Black females.

Self-Efficacy

Students' experiences with one or multiple domains shape the level of self-efficacy students develop. A student may have negative experiences with academic success, and another

student may have negative experiences with receiving verbal affirmations, yet they may have developed similar self-efficacy. Self-efficacy will vary according to student experiences and situations (Lent et al., 1997). Thus, self-efficacy will be examined in this study based on the premise that it influences a student's belief in their ability to attend college.

Self-efficacy is developed over time and is multidimensional (Bandura, 2006). Self-efficacy develops at different stages in a person's life, based on their experiences. There are factors that influence the four domains of self-efficacy, such as socioeconomic status, resources, and a person's environment. Self-efficacy is evident in everyday life decisions that impact goal achievement (Yenti & Kusumah, 2020). Students who think they will attend college have higher self-efficacy, and they are more likely to follow through with college planning and preparation to make attending college more realistic.

Self-efficacy influences students' completion of high school (Savas, 2016). Education systems tend to encourage motivated students and allow students with less motivation to simply disengage (Nash, 1990). The encouragement that students receive affects their academic success, modeling, verbal affirmations, and physiological states of mind. School systems can promote exclusion by being more responsive to students who are ready for schooling and come from higher socioeconomic status (Nash, 1990). This is also prevalent when school settings do not provide positive modeling for students (Nash, 1990). Furthermore, students from higher socioeconomic backgrounds have more self-belief and motivation to achieve educational and career goals (Sawitri & Suryadi, 2020). They are also more engaged in their work and identify clearer activities to achieve their goals (Sawitri & Suryadi, 2020). The higher level of self-efficacy in these students allows them to focus on how to achieve goals instead of thinking about whether they can achieve them. Students with a higher socioeconomic status have different life experiences than students

with a lower socioeconomic status, which contributes to the development of goal-setting and identifying actions to achieve goals. Life experiences for students from a higher socioeconomic background provide opportunities that increase self-efficacy in lieu of decreasing it.

Higher self-efficacy influences students' actions throughout the college process (Wright et al., 2012). When students experience success, receive positive affirmations, have positive role models, and feel empowered and less stressed, they focus on their goals. Higher self-efficacy increases students' chances of completing high school (Rafique & Ahmed, 2019). In addition, it develops a belief in students that helps them plan and implement steps to achieve their goals.

When students believe in their abilities to attend college, they develop goals to pursue it (Savas, 2016). Students with higher self-efficacy have higher beliefs in determining tasks to help them achieve goals and identifying and evaluating the courses of action that will help them plan steps to achieve their goals (Bandura, 2006). Students with a higher level of self-efficacy believe in their capabilities to set practical and realistic goals and problem-solve when faced with challenges (Bandura, 2006). Students who believe in their capabilities will think through the steps needed to achieve their goals versus students who do not have the skill sets to determine tasks and do not know where to begin to accomplish their goals.

Self-efficacy guides goal-setting (Zimmerman et al., 1992). Adolescents begin to develop self-efficacy when they experience life situations related to the four domains of self-efficacy: Academic success, modeling, verbal affirmations, and their physiological states of mind. Experience with the four domains of self-efficacy will increase self-efficacy as adolescents grow. For youths, self-efficacy manifests when they feel confident in their ability to complete a task based on their goals (Kirk, n.d.). As youth complete tasks, they utilize planning and problem-

solving skills. Problem-solving is an important step in goal completion. Self-efficacy beliefs about capabilities are predictive of outcomes (Tsang et al., 2012).

There are also differences in college enrollment according to gender. Studies have examined gender and race differences in college enrollment. Research suggests that females have higher college enrollment than Black, White, and Hispanic males (Savas, 2016). Savas (2016) conducted a study of college enrollment using data from the Education Longitudinal Study of 2002 (ELS). The ELS is a nationally representative, longitudinal study that surveyed 10th-grade students in 2002 and 12th-grade students in 2004 about student trajectories from high school to post-secondary plans (NCES, 2014). Females are more engaged in secondary school than males, and that continues throughout their pathway to college due to rising career expectations (Savas, 2016). In addition, females tend to continue to have higher self-efficacy in college (Gore et al., 2005). Therefore, it is worth examining further the relationship between self-efficacy and college attendance within racial and gender groups.

Self-efficacy is a predictor of how motivated students are to learn (Zimmerman, 2000). Beliefs affect plans, which contribute to outcomes. Students with lower self-efficacy lack the skill sets to put forth action plans to achieve their goals (Zimmerman, 2000). Self-efficacy impels students to become more practical with goal-setting, which is a skill set that will help them throughout life when they are faced with challenges (Zimmerman, 2000).

Academic Achievement and Higher Education

The secondary school experience is the gateway to higher education and career opportunities in life. Completion of rigorous academic coursework in high school may predict future socio-economic status for students based on their enrollment in college and degree completion (Crosnoe & Muller, 2014). Secondary schools help guide students with preparation

and the transition from high school to college. Students from lower socioeconomic backgrounds and Black students attend college at lower rates than students from higher socioeconomic backgrounds (Fitzpatrick, 2019).

School personnel affect all four domains related to student self-efficacy. School personnel influence academic success, demonstrate modeling behaviors, provide verbal affirmations, and contribute to students' physiological states of mind. Therefore, school personnel must provide minority students, historically categorized as African American or Black, anticipated first-generation college students, and students from lower socioeconomic backgrounds with fair guidance throughout the college application process (Holland, 2015). Research indicates that creating academic goal-setting in the ninth grade, followed by a review each year, may assist with socioeconomic disparities in college planning (Fitzpatrick, 2019). However, many students do not receive adequate college counseling (Kirst & Venezia, 2004). Students may not have the parental resources to understand the pipeline to higher education, and they may not receive appropriate counseling from school personnel.

Self-efficacy is significant for motivation and self-belief in accomplishing goals. For some Black males, that motivation is diminished between the third and fifth grades when they develop an awareness of how they are treated or the lack of treatment they receive in school (Leath, 2019). This treatment may appear due to a lack of support and empathy from teachers in the school environment (Bottiani et al., 2020). In addition, Black children up to eight years old experience negative stereotyping, a form of discrimination, by adults who work with them (Priest et al., 2018).

The process of pursuing higher education is consistent for most students; it begins with aspirations to pursue college. Students aspiring to attend an Ivy League college or university or a specialty college, such as a college specializing in the arts, may have additional requirements.

However, the traditional process for students consists of students' aspirations identification, academic preparation, entrance exams, college applications, and college enrollment (Horn & Carroll, 1997). Students' aspirations to attend college vary based on their motivation and socioeconomic status (Horn & Carroll, 1997). Academic preparation relates to the courses that students take in high school and the grades that they receive in their courses (Horn & Carroll, 1997). Secondary high school courses may have a hierarchical sequence or levels indicating introductory, middle, or advanced (Crosnoe & Muller, 2014). Students have the option to choose courses in high school, and the courses selected tend to steer students toward different post-secondary pathways, such as dropping out of high school, graduating from high school, pursuing a career, or enrolling in the military or college.

College entrance exams are also part of the pipeline to higher education (Horn & Carroll, 1997). Colleges may accept an entrance exam, such as the SAT or ACT. The SAT is a multiple-choice standardized test that measures students' readiness for college based on their scores on reading, language, arts, and math questions (The College Board, n.d.). Colleges may also accept student scores from the ACT, a standardized test that measures skills related to English, math, reading, science, and an optional writing portion (ACT, n.d.).

The application process is standardized for students; there is the initial interest in applying to college, culminating in selecting a college to attend. The college application process consists of identifying the application components for each college, submitting high school transcripts, letters of recommendation, and other required materials, and adhering to application deadlines (The College Board, n.d.). College enrollment is determined by the student's ability to enroll and attend classes at an institution of higher education. Although higher education is intended to further develop critical thinking and problem-solving skills, there is a need for higher education to

improve socioeconomic status through degree attainment (Chan, 2016). However, students from lower socioeconomic backgrounds perceive the benefits of attending college with less regard than students from higher socioeconomic backgrounds (Boneva & Rauh, 2019). A review of socioeconomic status and college attendance will take place further in this study.

Gender and College Enrollment

Examining the gender gap in educational programs that lead to college enrollment is equally as important as examining racial disparities in college enrollment (Conger & Long, 2013). Black females are enrolled in advanced educational programs at lower rates than White females, 5.2% compared to 35% (Evans-Winter, 2014). Gender has become a predictor of college enrollment and obtaining a college degree (Buchmann et al., 2004). Gender and race data are gathered by the National Center for Education Statistics; these data are used to examine college enrollment among races and genders through years of study. Since 2000, the female college enrollment rate between 18 and 24-year-olds has been higher than that of their male counterparts. In addition, since 2000, Black female college enrollment rates of 18 to 24-year-olds have been higher than Black male college enrollment rates of the same age.

This is seen in the college enrollment of different races and genders of students. The National Center for Education Statistics indicates disparities in college attendance between Black males and Black females. Thus, discrimination affects Black males' and Black females' self-efficacy differently. When self-efficacy is negatively affected, students are less likely to focus on aspirations and take the necessary steps in planning to achieve goals, such as attending college.

Despite Brown v. Board of Education and the Civil Rights Act of 1964, anti-Black discrimination is still present and affects Black males' and females' self-efficacy, college aspirations, and college enrollment. Anti-Black discrimination in educational settings can be

addressed so Black students will have higher self-efficacy and a strong belief in their academic ability and their ability to aspire to attend college. Increasing self-efficacy in Black students in the education setting encourages students to set goals and believe in themselves. Advanced educational programs offered in elementary schools show similar disparities to those in college enrollment. Furthermore, Black males have the lowest enrollment in advanced educational programs (Evans-Winter, 2014). The lack of enrollment in advanced educational programs may be due to students' race, socioeconomic status, and gender (Evans-Winter, 2014). Race, gender, and socioeconomic status are important to this study to help decrease the percentage of disparities affecting Black students in educational settings and college attendance. Therefore, this study will further examine the relationship between self-efficacy and college attendance among Black males.

Women are more likely to enroll immediately in college after high school than men, and women account for more than half of the population with bachelor's degrees (NCES, 2021a). Data collected from the National Center for Education Statistics compared enrollment rates of 18 to 24-year-olds in 2010 and 2020 for three races based on gender. Other races were not included in the available data.

Table 2

Student College Enrollment by Race and Gender

Race and Gender	*2010 Enrollment*	*2020 Enrollment*
Black Males	35%	31%
Black Females	41%	40%
White Males	41%	37%
White Females	46%	45%
Hispanic Males	28%	30%
Hispanic Females	36%	42%

Note. National Center for Education Statistics, 2021

Based on the 2010 and 2020 enrollment data, Black, White, and Hispanic females have higher college enrollment than Black, White, and Hispanic males, respectively (NCES, 2021a)

Racial and gender disparities exist among students attending and completing college. Black, Hispanic, and Southeast Asians attend and complete college at lower rates than their respective female peers (Silver, 2020).

Aspiring to attend college and attending college are attainable for Black males. However, belief in one's ability to have high expectations and the ability to plan for college must be imparted on Black males early in their academic careers. This study will examine gender as it relates to college aspiration and college attendance.

Socioeconomic Status and College Enrollment

Factors such as academic achievement, level of self-efficacy, and socioeconomic status affect student college enrollment. Socioeconomic status refers to a person's or group's social standing based on education, income, and occupation (American Psychological Association, n.d.). Students' socioeconomic status in high school refers to their parents' education, income, and occupation. Socioeconomic status may hinder a student's ability to attend college if funding is not available or the student does not have the knowledge to research funding options.

There are disparities in college enrollment between students from a lower socioeconomic status and students with a higher socioeconomic status (Gladieux, 2004). Lower college enrollment for students from a lower socioeconomic status impacts their college completion (Titus, 2006).

This study will examine socioeconomic status as a predictor for students attending college. Socioeconomic status influences the course levels that students explore in high school. Students from higher socioeconomic backgrounds complete more advanced coursework than students from lower socioeconomic backgrounds because their parents communicate higher expectations (Crosnoe & Muller, 2014). By taking more advanced-level courses, students from higher socioeconomic backgrounds are more likely to attend college, while students from lower

socioeconomic backgrounds have limited resources when pursuing post-secondary academic options (Caro et al., 2009). Moreover, students from lower socioeconomic backgrounds do not have the same resources as students from higher socioeconomic backgrounds, such as parents with two incomes, role models with more professional careers, and households with parents who have a combined higher income to pay for extra college planning staff. The resources listed above enhance opportunities for students to see that college is an available option. Students in lower socioeconomic status for most of their lives will face obstacles, such as school withdrawal and lack of interest in school, because they are focused on their immediate needs, including a primary focus on having adequate food and shelter. This reduces their awareness of the steps needed to attend college, such as the timeline to prepare for college and the college application process.

Socioeconomic status affects course planning for students, which determines the ultimate sequence of courses a student takes; this also impacts college preparedness (Crosnoe & Muller, 2014). Students without parents expressing high expectations tend to require additional support within the school system or community to provide encouragement. Students from lower socioeconomic backgrounds rely primarily on school counselors to provide information about college preparation, while students from higher socioeconomic backgrounds gather information from their parents, college materials, and even private guidance counselors (Terenzini et al., 2001). Students from higher socioeconomic backgrounds tend to have parents who are involved in the college preparation process early in high school and even throughout college (Wilbur & Roscigno, 2016). In addition, students from higher socioeconomic backgrounds have parents who provide resources to assist them academically, such as contesting an academic placement or being proactive about the students' special learning needs, more than parents with a lower socioeconomic status (Horvat et al., 2003). Parents of lower socioeconomic status focus more on a hierarchy of

needs involving food and shelter than parents of higher socioeconomic status, where physiological needs are easily met.

Students from lower socioeconomic backgrounds do not have the resources, such as information from their parents if they are a first-generation prospective college student, additional college materials outside of school-provided materials, and even private guidance counselors, to prepare for college outside of what is provided by the school system. They are more reliant on school personnel to assist them with college planning and completing the application process (Tsoi-A-Fatt Bryant, 2015). Socioeconomic status also provides access to more college choices for students, especially those from lower socioeconomic backgrounds. Black males from lower socioeconomic backgrounds face challenges when they are in a non-supportive school environment and lack school professionals and adults to assist with college planning.

The ability to pay for college weighs more heavily on students from lower socioeconomic backgrounds than other students (Terenzini et al., 2001). Many students are concerned with college financial costs, and academically capable students would enroll in college with financial assistance (Mulligan, 1951). However, financial aid awarded to students from lower socioeconomic backgrounds does help mitigate the high costs of attending college. Additional research suggests that students who have college-educated parents are more likely to enroll in college and also enroll in more competitive colleges (Wilbur & Roscigno, 2016).

Socioeconomic status also affects when students enroll in college. Students from higher socioeconomic backgrounds are more likely to enroll in college immediately after secondary school than students from lower socioeconomic backgrounds (Buchmann, 2009). When students are less familiar with paying for college, they are not aware of the starting point to apply for financial aid or where to locate applications for grants and financial assistance. Students with

higher self-efficacy have the ability to plan for college, including identifying financial resources. Students with lower self-efficacy are faced with the challenge of not believing in their ability to plan for college and cannot identify financial means to pay for college. Thus, socioeconomic background contributes to Black males' ability to attend college.

This study has reviewed literature related to self-efficacy, academic achievement, anti-Black discrimination, and socioeconomic status. Based on the theoretical model of this study, it is important to examine the relationships between the variables to address self-efficacy and Black males' college aspiration and college attendance. The analysis will provide insight into reports of national data related to Black male college enrollment. The National Center for Education Statistics' college enrollment data of 18 to 24-year-old students suggest that Black males enroll in college less than White males and females, Black females, and Hispanic females. Addressing the relationship between gender, college aspiration, and college attendance for Black males will help the researcher determine whether there are unique circumstances that increase or decrease Black males' self-efficacy.

The next chapter examines the methodology by describing the data source, variables of interest to the researcher, and analysis to answer the three research questions:

1. What is the relationship between gender and self-efficacy, controlling for socioeconomic status and academic achievement among Black students?
2. What is the relationship between self-efficacy and college aspiration, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

3. What is the relationship between self-efficacy and college attendance, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

Chapter 3

Methodology

The literature review examined self-efficacy, academic achievement, the effects of anti-Black discrimination on self-efficacy, socioeconomic status, and college enrollment. The data source, the National Center for Education Statistics' High School Longitudinal Study (HSLS), is a nationally representative study of 23,503 ninth-grade students that provides survey responses from student participants based on their beliefs in their mathematical and science abilities, educational expectations, and career planning (NCES, 2011). The variables of interest to the researcher are included in the survey of student participants. This study will further examine the relationship between gender and self-efficacy, self-efficacy and college aspirations, and self-efficacy and college attendance for Black males.

Research Questions

In this chapter, the research methodology used in the study is explained to answer the following research questions:

1. What is the relationship between gender and self-efficacy, controlling for socioeconomic status and academic achievement among Black students?
2. What is the relationship between self-efficacy and college aspiration, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?
3. What is the relationship between self-efficacy and college attendance, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

Research Design

Multiple linear regression will be used to determine the relationship between race and self-efficacy. Logistic regression will be used to determine the relationship between self-efficacy and college aspirations and between self-efficacy and college attendance for Black males. The quantitative design is best for this study because it examines patterns across many observations. This quantitative approach is important to determine whether there is a relationship between the dependent and independent variables based on nationally representative data.

The literature review addressed self-efficacy, the negative impact that anti-Black discrimination has on Black males' motivation to set academic goals in the secondary setting and their pursuit of higher education. The hypothesis, based on research from the literature review, will address the relationship between race and gender and self-efficacy, self-efficacy and college aspirations, and self-efficacy and college attendance.

Data Source

To answer the research questions, the researcher examines the HSLS, which has publicly available data. The HSLS dataset is a nationally representative study of 23,503 ninth-grade students from 944 schools, with data gathered in 2009 and follow-up data from 2012 and 2016 (National Archive of Data on Arts & Culture [NADAC], 2016). The sample design based on the 944 schools included unweighted response rates. Survey responses were collected from multiple sources, including students, parents, teachers, counselors, and administrators from public, private, and charter schools (NCES, 2011). According to NCES, HSLS data are representative of ninth-grade students from northern, southern, mid-western, and western states in the United States. Therefore, the data is more representative of students overall than generalizations about students from one state or region. The students were followed throughout their secondary and post-

secondary years. The questions asked included demographic, math, and science course enrollment and how students plan and make decisions about post-secondary options. (NCES, 2011). The students were surveyed in the ninth grade and again in the spring of their 11th-grade year to determine how they select high school courses and post-secondary options (NCES, 2011).

The student questionnaire elicited demographic information (for example, sex, race/ethnicity), language background, and school experiences in the current and previous school year (including mathematics and science ability, successes, and challenges, and course enrollment). It also measured constructs such as mathematics self-efficacy and identification and high school, post-secondary, and career plans, among other topics. It is the fifth and only ongoing school-based longitudinal study that gathers data from American youth transitioning from secondary schooling to post-secondary education and employment (NCES, 2022). The data are well suited to this study because the self-efficacy, college aspiration, college attendance, socioeconomic status, academic achievement, race, and gender variables are in one dataset.

The HSLS surveys ask questions about student interest, specifically what educational or career path they choose to pursue, when, why, and how (US Department of Education, 2016). The HSLS focuses on gathering data regarding students' characteristics, their postsecondary selection process, financing post-secondary options, and the decision-making process of ninth-grade students, in addition to student interest in science, technology, engineering, math, and the arts (US Department of Education, 2016). Students were surveyed during the fall of their ninth-grade year, which was the base year in fall 2009, then in spring 2012 when the students were in the 11th grade, and lastly in 2016 when the students would have continued into their post-secondary option (Vaval et al., 2019). To conduct the surveys, the National Center for Education Statistic's session administrator contacted the Chief State School Officer from each state selected to participate in

the survey. Upon approval, the session administrator worked with school coordinators to obtain the appropriate parental permission required for student participation and to assist with logistics pertaining to data collection during the base year survey, follow-up survey, and final year survey (NCES, 2018).

The race and gender variables are based on student responses to which ethnic group they belong to or sex they identify with from the base year 2009 survey. Questions from the student survey included the following: "Which of the following describes your race? You may choose more than one" and "What is your sex?" (NCES, 2009). If a student did not identify themselves, the responses are based on data from the school's roster or parent questionnaire. For the purposes of this study, a proxy was needed for the self-efficacy and academic achievement variables because there are only domain-specific measures for self-efficacy and academic achievement. Math self-efficacy is a useful proxy for self-efficacy overall because the variable examines the students' belief in their ability to achieve a content-specific goal. Math achievement is a useful proxy for academic achievement overall because it examines the students' achievement in a content-specific subject. The researcher used math as the germane proxy for self-efficacy and academic achievement for consistency in the analysis. Student survey participants were asked the following questions related to math self-efficacy and math achievement: "How much do you agree or disagree with the following statements about your math course?" The responses were based on a self-rating of their confidence on tests and assignments, understanding of the material, and ability to master skills taught in the course (NCES, 2009). Student survey participants from the base year 2009 survey were also asked about their final grade in their previous math class. The math self-efficacy variable was based on an average of the students' responses about their perceived negative or positive math self-efficacy related to their confidence on math tests, understanding of math

concepts, and confidence about doing well on math assignments. The values were standardized to a mean of 0 and a standard deviation of 1 (NCES, 2009). The math achievement variable was measured based on student scores in six domains of algebraic content and four algebraic reasoning processes. Student scores were used to determine an average of the students' performance on the mathematics assessments (NCES, 2009).

The socioeconomic status variable was created based on parent responses about their education, occupation, and family income collected in the 2009 base year survey. Questions from the parent survey included the following: "What was your total household income from all sources prior to taxes and deductions in calendar year 2008? Please include all income from work, investments, and alimony" (NCES, 2009). In addition, parents were asked, "What is your most recent job?" and "What is your highest level of education completed?" (NCES, 2009). The socioeconomic variable was measured based on the scores of the parents' responses to survey questions about their education level, occupation level, and family income level. The estimates of these responses are standardized to determine an average of these scores (NCES, 2009).

The college aspiration variable was included in the survey under "Plans and Preparations for the Future" (NCES, 2018). Student survey participants were asked the following questions in the follow-up survey during the spring of 2012: "How sure are you that you will receive a high school diploma?" and "How sure are you that you will pursue a bachelor's degree?" The scale of the "how sure" questions included the following: 1 = Very sure you will, 2 = You probably will, 3 = You probably won't, and 4 = Very sure you won't. Another question was, "In the fall of 2013, what is likely to be your main focus?" The choices included working, continuing education after high school, or still attending high school (NCES, 2012). In addition, they were asked: "In the fall of 2013, are you most likely to attend a school that provides occupational training, a 2-year college,

a 4-year college, or have you not thought about this yet?" (NCES, 2012). The attend college variable was based on student participants' survey responses from the final survey in 2016. A survey question included the following, "Did you attend any college or trade school between the time you [received your high school diploma/received your GED/received your high school equivalency/received your certificate of attendance or completion/last attended high school] and February 2016?" (NCES, 2018).

The student is the primary unit of analysis in the HSLS dataset, yet there are other considerations, such as input from the students' families, teachers, and peers (Sharpe & Marsh, 2021). The HSLS dataset has hundreds of variables related to the following topics: Student educational expectations, academic achievement, math and science self-efficacy, student course plans, first-year plans post-high school, college savings, special education, STEM, and family characteristics (NCES, 2022). The researcher focused on the following variables of interest based on the research questions of this study: Self-efficacy, college aspiration, college attendance, socioeconomic status, academic achievement, race, and gender.

The HSLS public dataset provides student responses as ninth-grade students, with a follow-up in the spring of their 11th-grade year and later, when they would have entered college or a career. The follow-up from the 11th grade and beyond measures the post-secondary aspirations and college attendance of the survey participants (NADAC, 2016). This is a good fit for this study because it allows observations of the variables of interest from 2009 to 2016. In addition, the variables needed to conduct analyses are available in the public dataset. Therefore, the restricted-use dataset is not needed for the study.

Descriptive Statistics

Table 3 includes variables to help the researcher answer the research questions related to the relationship between gender and self-efficacy, self-efficacy and college aspirations, and self-efficacy and college attendance for all students regardless of race and gender, including Black males. Earlier in this chapter, questions from the survey were included to see how the variables were created. Table 3 provides an overview of the topics measured for each variable and the period during which the variables were measured. To address research question one, gender, socioeconomic status, academic achievement, and self-efficacy were used in the model for Black students. To address research question two, the variables in the model included socioeconomic status, academic achievement, self-efficacy, and college aspiration for Black male students. To address research question three, the variables in the model included socioeconomic status, academic achievement, self-efficacy, and college attendance for Black male students.

Table 3

List of Variables, Measurements, and Measurement Time Frame

Variable	Measurement	Measurement Time Frame
Academic Achievement	Algebraic knowledge and skills	2012
College Aspirations	Post-secondary college and work plans	2012
College Attendance	Enrolled in college as of February 2016	2016
Race	Student characteristic	2009
Self-efficacy	Perceptions of abilities in math	2009
Sex	Gender	2009
Socioeconomic Status	Parental education, income, and their occupation in percentiles	2009

Note. National Center for Education Statistics, 2018

To answer research question 1, the researcher only used Black students in the model.

1. What is the relationship between gender and self-efficacy, controlling for socioeconomic status and academic achievement among Black students?

To answer research question two, the researcher used the full sample, which includes all students regardless of race and gender, controlling for socioeconomic status and academic achievement, and then restricted the sample to only Black males.

2. What is the relationship between self-efficacy and college aspiration, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

To answer research question three, the researcher used the full sample, which includes all students regardless of race and gender, controlling for socioeconomic status and achievement, then restricted the sample to Black males.

3. What is the relationship between self-efficacy and college attendance, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

The data were recoded for the non-response values, which included values such as -8 and -9, for the variables self-efficacy, socioeconomic status, and academic achievement. The data for all the variables after filtering the data for the non-response variables were not missing, and thus, the data were ready for further analyses. The college aspiration and college attendance variables contained non-response variables, which were filtered for the respective models.

Table 4 includes the descriptive statistics for gender, college aspiration, college attendance, and race. Race is a categorical variable with six mutually exclusive categories, including White, Hispanic, Black, Asian, two or more races, and other races. Other races include Native Hawaiian/Pacific Islander and American Indian/Alaskan Native. The dataset contains a single variable for race. The researcher created a new variable for each race using dummy coding, with 1 representing that the participant belongs to that race and 0 otherwise. The same was done for the

variable sex. Sex includes male and female participants and is used to compare differences between male and female students.

The binary outcome variable, college aspirations, includes information from the follow-up survey in 2012 based on the students' response on their highest level of achievement, such as obtaining a high school degree or whether they believed they would attend college; however, for evaluation purposes, the variable has been attributed as "Yes" or "No". The variable contained 10 categories, where the data were originally coded as 1 = Less than high school, 2 = High school diploma or GED, 3 = Start an Associate's degree, 4 = Complete an Associate's degree, 5 = Start a Bachelor's degree, 6 = Obtain a Bachelor's degree, 7 = Start a Master's degree, 8 = Complete a Master's degree, 9 = Start a Ph.D/M.D/Law/other professional degree, and 10 = Complete a Ph.D/M.D/Law/other professional degree. The variable college aspiration was recoded such that 0 = no (the student would not attend college; the highest level of achievement was obtaining a high school diploma) and 1 = yes (the student believed he/she would attend college by at least starting an Associate's degree).

The binary outcome variable, college attendance, includes information from the final year of the survey in 2016 in which students either attended college or not. This is seven years after the original base survey was completed in 2009. The college attendance variable examines the percentages of students from the entire dataset who entered post-secondary education as of February 2016. This variable measures whether the participant had ever been to college as of February 2016; no indicated the student did not attend college as of February 2016 and yes indicated the student ever attended college as of February 2016. The variable college attendance was originally coded as 1 = no and 2 = yes. The variable was recoded such that 0 = no and 1 = yes.

In addition, Table 4 includes the frequency counts and percentages for each of the categorical variables in the study. The results show that 50.3% (n = 9,433) of the participants are male, and 49.7% (n = 9,326) are female. Regarding the college aspirations, 45.8% (n = 1,476) of participants responded "Yes," and 54.2% (n = 1,743) of participants responded "No." Regarding college attendance, 24.5% (n = 3,161) of participants responded "No," and 75.5% (n = 10,873) responded "Yes."

Table 4

Frequency Table

Characteristic	*n*	%
Gender		
Male	9433	50.3
Female	9326	49.7
Total	18759	100
College Aspirations		
No	1743	54.2
Yes	1476	45.8
Total	3219	100
College Attendance		
No	3161	24.5
Yes	10873	75.5
Total	14034	100
White race		
Non-White	8160	45.3
White	10599	56.5
Total	18759	100
Hispanic race		
Non-Hispanic	15819	84.3
Hispanic	2940	15.7
Total	18759	100
Black race		
Non-Black	16923	90.2
Black	1836	7.8
Total	18759	100
Asian race		
Non-Asian	17291	92.2
Asian	1468	7.8
Total	18759	100
Two or More Races		
Only one race	17065	91.0
Two or more races	1694	9.0
Total	18759	100
Other race		
Non-Other	18537	98.8
Other	222	1.2
Total	18759	100

Table 5 includes the descriptive statistics, including the number of observations, minimum and maximum values, mean, standard deviation, skewness, and kurtosis. The data for the continuous variables were standardized, indicating that 0 is average, negative numbers are below average, and positive numbers are above average. The results show that the average value of self-efficacy is 0.04 (*SD* = 0.99), the average value of socioeconomic status is -0.09 (*SD* = 0.77), and the average value of academic achievement is 0.10 (*SD* = 0.95). There was no significant difference in the values of skewness and kurtosis. The acceptable bounds for skewness and kurtosis are -2 to +2 (George & Mallery, 2010). This suggests that the data for the variables are normally distributed.

Table 5

Descriptive Statistics (N = 23,503)

Variable	Max	Min	*M*	*SD*	Skewness	Kurtosis
Self-Efficacy	-2.92	1.62	.0421	.99518	-.377	.333
Socioeconomic Status	-1.93	2.88	.0927	.77809	.348	-.108
Academic Achievement	-2.58	3.03	.1002	.95570	-.057	-.094

Table 6 includes the average values of self-efficacy, college aspiration, and college attendance cross-tabulated by gender and race. The highest results in Table 6 show that males have higher self-efficacy (*M* = 0.135) compared to females (*M* = 0.052). However, this is not the same case for college aspiration and college attendance, where females have higher college aspiration and college attendance than males. The self-efficacy level for Black students is the second highest among all races for both males and females (*MMale_Black* = 0.259; *MFemale_Black* = 0.094).

Table 6

Averages Across the Gender and Race Cross Sections

Gender	Race	Self-Efficacy	College Aspiration	College Attendance
Male	White	.092	.390	.361
	Hispanic	.064	.406	.384
	Black	.259	.468	.462
	Asian	.416	.574	.683
	Two or More	.165	.425	.395
	Other	-.026	.320	.360
	Total	.135	.413	.397
Female	White	-.085	.501	.470
	Hispanic	-.138	.490	.453
	Black	.094	.534	.479
	Asian	.237	.757	.848
	Two or More	-.074	.524	.496
	Other	-.244	.263	.315
	Total	-.052	.513	.485
Total	White	.004	.440	.410
	Hispanic	-.038	.444	.415
	Black	.179	.498	.470
	Asian	.326	.646	.748
	Two or More	.046	.470	.441
	Other	-.124	.295	.340
	Total	.042	.458	.436

Considerations and Limitations

There are advantages to using the HSLS dataset, such as publicly available data with a large nationally representative sample. There was additional follow-up with survey participants prior to their high school graduation and again after they may have enrolled in college or entered the workforce. HSLS data gather longitudinal information to assist in answering research questions centered around outcomes of interest, such as college aspiration and college attendance for a

specific race and gender. The variables of interest to the researcher, including race, gender, self-efficacy, college aspiration, college attendance, socioeconomic status, and academic achievement, were available in the public dataset. The minor limitation to the researcher was that anti-Black discrimination was not measured in the survey to student participants. In addition, a proxy was needed for self-efficacy and academic achievement. However, the dataset had robust information related to the outcomes of interest. The HSLS does not account for anti-Black discrimination because anti-Black discrimination was not included in the survey of student participants; however, anti-Black discrimination was significant in the literature review because it has negative effects on self-efficacy, overall health, and mental health, which affects Black males' belief in themselves, college aspirations, and college attendance.

In addition, the HSLS dataset does not include a self-efficacy variable related to one's belief in their ability. There are self-efficacy variables related to math self-efficacy and science self-efficacy in the HSLS dataset. Math self-efficacy is a useful proxy for self-efficacy overall because the variable examines the students' belief in their ability to achieve a content-specific goal. Math self-efficacy is used as a proxy to measure student self-efficacy and answer the research questions. Furthermore, there was no variable for academic achievement overall in the HSLS dataset; therefore, math achievement is used as a proxy for academic achievement in answering the research questions. Math achievement is a useful proxy for academic achievement overall because it examines the students' achievement in a content-specific subject. The researcher used math as the germane proxy for self-efficacy and achievement for consistency in the analysis.

Chapter 4

Findings

This quantitative study examines the relationship between gender and self-efficacy, self-efficacy and college aspiration, and self-efficacy and college attendance. Self-efficacy is the basis for this study because one's belief in their abilities affects their actions. Black males are under enrolled in advanced educational programs at the start of their academic enrollment in elementary school and have enrolled in college at lower rates than other races and females. The literature review suggests that Black males' lack of college enrollment is due to factors such as lower self-efficacy, low aspirations, and a lack of belief in their ability to attend college. Therefore, it is important for the researcher to examine the relationship between self-efficacy and Black male college attendance.

There are three research questions to explore: Self-efficacy and college aspiration for students regardless of race and gender, then restricted to Black males, and self-efficacy and college attendance for students regardless of race and gender, then restricted to Black male students. The literature review and methods chapters provided the foundation to help guide this study. Next, the findings will assist in answering the research questions and determining implications for practice, especially for school personnel working with Black males.

This chapter aims to examine the relationships between gender and self-efficacy, self-efficacy and college aspiration, and self-efficacy and college attendance. The following research questions guided this study:

1. What is the relationship between gender and self-efficacy, controlling for socioeconomic status and academic achievement for Black students?

2. What is the relationship between self-efficacy and college aspiration, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?
3. What is the relationship between self-efficacy and college attendance, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

Results for Research Question 1

What is the relationship between gender and self-efficacy, controlling for socioeconomic status and academic achievement for Black students?

To answer research question one, a multiple linear regression model was used. The results presented in Table 7 examine the relationship between gender and self-efficacy, and the results in Table 8 examine the relationship between gender and self-efficacy, controlling for socioeconomic status and academic achievement. In Table 7, the *R2* is .008, indicating that the predictors explain 0.8% of the variance in self-efficacy. The 0.8% variance in self-efficacy indicates that there are other factors related to the relationship between gender and self-efficacy. The relationship between gender and self-efficacy is further explained in Table 7 The results in Table 7 indicate that the Black male students had significantly higher self-efficacy in comparison to the Black female student reference group using $p < .05$ as the threshold ($\beta = 0.165$, $p = .000$). The analysis focused on variables of interest to this study.

Table 7

Linear Regression: Gender

Variable	*β*	*SE*	*t*	*p*
(Constant)	0.95	0.31	3.057	.002
Male Students	0.165	0.043	3.794	.000

Note. Dependent Variable: Self-efficacy. Predictors: (Constant), Black Students; ($F(1,1834) = 14.394$, $p = .000$, $R2 = .008$).

Table 8 amends the model in Table 7 by adding two control variables—socioeconomic status and academic achievement. The R^2 for the model is .057, indicating that the predictors explain 5.7% of the variation in self-efficacy. The results in Table 6 indicate that when controlling for socioeconomic status and academic achievement, Black male and Black female students have significantly different self-efficacy using $p < .05$ as the threshold ($\beta = 0.180$, $p = .000$). This is contrary to research in the literature review because students from higher socioeconomic backgrounds who have more academic opportunities are expected to have higher self-efficacy. The results in Table 8 suggest that socioeconomic status is not related to self-efficacy, but academic achievement is positively related to self-efficacy. The suggestion that academic achievement is positively related to self-efficacy is not surprising because students with higher academic ability are more likely to believe in themselves. Therefore, once academic achievement is controlled for, there is no relationship between socioeconomic status and self-efficacy. Furthermore, research question two will examine the relationship between self-efficacy and college aspiration, controlling for socioeconomic status and academic achievement.

Table 8

Linear Regression: Gender

	SE	*β*	*t*	*p*
(Constant)	0.031	0.166	-5.311	.000
Black Male Students	0.042	0.180	4.247	.000
Socioeconomic Status	0.031	-0.033	-1.060	.289
Academic Achievement	0.026	0.242	9.478	.000

Note. Dependent Variable: Self-efficacy. Predictors: (Constant), Black Male Students, Socioeconomic Status, Academic Achievement; ($F(3,1832) = 36.630$, $p = .000$, $R^2 = .057$).

Results for Research Question 2

What is the relationship between self-efficacy and college aspiration, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

To answer research question two, a logistic regression model was used to determine the relationship and to determine if this relationship is different for Black males. Logistic regression was used to predict the odds of the binary outcome. The binary variable "college aspiration" is coded 0 = no and 1 = yes.

The results presented in Table 9 indicate the relationship between self-efficacy and college aspiration for the full sample, and Table 10 assesses the same by restricting the sample to only Black males. The dependent variable, college aspiration, is binary (Yes = 1 and no = 0), and the college aspiration variable includes students who thought they would obtain at least an associate degree, coded as 1 and students who thought they would only graduate high school or less, coded as 0.

The results in Table 9 suggest that the model as a whole accounts for 9.3% of the variance in college aspiration (Cox & Snell *R2* = .093). The coefficients were converted to odds ratios, and those were interpreted. The predictor variables were *z* scores; therefore, a one standard deviation

change is associated with a change in the dependent variable, measured by the odds ratio. All three predictors were statistically significant. Self-efficacy was the primary predictor for this research question, and as presented in Table 9, students with higher self-efficacy have significantly higher odds of aspiring to go to college by 1.140 (OR = 1.140, β = 0.131, p = .000). The results suggest that students with a 1-standard deviation higher self-efficacy are 1.140 times more likely to aspire to attend college.

Table 9

Logistic Regression (DV = College Aspiration)

	B	*S.E.*	Wald	*df*	*p*	*OR*
Self-efficacy	0.131	0.037	12.407	1	.000	1.140
Socioeconomic Status	0.576	0.063	82.727	1	.000	1.778
Academic Achievement	0.450	0.047	92.290	1	.000	1.569
(Constant)	0.071	0.040	3.155	1	.076	1.073

Note. Predictors: Self-efficacy, Socioeconomic Status, Academic Achievement. The Cox and Snell R2 = 0.093.

Table 10 examines the relationship between self-efficacy and college aspiration, restricting the sample to only Black males. The results in Table 10 suggest that the model specific to Black male students accounts for 9.2% of the variation in college aspiration (Cox & Snell $R2$ = .092). Only self-efficacy and socioeconomic status were statistically significant.

In Table 10, Black males with higher self-efficacy have significantly higher odds of aspiring to go to college by 1.529 (OR = 1.519, β = 0.418, p = .034). The results suggest that Black males with a 1-standard deviation higher self-efficacy are 1.529 times more likely to aspire to attend college. For Black males, there is a relationship between their self-efficacy, controlling for socioeconomic status, and their college aspiration. The findings indicate that Black males with higher self-efficacy and higher socioeconomic status have higher odds of pursuing higher education.

The results presented in Table 9 indicate the relationship between self-efficacy and college aspiration for the full sample, and Table 10 assesses the same by restricting the sample to only Black males. The results show that the relationship between self-efficacy and college aspiration is significant for the full sample and for Black males. For the full sample, students with higher self-efficacy have significantly higher odds of aspiring to go to college by 1.140, and Black males with higher self-efficacy have significantly higher odds of aspiring to go to college by 1.529. Self-efficacy seems to work similarly for Black males and the general population in terms of college aspiration. However, higher self-efficacy seems more significant for Black males than the full sample. Black males' self-efficacy influences their thoughts, which affects their beliefs and post-secondary planning. Higher self-efficacy is important for Black males and their college aspirations because Black males must believe in themselves to have a sense of confidence that attending college is an achievable goal. Black males' belief in their ability is important when thinking about college because self-efficacy is more predictive for Black male students specifically.

Table 10

Logistic Regression (DV = College Aspiration for Black Males)

	B	*S.E.*	*Wald*	*df*	*p*	*OR*
Self-efficacy	0.418	0.198	4.472	1	.034	1.519
Socioeconomic Status	0.632	0.279	5.143	1	.023	1.881
Academic Achievement	0.288	0.218	1.737	1	.187	1.334
(Constant)	0.122	0.214	0.324	1	.569	1.129

Note. Predictors: Self-efficacy, Socioeconomic Status, Academic Achievement. The Cox and Snell R2 = 0.092.

Results for Research Question 3

What is the relationship between self-efficacy and college attendance, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

To answer research question three, a logistic regression model was used to determine the relationship and to determine if this relationship is different for Black males. Logistic regression was used to predict the odds of college attendance.

The results in Table 11 indicate the relationship between self-efficacy and college attendance for the full sample, and Table 12 indicates the same by restricting the sample to only Black males. The dependent variable, college attendance, is binary (Yes = 1 and no = 0; yes, the students attended college as of 2016 vs. no, the students did not attend college); attended college is the reference group.

The results in Table 11 suggest that the model including all races as a whole accounts for 11.4% of the variance in college attendance (Cox & Snell *R2* = .114). All three predictors were statistically significant.

In Table 11, students with higher self-efficacy have significantly higher odds of attending college by 1.142 (*OR* = 1.142, β = 0.133, *p* = .000). The results suggest that students with a 1-standard deviation higher self-efficacy are 1.142 times more likely to attend college.

Table 11

Logistic Regression (DV = College Attendance)

	B	*S.E.*	Wald	*df*	*p*	*OR*
Self-efficacy	0.133	0.038	12.383	1	.000	1.142
Socioeconomic Status	0.703	0.065	116.954	1	.000	2.019
Academic Achievement	0.485	0.048	102.277	1	.000	1.624
(Constant)	0.004	0.040	0.012	1	.911	1.004

Note. Predictors: Self-efficacy, Socioeconomic Status, Academic Achievement. The Cox and Snell R2 = 0.114.

Results in Table 12 suggest that the model for Black males accounts for 14.6% of the variance in college attendance (Cox & Snell *R2* = .146). Only the relationship between self-efficacy and socio-economic status remains significant.

According to Table 12, Black males with higher self-efficacy have significantly higher positive odds of attending college by 1.515 (OR = 1.515, β = 0.415, p = .042). The results suggest that Black males with a 1-standard deviation higher self-efficacy are 1.515 times more likely to attend college. For Black males, self-efficacy and socioeconomic status are related to their college attendance. The results suggest that the relationship between self-efficacy and college attendance is significant for the full sample and for Black males. For the full sample, students with higher self-efficacy have significantly higher odds of attending college by 1.142, and Black males with higher self-efficacy have significantly higher odds of attending college by 1.515. This, self-efficacy seems to work similarly for Black males and the general population regarding college attendance. Similar to the relationship between self-efficacy and college aspiration, self-efficacy is higher for Black males and their college attendance. Self-efficacy seems more important for Black males than the full sample and their college attendance. Thus, Black males' belief in their ability is an important factor in their decision to attend college.

Table 12

Logistic Regression (DV = College Attendance for Black Males)

	B	*S.E.*	Wald	*df*	*p*	*OR*
Self-efficacy	0.415	0.204	4.143	1	.042	1.515
Socioeconomic Status	1.049	0.304	11.909	1	.001	2.856
Academic Achievement	0.334	0.227	2.165	1	.141	1.397
(Constant)	0.232	0.222	1.092	1	.294	1.261

Note. Predictors: Self-efficacy, Socioeconomic Status, Academic Achievement. The Cox and Snell R2 = 0.146.

Summary

The findings for the three research questions address the relationship between gender and self-efficacy, self-efficacy and college aspiration, and self-efficacy and college attendance. A summary of the findings for each research question are listed below.

Summary of Gender and Self-efficacy

What is the relationship between gender and self-efficacy, controlling for socioeconomic status and academic achievement for Black students?

The predictor explains only about 0.8% of the variance in self-efficacy related to the relationship between gender and self-efficacy. Based on the findings, Black male students had significantly higher self-efficacy compared to Black female students. Black males, relative to Black females, have higher self-efficacy, despite Black males' lower enrollment in college based on data from the National Center for Education Statistics. When controlling for socioeconomic status and academic achievement, Black male and Black female students have significantly different self-efficacy. The predictors explain about 5.7% of the variation in self-efficacy. Based on the findings, Black males also had higher self-efficacy than Black females. Black males from higher socioeconomic status and Black males with higher academic achievement are more confident in their abilities compared to their female counterparts. Therefore, Black males under enrollment in college is less likely due to lack of self-efficacy. This is contrary to what some may expect due to the national data depicting the under enrollment of Black males in college compared to other races and genders. Table 12 indicates that Black males with higher self-efficacy have higher odds of attending college. There are other factors that affect college enrollment for Black males, such as a lack of socioeconomic resources and a lack of college preparation in the secondary school setting. Black males are more likely to have higher confidence when they have more socioeconomic resources and higher academic achievement.

Summary of Self-Efficacy and College Aspiration

What is the relationship between self-efficacy and college aspiration, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

When controlling for socioeconomic status and academic achievement for students regardless of race and gender, self-efficacy was positively associated with students' college aspiration. Students, regardless of race and gender, with higher self-efficacy have significantly higher odds of aspiring to go to college. Moreover, students, regardless of race and gender, with higher self-efficacy have higher odds of aspiring to attend college when controlling for socioeconomic status and academic achievement.

When controlling for socioeconomic status and academic achievement for Black males, only self-efficacy and socioeconomic status were statistically significant in Table 8. Black males with higher self-efficacy have higher odds of aspiring to go to college, and Black males with higher socioeconomic status have higher odds of aspiring to go to college. Yet, Black males with higher academic achievement do not have higher odds of aspiring to attend college. The analysis suggests that self-efficacy and socioeconomic status have a stronger relationship with Black males' aspiring to attend college. Furthermore, higher academic achievement does not increase Black males' odds of aspiring to attend college. This is an unexpected outcome because academic achievement prepares students, including Black males, for post-secondary options. Academic achievement influences basic skills needed in life, such as knowledge, comprehension, and critical thinking. The literature review suggests the importance of students setting academic goals to prepare for college planning (Fitzpatrick, 2019). Furthermore, disparities in academic preparation may affect students who do not have resources outside of the secondary school setting to prepare for college (Kirst & Venezia, 2004). Furthermore, academic achievement may not have as much influence on

Black males' college attendance because there may be external factors that have more influence, such as parental level of education and parental expectations for Black males.

Summary of Self-Efficacy and College Attendance

What is the relationship between self-efficacy and college attendance, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

Students, regardless of race and gender, with higher self-efficacy have slightly higher odds of attending college. Students, regardless of race and gender, with a higher socioeconomic status have higher odds of attending college. In addition, students regardless of race and gender, with higher academic achievement have higher odds of attending college.

Findings also indicate that Black males with higher self-efficacy have higher odds of attending college than students regardless of their race and gender. When controlling for socioeconomic status and academic achievement for all students regardless of race and gender, self-efficacy was positively associated with students' college attendance. When controlling for socioeconomic status and academic achievement for Black males, self-efficacy, socioeconomic status, and academic achievement were statistically significant in Table 10. In addition, Black males with higher self-efficacy have higher odds of attending college. Black males with higher socioeconomic status and higher academic achievement have higher odds of attending college. Self-efficacy is a predicate for student college enrollment, and the findings suggest that Black males are confident in their abilities. The results in Table 10 and Table 12 suggest that Black males with higher self-efficacy are more likely to aspire to attend college.

Literature suggests anti-Black discrimination affects self-efficacy, and self-efficacy affects Black male students completing high school and attending college. There is a challenge in

identifying the specific effects of anti-Black discrimination on Black males' college aspirations and college attendance. Contrary to what is suggested in the literature review, Black males have higher self-efficacy than White males and females, Hispanic males and females, and Black females. Although data from the National Center for Education Statistics from 2000 to 2019 suggest that Black males enroll in college at a lower rate than other races of students, particularly Black female students, this study suggests that Black males have higher self-efficacy compared to other races and genders, excluding Asian male and female students. It is worth noting that findings from this study indicate that Black males have higher self-efficacy than Black females.

In addition, this study suggests a strong relationship between Black males' self-efficacy and their college aspirations and college attendance. Findings from this study suggest that Black males with higher self-efficacy have higher odds of aspiring to attend college. The same applies to Black males' college attendance. Overall, the findings from this study suggest that self-efficacy is positively associated with Black males' college aspiration and college attendance.

In summary, the key findings related to self-efficacy, college aspiration, and college attendance for Black males indicate that Black males have higher self-efficacy, aspire to attend college, and attend college. Findings in Table 8 suggest that Black males with higher socioeconomic status and Black males with higher academic achievement are more confident in their abilities compared to their female counterparts. Black males with higher self-efficacy have higher odds of aspiring to go to college, and Black males with higher socioeconomic status have higher odds of aspiring to go to college. A significant finding indicates that Black males with higher self-efficacy have higher odds of attending college. Thus, Black males' belief in their ability is a significant factor that relates to their college attendance.

Findings from this study indicate that Black male students had higher self-efficacy compared to Black female students. When controlling for socioeconomic status, Black males' self-efficacy was positively associated with their college aspirations and college attendance. Black males have high self-efficacy, have higher odds of aspiring to attend college, and have higher odds of attending college, but data from the National Center for Education Statistics suggest that Black males attend college at lower rates than other races and genders. The literature review suggests that self-efficacy is important for students to set goals and believe in their ability to achieve them. Findings from this study suggest that self-efficacy is significant for all students, including Black males, for their college aspirations and college attendance. Moreover, results in Table 9 indicate that students with higher self-efficacy have significantly higher odds of aspiring to go to college by 1.140. Results in Table 10 show that Black males with higher self-efficacy have even higher odds of aspiring to go to college by 1.529, which is greater than the full sample. Furthermore, results in Table 11 indicate that students with higher self-efficacy have significantly higher odds of attending college by 1.142. Finally, results in Table 12 show that Black males with higher self-efficacy have greater odds of attending college by 1.515, which is greater than the full sample.

In the final chapter, the researcher provides an overview of the study, presents conclusions, and identifies recommendations from the findings. The researcher also discusses the results' implications for practice and future research.

Chapter 5

Conclusions and Recommendations

The purpose of this study is to examine the relationship between Black males' self-efficacy college aspirations, and college attendance. Examining the relationships between self-efficacy, college aspirations, and college attendance for Black males has helped the researcher identify the significant relationships between the variables that influence the trajectory of Black males' post-secondary enrollment. Black males have higher self-efficacy, aspire to attend college, and attend college.

Black males with higher socioeconomic status and Black males with higher academic achievement are more confident in their abilities compared to their female counterparts. Black males with higher self-efficacy have higher odds of aspiring to go to college, and Black males with higher socioeconomic status have higher odds of aspiring to go to college. The most significant finding for the researcher indicates that Black males with higher self-efficacy have higher odds of attending college.

During the past 20 years, Black males have enrolled in college at a lower rate than White males and females, Black females, and Hispanic females (NCES, 2020a). According to National Center for Education Statistics (NCES) college enrollment data, 25% of Black males, 18 to 24 years old, attended college in 2009, and 34% of Black males attended college in 2019. Although Black male enrollment in college increased by 9% from 2000 to 2019, Black male college enrollment is still the second-lowest among other race and gender groups (NCES, 2020a).

Findings from this study indicate Black males are confident in their ability to aspire to attend college. Black males having higher self-efficacy challenges information from the literature review, but it also draws attention to the lower rate of Black males enrolled in college according

to data from the National Center for Education Statistics. The findings indicate that Black males aspire to attend college; therefore, attention needs to be given to which colleges Black males are attending and barriers to post-secondary options. Black males may attend colleges in specific areas and may not have a significant enrollment rate at certain colleges compared to other race and gender groups.

There are factors that determine college aspirations and college attendance. The researcher examined the relationship between self-efficacy, college aspirations, and college attendance. In this study, the *R2* value in the analysis of self-efficacy and college aspiration for all students was .093, indicating that 9.3% of the variation can be explained by self-efficacy, compared to .092, indicating that 9.2% of the variation can be explained by self-efficacy for Black males. Therefore, self-efficacy is associated with college aspiration for the full sample of Black males. However, Black males must believe in their abilities more than other races and females to act on their aspirations. The *R2* value in the analysis of self-efficacy and college attendance for all students was .114, indicating that 11.4% of the variation can be explained by self-efficacy, compared to .146, indicating that 14.6% of the variation can be explained by self-efficacy for Black males. In addition, self-efficacy was associated with college attendance for the full sample and Black male students; however, Black males must have a higher sense of belief in their ability to attend college than other races and females. Further exploration of factors that also influence students regardless of race and gender and Black males' college aspirations and college attendance is beneficial for future study.

Overview of the Study

This chapter provides an overview of the study, its conclusions, and recommendations based on the findings. This study aimed to expand upon the implications of practice for education

stakeholders and future research. In this study, the researcher reviewed the theoretical framework based on Albert Bandura's self-efficacy theory. Self-efficacy is the personal belief that an individual has in their ability to complete a task (Bandura, 1997). The literature review also established that self-efficacy influences academic, career, and future behaviors (Lent et al., 1997). Self-efficacy is developed during different stages of a person's life and is acquired through four domains, including academic success, the influence of role models, verbal affirmations, and physiological states of mind (Reid, 2013).

Based on research showing that higher self-efficacy in students allows them to develop and act upon their goals, and lower self-efficacy hinders students' actions and limits their achievement of their goals, it was important for the researcher to examine self-efficacy and gender, self-efficacy and college aspirations, and self-efficacy and college attendance. Self-efficacy is examined in each of the three research questions because it is important for the researcher to determine how self-efficacy affects students, their aspirations, and their college attendance. There are other variables worth examining in future research that contribute to students' college aspirations, such as parental degree attainment, parental educational expectations, and school staff influence.

Self-efficacy is a contributing factor to students' college aspirations and college attendance, regardless of race and gender. College enrollment data from the National Center for Education Statistics indicates that Black males enrolled in college at lower rates than Black females from 2010 to 2019. It is worth noting that NCES data gather information from all four-year degree-granting colleges, and HSLS data is gathered from approximately 23,000 student survey participants.

This study indicates that Black males have higher self-efficacy than Black female students and other groups based on the HSLS survey participants in 2016. This was not an expected

outcome for the researcher because Black males were attending college at lower rates than Black females (NCES, 2021a). Findings from this study suggest that Black males with higher self-efficacy, socioeconomic status, and academic achievement have higher chances of attending college. Findings from this study also indicate that students with a higher socioeconomic status are more likely to have higher self-efficacy.

This study examined the relationship between self-efficacy, socioeconomic status, and academic achievement in Black males' college aspirations and college attendance. When controlling for socioeconomic status, self-efficacy is more positively associated with Black males aspiring to attend college and attending college. Although this study indicates positive relationships between self-efficacy and college attendance for Black males, it appears that the positive relationships are inconsistent with national college enrollment statistics. Data from the National Center for Education Statistics capture enrollment data for Black males, and data from the HSLS capture Black males' self-efficacy prior to enrollment in college. The researcher attributed lower self-efficacy as a reason for lower college aspirations and college enrollment for Black males; however, Black males have higher self-efficacy compared to Black females, who have a higher rate of college enrollment, based on data from the National Center for Education Statistics. Thus, it is worth examining future data regarding academic achievement based on race, gender, and high school preparation. When Black males are not shown the benefits of college, such as acquiring additional knowledge and contributing to societal human capital, they have a disadvantage that may limit their future resources (Isaacs, 2007). This disadvantage has the potential to affect generations of Black males because Black children from families in lower socioeconomic status tend to remain in the same lower socioeconomic status compared to White children (Isaacs, 2007).

Key Findings and Discussion

Key findings from this study indicate that Black males had higher self-efficacy than Black female students and other groups.

In addition, when controlling for socioeconomic status and academic achievement for students regardless of race and gender, self-efficacy was positively associated with students' college aspiration. However, when controlling for socioeconomic status and academic achievement for Black males, only self-efficacy and socioeconomic status was significantly associated with their college aspiration. Thus, it is worth examining factors that affect academic achievement and Black males' college aspirations.

The findings in this study suggest that socioeconomic status and academic achievement were more positively associated with self-efficacy for Black males and their college attendance, yet academic achievement was not positively associated with their college aspiration. Self-efficacy is developed over four domains, and all four domains affect Black males in the secondary school setting. The presence of role models who provide verbal affirmations and opportunities for students to feel confident in their abilities may increase Black males' self-efficacy, which will positively affect their aspirations to attend college. Moreover, education stakeholders can support Black males by providing a welcoming environment in the secondary school setting, which provides a more positive physiological state of mind for Black males so that they experience less anxiety and develop more of a sense of support while planning for college and navigating the college application process.

Furthermore, after controlling for socioeconomic status and academic achievement for the overall sample, self-efficacy was positively associated with students' college attendance. In addition, when controlling for socioeconomic status and academic achievement for Black males, self-efficacy, socioeconomic status, and academic achievement were positively associated with

their college attendance. Although findings from the study suggest that the odds of Black males aspiring to attend college are positive, there is still more work for stakeholders to do in the secondary school setting to continue to support Black males. There are practical recommendations, such as increasing academic opportunities in classes that include students learning from the teacher and peers through critical thinking, creative thinking, collaboration, and communication and incorporating college planning into curricula, to contribute to Black males' college aspirations and college attendance (Winaryati et al., 2020). College planning may be incorporated through counselor-led classroom lessons and teacher-developed assignments focusing on the college process. Preparation in the secondary school setting is beneficial for students to assist with college planning (Tsoi-A-Fatt Bryant, 2015). Anti-Black discrimination affects how Black males perceive support in the secondary school setting; therefore, implementing academic college preparatory programs with role models will also benefit Black male students (Bianco et al., 2011). This is beneficial for Black males who may attend college due to their interest and moderate grades in high school but may not have the strongest academic background.

The relationship between self-efficacy and Black males' college aspiration and college attendance must be further examined to identify resources students may utilize to introduce college options. There are sessions focused on college planning with school counselors and college matching to help students identify colleges that match their academic standing, such as GPA requirements. The more prepared students feel about their ability to pursue college, the more confident they will feel about the college application process.

Implications for Practice

The research questions examined the relationship between self-efficacy and Black males' college aspirations and college attendance. The literature review addressed the effect of anti-Black

discrimination and its negative effects on overall health and well-being in Black males, the four domains of self-efficacy, and gender and college enrollment. Education stakeholders, including school leaders, school personnel, and parents, can proactively create educational programs and positive educational environments that support all students. Moreso, school districts can appoint school counselors to serve students as college guidance school counselors. In addition, college guidance may be added to school curricula or set up as an elective class in the secondary school setting. Teachers may serve as a resource for students by receiving college planning training via professional development opportunities within the school district or partnerships with local colleges and universities. The above-mentioned education stakeholders have direct influence on students' academic success, modeling self-efficacy, providing verbal affirmations, and creating a positive environment, which contributes to a more positive physiological state of mind for students.

The findings suggest that Black males have higher self-efficacy compared to Black females; they aspire to attend college, and they attend college based on the HSLS survey responses, but there is a disconnect between Black males' academic achievement and aspirations to attend college. Therefore, the more college planning and preparation infused with school curricula and involvement from role models, the better prepared students will be to understand the college application process and expectations to attend college.

Based on the findings that Black males aspire to attend college, school personnel can implement post-secondary planning in high school curricula, such as college application assistance programs, parental education seminars, and role models/peer mentors for students to encourage college aspirations (Westbrook & Scott, 2012). Black males who enter college with higher self-efficacy are more likely to complete college (Reid, 2013). Attending and graduating from college

may lead to future employment and financial stability (Pratt et al., 2019). Therefore, students must be adequately encouraged and prepared throughout their time in the secondary school setting.

The literature review suggests that students who receive support in the four domains of self-efficacy, including academic success, modeling, verbal affirmations, and physiological states of mind, will have higher self-efficacy than students who do not receive support. The literature review also indicates that Black males have lower self-efficacy than other races and genders due to anti-Black discrimination. However, based on the positive results of this study, Black males have higher self-efficacy than their Black female counterparts.

In addition, school personnel and parents can support Black male students by providing diverse cultural role models for Black males in their daily environment. Students with higher self-efficacy attend college, and students will aspire to be what they see, which includes teachers, staff members, coaches, and school counselors in the secondary school setting. Aspirations are influenced by what students believe they can achieve. Modeling influences students' behaviors to complete tasks that they are not comfortable completing on their own. Verbal affirmations provide positive or negative reinforcement for students' actions, and physiological states of mind encompass positive or attributes that strengthen students' abilities to learn coping skills to complete tasks (Huang et al., 2020). When students have higher self-efficacy and support from role models, they will remain in school, aspire to set goals, and develop action plans to pursue post-secondary options.

Recommendations for Future Study

An important recommendation for future research based on the findings from the research questions in this study is to survey Black male and female students who have similar self-efficacy yet have different post-secondary aspirations. It is worth examining which factors, such as staff

personnel and family members, influence their college aspirations. In addition, it may be important to determine which factors that students value have the most influence on college aspirations, such as college preparatory programs and curricula.

Another recommendation for future research, based on findings from the research questions in this study, is to survey multiple races and genders of students regarding influences of their college aspirations and college attendance. Students may respond to a Likert scale of questions to scale their responses about influences toward college aspirations. This study's findings suggest that when controlling for socioeconomic status and academic achievement for students regardless of race and gender, self-efficacy was positively associated with students' college aspiration. Future research may identify variables that directly contribute to Black males' college aspiration.

There are factors to examine in future studies related to Black male self-efficacy, college aspiration, and college attendance, such as the availability of college preparatory programs in the secondary school setting, parental degree attainment, parental educational expectations, and school staff influence, such as the influence of teachers, coaches, and school counselors. Parental expectations positively influence students' educational expectations and college enrollment (Savas, 2016). School counselors also serve as advisors for students. The role of the school counselor has progressed to implement positive supports that continue to enhance the academic, behavioral, and social-emotional growth of students (Savitz-Romers, 2019).

Lastly, based on findings from the research questions in this study, there may be an added benefit to conduct a qualitative study to capture firsthand responses from Black males that address when their college aspirations are developed and the significance of participation in college preparatory programs in attending college. Students gain knowledge from attending classes in the

secondary school, but parental degree attainment, parental educational expectations, presence of role models, and peer influence may also affect college aspirations and attendance.

According to this study's findings, when controlling for socioeconomic status and academic achievement for students regardless of race and gender, self-efficacy was positively associated with students' college attendance. In addition, when controlling for socioeconomic status and academic achievement for Black males, self-efficacy, socioeconomic status, and academic achievement were positively associated with their college attendance. Thus, it is worth examining other variables and their relationships with students' college aspirations and college attendance.

Conclusion

The research problem examined in this study was the relationship between gender and self-efficacy, self-efficacy and college aspiration, and self-efficacy and college attendance. Data from the National Center for Education Statistics on college enrollment of 18 to 24-year-old students suggest that fewer Black males enroll in college compared to other racial and gender groups. This researcher addressed the significance of self-efficacy, college aspiration, and college attendance for students, regardless of race and gender, especially Black males. Self-efficacy is significant in a student's belief in their ability to attend college because it encourages the belief in their capabilities to develop and execute the required courses of action to achieve their goals (Bandura, 1997). Furthermore, this study is significant because Black males' college enrollment was the second-lowest from 2000 to 2019 compared to other racial and gender groups (NCES, 2021a). This presented a concern to the researcher because this data presented a systemic problem affecting Black males over a 19-year time span.

A quantitative study design was developed to answer three research questions: (1) What is the relationship between gender and self-efficacy, controlling for socioeconomic status and academic achievement for Black students? (2) What is the relationship between self-efficacy and college aspiration, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males? (3) What is the relationship between self-efficacy and college attendance for Black males, controlling for socioeconomic status and academic achievement, and is this relationship different for Black males?

It was found that (1) when controlling for socioeconomic status and academic achievement, Black male students had higher self-efficacy compared to the Black female student reference group. In addition, it was found that (2) when controlling for socioeconomic status and academic achievement for students regardless of race and gender, self-efficacy was positively associated with students' college aspiration. When controlling for socioeconomic status and academic achievement for Black males, only self-efficacy and socioeconomic status were significantly associated with their college aspiration. Lastly, it was found that (3) when controlling for socioeconomic status and academic achievement for students regardless of race and gender, self-efficacy was positively associated with students' college attendance. Furthermore, when controlling for socioeconomic status and academic achievement for Black males, self-efficacy, socioeconomic status, and academic achievement were positively associated with their college attendance. These findings suggest a significant relationship between self-efficacy, college aspirations, and college attendance. Future research may examine additional variables to strengthen and increase awareness about factors that contribute to Black males' college aspirations and college attendance, as well as which resources in the secondary school setting have the most influence to encourage Black males' college attendance.

References

ACT. (n.d.). *About the ACT test*. Retrieved on April 30, 2023, from https://www.act.org/content/act/en/products-and-services/the-act-educator/the-act-test.html

Allen, P. C., Butler-Barnes S. T., Robinson, H., & Jackson, A. (2022). Simply put, I'm tired: Efficacy to combat racism among African American adolescent boys and girls. *Journal of Child and Family Studies, 31*(5), 365-376. https://doi.org/10.1007/s10826-021-02190-0

Altbach, P. G., Gumport, P. J., & Berdahl, R. O. (Eds.) (2011). *American higher education in the twenty-first century: Social, political, and economic challenges*. John Hopkins University Press.

American Psychological Association. (n.d.). *Socioeconomic status*. Retrieved on April 30, 2023, from https://www.apa.org/topics/socioeconomic-status

Assari, S. (2020, July 2). *This is the toll that everyday racism takes on Black men in America*. World Economic Forum. https://www.weforum.org/agenda/2020/07/george-floyd-racism-opportunities-life-expectancy

Bandura, A. (1997). *Self-efficacy*: *The exercise of control*. W. H. Freeman.

Bandura, A. (2006). Guide for creating self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 307-337). Information Age Publishing.

Bianco, M., Leech, N. L., & Mitchell, K. (2011). Pathways to teaching: African American male teens explore teaching as a career. *Journal of Negro Education, 80*(3), 368–383.

Blondal, K. S., & Adalbjarnardottir, S. (2012). Exploring the value proposition of the undergraduate entrepreneurship major and elective based on student self-efficacy and outcome expectations. *Journal of the Knowledge Economy, 3*(3), 265-279. http://dx.doi.org/10.1007/s13132-011-0041-z

Boneva, T., & Rauh, C. (2019). *Socio-economic gaps in university enrollment: The role of perceived pecuniary and non-pecuniary returns*. University of Pennsylvania. https://economics.sas.upenn.edu/system/files/2020-02/Boneva%20Rauh%20SES%20gaps.pdf

Bottiani, J. H., McDaniel, H. L., Henderson, L., Castillo, J. E., & Bradshaw, C. P. (2020). Buffering effects of racial discrimination on school engagement: The role of culturally responsive teachers and caring school police. *The Journal of School Health, 90*(12), 1019-1029. https://doi.org/10.1111/josh.12967

Buchmann, C. (2009). Gender inequalities in the transition to college. *Teachers College Record, 111*(10), 2320-2346. https://doi.org/10.1177/016146810911101002

Buchmann, C., DiPrete, T.A., & Powell, T.A. (2004). *The growing female advantage in american higher education: Do family processes explain the trend*. Columbia University. http://www.columbia.edu/~tad61/BDP_1116.pdf

Bush, E. E., & Bush, L. V. (2010). Calling out the elephant: An examination of African American male achievement in community colleges. *Journal of African American Males in Education, 1*(1), 40-62.

Caro, D. H., McDonald, J. T., & Williams, J. D. (2009). Socio-economic status and academic achievement trajectories from childhood to adolescence. *Canadian Journal of Education, 32*(3), 558-590.

Chan, R. Y. (2016). Understanding the purpose of higher education: An analysis of the economic and social benefits for completing a college degree. *Journal of Education Policy, Planning and Administration, 6*(5), 1-40.

Conger, D., & Long, M.C. (2013). Gender gaps in college enrollment: The role of gender sorting across public high schools. *Educational Researcher*, *42*(7), 371-380. https://doi.org/10.3102/0013189X13503983

Crosnoe, R., & Muller, C. (2014). Family socioeconomic status, peers, and the path to college. *Social Problems*, *61*(4), 602–624. https://doi.org/10.1525/sp.2014.12255

Engle, J. L. (2007). *Postsecondary access and success for first-generation college students.* VOCEDplus. http://hdl.voced.edu.au/10707/328327.

Evans-Winter, V. (2014). Are black girls not gifted? Race, gender, and resilience. *Interdisciplinary Journal of Teaching and Learning*, *4*(1), 22-30.

Finn, J. D. (2006). *The adult lives of at-risk students*. The National Center for Education Statistics Report. https://nces.ed.gov/pubs2006/2006328.pdf

Fitzpatrick, D. (2019). Challenges mitigating a Darwinian application of social capital: How specific advising activities by high school counselors shift measures of college readiness but not college-going. *Research in Higher Education*, *61*(5), 662-678. https://doi.org/10.1007/s11162-019-09575-7

George, D., & Mallery, P. (2010). *SPSS for windows step by step: A simple study guide and reference* (10th ed.). Pearson Education.

Gibson, P. A., Wilson, R., Haight, W., Kayama, M., & Marshall, J. M. (2014). The role of race in the out-of-school suspensions of Black students: The perspective of students with suspensions, their parents and educators. *Children and Youth Services Review*, *47*(3), 274-282. https://doi.org/10.1016/j.childyouth.2014.09.020

Gladieux, L. E. (2004). *America's untapped resource: Low-income students and the affordability of higher education*. Century Foundation Press.

Gore, P. A., Leuwerke, W. C., & Turley, S. E. (2005). A psychometric study of the college of self-efficacy inventory. *Journal of College Student Retention, 7*(3-4), 227-244. https://doi.org/10.2190/5CQF-F3P4-2QAC-GNVJ

Graham, C. (2022, February 23). *Why is Black male enrollment in decline?* Best Colleges. https://www.bestcolleges.com/blog/black-male-enrollment/

Hanks, A., Solomon, D., & Weller, C. E. (2018, February 21). *Systemic inequality: How America's structural racism helped create the Black-White wealth gap*. Center for American Progress. https://www.americanprogress.org/article/systematic-inequality/

Holland, M. (2015). Student counselor relationships in diverse high schools. *Sociology of Education, 88*(3), 244-262. https://doi.org/10.1177/0038040715591347

Horn, L. J., & Carroll, C. D. (1997). *Confronting the odds: Students at risk and the pipeline to higher education*. United States Department of Education. https://nces.ed.gov/pubs98/98094.pdf

Horvat, E. M., Weininger E. B., & Lareau, A. (2003). From social ties to social capital: Class differences in the relations between schools and parent networks. *American Education Research Journal, 40*(2), 319-351. https://doi.org/10.3102/00028312040002319

Howard, T. C. (2020, June 3). How to root out anti-Black racism from your school. *Education Week.* https://www.edweek.org/leadership/opinion-how-to-root-out-anti-black-racism-from-your-school/2020/06

Huang, X., Mayer, R. E., & Usher, E. L. (2020). Better together: Effects of four self-efficacy-building strategies on online statistical learning. *Contemporary Educational Psychology, 63*, 101924. https://doi.org/10.1016/j.cedpsych.2020.101924

Isaacs, J. B. (2007). *Economic mobility of Black and White families*. The Brookings Institute. https://www.brookings.edu/wp-content/uploads/2016/06/11_blackwhite_isaacs.pdf

Jencks, C. (1985). Affirmative action for Blacks: Past, present, and future. *American Behavioral Scientist*, *28*(6), 731–760. https://doi.org/10.1177/000276485028006003

Kirk, K. (n.d.). *Self-efficacy: Helping students believe in themselves*. Teach the Earth. Retrieved on April 30, 2023, from https://serc.carleton.edu/NAGTWorkshops/affective/efficacy.html

Kirst, M. W., & Venezia, A. (2004). *From high school to college: Improving opportunities for success in postsecondary education*. Wiley.

Leath, S., Mathews, C., Harrison, A., & Chavous, T. (2019). Racial identity, racial discrimination, and classroom engagement outcomes among Black girls and boys in predominantly Black and predominantly White school districts. *American Educational Research Journal*, *56*(4), 1318–1352. https://doi.org/10.3102/0002831218816955

Lent, R. W., Brown, S. D., & Gore, P. A., Jr. (1997). Discrimination and predictive validity of academic self-concept, academic self-efficacy, and mathematics-specific self-efficacy. *Journal of Counseling Psychology*, *44*(3), 307-315. https://psycnet.apa.org/doi/10.1037/0022-0167.44.3.307

Lewsley, J. (2020, December 15). What are the effects of racism on health and mental health? *Medical News Today.* https://www.medicalnewstoday.com/articles/effects-of-racism

Lopez, A. E., & Jean-Marie, G. (2021). Challenging anti-Black racism in everyday teaching, learning, and leading: From theory to practice. *Journal of School Leadership*, *31*(1-2), 50-65. https://doi.org/10.1177/1052684621993115

Lynch, M. (2017, September 21). *Black boys in crisis: Eliminating the school-to-prison pipeline*. The Advocate. https://www.theedadvocate.org/black-boys-crisis-eliminating-school-prison-pipeline/

Mulligan, R. A. (1951). Socio-economic background and college enrollment. *American Sociological Review, 16*(2), 188-196. https://doi.org/10.2307/2087692

Nash, R. (1990). Bourdieu on education and social cultural reproduction. *British Journal of Sociology of Education, 11*(4), 431-447. https://doi.org/10.1080/0142569900110405

National Archive of Data on Arts & Culture. (2016, May 12). *High school longitudinal study, 2009-2013*. https://www.icpsr.umich.edu/web/NADAC/studies/36423

National Association for Educational Progress. (2019a). *NAEP Report Card: Reading*. https://www.nationsreportcard.gov/reading/nation/groups/?grade=8

National Association for Educational Progress. (2019b). *NAEP Report Card: Mathematics*. https://www.nationsreportcard.gov/mathematics/nation/groups?grade=12

National Association of School Psychologists. (2010). Self-efficacy: Helping children believe they can succeed. *Communique, 39*(3). https://www.forsyth.k12.ga.us/cms/lib3/ga01000373/centricity/domain/31/self-efficacy_helping_children_believe_they_can_suceed.pdf

National Center for Education Statistics. (2011). *The high school longitudinal study of 2009 (HSLS:09).* https://nces.ed.gov/pubs2011/2011327.pdf

National Center for Education Statistics. (2018). *HSLS: 09. Second follow-up student instrument*. https://nces.ed.gov/surveys/hsls09/pdf/HSLS09_Second_Follow-up_Student_Instrument.pdf

National Center for Education Statistics. (2018). *NCES handbook for survey methods*. https://nces.ed.gov/statprog/handbook/pdf/hsls.pdf

National Center for Education Statistics. (2019a). *Digest of education statistics.* https://nces.ed.gov/programs/digest/d20/tables/dt20_219.85a.asp

National Center for Education Statistics. (2019b). *Indicator 22: Financial aid*. https://nces.ed.gov/programs/raceindicators/indicator_rec.asp

National Center for Education Statistics. (2020a). *College enrollment rates*. https://nces.ed.gov/programs/coe/pdf/coe_cpb.pdf

National Center for Education Statistics. (2020b). *Concentration of public school students eligible for free or reduced-priced lunch.* https://nces.ed.gov/programs/coe/pdf/coe_clb.pdf

National Center for Education Statistics. (2021a). *College enrollment rates*. https://nces.ed.gov/programs/coe/indicator/cpb

National Center for Education Statistics. (2021b). *Undergraduate enrollment*. *Condition of Education*. https://nces.ed.gov/programs/coe/indicator/cha.

National Center for Education Statistics. (2021c). *Immediate college enrollment rates*. https://nces.ed.gov/programs/coe/indicator/cpa

National Center for Education Statistics. (2022). *High school longitudinal study of 2009.* https://nces.ed.gov/surveys/hsls09/tables.asp

National Center for Education Statistics. (n.d.). *About us*. Retrieved April 30, 2023, from https://nces.ed.gov/about/

New York University. (2016, October 16). Race influences teachers' referrals to special and gifted education. *Science Daily.* www.sciencedaily.com/releases/2016/10/161018094738.htm

Okeke-Adeyanju, N., Taylor, L. C., Craig, A. B., Smith, R. E., Thomas, A., Boyle, A. E., & DeRosier, M. E. (2014). Celebrating the strengths of Black youth: Increasing self-esteem and implications for prevention. *The Journal of Primary Prevention, 35*(5), 357-369. https://doi.org/10.1007/s10935-014-0356-1

Pajares, F. (2002). *Overview of social cognitive theory and of self-efficacy*. Emory University. http://people.wku.edu/richard.miller/banduratheory.pdf

Partnership for Expanding Education Research in STEM. (2022). *Monitoring the future*. https://www.icpsr.umich.edu/web/peersdatahub/series/35

Pratt, I. S., Harwood, H. B., Cavazos, J. T., & Ditzfield, C. P. (2019). Should I stay or should I go? Retention in first-generation college students. *Journal of College Student Retention: Research, Theory, and Practice, 21*(1), 105-118. https://doi.org/10.1177/1521025117690868

Price, D.V., & Tovar, E. (2014). Student engagement and institutional graduation rates: Identifying high-impact educational practices for community colleges. *Community College Journal of Research and Practice*, *38*(9), 766-782. https://doi.org/10.1080/10668926.2012.719481

Priest, N., Slopen, N., Woolford, S., Philip, J. T., Singer, D., Kauffman, A. D., Mosely, K., Davis, M., Ransome, Y., & Williams, D. (2018). Stereotyping across intersections of race and age: Racial stereotyping among White adults working with children. *PLoS ONE, 13*(9), e0201696. https://doi.org/10.1371/journal.pone.0201696

Rafique, S., & Ahmed, K. F. (2019). Gender differences in corporal punishment, academic self-efficacy and drop-out in secondary school students. *International Journal of Psychology and Educational Studies, 6*(3), 75-81. https://doi.org/10.17220/ijpes.2019.03.008

Reid, K. (2013). Understanding the relationships among racial identity, self-efficacy, institutional integration and academic achievement of Black males attending research universities. *Journal of Negro Education*, *82*(1), 75-93. https://doi.org/10.7709/jnegroeducation.82.1.0075

Richardson, M. P., Waring, M. E., Wang, M. L., Nobel, L., Cuffee, Y., Person, S. D., & Allison, J. J. (2013). Weight-based discrimination and medication adherence among low-income African Americans with hypertension: How much of the association is mediated by self-efficacy? *Ethnicity & Disease*, *24*(2), 162-168.

Savas, G. (2016). Gender and race differences in american college enrollment: Evidence from the education longitudinal study of 2002. *American Journal of Educational Research, 4*(1), 64-75. https://doi.org/10.12691/education-4-1-11

Savitz-Romers, M. (2019). What happened to "guidance" counselor? *Harvard Education Magazine.* https://www.gse.harvard.edu/news/ed/19/08/what-happened-guidance-counselor

Sawitri, D. R., & Suryadi, B. (2020). The role of socioeconomic status in the relationship between career aspirations and engagement in career exploration. In W. Striełkowski (Ed.), *Advances in Social Science, Education and Humanities Research* (vol. 399, pp. 260-263). Atlantis Press.

Seaton, E. K., Yip, T., Morgan-Lopez, A., & Sellers, R. M. (2012). Racial discrimination and racial socialization as predictors of African American adolescents' racial identity

development using latent transition analysis. *Developmental Psychology*, *48*(2), 448-458. https://doi.org/10.1037/a0025328

Sharpe, S. T., & Marsh, D. D. (2021). A systematic review of factors associated with high schoolers' algebra achievement according to HSLS:09 results. *Educational Studies in Mathematics, 110,* 457-480. https://doi.org/10.1007/s10649-021-10130-4

Silver, B. R. (2020). On the margins of college life: The experiences of racial and ethnic minority men in the extracurriculum. *Journal of Contemporary Ethnography*, *49*(2), 147–175. http://dx.doi.org/10.1177/0891241619869808

Terenzini, P. T., Cabrera, A. F., & Bernal, E. M. (2001). *Swimming against the tide: The poor in American higher education*. https://files.eric.ed.gov/fulltext/ED562879.pdf

The College Board. (n.d.). *How the SAT is Structured*. Retrieved on April 30, 2023, from https://satsuite.collegeboard.org/sat/whats-on-the-test/structure

Titus, M. (2006). Understanding college degree completion of students with low socioeconomic status: The influence of the institutional financial context. *Research in Higher Education, 47*, 371-398. https://doi.org/10.1007/s11162-005-9000-5

Trent, M., Dooley, D. G., & Dougé, J. (2019). The impact of racism on child and adolescent health. *American Academy of Pediatrics*, *144*(2). https://doi.org/10.1542/peds.2019-1765

Tsang, S. K., Hui, E. K., & Law, B. C. (2012). Self-efficacy as a positive youth development construct: A conceptual review. *Scientific World Journal*. https://doi.org/10.1100/2012/452327

Tsoi-A-Fatt Bryant, R. (2015). *College preparation for African American students: Gaps in the high school educational experience*. CLASP.

https://www.clasp.org/sites/default/files/public/resources-and-publications/publication-1/College-readiness2-2.pdf

U.S. Department of Education. (1999). *Impact of the civil rights laws*. https://www2.ed.gov/about/offices/list/ocr/impact.html

U.S. Department of Education. (n.d.). *Federal Pell Grants usually awarded only to undergraduate students*. Student Aid. https://studentaid.gov/understand-aid/types/grants/pell

Vaval, L., Bowers, A. J., & Rangel V. S. (2019). Identifying a typology of high schools based on their orientation toward STEM: A latent class analysis of HSLS:09. *Science Education, 103*(5), 1151-1175. https://doi.org/10.1002/sce.21534

Westbrook, S. B., & Scott, J. A. (2012). The influence of parents on the persistence decisions of first-generation college students. *Focus on Colleges, Universities, and Schools, 6*(1), 1-9.

Wilbur, T. G., & Roscigno, V. J. (2016). First-generation disadvantage and college enrollment/completion. *Sociological Research for a Dynamic World, 2*, 1-11. https://doi.org/10.1177/2378023116664351

Winaryati, E., Mardiana, & Hidayat, M. T. (2020). Conceptual framework of evaluation model on 4c's-based learning supervision. *International Journal of Learning, Teaching, and Educational Research, 19*(8), 173-193. https://doi.org/10.26803/ijlter.19.8.10

Wright, S. L., Jenkins-Guarnieri, M. A., & Murdock, J. L. (2012). Career development among first-year college students: College self-efficacy, student persistence, and academic success. *Journal of Career Development, 40*(4), 292-310. https://doi.org/10.1177/0894845312455509

Yenti, N., & Kusumah, Y. S. (2020). Source of self-efficacy for first-year college students based on gender and prior knowledge. *Journal of Physics, 1554*(1). http://dx.doi.org/10.1088/1742-6596/1554/1/012053

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, *25*(1), 82-91. https://doi.org/10.1006/ceps.1999.1016.

Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal, 29*(3), 663-676. https://doi.org/10.3102/00028312029003663