

**IMPROVING ACADEMIC SUCCESS IN HIGH SCHOOLS**  
***¡MEJORÁNDONOS!***

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A Dissertation  
Submitted to  
the Temple University Graduate Board

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In Partial Fulfillment  
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DOCTOR OF EDUCATION

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by  
Elizabeth M. Cooper  
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Examining Committee Members:

Dr. Judith Stull, Advisory Chair, Policy, Organizational, and Leadership Studies  
Dr. Christopher McGinley, Policy, Organizational, and Leadership Studies  
Dr. Armando Estrada, Policy, Organizational, and Leadership Studies  
Dr. Joseph Ducette, Psychological Studies in Education

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## ABSTRACT

The purpose of this research was to investigate factors that influence academic achievement in high school. This study gathered data directly from high school students themselves. This research study utilized a mixed-methods design by blending quantitative analysis from survey data and qualitative analysis from in-depth interviews. The data collected in this study drew from students in three different high schools in the greater Philadelphia area and one high school in located in Harrisburg, PA. In total, 44 high school students responded to the survey and five students volunteered to participate in a follow-up interview.

The research uncovered factors that influenced student educational aspirations such as parental influence, the student's self-efficacy, and involvement in school activities. Most interestingly, the findings revealed that on average, the percentage of female students with aspirations for a higher educational degree (such as a M.D., J.D., or Ph.D.) was greater than males. On a percentage basis, a greater number of males aspired to attain a college degree than females. Additionally, the data also determined that as the number of proximal personnel that support the student's attainment of a college degree increases by one, the student's educational aspirations also increased by one year beyond high school, as well. The research findings also highlighted the importance of administrator visibility as a factor that positively impacted student success. In addition to uncovering key influences that impact student achievement, this research sought direct reflection from high school students about their perceptions of academic success. Lastly, a small but important part of this research was devoted to investigating how the Covid-19

pandemic impacted student's educational experience. It is hoped that the findings from this study can be harnessed to inform educational leaders.

## **DEDICATION**

This dissertation is dedicated to my daughter, Allison, who was born during the time that it was being written. Her birth encouraged me to work harder to finish this study in order to give more time to her. May she grow to have the love and passion for learning that I always have.

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# CHAPTER 1

## INTRODUCTION

### Statement of the Problem

Latinx<sup>1</sup> youth are among those at highest risk for poor educational outcomes. There is considerable published research that is dedicated to the understanding of this problem. Many studies cite language barriers as contributing factors to the present issue, as many Latino students do not speak English as their primary language at home (Fernandez, 2002; Patel et al., 2016). Other studies cite systemic lack of access to high quality education as one of the largest impediments to Latino academic success (Murakami, Elizabeth, 2013; Solorzano et. al, 2004; Zambrana & Zoppi, 2002). While low quality of education can be attributed to many factors, the following studies have demonstrated a direct negative impact on Latino students' achievement.

While the high school dropout rate among the Latinx population in the United States has experienced a steady decline since 1996, the Latinx subgroup still maintains one of the largest dropout rates among any demographic in the United States in 2018 at 8.0% (National Center for Education Statistics [NCES], n.d.). In 2016, 10% of all Latinos who began high school did not finish (Gramlich, 2017). The literature suggests that there are many factors that compromise Latino achievement including poverty, familial responsibilities, and inaccessible quality public education (Zambrana & Zoppi, 2002).

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<sup>1</sup> In this dissertation, the recently adopted academic term Latinx is used primarily to refer to large groups of Latino-Americans. The term Latino is most commonly used and the most widely accepted term used by Spanish-speakers in the United States. Latina is used in this paper to refer to Latin female women. The term Hispanic was used in the survey as a selection for ethnicity and was maintained because it was utilized in the original survey distributed by NCES (National Center for Educational Statistics).

Additional obstacles such as lack of role models also impede Latino academic achievement in High School.

The Latinx population in the United States is growing at an unprecedented rate. Latino youth are the fastest growing subset in the United States: the Latinx population has increased more rapidly than that of any other racial or ethnic group (Lopez, 2018). With consideration for population growth, the impending success or failure of this subgroup bears great impact on the future of our nation.

High school enrollment among the Hispanic population has increased since 1990 to reflect the growing numbers of Latino youth. “Between 1999 and 2016, the number of Hispanics enrolled in public and private nursery schools, K-12 schools and colleges increased 80%, from 9.9 million to 17.9 million” (Gramlich, 2017, p. 2). The academic success or failure of the Latinx population will characterize the future of the United States.

Life stressors among the Latinx population suggest that newcomer adolescents are at greater risk for school problems than their academic peers (Patel et al., 2016). These life stressors such as community violence, negative interactions with peers, and family troubles lead to increased absence in school and further imply that the Latinx subgroup is at risk for academic failure. Research confirms the presence of life stressors among Latino newcomer populations that bear an impact on student achievement. Other cultural subgroups in the United States, for example, do not endure such hardships. Asian and Caribbean newcomer populations do not experience the same difficult circumstances as Latino newcomers (Patel et al., 2016). The ominous presence of these stressors has proven to lead to decreased academic performance for Latinos. The research findings

confirmed that “life stressors were an explanatory mechanism for understanding why Latina/o newcomers had lower attendance and grades than their immigrant peers” (Patel et al., 2016, p. 129). Patel’s research reiterates the negative impact that stressful life circumstances can have on academic achievement.

Societal and familial gender expectations also bear a large impact on Latina educational performance. Predetermined expectations for the female’s role are cited as leading contributing factors in causing Latinas to leave high school early. Stereotypes of Hispanic girls as “submissive underachievers” (Romo, 1998) are often reinforced by society and generationally accepted and promulgated. Some Latina mothers influence their child’s aspirations by acknowledging their own unfilled dreams and inability to navigate the educational process; in turn, this can impede their daughters’ commitment to education (Romo, 1998). These mixed messages that denounce the possibility of continuing education beyond high school limit Latina students from reaching their potentials. Some mothers promote Latina female acquiescence by encouraging their daughters to become “mujeres de hogar,” or women of the house (Cammarota, 2004). In these instances, the cultural cycle in which women do not advance in education is destined to repeat.

In his ethnographic research with high school students from El Centro, California, Cammarota also explains that societal stereotypes hinder female advancement by prolonging gender oppression. Perpetual disenfranchisement leads to a cultural acceptance of Latina underachievement and propagates low expectation for Latina learners. When Latinas themselves accept their predetermined societal gender roles as status quo, this has the potential to further discourage Latinas from entry into higher

education. Other institutional factors such as low teacher expectations and disengaging curricula also inhibit educational opportunities for Latinas. Using a phenomenological approach, Cammarota's interviews confirm mediocre teacher expectations for Latina students and reiterate the negative impact of low expectations for Latina females. Finally, Cammarota's research argues that the cultural differences between white teachers and Latina students can exacerbate misunderstanding and falsely guide learning (Cammarota, 2004).

As confirmed by Romo (2008) and Cammarota (2004), the Latinx family and community cultural values play a central role in guiding or hindering the student's success. Research has also confirmed that demonstrated commitment to the importance of educational attainment among Latinx families can undoubtedly impel Latinx children toward achievement (Antrop-Gonzalez, 2008). Indeed, many successful students cite family as a strong motivational influence for their achievement. While family motivation can and does guide strong students, support systems can only carry these students so far.

School quality is highly complex and multifactorial and can impact student success. Low quality education can be attributed to many factors including lack of available resources. "Institutional resources are highly linked with geographic region and place of residence for students. For Latino children, close to 40% live in poverty and attend inner city or rural schools where both schools and home environments lack educational materials such as computers and books" (Zambrana & Zoppi, 2002, p. 41). Due to high concentrations of Latinos living in areas with inadequate schooling, a profound problem arises for this population that impacts the future academic

development for this demographic. Schools that provide an inferior education enable a crippled future generation of Hispanics and Latinos in the United States.

Institutional limitations can therefore unintentionally encumber Latino academic achievement. Many schools do not have the resources to adequately prepare and support the student's academic success. "Anchors or role models that encourage development of self-discipline through positive feedback, problem-solving skills, and access to resources are not readily available to Latinas in their community and school environment" (Zambrana & Zoppi, 2004, p. 45). The school environment in which the student thrives ought to provide these types of supports for students. In the absence thereof, sadly, "even when families encourage persistence, the poor performance of schools can pressure students into dropping out. Vocational education enrollments clearly show Latinas being steered into jobs with little career or income potential." (Romo, 1998, p. 3). Lack of access to quality education for Latinos can preclude further educational advancement and thus further hinder academic growth among Latino communities.

Low student achievement among the Latinx population is also attributed to the dearth of enrollment in preschool. Latino students are significantly less likely to attend pre-school than their White or African American counterparts (Zambrana & Zoppi, 2002). This enables a cognitive and social disadvantage for Latino children from kindergarten that is carried throughout the students' educational experience up until twelfth grade. Disadvantages in education compound year after year, thus leading to a lack of confidence and a poor self-image for many Latino students. This follows them throughout their school experiences and ultimately leads to an unmet potential in many Latino students that are educated in the American education system.

Latino students are also underrepresented in Advanced Placement courses in high school (Solorzano and Ornelas, 2004). Lack of enrollment in advanced courses can disadvantage these students from equal access to four-year colleges. Even when Latino students have the opportunity to attend quality high schools with numerous advanced courses, Latino students are not proportionately represented in AP enrollment (Solorzano & Ornelas, 2004). The disproportionate representation of minorities in AP classes is not new and has led to numerous legal cases (Solorzano & Ornelas, 2004, p. 23); however, the reasons why Latino students are underrepresented in advanced courses are multifactorial. “Students who do not have access to these courses are not afforded the extra GPA points and other college admissions benefits for taking AP courses and thus reduce their chances of becoming competitively eligible for university admissions. (Solorzano & Ornelas, 2004, p. 19). Lack of engagement in rigorous curriculum can underprepare Latino students for higher education. In turn, this has the potential to further stifle the Latino population’s academic advancement and future opportunity to for higher paying occupations. “Because low educational attainment is associated with limited financial resources, barriers to improved employment opportunities and low rates of intergenerational upward mobility, Latino children, especially Latina girls, continue to have low educational attainment, which has not changed considerably over the last three decades” (Zambrana & Zoppi, 2002, p. 47).

Fernandez (2002) states that unchallenging ESL courses may also contribute to the broadening problem. Citing first-hand experience, one student argued that once they had progressed beyond the basic model presented through the English as a Second Language classes, the content became less rigorous and did not adequately prepare them

for collegiate level composition. This student stated that their ESL classes did not emphasize academic learning. Lack of exposure to academic rigor can further stagnate student learning and impede academic success. While Fernandez's study was able to highlight the pertinent experience of one student, as well as draw upon the similar experiences of his classmates, the study's findings cannot be generalized due to the limited perspective of only one student's experience.

Even among the high-achieving Latino high school students who seek access to higher education, there is limited information about how to navigate the college application process (Kimura-Walsh et al., 2009, p. 306). In most schools that serve low-income areas, college counselors maintain high numbers of caseloads. Counselors' extensive responsibilities can cause them to serve only the neediest applicants (Kimura-Walsh et al., 2009). Unfortunately, due to limited resources and personnel, guidance counselors may not be able to adequately steer each student that they are assigned to work with.

Kimura-Walsh also highlights the concern that many Latino families lack knowledge for how to navigate the application process. "Students widely described their families as a source of encouragement and motivation; yet their lack of experiences with higher education limited parents' abilities to offer specific advice and college preparatory information" (Kimura-Walsh et al., p. 305). Due to limited familial knowledge about college entry, many Latino students are thus dependent upon school counselors for guidance. These students are often unaware of post-secondary education opportunities if the counselors are overwhelmed or if the student is unable to self-advocate throughout the process.

## **Socio-Economic Status: Impact on Achievement**

Rumberger and Palardy (2005) investigated the impact of segregation in schools on academic achievement. Their findings suggest that the “socioeconomic composition, not the racial composition, of high schools” impacts student achievement (Rumberger & Palardy, 2005, p. 5). Their study confirmed that “all students—whatever their race, social class, or academic background—who attended high schools with other students from high social class backgrounds learned more, on average, than students who attended high schools with other students from low social class backgrounds” (Rumberger & Palardy, 2005, p. 22). When studying with students that are expected to achieve, lower income students are more likely to learn with their wealthier counterparts than otherwise.

Rumberger and Palardy’s (2005) research also confirmed that school SES is a more important predictor of student achievement than individual SES. Among the influential factors studied that impact different socioeconomic school environments: structural features of schools, school resources, and school policies and practices- only one factor was found to account for the impact of SES- school policies and practices (Rumberger & Palardy, 2005). Teacher expectations and academic climate were found to largely influence student academic success (Rumberger & Palardy, 2005) and at least partially explain the disparity in achievement levels among different SES schools. When teachers maintain high expectations and schools maintain a supportive academic environment, students are more likely to achieve.

It is widely understood that family background and Socio-Economic Status influence student academic achievement. Researchers Dai, Tan, Marathe, Valtcheva, Pruzek, and Shen (2012) conducted additional research that proved that SES also impacts

creativity. Their research confirmed the existence of a “creativity gap, analogous to the well-researched achievement gap, between those living and studying in upper-middle-class suburban districts and those living in lower- to middle-class school districts” (Dai et al., 2012, p. 196). The researchers also drew out the connection between creativity and scholastic achievement. They concluded that “academic achievement was associated with how adolescents perform on creativity tasks, as well as how they were motivated to pursue intellectually challenging tasks” (p. 197). Their research corroborated that students that are creative thinkers are similarly capable of intellectual creativity. These researchers confirmed that students from higher income neighborhoods and school districts are more inclined to think creatively. These findings are important because they suggest that equity among school districts not only impacts student achievement, but also points to a creativity gap.

Various solutions to the achievement gap have been proposed. One recommended solution, to increase socioeconomic diversity among high school students to elicit greater achievement for all students, can have unintended consequences. Crosnoe (2009) studied the impact of intentional school socioeconomic integration as he suggests that “poor students may face greater competition for scholastic credentials and more risks for stigmatization in middle-class schools with similar peers” (Crosnoe, 2009, pp. 709-710). He suggests that this, in turn, can mitigate the potential beneficial impacts for academic gains. Crosnoe also studied the psychosocial impacts on student success. His study confirmed that socioeconomic desegregation in schools has negative impacts on poor students’ health and well-being over time (Crosnoe, 2009). The study concluded that “both advanced coursework and social belongingness have well-documented associations

with achievement, so low-income students should achieve less in higher SES schools, if, as this study indicates, they take lower-level math and science and feel more isolated” (Crosnoe, 2009, p. 16). Crosnoe indicates that lower SES students can be placed in lower level classes and feel isolation, contrary to the intentioned benefits of integration. Crosnoe also suggests that the “risks of attending higher SES schools tend to be more common and pronounced for racial/ethnic minorities” (p. 16) than their white counterparts who undergo the same interventional strategy for academic improvement. His research confirms that Latino students and African-American students both experienced curricular and psychosocial disadvantages from entering into a school-environment with families from higher income brackets (Crosnoe, 2009).

### **The Impact of Leadership on Student Achievement**

Researchers Walker and Slear (2011) investigated the influence of teacher efficacy on increased levels of student achievement as well as the impact of principal leadership on teacher efficacy. Their research confirms that there is a positive link between principal behavior and teacher efficacy (Walker & Slear, 2011). The role of the principal can intentionally shape school success and mold school academic outcomes. These researchers identified various principal behaviors that positively shaped teacher efficacy. The eleven identified domains that the principal can utilize to impact teacher effectiveness are: communication, consideration, discipline, empowering staff, flexibility, influence with supervisors, inspiring group purpose, modeling instructional expectations, monitoring and evaluating instruction, providing contingent rewards, and situational awareness (Walker & Slear, 2011, pp. 4-5). The researchers found that among teachers

with the least amount of experience (0-3 years), there was one principal behavior that best predicted teacher efficacy: modeling instructional expectations. For teachers with 4-7 years of experience, there were two principal behaviors that impacted teacher effectiveness: modeling instructional expectations and communication. Teachers with 8-14 years of experience reported that three principal behaviors impacted their efficacy: communication, consideration, and modeling instructional expectations. “Inspiring group purpose was the single significant principal behavior reported by participants with 15 years of experience” (p. 12) to have positively predicted teacher efficacy. These results can be utilized by principals to enhance their practices with intent to positively impact teacher performance. In turn, teacher efficacy will directly benefit student academic outcomes. The ability of the principal to impact teacher confidence directly impacts student achievement and should be recognized upon consideration for student achievement.

Khalifa’s (2013) research addresses and confirms successful practices that can be implemented by principals that work with at-risk communities. He provides several scaffolds to support functional school environments. First, Khalifa highlights the principal’s capacity to institute *administrative structures* that promote student inclusion and embrace cultural capital (Khalifa, 2013). By organizationally welcoming the community’s cultural assets, principals create an environment in which students feel supported to succeed. Khalifa’s research also points to the importance of a *strong student-principal relationship* in which students are empowered to explain their behavior to principal (Khalifa, 2013). The proximity of the principal with the student body can engender positive relations and make students feel important in their place of learning.

Khalifa also emphasizes the benefits of a *school-community overlap* (Khalifa, 2013). A successful principal should promote the school community by regularly including parents in activities and decision-making; this thereby encourages and allows parents to advocate for their children. In a parallel manner, it likewise demonstrates the principals' acceptance of indigenous student identities.

Khalifa illuminates the role of the *principal in the community* (Khalifa, 2013). Khalifa discovered that when a principal maintained a consistent and visible place within the community, this created the opportunity to develop self-advocacy among parents and students. The successful integration of the principal into the community by attending church services and community meetings demonstrates greater care. As the principal enhances their relationships with the community, this enables returned investment from the families. Through their actions, it becomes clear to the community that the principals' investment is genuine, and thus they follow their lead.

Khalifa (2013) also emphasizes the importance of employing a culturally responsive approach to leadership. Khalifa determined that school leaders can enhance student success by incorporating parents into the fabric of their student's achievement. Khalifa's work urges that principal teach parents how to self-advocate to for their children in the fight for social justice. "What emerges is a way that school principals promote school cultures and enact administrative behaviors—with the help of parents and students—that embrace the identities of Black and Latino at-risk students" (p. 752). Khalifa argues that when parents advocate for their children, and the school administrators effectively collaborate with parents, this directly leads to greater social and academic gains.

## **Purpose of the Study**

This dissertation aimed to explain how Latinx students overcome barriers in education and are able to achieve. Often in the context of poverty and difficult circumstances (both educational and social), various Latino students defy the odds and resist the expectation for failure and achieve instead. These students are often driven by intrinsic personality traits, but they are also guided by teachers, family, and aided through after school programs. This study was designed to determine the factors that these students themselves attribute to their success. The analysis of these responses will provide a voice for successful Latina students in the United States. The recurring themes that are uncovered among the Latinx population will serve to inform educators and organizations that support Latino learners. Ideally, they will also encourage new approaches to educational leadership.

A secondary purpose of this study, equal in importance, was to investigate factors that directly influence all student achievement in high school. By gaining insight from the students themselves, this dissertation aimed to inform educational leaders about the factors that positively influence student academic success in high school.

## CHAPTER 2

### LITERATURE REVIEW

#### **Community: Academic Resilience and Protective Factors**

While Perez, Espinoza, Ramos, Coronado, and Cortes (2009) focused on the role of protective resources in mediating the academic achievement in undocumented Latino youth, in recognizing the numerous factors that place these undocumented Latino students at risk, the issue is not limited to only that group of students. The researchers set out to determine specific characteristics that mediate school success. Perez et al. determined that resiliency and environmental protective factors enhance a child's chance for success. The authors confirmed that academic success is related to both personal and environmental resources. Even with the presence of psychosocial risk, protective factors correlate with a positive academic performance. The research elucidated that resilient youth have higher levels of protective factors that help them to succeed. Compared to students that were buffered by protective factors, the high-risk youth suffered significantly higher levels of adversity. These results also demonstrated that students with fewer protective factors experience lower levels of academic success. Protective factors thus correlate with higher levels of achievement. "Giftedness, valuing of school, extracurricular participation, and volunteerism were significant predictors of academic achievement among undocumented youth" (Perez et al., 2009, p. 173). These factors that enhance resilience among Latino students should be highlighted and further investigated. The study is limited in that it may not be a representative sample of undocumented Latino immigrants.

## **Resisting Gender Norms**

Cammarota's ethnographic study focused on 40 youths from El Centro, California. During a span of four years, he organized in-depth interviews. Among his participants, he uncovered a remarkable desire to break free from machismo stereotypes that rendered females academically incapable and relegated them to the home. "This drive for change and gender mobility kept Latinas in this study in class, despite the tensions and negative relationships arising from racist and sexist school practices" (Cammarota, 2004, p. 65). Despite any difficulties that these Latina participants may have encountered in school, Cammarota's study suggests that negative stereotypes were utilized as a means for motivation to succeed academically. Study limitations include Cammarota's own Latino race and shared upbringing; however, the researcher suggests that this enabled a greater proximity and acceptance from his participants.

Cammarota suggests that a student's desire to achieve despite their anticipated or projected outcome can serve as motivation for performance. For example, many successful Latina females value education as a means to resist constructions that render Latina students inferior. Cammarota refers to this as the theory of resistance through achievement (Cammarota, 2004). By rejecting the societal norms that have been engendered for them, Latina females are able to harness this resistance as motivation to succeed. These students understand the importance of higher educational attainment and embrace more diverse career possibilities. Since many Latina females who graduate from high school are among the first in their family to attain a high school degree, this accomplishment bestows her more confidence. The achievement of graduating confers a greater sense of control and grants her the potential to have command over her own life.

Once she has earned a high school diploma, she is further capable of transforming her societal status.

### **Programs Guide Persistence**

The academic success of undocumented students is enhanced by after school programs and social capital. Yasuike's research focused on common experiences that help undocumented students overcome barriers and emotionally cope with hardships to achieve academic success and go to college. Yasuike confirmed that positive influences such as family and teachers directly impacted student academic success (Yasuike, 2019). Her research proved that parental encouragement for the child's academic work also motivates the student to work hard and persist. Likewise, Yasuike argued that student-teacher relationships also bear a direct impact on student achievement. The findings demonstrated that student success in the college application process depended largely on developing relationships with teachers, counselors, and other adults outside their ethnic networks that can provide necessary resources (Yasuike, 2019). Latino students' ability to navigate steps necessary for college entry is thus contingent upon facilitating strong relationships with caring adults. Yasuike's research iterates that the presence of caring teachers can motivate and guide students toward entry into college.

Community based programs also offer students a safe space to create trusting relationships with caring adults (Harris & Kimaya, 2015). These after school role models serve as human bridges between families and institutions in order to guide students. The support from these caring adults help students to navigate issues within their schools and provide the resiliency to overcome barriers and persist in school.

## **Family: Intrinsic and Personal Influences**

Students who demonstrate high levels of motivation appear to be more engaged in their schoolwork, more confident in their abilities, and more competent to persist and complete academic tasks. Not surprisingly, high levels of motivation and self-efficacy among students directly relate to academic achievement. Examination of factors that contribute to Latino high school students' resiliency in an urban high school setting confirmed the importance of the student's family and culture (Loera, Rueda, & Oh, 2018). The data uncovered a positive relationship between the motivational and familial characteristics that relate to academic engagement, learning strategies, and academic resilience. In particular, these researchers studied the cognitive, motivational, and sociocultural components that lead to student achievement (Loera et al., 2018). The study confirmed that intrinsic motivational factors parallel academic engagement and recommend interventions to increase motivation as a way to combat disengagement. Self-confidence and personal belief about one's ability to perform in school can largely impact the child's ability to learn and therefore suggest that fostering the child's motivation can help to increase academic engagement. "Strengthening a sense of belonging and self-efficacy will reduce drop-out rates and increase levels of academic engagement" (Loera et al., 2018, p. 891). Finally, this study also confirmed the role that teachers play in influencing the child's sense of self. They congruently suggest that teachers must foster student motivation related to academic engagement. This study documented "specific evidence of the importance of teachers and counselors understanding the home lives of urban Latino youth and fostering their self-efficacy and interest in reading" (Loera et al., 2018, p. 892).

While this research confirmed the importance of motivational factors in increasing student engagement and educational aspirations, the study did not directly link motivational factors to academic achievement. Certainly, this study confirmed the relevance of cognitive, motivational, and sociocultural factors that influence a child's academic abilities. The study did not, however, establish a direct relationship between a child's self-perceptions and standard achievement. Additionally, each of the student surveys was self-reported. This suggests the possibility of a more selective set of students that responded to the questionnaire and the potential for shared method variance.

Like motivation, student academic engagement also contributes to achievement. In parallel fashion, student engagement has proven to directly relate with academic success (Boutakidis, Rodríguez, Miller, & Barnett, 2014). Academic engagement refers to the extent to which a student is interested in school learning and invested in academic outcomes. Interested and invested students boast higher levels of success. Other researchers examined the relationship between student engagement and GPA. Using a sample of 61 students from a low-income urban middle school, researchers considered academic engagement and GPA. The study confirmed a significant relationship between academic engagement and GPA for Latinx students but not for non-Latino white students. "More highly engaged Latinas/os had higher GPAs than less engaged Latinas/os, but this was not the case for non-Latina/o adolescents. To reiterate, higher academic engagement was associated with higher GPA, but only for Latina/o students" (Boutakidis et al., 2014, p. 9). This relationship between academic engagement and achievement reiterates the importance of creating engaging lessons to ensure student success. In addition to sample size, the study was limited in that it did not identify or

isolate other factors that could have contributed to enhanced student engagement or academic achievement.

### **Multidimensional Factors that Guide Success**

Zalaquett (2006) uncovered three major barriers that impacted successful students' trajectories in becoming accepted to college. Zalaquett's research also identified eight common factors among successful Latino students that guided them toward college; these factors apply to all students. These core common factors include "family, education, responsibility toward others, a sense of accomplishment, friendship, scholarships, community support, and school personnel" (Zalaquett, 2006, p. 44). This research therefore successfully identifies supportive influences that guide students toward higher education. While the research findings are remarkable, limitations to this study include the sample size (12 students) and the fact that these students were admitted to college. These students therefore represent a selective group of students that limit the generalizability of these findings to all students. Finally, because this study was conducted as a self-report study, the student's own personal bias could impact the data as well. Nevertheless, these eight common factors that help guide student success are useful to recognize and implement to help guide future students.

Research focusing on high school students in an urban high school setting confirms similar influences that contribute to achievement. Among the seven successful Latina students who were studied in an urban high school, researchers Antrop-Gonzalez, Garrett, and Velez (2008) were able to identify four major common factors that these students attributed to their success. Among them are religiosity and their connection to a

church program, affirmation of their own Puerto Rican identity, a strong maternal figure to support the student's academic achievement, and the presence of caring teachers to guide their success (Antrop-Gonzalez et al., 2008). The study confirmed that familial sources of social capital most directly influenced their success. While the researchers did triangulate the interviews from students with researcher in-class observations, the study was limited in size and the results cannot be generalized.

Similarly, Garrett and Vélez (2010) focused a second study on factors that influence high academic achievement in Puerto Rican male high school students in an urban setting. To guide their inquiry, they interviewed three 11th and 12th grade students who were enrolled in at least one AP course and who maintained a strong GPA. They discovered that high academic achievement among two of the three students could be linked to their affiliation with a religious community and/or other extracurricular activities. Participants also credited their success in part to their strong Puerto Rican identities. Each student also recognized the role of an influential mother or sister in their lives that offered both help and support; in turn, this drove students to make their families proud. Finally, each student talked about the impact of caring teachers. Garrett and Vélez's case study is limited in scope. Finally, the study only focused on Latino males, which may or may not translate to other ethnic or gender groups.

### **School: Relabeling**

Given the stereotypes and low expectations for economically disadvantaged students in urban high schools in the United States, there have been several successful examples of schools that have employed a relabeling strategy. The relabeling construct

works to educate compromised students from low-income neighborhoods and schools to envision themselves as college-bound academic students. Schools attempt to reposition these students by presenting positive attributes to academic success. The relabeling process, which uses institutional agents to promote these students as academically capable, has proven successful for many. “In college-going cultures, teachers, administrators, parents, and students themselves hold and express high expectations for academic performance and college preparation” (Achinstein et al., 2015, p. 315). The relabeling process designates the students as capable and able to attend college. By holding high expectations for their students, schools are able to foster a culture in which students desire to achieve a higher level of educational attainment. This relabeling strategy bears promising results for enhanced success.

### **High-Achieving Middle School Students**

A qualitative, phenomenological study was conducted by Williams, Greenleaf, and Scott (2018) to evaluate criteria for success among a diverse set of academically capable 24 middle school students. These high-achieving middle school students from low-income backgrounds described three ways that schools can help promote academic investment among their students: (a) create a culture of hope, (b) develop relational networks, and (c) establish meaningful parent–school collaborations (p. 227). By creating a culture of hope, the participants relayed that their peers are able to understand that following an academic path will lead to a bright future. By establishing a cause and effect relationship between hope and a promising future, this motivates the students to do well

in school; a culture of hope encourages the students to maintain high aspirations for themselves (Williams et al., 2018).

The students also stated that developing relational networks helps to share resources. In addition to the importance of building trusting relationships with their teachers, the students hit upon the teachers' duty to help create inter-peer networks of support so that they can learn from one another (Williams et al., 2018). By promoting cross-cultural peer relationships, the teachers are facilitating a bridge to empower all students. This enables a valued exchange between peers.

The third way that students stated the school could help engender more academic achievement would be by creating stronger parent-school partnerships (Williams et al., 2018). "Seventy-five percent ( $n = 18$ ) of participants recommended that schools support programs that help parents who are in low-income families to build up their knowledge and skills for navigating school systems and accessing resources to meet their children's needs (p. 229). By engendering community relationships, the school can simultaneously inform parents as well as empower them to invest in their child's academic success. While this study's findings are limited in the small sample size ( $n=24$ ), the findings establish avenues through which schools and administrators can enhance student learning. It is recommended that schools implement these strategies to improve student scholastic investment, thus increasing educational outcomes.

### **Project-Based Learning**

The benefits of project-based learning are widely understood among educators. Using a randomized control experimental design, Sungur, Tekkaya, and Geban (2010)

conducted a research study with 61 tenth grade students. The data compared achievement between the control group, which was taught using traditional biology methods, and the experimental group, which was instructed using project-based learning methods. Through PBL, students are encouraged to work in groups to think critically and take ownership for the outcomes. Groupwork, creative thinking, and organizing relevant information are key components to project-based curricula design. “These properties of PBL may have caused better academic achievement and performance skills when compared to traditional instruction” (p. 6).

The findings confirmed the positive impacts of project-based learning on student knowledge acquisition. Research results “revealed that PBL instruction caused a significantly better acquisition of scientific conceptions than the traditional instruction. PBL students appeared to be more proficient in the use and the organization of relevant information, in constructing of knowledge and moving toward better conclusions” (Sungur et al., 2010, pp. 5-6). Increased comprehension among project-based learners points to promising results that can be broadly implemented. It is therefore recommended that educators implement Project-Based learning opportunities into their curriculum to promote higher order thinking and increase achievement among all students.

### **Community Learning Centers**

Schools alone cannot overhaul academic performance. As the home is the primary place for a child’s development, other factors such as family life and hours spent outside of school affect student achievement. To supplement in-school learning, various Community Learning Centers have been created with effort to lengthen the school day

and provide structured quality educational activities after the regular school day hours. Dodd and Bowen (2011) investigated the impacts of one such after school program located in the Bronx section of New York City. The researchers first assessed student needs by administering a survey. “The pre-test survey findings confirmed the need for an academic component within the after-school program. The academic component was designed to promote student learning and family-teacher-support staff communication” (Dodd & Bowen, 2011, p. 22). Researchers created an action plan to implement change and enhance academic instruction during the afternoons. “The central piece of intervention was the design and delivery of an innovative, educational after-school curriculum to assist teachers in attaining the goals of improved student academic performance and socialization” (p. 23). After the intervention was implemented, a post-test survey was administered which confirmed the success of revised and revamped after school curriculum. “The survey results indicate student agreement that the new curriculum enhanced student knowledge” (p. 24). Additionally, these intentional and visible efforts to ameliorate student learning resulted in a positive and increased communication among parents and school. Due to the interventional changes made to the afterschool program, “the results of the pre- and post- test survey, parental communication moved from ‘neutral’ to ‘agree’ following participation in the intervention.” These findings indicate an increase in parent involvement in students’ educational outcomes. Ultimately, the researchers “reported improvements in student performance relating to attendance, academic work, discipline and social behaviors (p. 32). Although the conclusions of this report are limited to one after school program, the

results are promising. Similar academic interventional strategies can be applied to after school curriculums nationwide to improve student academic achievement in school.

### **Effective Administrative Leadership**

While there has been little research conducted on educational leaders in minority communities, the available literature expounds upon some of the successful practices instituted by educational organizations. There are common themes and recommendations that the literature suggests effective principals can do to improve quality of leadership and increase student success. Multiple studies emphasize the importance of harnessing the fruits of the Latino community to advantage the students. Exploiting community and cultural wealth has proven to contribute strongly to the improvement of students in the classroom. Community cultural wealth challenges the deficit thinking approach when examining minority students in U.S. schools and society.

### **Principal Visibility and Personality**

Garza, Drysdale, Gurr, Jacobson, and Merchant focused their research on the impact of leadership on school success (2014). Garza et al. uncovered the importance of the principal's visibility within the community (Garza et al., 2014). Their work highlights the value of the principal's personality in demonstrating effective leadership and suggests that positive intervention strategies that are implemented at the ground level also enhance student outcomes. They conclude that:

It is evident from our analysis that the 'successful' principals we studied possessed exceptional affective and personal dispositions. First, they were driven by a philosophy of social justice; second, they ascribed to a strong notion of care; third, they were highly ethical and morally responsible

fourth, they demonstrated a high degree of resiliency and persistence; and most importantly fifth, they were courageous (Garza et al., 2014, p. 808).

The authors continue by suggesting that they believe that leadership preparation programs must look beyond skills-based preparation and highlight the important attributes of human social behavior to increase principal effectivity. From their study of leaders, the researchers conclude that personality of the principal greatly impacts the school community.

Community involvement engenders strong relations and enhances leadership capacity. “In addition to promoting high standards of student achievement, [the principal] manifested a genuine sense of care that helped to form meaningful relationships among all the stakeholders in the school community. Parents felt invited, students felt good about themselves, and the teachers felt supported and appreciated” (Garza et al., 2014, p. 806). Clearly, community involvement is an effective tool through which principals can increase familial scholastic commitment. Not every principal maintains the same dedication and commitment to excellence, however. Personality and community investment vary greatly among principals. The research conducted by Garza et al. (2014) confirms that a principal that serves as a community role model and a leader that possesses positive personality traits can be highly effective in their craft.

### **Cultural Wealth and Culturally Responsive Leadership**

Zambrana and Zoppi (2002) write at length about the contextual and environmental factors that impact Latino education in the United States. Zambrana and Zoppi argue that most of the schools that Latina girls attend are not equipped to provide an optimal education for their students. They state that “school personnel are not prepared

to effectively nurture and develop the academic skills of Latinas and less able to engage their parents” (Zambrana & Zoppi, 2002, p. 47). The research indicates that most schools are not fully capable of exploiting Latina cultural values and strengths, and this further contributes to a loss of cultural capital and weakens the Latina potential. As a remedy, schools are encouraged to promote Latina strengths in order to endorse educational outcomes. Promoting social capital will positively impact Latina female academic achievement. “Inherent to the continued development of resiliency, the environment in which a Latina functions, schools in this case, must value the cultural assets and strengths she brings as social capital on which to build her academic success” (Zambrana & Zoppi, 2002, p. 45). Schools that embrace Latino cultural values would consequently benefit by enriching its educational environment through the authentic integration of these cultural assets. These findings clearly apply to other subgroups.

In order to promote educational achievement among students, schools need to implement “the best practices that are strongly associated with academic achievement for both girls and their parents. This begins with promoting academic success through such strategies as after-school tutoring programs and Saturday Academy for Latinas that enhance educational skills, build self-esteem, and provide role models” (Zambrana & Zoppi, 2002, p. 49). Therefore, to fully endorse education among Latina students, schools must embrace the cultural values that they bring with them to school and continue to build bridges with families and promote education at the ground level.

In many subgroups, the culture revolves around the family unit. School leaders who understand this and are able to weave community cultural wealth into the school’s fabric are fundamentally more successful. Schools that include families in decisions and

leaders that outwardly and transparently believe in the academic ability of their students are able to achieve more. These schools are thus better equipped for success because the outward mission is itself aligned with student outcomes.

### **Administrative Impact on Teaching**

Romero and Krichesky (2018) suggest that within the school community itself, the principal is most effective in managing teachers and influencing environment.

Romero and Krichesky administered an international survey to 82 high school principals in Buenos Aires, Argentina to provide information about education and policy development. Using quantitative methodology, Romero and Krichesky conducted an exploratory study that focused on interactive leadership in turbulent school climates.

Romero and Krichesky uncovered the importance of a positive school learning climate by influencing teachers' motivation and commitment. In maintaining organizational control, principals are better able to directly impact student achievement. "School leadership can thus affect pupils' learning by attending to academic and curricular dimensions while at the same time guaranteeing organizational conditions that foster an adequate climate for teachers and students" (p. 340). They argue that a principal's instructional role is paramount toward improving teacher quality; they contend that the principal's main function should be to drive organizational learning so that all school members can be supported to learn.

Romero and Krichesky warn principals against becoming overly involved with the community at large because this offers less time to directly work with teachers. They suggest that investment in faculty and positive influence on school environment will

increase student outcomes more effectively than parent and community relationships. “It is precisely through their interactions within the school climate that principals can effectively exercise an indirect impact on students’ achievement” (p. 341). Romero and Krichesky thus emphasize the importance of the administrator’s interaction with the teachers to directly improve school climate. They argue that while community investment may bear an indirect effect on school advancement, providing instructional guidance for teachers and creating improved learning climates will more directly influence student achievement.

### **Benefits of Shared Upbringing**

Many minority students come from a people-centered culture in which members are expected to contribute to their families and communities from an early age. In her research on Latino/a administrators, Murakami et al. (2018) administered a Texas-wide survey to 231 Superintendents, Principals, and Assistant Principals. Qualitative analysis was utilized to deconstruct survey responses. Descriptive analysis was used to summarize the data to portray important characteristics and features of the data; and content analysis was used to code the data and interpret qualitative responses (p. 5). Murakami et al. found that successful leaders exploit positive community traits within the school at large. Strong principals facilitate a student-centered inclusive environment that fosters values such as cooperation, reciprocity, and generosity (Murakami et al., 2018). Their research found that Latinx administrators benefit from shared commonalities with students and families. Schools that have Latinx leaders maintain an advantage. “The respondents recognized that students and parents felt connected to them due to their racial/ethnic background.

They included comments such as follows: Common language and culture. Latina/o school administrators demonstrated that language and culture were assets they brought to parents and students” (Murakami et al., 2018, p.11). Likewise, this sense of connection is also experienced by the leaders themselves. Latinx leaders that partook in the research noted that they can see themselves in the lives of their students. This allows Latino school leaders to lead with understanding beyond the conventional role of principal.

Garza et al.’s (2104) work also confirmed the importance of maintaining visibility and within communities of color (Garza et al., 2014). The principal’s ability to connect with parents and engender dialogue within the school community increased relational trust.

Her ability to speak Spanish made parents who were uncomfortable speaking in English, feel at ease, and this strengthened her relationship with them and increased the level of trust and support they felt for her. Her personal experiences growing up in the district and her extensive familiarity with the culture and language, afforded her many opportunities for engaging parents and the broader community in family-centered events at the school (Garza et al., 2014, pp. 805-806).

This principal’s commitment to the community is genuine and appreciated by its members.

Similarly, Latinx school administrators understand their position as a *role model* within the community and this recognition drives enhanced leadership practices. As such, these leaders are able to empathize with their students and their families, engendering a proximal understanding between the authority and their community.

The awareness of being a role model for both students and adults was an indication that these administrators were critical in their roles and intentional in their investments to improve the experiences of those in schools. These leaders also utilized their own experiences with discrimination to develop high levels of empathy for their diverse students. Although still holding their students to high expectation, these

Latino school leaders understood that parents saw them as an advocate for their children because of their racial and ethnic backgrounds (Murakami et al., 2018, p. 13).

Latinx families look to the principal as a leader within their own community, and thus bestow a greater trust that the school leader will effectively perform their duties as their child's leader. On a personal level, Latinx administrators in leadership roles are equipped to succeed due to their understanding for Latinx communities.

There exists a gap in the literature that focuses on minority academic achievement. The scholarly research instead describes systemic failure and explains factors that contribute to continued underachievement. Additionally, there is a dearth of literature that investigates student perceptions of success. Neither has a voice been granted to students to explain their own understanding of how to achieve.

This study was designed to obtain student input about factors that influence their scholastic achievement. Its aim was to uncover common factors that contribute to Latina student success. In sum, this research will add to the literature by investigating student perception of academic achievement and analyzing personal drive for success. The hope is that once the influential agents that impact student achievement are identified, educational institutions can better guide Latinos toward graduation. Resultantly, society will be better equipped to encourage Latino achievement and enable this subgroup's success. It is our duty to inform educational leaders so that they may act to ensure the viability of our future generations.

## **CHAPTER 3**

### **RESEARCH AND DESIGN METHODS**

#### **Introduction**

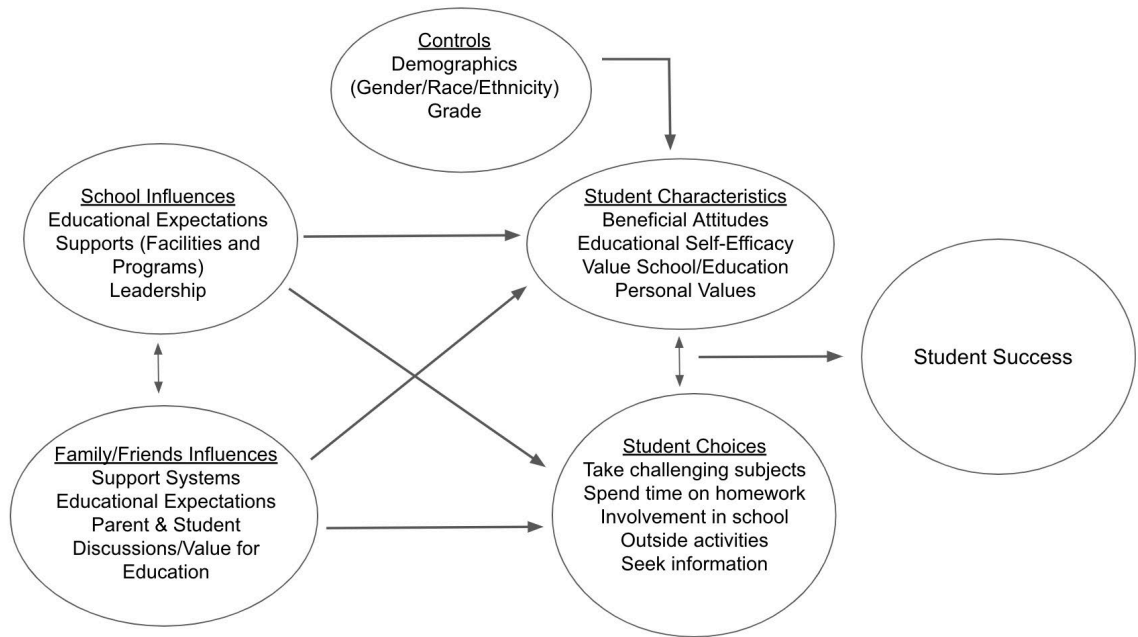
The purpose of this study was to investigate influences that impact student academic success in high school. This study was designed to obtain student input about factors that influence students' scholastic achievement. Its aim was to uncover common factors that contribute to Latina student success. While the study's initial focus was Latina academic achievement, the research focus was broadened to examine factors that influence student success in high school for all genders and all ethnicities. This study employed a mixed-methods design by using quantitative analysis from survey data and qualitative analysis from follow-up interviews. In blending quantitative and qualitative analyses, a greater understanding was uncovered to answer the research questions.

#### **Research Model**

The research model suggests that both school and family influence student characteristics which in turn impact student outcomes. In the model below, school characteristics and student choices are malleable. These can be altered to improve student outcomes. The function of the model is to visually represent the relationships among the variables that drive the analysis. See Figure 3.1 for further details.

**Figure 3.1**

**Research Model:**



**Research Design**

The initial instrument used to collect data incorporated responses from a modified survey from the National Center for Educational Statistics (National Center for Education Statistics, 2002). The data from these surveys were analyzed using SPSS statistical software. This study utilized the survey responses to establish demographic information as well as basic high school experiences. Survey responses were analyzed to uncover factors that influenced academic success in high school. Please see Appendix A for a list of the survey questions.

The second portion of the data collection included follow-up in-depth interviews. The interview questions allowed student respondents to elaborate on responses initiated in the surveys as well as reflect on their own perceptions of academic success. Interviews were conducted using a phenomenological approach to uncover characteristics that

influenced student academic achievement in high school. The focus for this research is guided by the following questions:

1. What factors do students feel support them in attaining academic success?
2. What societal influences (factors external to school environment) do students feel to have impacted their trajectories?
3. What has guided their academic journey that distinguishes students with consistent academic achievement compared to students that are not as academically successful?
4. How has the school's transition to virtual instruction from the Covid-19 pandemic impacted the students' academic trajectories?
5. What school programs or influences have best supported you toward consistent achievement?
6. Are there any aspects of your administration that you feel has contributed directly or indirectly to your success?
7. What does academic success mean to you? What do you perceive to be successful?

Among the open-ended questions included in the interview, examples include:

- What factors have directly influenced your achievement?
- What personal characteristics have guided your success?
- What external influences have driven you to achieve?
- How do you measure your academic achievement?
- Do you consider yourself to be successful?

- What does academic success mean to you?
- How has Covid-19 impacted your ability to achieve in school?

Finally, survey responses and interview questions were analyzed in tandem to reveal aspects of student trajectories that contributed to academic success.

## **Recruitment**

Due to the difficult nature of obtaining information from teenage respondents, there was a complicated process by which to obtain student responses. Prior to collecting data from the first Urban High School, the study was proposed to the school's Vice Principal and needed to be accepted prior to implementation.

Participants were recruited through email by their school's Principal, Vice Principal, or Counselor. These emails described the purpose of the research study and sought participation in the research by asking students to partake in a survey. Students were separated into two groups according to their age and separate emails were sent to these students seeking participation in my study. Participants over the age of 18 were able to take the survey directly. Students who were under the age of 18 were sent a modified request that required parental consent to participate. Emails were translated into Spanish to accommodate Spanish-speaking families, as well. Examples of these emails are included in Appendix B.

The first Urban High School did not yield a large number of respondents. Additionally, diversification of student responses was desired. A second diverse suburban district was sought for participation in this study to enhance student responses and amplify student input.

Before working directly with Suburban School District, it was necessary to obtain permission; this required attendance to a School Board Meeting and for presentation to the board outlining my proposed study. Once the board approved my research, the research was facilitated through the Assistant Superintendent, high school Counselor, and Principal to send out surveys. In order for students to participate, informed consent was secured. For students under the age of 18, parental permission was secured, as well.

Two distinct emails had to be generated for students that were under the age of 18 and for students that were over the age of 18. These recruitment emails were also translated into Spanish to accommodate all recipients. These emails were distributed by the school counselor through the school's parent/teacher communication portal. Examples of these emails are included in Appendix B.

Once these emails were sent, it took some time to get responses. Participants under the age of 18 needed to secure parental permission in writing in order to confirm student participation in the research. Parents emailed the researcher directly providing consent for their child to participate in the research study. Parental contact information was collected and parental consent affirming their child's voluntary participation in the study was confirmed through email signature. Parents also provided the student's email address. Once parent permission was received, an email was sent to the student and parent containing the link to the survey.

Following the first round of recruitment through emails, there were only a few survey respondents. A request was made to two schools to send a second participation recruitment email. While the answer remained yes, there was significant delay. Suburban High School relayed that the second email had to wait until after a wave of the Covid-19

virus in January of 2022. The school stated that there was already a barrage of communication with families regarding new health protocols; as a result, the institution mentioned that they wanted to postpone correspondence with families requesting research participation for another month.

Urban High School returned few student responses. Upon request to gather more participants, the school recommended that the creation of a short recruitment video that could be played during advisory period. Upon the creation of this motivational video to encourage participation in my research, the number of student participants increased only minimally.

Thereafter, a third high school was contacted. This private school, located in an urban center, agreed to allow the research to take place with their student population. Urban High School Two was unwilling, however, to seek participation from students that were under the age of 18. This second urban high school agreed only to send the survey to students over the age of 18. Thankfully, this did yield a few respondents. Lastly, two additional participants were recruited from a suburban high school in the Harrisburg area.

Students were asked within the survey distribution to indicate whether they were interested in being interviewed for the study. More formal emails were sent to each student who volunteered to participate in a follow-up interview. Each of these thirteen students were formally emailed verifying their interest in participating in a follow-up interview. Five students re-confirmed that they would like to offer their time for interviews.

Students who responded “yes,” to being interviewed were invited to set up a Zoom interview. Each individual who agreed to participate in the study was informed in

regard to explanation of the anonymity. The participant's anonymity and privacy were explained and secured prior to recording. Each individual was also asked if they granted permission to be recorded for the purposes of analysis and consented to participate. Lastly, all participants were given pseudonyms to ensure anonymity. All information and obtained sources were kept confidential in a password protected computer.

The timeline for this research was initially proposed for completion in one year's time. Due to the difficulty in obtaining student responses, the data collection time frame was lengthened. Please see Appendix C for further information.

### **Procedures for Data Collection**

A mixed-methods approach was employed through quantitative analysis from survey data and qualitative analysis from follow-up interviews. The initial data collection instrument was a modified survey based on the Education Longitudinal Study of 2002 (ELS:2002) for the U.S. Department of Education. The ELS:2002 study investigates student progress throughout high school and beyond.

The modified survey was designed to collect data on the students' demographics and educational backgrounds. It was sent via email to high school students who met the criteria. The data from these surveys were analyzed using SPSS statistical software. Survey responses provided context and background for the subsequent in-depth interviews. Survey questions used nominal, ordinal, and interval variables to glean information from students about their high school experiences.

The secondary method of data collection was semi-structured interviews of survey participants. The interviews were held through Zoom online video sessions. In addition to

interviews, data were collected from other sources such as field notes taken during the interviews, or materials brought by the participants. These interviews were recorded with the participants' formal consent. A comprehensive transcript was completed for each interview using Otter Ai software. The interviews were initiated by using open-ended questions in order to let participants reference the subject matter they viewed as relevant. The participants were then asked to reflect on their experiences on academic achievement in high school. All of the interviews were held in a conversational style with the participants.

The length of the interviews varied from 30 minutes to 60 minutes. The questions primarily focused on factors that influence student success with the intent to learn more about the components that the participants themselves deem as integral to their success. The interviews aimed to identify students' own definitions and perceptions of success. The process for interviews is detailed in the interview protocol.

Time and date of the interview and, if the interviewee consented, were formally recorded. Participants were assured that the information from the interview was confidential and anonymous. Following the explanation of confidentiality, the interviewee was asked if they had any questions. Thereafter, the interviews were recorded and initiated with the question: "What factors have influenced your academic achievement in high school?" The goal of the first question was to open the conversation informally and prompt the participant to begin thinking about their experiences.

The subsequent questions drew out student perceptions of success and encouraged them to define and establish their own definitions of what academic achievement means to them. The order of the proposed questions remained the same; however, the option to

prompt students to elaborate on their responses if more valuable information could be gleaned from the verbal response was maintained. If necessary, clarification or elaboration was requested about details, explanations, and information mentioned. For instance, the participants were asked questions such as: could you tell me more, what happened next, could you give an example, could you tell me a story about this, or can you explain that? The conclusion of the interview involved thanking the interviewee for their time and information.

### **Data Analysis**

The primary analysis was conducted from student surveys. SPSS was used for the descriptive (univariate and bivariate measures of central tendency and variability) and inferential statistics (bivariate and multivariate). A research log was maintained detailing various cross-tabulations, ANOVA tests, and comparisons of means.

A phenomenological approach drove the analysis of the interviews. Phenomenological research “seeks the individual’s perceptions and meaning of a phenomenon or experience and calls upon the researcher to suspend theories, explanations, hypotheses, and conceptualizations to be able to understand the phenomenon” (Mertens, 2020, p. 255). Preconceived notions of what constitutes academic success did not bear influence; concurrently, all interview questions remained unbiased.

The interviews shed light on the student’s perception of academic success. Through open-ended questions, the student also outlined the factors that most positively impacted their journey. “The key characteristic of phenomenology is the study of the way

in which members of a group or community themselves interpret the world and life around them” (Mertens, 2020, p. 255). From the lens of their own experiences, student respondents reflected upon what academic success means to them. This provided an authentic understanding of the meaning of academic success from the eyes of the student.

Following the interviews, the transcriptions were analyzed to uncover common themes. Repeated overarching concepts that existed among different participants’ responses were highlighted and triangulated.

The final report of this research outlined common themes that guide student academic success in high school. A mixed-methods approach was used to interpret students’ rationale for these themes. The compilation of these factors in a detailed report were made available for educators hoping to promote student academic excellence. The report made conclusions based on quantitative and qualitative analysis of the data. It included student perceptions of success as well as the participants’ observations about factors that have positively or negatively impacted their journeys. The research report concluded with limitations of the study, the findings, and recommendations for future research.

## **Sample**

The sample for this research study drew from high school students from four different high schools. Two high schools were urban high schools located in Philadelphia. Another high school that accepted the offer to participate in this research study is located about an hour south of Philadelphia in a suburban district. Finally, the fourth high school that participated in this research study is located in the city of Harrisburg, Pennsylvania

and is considered suburban. At its conclusion, the ultimate goal was to have 75-100 survey respondents along with 10-15 completed interviews. 47 student responses to the survey were attained in total. A total of five respondents agreed to participate in the follow-up interviews.

Participants in this study are enrolled in Northeast Charter School (pseudonym) in Philadelphia which consists of 60.2% Hispanic students, 34.4% African American students, and 3.2% Asian students (Pennsylvania Department of Education, 2018). Data were collected from students that are prepared to graduate in 2022, 2023, and 2024. All students were invited to volunteer to participate in a follow-up interview. While female Latina students were the initial focus for this study, data were collected from all volunteer students regardless of gender or ethnicity. These data were utilized for the purposes of comparison.

The second urban high school that participated in this study is private. Urban High School Two is located in Philadelphia is comprised of 86% African-American students, 7% multi-racial students, 4% Asian, 2% Hispanic, and 1% White students (Niche.com, 2022). Data were collected from students that were over the age of 18 that graduated from high school in 2022.

An additional set of data was collected from students that are enrolled in Suburban High School (pseudonym) located about one hour south of Philadelphia. Based on percentage, this high school offered the largest number of student respondents. Suburban High School consists of 51.8% White students, 40.7% Hispanic students, 2.5% Asian students, and 2.1% Black students (Pennsylvania Department of Education, 2018).

Lastly, data was collected from a fourth high school located near Harrisburg, PA. Suburban High School #2 (pseudonym) is comprised of 67.7% White students, 11.6% Black students, 7.3% Asian students, 7% Hispanic students, and 6.1% Multi-racial students. Each of the datasets provided by the four high schools, as well as the in-depth interviews, enabled the examination of factors that influenced academic success among high school students.

Students in all participating high schools were impacted by physical school closures due to the Covid-19 pandemic in 2020 and 2021. Northeast Charter School transitioned from in-person instruction to virtual classes in the Spring of 2020; they returned to school for full-time in-person learning in the fall of 2021. Suburban High also transitioned from in-person instruction to virtual classes in the Spring of 2020 and returned to school in the spring of 2021 using a hybrid model for instruction, with students attending school in-person and virtually. The Covid-19 pandemic marked a drastic shift in instructional delivery, and this may also affect student success in the classroom. Unanticipated impacts from this transition during Covid-19 were documented and studied as well.

### **Profile of Respondents**

The data were collected from four high schools: three different high schools in and around the Philadelphia region, and one high school in the Harrisburg area. Two schools in the study are considered diverse suburban districts (National Center for Education Statistics, 2022), whereas the other two schools are located in the urban center of Philadelphia (National Center for Education Statistics, 2022).

The Suburban School District #1 yielded a total of 37 survey responses. The first Urban School yielded a total of two responses. Urban School Two yielded a total of three responses. Suburban School #2 yielded two responses. See Table 3.1 for further details.

**Table 3.1**

**Numerical Distribution of Respondents**

Name of High School (Pseudonym)	Total Number of Responses
Urban High School #1 (Northeast Charter)	2
Urban High School #2 (Private)	3
Suburban High School #1	37
Suburban High School #2	2
Total	44

The survey yielded a total of 44 responses. By percentage, there were more female respondents than male. See Table 3.2 for further details.

**Table 3.2**

**Distribution of Gender of Respondents**

Gender	Number of Respondents (Percent)
Male	20 (45.5%)
Female	24 (54.5%)
Total	44 (100%)

The ethnicities of the respondents varied. Table 3.3 provides the distribution of ethnicity by gender. The chi-square statistic ( $\chi^2 = 3.533$ , ns) allows for failing to reject the null hypothesis of no relationship between gender and race/ethnicity. On a percentage

basis, white male respondents (13, 76.5%) were more heavily represented than white female respondents (11, 57.9%). Although the numbers are very low, there was a higher percentage of African American female respondents (4, 66.6%) than African American male respondents (2, 33.3%). While the total number of Hispanic respondents was low (5, 13.9%), females were overrepresented on a percentage basis (4, 80.0%) as compared to male respondents (1, 20.0%). See Table 3.3 for further details.

**Table 3.3**

**Crosstabulation of Respondent Gender by Ethnicity**

	African American or Black	Hispanic	White	Other (Please specify)	Total
Male	2 (11.8%)	1 (5.9%)	13 (76.5%)	1 (5.9%)	17 (100%)
Female	4 (21.1%)	4 (21.1%)	11 (57.9%)	0	19 (100%)
Total	6 (16.7%)	5 (13.9%)	24 (66.7%)	1 (2.8%)	36 (100%)

$\chi^2 = 3.533, ns$

On a percentage basis, males were overrepresented (18, 90%) in Suburban High School #1 as compared to females (19, 79.2%). The chi-square values indicate that the relationship between gender and school was not significant and that there was no direct correlation between gender and school. See Table 3.4 for further details.

**Table 3.4**

**Crosstabulation of Respondent Gender by School**

	Urban High School #1	Urban High School #2	Suburban High School #1	Suburban High School #2	Total
Male	0 (0%)	2 (10%)	18 (90%)	0 (0%)	20 (100%)
Female	2 (8.3%)	1 (4.2%)	19 (79.2%)	2 (8.3%)	24 (45.5%)
Total	2 (4.5%)	3 (6.8%)	37 (84.1%)	2 (4.5%)	44 (100%)

$\chi^2 = 4.030$ , ns

The race of the respondents by school was varied. On a percentage basis, white respondents (29, 80.6%) were more heavily represented than minority respondents (5, 17.2%) at Suburban High School #1. The majority of the Hispanic respondents drew from Suburban High School #1. On a percentage basis, Hispanic respondents from Suburban High School One were overrepresented compared to other schools (4, 80%). On a percentage basis, respondents from Urban High School #2 represented half of the total African-American respondents (3, 50%) while respondents from Suburban High School #2 constituted one third of the total African-American respondents (2, 33%). The chi-square value for respondent race as represented by school was found to be significant. See Table 3.5 for further information.

**Table 3.5****Crosstabulation of Respondent Race by School**

	Urban High School #1	Urban High School #2	Suburban High School #2	Suburban High School #2	Total
African-American	1 (16.7%)	3 (50%)	0 (0%)	2 (33.3%)	6 (100%)
Hispanic	1 (20.0%)	0 (0%)	4 (80%)	0 (0%)	5 (100%)
White	0 (0%)	0 (0%)	24 (100%)	0 (0%)	24 (100%)
Other	0 (0%)	0 (0%)	1 (100%)	0 (0%)	1 (100%)
Total	2 (5.6%)	3 (8.3%)	29 (80.6%)	2 (5.6%)	36 (100%)

$\chi^2 = 35.607, p = .001, s$

The gender of the respondents was varied by grade. Student respondents that were in the eighth grade in the spring of 2021 were all male (3, 15%). On a percentage basis, the largest number of student respondents were in eleventh grade in the spring of 2021 (17, 38.6%). On a percentage basis, students who were in the tenth grade in the spring of 2021 represented the second largest groups of respondents (14, 31.8%). The chi-square values indicate that the relationship between gender and grade was not significant. See Table 3.6 for further clarification.

**Table 3.6****Crosstabulation of Respondent Gender by Grade**

	Eighth	Ninth	Tenth	Eleventh	Twelfth	Total
Male	3 (15%)	2 (10%)	6 (30%)	8 (40%)	1 (5%)	20 (100%)
Female	0 (0%)	3 (12.5%)	8 (33.3%)	9 (37.5%)	4 (16.7%)	24 (100%)
Total	3 (6.8%)	5 (11.4%)	14 (31.8%)	17 (38.6%)	5 (11.4%)	44 (100%)

$\chi^2 = 5.022, ns$

On a percentage basis, students in tenth grade in the spring of 2021 were more heavily represented than any other grade level (13, 36.1%). Student respondents in the eleventh grade in the spring of 2021 were the second largest grade level to be represented (10, 27.8%). The chi-square value demonstrates that the relationship between grade level and ethnicity was not significant. See Table 3.7 for further details.

**Table 3.7**

**Crosstabulation of Respondent Ethnicity by Grade**

	Eighth	Ninth	Tenth	Eleventh	Twelfth	Total
African American	0 (0%)	0 (0%)	1 (16.7%)	8 (40%)	1 (16.7%)	6 (100%)
Hispanic	0 (0%)	0 (0%)	1 (20%)	1 (20%)	3 (60%)	5 (100%)
White	3 (12.5%)	5 (20.8%)	10 (41.7%)	5 (20.8%)	1 (4.2%)	24 (100%)
Other	0 (0%)	0 (0%)	1 (100%)	0 (0%)	0 (0%)	1 (100%)
Total	3 (8.3%)	5 (13.9%)	13 (36.1%)	10 (27.8%)	5 (13.9%)	36 (100%)

$\chi^2 = 19.853$ , ns

**Conclusion**

This study was designed using a mixed-methods approach to investigate factors that positively influence academic success in high school. In blending quantitative and qualitative analyses, a deeper understanding was uncovered to answer the proposed research questions. This research study is also important with respect to revealing student perspectives on academic achievement.

By understanding the aspects that positively impact student achievement in high school, this research study can subsequently inform policy makers and educational leaders about avenues that can direct achievement. Insight into students' own perceptions

of success can provide valuable information for educational institutions. Schools can harness this newfound knowledge to exploit educational resources in order better serve its students.

This study will not only benefit policy makers, schools, and students, but the research community will also learn from the unveiled trends in achievement. Lastly, this study may be most useful for administrators; the pertinent findings can inform decision-making and thus directly impact student academic success. The results from this study can hopefully open new paths to conduct research to improve K-12 education in the United States.

## CHAPTER 4

### DATA ANALYSIS AND FINDINGS

#### Introduction

The purpose of this study was to investigate factors that influence student academic achievement in high school. Using a mixed methods design, seven research questions were addressed, one of which included students' personal interpretation of success. Participants were drawn from four different high schools in Pennsylvania. Students in grades 9-12 were administered a survey about their experiences in high school. This study employed a survey to provide a framework and background for analysis. The dataset was complemented with information collected from students via in-depth student interviews. Students were asked to identify factors that they believed guided their academic success. Student responses from the survey were examined in parallel with some student reflections from the interviews to illustrate factors that influence student success.

Among the independent variables for this research study were the students' gender, race/ethnicity, grade level, familial influence, support systems, value for education, and personal choices made. The dependent variable for this study was each student's personal educational expectations. The student's statement about personal expectations is reflective of the student's self-efficacy and drive for educational success. Taking this self-determination as a barometer for the student's strive for success, this response is used as the dependent variable that other independent variables influence and shape.

Table 4.27 (Appendix C) outlines the research questions, the data sources, as well as the analyses of the quantitative and qualitative data for this mixed-methods study.

Please see Appendix C, for further details.

### **Data Analysis**

Student respondents were asked about their own educational expectations to determine their personal goals and academic aspirations. Further, respondents were asked to reflect on others' educational expectations for the student, specifically parents, teachers, guidance counselors, and friends. Statistical analyses about differences among the students were conducted resulting in noteworthy findings.

This research was driven by seven distinct questions. These research questions guide the analysis as outlined below. They were also posed directly to student interview respondents. Of the seven research questions, two (#4 and #7) have been moved to the end of this chapter as the discussion in each are based on samples too small to provide anything more than thought-provoking results that need further investigation.

**Research Question 1:** What factors do students feel support them in attaining academic success?

In this section, students were asked to reflect directly about the influences on their success. Students were asked about in-school influences such as teachers and class rigor. In addition to school activities, they were also asked about the influence of their after school activities such as sports, after-school tutoring, and club participation as they

positively impacted respondents' time management skills and motivation to do well in school.

The data uncovered a statistical significance between genders and individual aspirations for higher education degree attainment. The  $\chi^2$  statistic of 14.364 ( $p=0.006$ ) allows the rejection of a null hypothesis of no relationship between gender and personal expectations for educational attainment. More specifically, on a percentage basis, males were (16, 80.0%) more apt to expect to graduate from college than were females (6, 25.0%). On a percentage basis, females were more apt to expect to earn a master's degree or a doctoral degree (13, 54.0%) than males (3, 15.0%). The effect size ( $V = 0.571$ ) between gender and educational attainment yielded a large relationship between the two variables (Cohen, 1988). See Table 4.1 for further details.

**Table 4.1**

**Crosstabulation of Respondent Gender by Personal Expectations about Educational Attainment**

	High School Diploma	Attend Community College or Vocational School	Graduate from College	Earn a Master's Degree	Earn a Ph.D., M.D., or J.D.	Total
Male	1 (5.0%)	0 (0%)	16 (80.0%)	2 (10.0%)	1 (5.0%)	20 (100%)
Female	2 (8.3%)	3 (12.5%)	6 (25.0%)	5 (20.8%)	8 (33.3%)	24 (100%)
Total	3 (6.8%)	3 (6.8%)	22 (50%)	7 (15.9%)	9 (20.5%)	44 (100%)

$\chi^2 = 14.364, p = 0.006, V = 0.571$

A mother's expectations for student success can directly affect students' expectations for themselves. These expectations may also reflect the relative emphasis on education within the family. Interestingly, respondents report that a greater percentage of

mothers expect their sons to graduate from college (15, 78.9%) than mothers of daughters (8, 36.4%). However, respondents report a greater percentage of mothers expect their daughters to earn a higher education degree (8, 36.4%) than mothers of sons (3, 15.8%). Interestingly, four female respondents reported that their mothers only expected that they would attend a community college (4, 18.2%). See Table 4.2 for further details.

**Table 4.2**

**Crosstabulation of Respondent Gender by Mother’s Expectations for Educational Attainment**

	Earn high school diploma	Attend community college or vocational school	Take some college classes	Graduate from college	Earn a Master’s Degree	Earn a Ph.D., M.D., or J.D.	Total
Male	1 (5.3%)	0 (0%)	0 (0%)	15 (78.9%)	2 (10.5%)	1 (5.3%)	19 (100%)
Female	1 (4.5%)	4 (18.2%)	1 (4.5%)	8 (36.4%)	4 (18.2%)	4 (18.2%)	22 (100%)
Non-binary	1 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)
Prefer not to say	0 (0%)	0 (0%)	0 (0%)	1 (50%)	1 (50%)	0 (0%)	2 (100%)
Total	3 (6.8%)	4 (9.1%)	1 (2.3%)	24 (54.5%)	7 (15.9%)	5 (11.4%)	44 (100%)

$\chi^2 = 25.967, p = 0.038, V = 0.444$

While none of the other potential influential figures such as father, friends, guidance counselor, and teachers’ educational expectations related to gender proved to be significant, there were various interesting relationships that emerged (Please see Appendix Tables 4.33, 4.34, and 4.35). On a percentage basis, more friends of female respondents (8, 36.1%) expect their friends to earn a graduate degree than do male respondents’ friends (2, 10.6%). See Table 4.3 below for further details.

**Table 4.3****Crosstabulation of Respondent Gender by Friends' Expectations for Educational Attainment**

	Earn a high school diploma	Take some college classes	Graduate from college	Earn a Master's Degree	Earn a Ph.D., M.D., or J.D.	Other	Total
Male	1 (5.3%)	1 (5.3%)	14 (73.7%)	1 (5.3%)	1 (5.3%)	1 (5.3%)	19 (100%)
Female	3 (13.6%)	13(13.6%)	8 (36.4%)	2 (9.1%)	6 (27.3%)	0 (0%)	22 (100%)
Non-binary	1 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)
Prefer not to say	1 (100%)	1 (50%)	1 (50%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)
Total	5 (11.4%)	5 (11.4%)	23 (52.3%)	3 (6.8%)	7 (15.9%)	1 (2.3%)	44 (100%)

$\chi^2 = 19.954, p = ns, V = 0.389$

Again, although not statistically significant, female respondents report that their guidance counselors have lower educational expectations for them than they do for male respondents. On a percentage basis, females (6, 27.3%) felt that their guidance counselors expected them to attain no higher than a high school diploma whereas no males (0, 0.0%) reported expectations for minimal attainment of a high school diploma. Please see Table 4.4 below.

**Table 4.4**

**Crosstabulation of Respondent Gender by Guidance Counselor’s Expectations for**

**Educational Attainment**

	High School Diploma	Attend Community College or Vocational School	Take some College Classes	Graduate from College	Earn a Master’s Degree	Earn a Ph.D., M.D., or J.D.	Other	Total
Male	0 (0.0%)	0 (0.0%)	1 (5.3%)	16 (84.2%)	1 (5.3%)	0 (0.0%)	1 (5.3%)	19 (100%)
Female	6 (27.3%)	1 (4.5)	0 (0.0%)	9 (40.9%)	3 (13.6%)	1 (4.5%)	2 (9.1%)	22 (100%)
Non-binary	1 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)
Prefer not to say	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)
Total	7 (15.9%)	1 (2.3%)	1 (2.3%)	27 (61.4%)	4 (9.1%)	1 (2.3%)	3 (6.8%)	44 (100%)

$\chi^2 = 18.621, p = ns, V = 0.376$

Students were also asked about whether they conversed their parents regarding different scholastic activities. The  $\chi^2$  statistic of 10.986 ( $p=0.012$ ) allows the rejection of a null hypothesis of no relationship between race/ethnicity and whether students talk to their parents about course selection. Among the white students who responded to the survey, virtually all of the students speak to their parents about course selection (23, 95.8%) followed distantly by African-American students (5, 83.3%). See Table 4.5 for further details.

**Table 4.5**

**Crosstabulation of Respondent Race/Ethnicity by Whether or Not Respondents**

**Talks to Parents about Course Selection**

	Yes	No	Total
African-American	5 (83.3%)	1 (16.70%)	6 (100%)
Hispanic	2 (40.0%)	3 (60.0%)	5 (100%)
White	23 (95.8%)	1 (4.2%)	24 (100%)
Other	1 (100%)	0 (%)	1 (100%)
Total	31 (86.1%)	5 (13.9%)	36 (100%)

$\chi^2 = 10.986, p = 0.012, V = 0.552, s$

The  $\chi^2$  statistic of 2.460 ( $p = 0.483$ ) does not allow the rejection of the null hypothesis of no relationship between race/ethnicity and whether a student discussed school activities with their parents. Among the white students who responded to the survey, the majority speak to their parents about school activities (21, 87.5%) followed by African-American students (5, 83.3%) and Hispanic students (3, 60%). See Table 4.6 for further details.

**Table 4.6**

**Crosstabulation of Respondent Race/Ethnicity by Whether or Not Respondents**

**Talks to Parents about School Activities**

	Yes	No	Total
African-American	5 (83.3%)	1 (16.70%)	6 (100%)
Hispanic	3 (60%)	2 (40%)	5 (100%)
White	21 (87.5%)	3 (12.5%)	24 (100%)
Other	1 (100%)	0 (0%)	1 (100%)
Total	30 (83.3%)	6 (16.7%)	36 (100%)

$\chi^2 = 2.460, p = ns$

The  $\chi^2$  statistic of 4.697 ( $p = 0.195$ ) does not allow the rejection of the null hypothesis that there is no relationship between race/ethnicity and whether students talk to their parents about what they study in class. Among the white students who responded to the survey, virtually all of students speak to their parents about classes (23, 95.8%) followed by Hispanic students (4, 80%) and African-American students (4, 66.7%). See Table 4.7 for further details.

**Table 4.7****Crosstabulation of Respondent Race/Ethnicity by Whether or Not Respondents****Talks to Parents about What They Studied in Class**

	Yes	No	Total
African-American	4 (66.7%)	2 (33.3%)	6 (100%)
Hispanic	4 (80%)	1 (20.0%)	5 (100%)
White	23 (95.8%)	1 (4.2%)	24 (100%)
Other	1 (100%)	0 (0%)	1 (100%)
Total	32 (83.3%)	4 (11.1%)	36 (100%)

$\chi^2 = 4.697, p = ns$

The  $\chi^2$  statistic of 15.413 ( $p=0.001$ ) allows the rejection of a null hypothesis of no relationship between race/ethnicity and whether students talk to their parents about their grades. Among the white students who responded to the survey, all of the students speak to their parents about their grades (24, 100%) followed distantly by African-American students (5, 83.3%). See Table 4.8 for further details.

**Table 4.8****Crosstabulation of Respondent Race/Ethnicity by Whether or Not Respondents****Talk to Parents about Grades**

	Yes	No	Total
African-American	5 (83.3%)	1 (16.7%)	6 (100%)
Hispanic	2 (40%)	3 (60%)	5 (100%)
White	24 (100%)	0 (0%)	24 (100%)
Other	1 (100%)	0 (0%)	1 (100%)
Total	32 (83.3%)	4 (11.10%)	36 (100%)

$\chi^2 = 15.413, p = 0.001, V = 0.654, s$

Students that enlist guidance from their parents in taking college entrance exams are more inclined to have the support that they need to succeed. If they converse with their parents about preparation for the SAT, it also demonstrates the parents' investment in the child's future. The data uncovered no significance between genders in speaking to parents about preparation for the SATs. Among the different races that were surveyed, the results were significant.

The  $\chi^2$  statistic of 9.429 ( $p = 0.024$ ) allows the rejection of a null hypothesis of no relationship between race/ethnicity and whether students talk to their parents about preparation for the SATs. Among the white students who responded to the survey, the modal category of the white students speaks to their parents about preparation for the SATs (17, 70.8%) followed distantly by African-American students (3, 50.0%). Among the Latinx students surveyed, none spoke with their parents regarding their preparation for the SATs (0, 0%). See Table 4.9 for further details.

**Table 4.9**

**Crosstabulation of Respondent Race/Ethnicity by Whether or Not Respondents Talks to Parents about Preparation for the SATs**

	Yes	No	Total
African-American	3 (50.0%)	3 (50.0%)	6 (100%)
Hispanic	0 (0%)	5 (100%)	5 (100%)
White	17 (70.8%)	7 (29.2%)	24 (100%)
Other	1 (100%)	0 (0%)	1 (100%)
Total	21 (58.3%)	15 (41.7%)	36 (100%)

$\chi^2 = 9.429, p = 0.024, V = 0.512, s$

All students surveyed responded that they did speak to their parents about attending college. Despite any differences in discussion of grades or preparation for the SATs among families, the findings from this survey question demonstrate familial importance for attending college. Each of the survey respondents reported discussing attending college with their parents. It is understood that the families of the respondents are invested, at least to some degree, in their child's educational futures. See table 4.10 for further details.

**Table 4.10**

**Frequency of Respondent Race/Ethnicity by Whether or Not Respondents Talks to Parents about Attending College**

	Yes
African-American	6 (100%)
Hispanic	5 (100%)
White	24 (100%)
Other	1 (100%)
Total	36 (100%)

It is assumed that students who spend more time on homework are more serious about academics and are more likely to succeed. On average, male students reported spending 9.79 hours per week on school activities and female students reported spending an average of 9.41 hours per week on school activities. While males and females reported spending nearly equal time on school activities, there was more variability among the female respondents. While the difference was not statistically significant, the standard deviation differed with more variability among the females. There was greater variability

in the amount of time that females spent on homework than males. See Table 4.11 for further details.

**Table 4.11**

**Comparison of Means of Gender by How Much Time Students Spent on Homework During the Week**

		Mean Hours Spent on School Activities	Standard Deviation	Minimum	Maximum		
Time Spent on School Activities	Male	9.79	4.80	3	16	F= 0.84	<i>p</i> = ns
	Female	9.41	5.65	3	24		
	Non-binary	3.5	0.01	3.5	3.5		
	Prefer Not to Say	13.5	5.21	3	24		
	Total	8.55	4.55	3	16		

Eta = 0.020

Interestingly, on average male students spent more time, 23.53 hours per week, focused in out-of-school activities than did female students, who spent 16.95 hours per week. However, there was more variability among the male students than was the case with the female students. While the results proved to be statistically significant, the effect size was small. See Table 4.12 for further details.

**Table 4.12**

**Comparison of Means of Gender by How Much Time Students Spend on Non-School Activities During the Week**

		Number of Respondents	Mean Hours Spent on Non-School Activities	Standard Deviation	Minimum	Maximum		
Time Spent on Non-School Activities	Male	19	23.53	8.34	10	42	F= 2.932	p = 0.045, s
	Female	22	16.95	6.73	7	38		
	Non-binary	1	17.5	0.01	17.5	17.5		
	Prefer Not to Say	2	25	7.07	20	30		
	Total	37	18.73	6.93	7	38		

Eta = 0.026

While the data revealed significant and interesting relationships between gender and time allocated for school activities, the relationships between race and time spent on school activities was found to be non-significant. Additionally, the relationship between race and time spent on non-school activities was also found to be non-significant.

Students who are confident in their math abilities are strong students. Confidence of mastery in mathematics is being used as a proxy for general academic self-efficacy with the variables being positively related. The hypothesis being tested is whether gender is related to a student's self-confidence in mathematics. Given the prevailing view, it was expected that gender does relate to confidence in math and that males will have more confidence than females. This did not prove to be true in a test of difference of means on the mathematics self-efficacy scale. There was no statistically significant difference between male and females on the depth of mathematics self-efficacy (F=0.967, ns).

Similarly, there was no statistically significant difference between male and females on the breadth of mathematics self-efficacy ( $F=2.105$ , ns).

In tandem with the survey data, among the many factors that students determined guided their success, the influence of family remained paramount. One white male student responded that:

I think a huge factor in that is that I live in a household with two successful parents. Well, four in total. I constantly have involvement from all of my parents basically. They would always be at work they would always be successful. I guess that's the best way to say it. And also, the fact that they both are educated. They both speak English as a first language and that's definitely helped a lot. And that I grew up in a nice, to be fair, a nice school system. It's a nice community to grow up in without being negatively influenced by outside stuff.

This interviewee iterates that having successful parents as role models who maintain constant involvement in his life has encouraged his own successful trajectory. He also stated that attending a good school has positively impacted his work such that he was not influenced by negative life stressors.

One white female student who was interviewed stated that she felt that her parents directly impacted her academic success.

Yeah, I think, I definitely say my parents. Like, when I was very little, I did math books a year ahead of what I was supposed to be doing because of that drive that they put in [me]. I think that's where I got it from, like something I grew up with. So I think that's a big thing that influenced my academic trajectory.

This interviewee confirms that parental guidelines for student achievement do impact student aspiration.

In addition to parental influence, one minority female reflected that caring teachers also positively impact student success. She suggested that building a strong relationship with her teacher through communication improved her achievement in the class.

I feel like having, an understanding teacher is a big part of it. Like, if you're able to talk to your teacher. For example, 'I have a lot of work for another class, maybe can you move this test?' I feel like not only am I able to do it all in that class, because I'm able to study more for a test or for the assignment... but also, you kind of build a better relationship with your teacher. So like, I can go to them for help.

In this way, a teacher who is able to work with the students and accommodate their needs can help to improve the students' performance on formal assessments.

Another white female interviewee also confirmed that a strong connection with her teacher improved her desire to work harder in that class. Lastly, she pointed out that when teachers establish high expectations for their classes, the rigor of the course motivates her to attain a higher grade.

I think when it comes to teachers, teachers that have more of like, a friend type of personality, someone that you can feel like, you feel like you can go to even if it's not a school question. I feel like I, I have more of a drive in those kinds of environments, just because I know the teacher more personally, and that gives me more of like a connection. And then with course, rigor. Definitely, I feel like it also depends on the person, but the harder the class I'm taking, the more effort I want to put into it, and especially because I want to get that higher grade.

Time-management skills can help teens to perform better on their academic tasks. By properly organizing their time, students are able allocate adequate hours to study and succeed in school. One minority female student interviewee stated that her time management skills helped her to balance her in-school and out-of-school activities. One minority female interviewee stated that:

I feel like time management is just super important and just, like, being able to study for tests, but also, like, truly understand what I'm learning. Like splitting up stuff, or splitting stuff up over days is more beneficial than doing it on all night.

Students that learn the benefits of time-management early in their academic careers are thereafter better equipped to succeed in school.

The data highlighted many factors as bearing a positive influence on students' scholastic achievement. Although there was more variability among the female respondents, the data did not uncover a statistical difference between males and females for time invested in school activities. On average, male (9.79 hours) and female (9.41 hours) respondents spent nearly equal time on school activities such as homework. The data did uncover a statistically significant relationship between males and females and time allocated to out-of-school pursuits ( $p = 0.045$ ). The male respondents spent more time on out-of-school activities than did the female respondents. On average, male students spent more time (23.53 hours) in out-of-school activities per week than did female students (16.95 hours). Students that allocate more time on out-of-school pursuits are also likely to spend less time on scholastic activities. A student's personal prerogative to effectively manage their free time is an important indicator for success. The ability to properly manage time was reflected in the interview responses as a positive influence that guided their scholastic success.

Students who were interviewed also indicated that having parents as strong role models helped motivate them to do well in school. What students talk to their parents about relays important information about familial values and expectations. The data demonstrate that the majority of students speak to their parents about what they study in class as well as attending college. This illustrates that most families value education and encourage their children to attend college. The majority of white participants relayed that they do speak with their parents about preparation for the SATs (17, 70.8%) and all of white respondents reported speak with their parents about grades in school (24, 100%).

**Research Question 2:** What societal influences (factors external to school environment) do students feel to have impacted their trajectories?

Students who seek information about college entrance requirements and possible financial aid from multiple sources rather than just one indicate a greater self-determination to attend college. If a student seeks information from multiple sources rather than just one, it can be concluded that the student is determined to educate themselves about different avenues toward college entry. Further, it is likely that this proactive student is more likely to succeed in school. The difference between males and females with respect to the number of college information sources sought was found to be non-significant. See Table 4.13 for further details.

**Table 4.13**  
**Comparison of Means of Gender by the Number of Sources Sought for Information about College Entrance Requirements and Possible Financial Aid**

	Mean Number of Sources for College Entry	Standard Deviation	Maximum	Minimum	F Statistic	P value
Male	16.26	2.10	20	13	F= 0.769	<i>p</i> = ns
Female	15.41	2.74	20	10		
Non-binary	18	0.01	18	18		
Prefer Not to Say	17	0.01	17	17		
Total	15.94	2.37	4.43	0		

eta = 0.062

The difference between respondent racial subgroups with respect to the number of college information sources sought was also found to be non-significant. Please see Appendix C for further details.

While self-driven determination to attend college is a strong indicator for student success, the number of people that maintain high expectations for the student's educational attainment also confers information about likelihood to achieve. Students who report more people that relay high educational expectation for their success confers a greater pressure to attend college and succeed in higher education. The survey question includes mother, father, friends, guidance counselor, and favorite teacher as those that have educational expectations for respondents. The p-value (0.020) and the F statistic (3.662) confirm that the null hypothesis of no relationship between gender and number of support personnel that expect the student to graduate from college must be rejected. On average, males reported more proximal people (4.58) that expect the respondent to attain at least a college degree. On average, female respondents reported fewer people (3.50) who expect college degree attainment. See Table 4.14 for further details.

**Table 4.14**

**Comparison of Means of Gender by the Number of People that Expect Student to Attain at Least a College Degree**

	Mean Number of People who Expect Minimum of College Degree	Standard Deviation	Maximum	Minimum	F Statistic	P value
Male	4.58	1.12	5.12	1	F= 3.662, s	<i>p</i> = 0.020
Female	3.50	1.90	4.34	0		
Non-binary	0	0.01	0.01	0		
Prefer Not to Say	4	1.41	16.71	3		
Total	3.91	1.72	4.43	0		

eta = 0.215

On average, white respondents reported a greater number of people (4.32) that expect respondent to attain at least a college degree than other racial subgroup respondents. See Table 4.15 for further details.

**Table 4.15**

**Comparison of Means of Race/Ethnicity by the Number of People that Expect Student to Attain at Least a College Degree**

	Mean Number of People that Expect Minimum of College Degree	Standard Deviation	Maximum	Minimum	F Statistic	P value
African-American	2.17	1.94	4.20	0	F= 3.339, s	<i>p</i> = 0.031
Hispanic	3.00	2.35	5.91	0		
White	4.32	1.43	4.91	0		
Other	5	0.01	5	0		
Total	3.81	1.81	4.42	0		

eta = 0.233

Students who have familial support are more likely to achieve academically. One female participant who was interviewed suggested that her parents allowed her to take additional math courses, external to the school’s traditional curriculum. She stated that she felt that this gave her an advantage over students whose families were unable to provide the same resources.

Yeah, I think they gave me more opportunities to do like outside of school. So I had the ability to, I don't know, take extra math classes or take extra whatever I needed to enhance my learning. So that I felt more comfortable in the material that I was learning in school. And also, I had kind of like a leg up in comparison to the people I was in classes with.

This student reflection supports the understanding that students who have multiple access points to resources are more likely to succeed.

Students who demonstrate a desire to prepare for college entrance exams such as the SATs or the ACTs and students that actively seek multiple sources for information regarding college entrance requirements and financial aid demonstrate proactive personal skills. These personal skills confer a greater likelihood for self-efficacy, confidence, and therefore, academic success. The data revealed no statistically significant difference between males and females and the number of preparation avenues sought for college entrance exams ( $F = 0.293$ , ns). Nor did the data reveal a statistically significant difference among different ethnicities and the number of preparation avenues sought for college entrance exams ( $F = 0.661$ , ns).

Finally, the number of people who maintain high expectations for the student's educational attainment also confers information about likelihood to achieve. The data revealed statistical significance among different genders with respect to number of people that expect at least a college degree. On average, male respondents reported a greater number of influential people that had high educational expectations (4.58) with respect to females who reported a lesser number of influential people (3.50) that expected a minimum attainment of a college degree.

On average, white respondents reported a greater number of people (4.32) who expect the respondent to attain at least a college degree in comparison with Latinx respondents who reported a fewer number of people (3.00) who expect college degree attainment, followed by African-American respondents who reported an even lesser number of people (2.17) that expect the respondent to attain a college degree or higher. Students who report a greater number of people that relay high expectation for

educational attainment confers a greater pressure to enter into and achieve in higher education.

**Research Question 3:** What has guided their academic journey that distinguishes students with consistent academic achievement compared to students that are not as academically successful?

It is understood that students who plan to seek higher levels of education must work hard to achieve their goals. Additionally, if student respondents are aware that their desired career path will necessitate an advanced degree thereby demonstrating more ambitious long-term goals, they will likely display a predisposition and a willingness to succeed academically in high school, as well. Although the findings were not found to be significant, the data highlighted some interesting differences among genders and educational expectations. On average, half of female respondents desired a career that required a doctoral or professional degree (9, 50%) compared to far fewer male respondents (3, 17.6%). Lastly, some male respondents reported that they believed their career would only require a High School Diploma (3, 17.7%) as compared to no female respondents (0, 0%). See Table 4.16 for further details.

**Table 4.16****Crosstabulation of Gender by Educational Level Required for Career**

	High School Diploma	Some College	College Degree	Master's Degree	Doctoral (PhD, EdD) or Professional Degree (JD, MD)	Unsure	Total
Male	3 (17.6%)	1 (5.9%)	7 (41.2%)	2 (11.8%)	3 (17.6%)	1 (5.9%)	17 (100%)
Female	0 (0.0%)	1 (5.6%)	4 (22.2%)	4 (22.2%)	9 (50.0%)	0 (0.0%)	18 (100%)
Non-binary	0 (0.0%)	1 (100%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100%)
Prefer Not to Say	0 (0.0%)	0 (0.0%)	2 (100%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100%)
Total	3 (7.9%)	3 (7.9%)	13 (34.2%)	6 (15.8%)	12 (31.6%)	1 (2.6%)	38 (100%)

$\chi^2 = 26.603, p = 0.087, V = 0.483$

One portion of the survey asked students to reflect upon the things that are important to them. As expected, students demonstrated an array of responses. It is assumed that students who demonstrated a high inclination toward the importance of obtaining a successful job, getting a good education, and becoming an expert in their field of work are more than likely to succeed in school. The “Importance of Occupational Success” scaled value was generated by summing student responses regarding the relative importance of being successful, becoming an expert in your field of work, making money, getting a good education, and getting a good job. While not statistically significant, female respondents indicated a slightly higher desire (4.27 scaled value of importance) to obtain a good job and get a good education than males (3.26 scaled value of importance). There was greater variability among the male students. See Table 4.17 for further details.

**Table 4.17****Comparison of Means of Gender by the Importance of Occupational Success**

		Number of Respondents	Mean Scaled Value of Importance	Standard Deviation	Minimum	Maximum		
Importance of Occupational Success	Male	19	3.26	1.94	0	6	F= 1.353	<i>p</i> = ns
	Female	22	4.27	1.32	2	6		
	Non-binary	1	4	0.01	4	4		
	Prefer Not to Say	2	3.5	0.71	3	4		
	Total	44	3.80	1.64	0	6		

Eta = 0.092

Students who place a greater emphasis on extracurricular and social pursuits will demonstrate different priorities at a young age with comparison to their counterparts who are driven to be an expert in their field of work. The “Out of School Priorities” scaled value was generated by summing student responses for the importance of finding the right person to marry, having a happy life, having children, having ample time to spend on leisure activities, and being well-liked. Female respondents indicated a slightly higher desire (3.80) to marry the right person, have children, and have great friends than males (3.05). However, the null hypothesis of no difference could not be rejected. See Table 4.18 for further details.

**Table 4.18****Comparison of Means of Gender by the Out of School Priorities Scale**

		Number of Respondents	Mean Scaled Value of Importance	Standard Deviation	Minimum	Maximum		
Importance of Out of School Priorities	Male	19	3.05	1.81	0	6	F= 0.506	<i>p</i> = ns
	Female	22	3.80	1.55	0	6		
	Non-binary	1	4.0	0.01	4	4		
	Prefer Not to Say	2	2.0	0.01	2	2		
	Total	44	3.15	1.62	0	6		

Eta = 0.037

It is assumed that respondents who demonstrate a greater desire to be a good citizen are also more likely to achieve in school. The “Importance of Being a Good Citizen” scale was generated by summing student responses about their personal importance for being an active and informed citizen, supporting environmental causes, being patriotic, and working to correct social and economic inequalities. While not statistically significant, female respondents indicated a slightly higher desire (2.09 scaled value of importance) to help people in their communities and be an active and informed citizen than male respondents (1.63 scaled value of importance). Interestingly, among the three categories surveyed, being a good citizen was the least important with comparison to occupational and educational success and the importance of building a family. Please see Table 4.19 below for further details.

**Table 4.19**

**Comparison of Means of Gender by the Importance of Being a Good Citizen**

		Number of Respondents	Mean Scaled Value of Importance	Standard Deviation	Maximum	Minimum		
Importance of Being a Good Citizen	Male	19	1.63	1.42	0	4	F= 0.764	p = ns
	Female	22	2.09	1.51	0	5		
	Non-binary	1	3.0	0.01	3	3		
	Prefer Not to Say	2	1.0	1.41	0	2		
	Total	44	1.86	1.46	0	5		

Eta = 0.054

One white female interviewee responded that her willingness to speak up for herself and ask teachers for guidance when necessary positively influenced her success. She proposed that other students may be more nervous to talk to teachers, whereas she felt confident to do so when she needed to.

I guess also the whole like, introverted versus extroverted thing. I feel like if someone is not necessarily wanting to reach out, that can be very difficult if they're too nervous to do so. I know that most of the reason, a big reason, why I do well on certain tests is because I can go to my teachers and be like, 'Okay, this is what I'm struggling with. Can you help me with that? Am I right?' That can be pretty difficult for people who don't necessarily want to reach out.

Her statements confirm her own self-efficacy to advocate for additional help guided her success as compared with other students that were not capable of doing so. A student that is proactive for their own well-being is more likely achieve academically because they able to self-advocate for their own success.

Additionally, one participant reported that her friends, her family influence, and positive upbringing also directly influence student success. This student suggested that her family's station enabled her to get tutored for the SAT, for example, and she

recognized that this could have given her an advantage over others. She also indicated that if someone is not surrounded by ideal circumstances, that this can also negatively impact the student's academic success.

I think two big things come to mind. One is like, like I said, the influences that you were you kind of grow up with. I've had the same group of friends since I was in, like, kindergarten. And we all have that same ambition to do as well as we can. And with my parents, not necessarily putting pressure on me, but like wanting me to do as well as I could through all these different facets of like extracurricular activities, and whatever. I think that really helped to make me more successful just because of the people I was surrounded by. So, I guess if someone is surrounded by maybe less ideal influences, that could be a big factor in their in their academics. Another thing I think is very important is household income. Because I grew up in a very fortunate household, I was able to get extra help if I needed it or like tutoring for the SAT, stuff like that. Whereas other students may not have that ability because of their household income.

This female student clearly stated that the influence of family and friends can have a positive impact on student success. She also indicated that a family's ability to provide the student with additional resources can also positively impact a student's academic success.

Other student respondents suggested that their personal drive for success encouraged them to perform well academically and that this set her apart from others. One minority female respondent stated that having an understanding for her long-term career goals impelled her to put in the effort to achieve academically. She compared her own drive for success to those that may not have a sound understanding for their life path as she stated that they may not be as motivated to perform well in school.

I feel like for most people, it's like, what am I going to get out of it? Whereas I'm like, 'Okay, I'm in high school, and I'm trying to do well to go to college. And then when I'm in college, I'll try to do well for what's after that. And for a while, I have wanted to be a doctor. Since, well, I want to be a pediatric surgeon. That's like the final stage. You have to be good at doing well in school for that. So, I want to go to a good college or, like a well-known college so that when I go to Med School, like, my resume looks good. So, I think it's like the idea of what like

I'm working towards, it's making me like putting all this effort and do all this work.

She concluded that her own long-term goals encourage her to put in the effort to work hard.

The data highlighted many factors as bearing a positive influence on students' scholastic achievement. Female respondents (4.27 scaled value of importance) indicated a slightly higher value of importance in obtaining a good job and getting a good education than male respondents (3.26 scaled value of importance). This suggests that the female respondents in this study may be more motivated to invest time and effort in their high school education than males.

Female respondents (2.09 scaled value of importance) also indicated a slightly higher desire to help people in their communities and be an active and informed citizen than male respondents (1.63 scaled value of importance). Among the different ethnicities surveyed, Hispanic respondents indicated a slightly higher desire (4.40 scaled value of importance) to obtain a good job and get a good education than African-American respondents (3.67 scaled value of importance) or White respondents (3.64 scaled value of importance). While this specific data point proved to be non-significant, it does reveal a motivation among Hispanic respondents to perform well for their futures.

**Research Question 5:** What school programs or influences have best supported you toward consistent achievement?

Students were surveyed about their involvement in sports, music groups, student government, academic honor society, yearbook, newspaper, service clubs, and hobby

clubs. Measure of involvement in school activities is a strong barometer for academic success. On average, females were more involved in school activities than males. Using a comparison of means, females were involved in an average of 2.72 school activities whereas males were involved in an average of 1.79 activities. Please see Table 4.20 for further details.

**Table 4.20**

**Comparison of Means of Gender by the Number of School Activities that the Student is Involved in**

	Mean Number of School Activities	Standard Deviation	Minimum	Maximum	F Statistic	P value
Male	1.79	1.27	0	5.0	F= 1.695	<i>p</i> = ns
Female	2.72	1.72	0	6.0		
Non-binary	1.0	0.01	1.0	1.0		
Prefer Not to Say	3.0	0.01	3.0	3.0		
Total	2.30	1.55	0	6.0		

eta = 0.113

Although the findings were non-significant, on average, African-American respondents were more involved in school activities. African-American respondents were involved in an average of 3 different school activities. This was followed by Hispanic respondents, who were involved in an average of 2.2 school activities, and lastly, white respondents, who were involved in an average of 1.92 school activities. Please see Table 4.21 for more details below.

**Table 4.21**

**Comparison of Means of Race by the Number of School Activities that the Student is Involved in**

	Mean Number of School Activities	Standard Deviation	Minimum	Maximum	F Statistic	P value
African-American	3.00	1.78	0	5.00	F= 0.945	<i>p</i> = ns
Hispanic	2.20	1.92	0	5.00		
White	1.92	1.44	0	6.00		
Other	1.00	0.01	1	1.00		
Total	2.11	1.56	0	6.00		

eta = 0.079

One white female interviewee iterated the importance of her involvement in school activities as an integral part of her academic success. She pointed out that her friends on the robotics teams were also a part of her classes. Her involvement with the robotics team grew her friendships with her teammates and this spilled over into a motivating, friendly-competition among her peers.

I'm pretty involved in like school extracurricular activities. I think a big thing would probably be my school's robotics team. That was something that I was consistently involved in all four years, with a group of students that was also in pretty much all of my classes. So, it was something that I could go from class to, like, do an activity with all these people. So, it wasn't just academic-based. Not only did I get closer to them, um, but also like, we all kind of understood each other so that when it came to like studying for stuff, we all knew how each other studied. And we could support each other in that way. So that it was like, classroom environments, while they were competitive, it was very friendly, because we were all kind of striving towards the same thing. I know some other schools, you kind of feel like, it's a very tense environment, but it was completely the complete opposite at our school, or in my experience.

This female student's involvement in her robotics team encouraged her to work well alongside her classmates. This level of support among her peers encouraged greater individual academic success.

One minority female interviewee stated that her volleyball team and sports commitments have increased her focus and required more time management skills to accomplish her school work.

I play volleyball. But it's like a very time-consuming thing where you have practices and you have tournaments and like, I feel like most people leave a lot of homework. Like for the two days we're off, like the weekends. But then you have a tournament, you don't really have that time. So, I feel like it's made me better at time-[management], like spacing out my week and sort of figuring out when like, I have this free time, I could do work here. And it's made me more organized, like, I use a planner now because I have to figure out where in my schedule I can fit things. But it's also like, I feel like time management, it's just so important. Like, it's taught me how to use my time wisely.

In this instance, her commitment to sports has increased her time-management skills and encouraged her to use her free time to finish her school-work. Being busier has taught her to be more organized and how to use her time wisely. In turn, this enabled her to accomplish her school work and succeed in school.

**Research Question 6:** Are there any aspects of your administration that you feel have contributed directly or indirectly to your success?

Both males and females that were surveyed reported enlisting help from their guidance counselor for help with college entrance requirements. In total, two thirds of all student respondents sought help from their guidance counselor when learning about college entrance requirements. On average, females sought help at a greater percentage

(12, 70.0%) from their guidance counselor for information about college than did males (12, 63.2%). Please see Table 4.22 below for further details.

**Table 4.22**

**Crosstabulation of Respondent Gender by Whether Respondents Sought Information about College Entrance Requirements from a Guidance Counselor**

	Yes	No	Total
Male	12 (63.2%)	7 (36.8%)	19 (100%)
Female	14 (70.0%)	6 (30.0%)	20 (100%)
Non-binary	1 (100%)	0 (0.0%)	1 (100%)
Prefer not to say	1 (50.0%)	1 (50.0%)	1 (100%)
Total	28 (66.7%)	14 (33.3%)	42 (100%)

$\chi^2 = 0.955, p = ns, V = 0.151$

The Crosstabulation of race by whether or not respondents sought information about college entrance requirements from a Guidance Counselor was also found to be non-significant. Please see Appendix C for further detail.

One minority female student reported that she felt supported by her school’s principal because he attended their Student Council meetings. As a part of the Student Council, she got the opportunity to meet with the principal semi-regularly. She felt his visibility demonstrated that he is listening to student feedback.

I definitely think, like, our principal, our head principal is definitely, like, super open to hearing what the students have to say. So that's been useful and like an outlet. Sort of like... I can't say the school is not listening, because they are. Whether or not they're gonna make changes about it, I don't know. But they are [listening]. He said he's taking notes. And he's understanding what we had to say.

In this instance, the principal is involved in Student Council. When the students themselves can personally interact with the school’s administration, the student feels

heard and understood. In turn, this promotes a stronger and more trusting school community.

One non-minority male student interviewee stated that his school's structure has provided strong support network. He mentioned that in his school, they have five different principals to refer to for guidance.

I think we have a great structure and that we have multiple principals, multiple guidance counselors. Just support network I have, like five principals I can go to for guidance counselors, a bunch of people that I can talk to who can help me with anything, basically.

He spoke to the value in having school administrators and counselors that he felt he could approach and seek help if necessary.

He also mentioned that one of his principals had taken the time to help prepare him for an elite state program. He explained that this school leader had personally prepared him for admission to the program.

I recently applied to a program with the State Department. And one of my principals, he helped me... just giving me the opportunity to go on interviews during the school day. He helped me get prepared for the application process, all of that. Just better prepared me in general, so that I could eventually get accepted into this program.

Strong administrators that take personal time to invest in their student body promotes success at the ground level.

Another female non-minority interviewee reiterated the importance of involved school leaders. She stated that her involvement in the Diversity and Equity Council allowed her the opportunity to work with the school's counselors. She mentioned that the school guidance counselor was able to help the team push forward some of their initiatives.

I'm part of my school's Equity and Diversity Council, which was run by the counselors at our school. And a big thing we wanted to emphasize was diversity in classes. Like my AP classes, there's maybe two people that aren't white in the whole class, which, especially at Suburban High School is kind of offsetting, just because of how diverse our student body is. So, we wanted to kind of push for that, like, academic diversity bit. And I feel like having guidance counselors be a part of that was super helpful towards academic success in general, because we had someone aside from the student body working towards this common goal that we wanted to really push.

This example of support from a caring and involved adult made the interviewee feel that her school counselor was actively involved in the academic success of all students.

Taking personal time out of her schedule to advocate for diversity set a good example for the club members and was meaningful for the students involved in the club.

### **Multivariate Analysis**

To expand upon the findings of the bivariate relationships of this study, a multivariate analysis was conducted. The dependent variable was the respondents' personal educational expectations. See Table 4.23 for the descriptive statistics for the dependent variable and the independent variables.

**Table 4.23****Descriptive Statistics of the Multivariate Analysis**

	Mean	Standard deviation	Minimum	Maximum
Student is male	0.45			
School environment negative impacts	0.82	1.57	0.00	6.00
What grade the student is in	10.39	1.02	9.00	12.00
Number of topics that student talks with parents about	6.09	1.49	1.00	7.00
Student importance of job success scale	3.80	1.64	0.00	6.00
Number of people that expect a minimum of college degree	3.91	1.72	0.00	5.00
Student's educational expectations (Dependent Variable)	17.48	3.90	12.00	25.00

To check for multicollinearity, a correlation matrix was calculated. As might be expected, the highest correlation was between the number of student/parent topics discussed and the number of people expecting the student to attend college. However, the sign was negative. Perhaps this reflects the growing respondent independence. See Table 4.24 for further details.

**Table 4.24****Correlation Matrix**

	Student is male	School environment negative impacts scale	What grade the student is in	Number of topics that student talks with parents about	Student importance of job success scale	Number of people that expect a minimum of college degree
Student education expectations	-0.243	-0.466	-0.001	0.344	0.271	0.373
Student is male		-0.040	-0.169	0.160	-0.280	0.236
School environment negative impacts scale			0.292	-0.498	-0.087	-0.598
What grade the student is in				-0.453	-0.021	-0.351
Number of topics that student talks with parents about					0.256	0.275
Student importance of job success scale						-0.155

In the regression,  $R^2$  value of 0.435 indicates that 43.5% of the variation in the dependent variable was explained by the independent variables taken together. The F stat of 4.744 was statistically significant ( $p < 0.001$ ) allowing the rejection of the null hypothesis of no relationship between the dependent variable and the independent variables taken together. Three variables did not prove to be statistically significant; the impact of a negative school environment, the number of topics that student talks with parents about, and the student's importance of job success. It was initially thought that the first would be negatively related to the student's personal educational expectations. The number of topics that student talks with parents about and the student's importance

of job success was initially anticipated to be positively related to the student's personal educational expectations. The finding that the number of topics that student talks with parents about was not statistically significant is thought-provoking. It was expected that a student that talks with their parents about a broader range of topics would increase their own personal educational expectations, but that did not prove to be the case.

As can be seen in Table 4.25, two variables proved significant at the .05 level or better. One variable, student's grade, was moderately significant with a p value of 0.077. With all other things equal, being a male student lowers the student's educational expectations by 2.268 years. Additionally, with all other things equal, for every one person who expects that student will earn at least a college degree, the student's educational expectations increase by 0.861 years. Finally, with all things being equal, for every grade level increase, the student's educational expectations increase by 1.01 years.

**Table 4.25**

**Regression Results**

	Regression Coefficient B	Beta	t	Significance
Student is male	-2.268	-0.293	-2.148*	0.038
School environment negative impacts	0.683	-0.176	-1.006	0.321
What grade the student is in	1.010	0.263	1.821*	0.077
Number of topics that student talks with parents about	0.720	0.275	1.683	0.101
Student importance of job success scale	0.400	0.168	1.211	0.234
Number of people that expect a minimum of college degree	0.861	0.380	2.264*	0.030
Constant	-0.889		-0.115	

Dependent Variable: Student educational expectations, \*  $p < .05$

## Qualitative Responses: An Analysis of In-depth Interviews

**Research Question 4:** How has the school's transition to virtual instruction from the Covid-19 pandemic impacted the students' academic trajectories?

While this research question was not directly answered by the survey, student interviewees did shed light on the enormous impact that the Covid-19 pandemic had on their education. Through their responses, students were able to highlight some of the positive outcomes that the pandemic ushered in. These benefits included, for example, an advanced and improved use of technology. Despite these ancillary positive outcomes that the pandemic inaugurated, each student clearly stated that the overall impact that Covid-19 had on their learning was detrimental. One white male student reported that online learning directly diminished student-motivation.

I think it definitely had a negative impact on everybody. Um, but well, so I think people were unable to have the same motivation. Looking on a camera screen all day is not going to be the same as going into a classroom, interacting with your peers, the teachers. So, motivation was definitely down. I think people lost, or they fell behind in the social experiences of being with those people having those interactions, which ultimately contributed to them being unable to learn as well. And not be able to gain the same amount out of school as they used to be.

He also stated that the lack of social interaction in an online learning environment hindered his ability to learn. He relayed that online learning did not enable him to have casual conversations with his teachers after class and he felt that it diminished the social interaction present though in-person learning.

We used Microsoft Teams in the virtual setting. And so that, like, prevented us from one seeing each other's faces. But it also made it more difficult for casual conversation with the teacher. Like back in the classroom, the teacher can come up to us talk to us. We have a question, we're happy to, like, raise our hand, or

even blurt something out, even though they don't like that. But, we can [do so] without feeling like we're disrupted by this screen and all, limited to what the teacher is saying. Basically... just listening to a podcast of words.

He clearly relays that online learning felt more like a teacher-led classroom environment rather than an environment that directly encourages student participation. In this way, the Covid-19 virus impacted learning by stifling student freedom of expression.

Another white female student relayed that without the natural social interaction that high school environments typically provide, online learning became draining. She intimated that this was a very difficult process for her.

I feel like online learning was not my favorite thing. Working on a computer was pretty draining. I feel like, I mean, seven hours just sitting on your computer wasn't the best experience, especially when it came to like, okay, transitioning between classes was like clicking another tab. You didn't have much, like, social interaction, or any kind of, or very minimal teacher interaction. So, I felt like that was, that was really difficult.

In addition to the lack of social interaction among their peers, another student stated that she felt that she lost a year of learning. She reported that upon return to in-person learning, she was not able to recall much, if any, of the information that she should have gleaned throughout the pandemic.

And so when we came back, I was really, I didn't really have very much work ethic. But also like, I feel like I lost a year of learning. Like I actually, I didn't learn anything online. So- not only did I have to like, learn how to get back into the swing of things, but like, I had to like learn everything that I learned last year on top of everything that I'm learning this year. So, with Spanish you skip a year, but you still move on with the content. So, I have to still like remember everything from last year, but also like applied to what I'm doing this year. And I also took AP Bio this year. The prerequisite for that is regular biology, which I took last year which I tried to learn because I do want to go into biology. But it's been difficult because my teacher is always talking to like the seniors like, "you guys remember." He's like, "Do you guys remember?" And the seniors do remember. Like, "oh, yeah, I remember that from Bio I." And all of the juniors are like, "We don't really remember that [from Bio I online]." So, I feel like I lost a year of learning.

For many students, the impact of the Covid-19 pandemic was detrimental to their knowledge acquisition and retention. It therefore also diminished typical academic advancement.

On the other hand, some interviewees did speak to the benefits that the Corona virus's interruption brought to her learning. One white female suggested that it forced her to learn how to navigate her school work independently.

As horrible as COVID was, I think it actually made me a more well-rounded student. I was forced to do a lot of, like, independent work, which I wasn't very used to, since most of my studying strategies were like, social events. So, I had to kind of figure out how to make my own outlines make my own study plans, especially because even though teachers were putting in so much work, it was so hard to make that personal connection online, so it was a lot more removed. So, I feel like there was a lot more independent work during COVID. But I think that after doing that for a year, it was something that I had like a good grasp on. So that when I did get back to in-person learning, I did have, like, that duality of learning style where if I needed to do something independent, I could.

This student interviewee spoke to advancement of her own individual learning and self-efficacy. She took ownership for enhancing her personal study strategies and was able to use these new strategies when she returned to in-person learning.

**Research Question 7:** What does academic success mean to you? What do you perceive to be successful?

At the heart of this dissertation lies the student's personal perceptions of academic success. The data demonstrated that while there are many factors that influence success, the student's personal ambitions and self-drive directly dictate achievement. The interview respondents thoughtfully confirm that success requires personal motivation to

achieve. One white female interviewee stated that in order to achieve academically, the student themselves has to demonstrate the drive to accomplish.

I feel like to be successful, someone would need to or *want* to be successful. It's enough to do well on a test. But I feel like it's the ambition that really makes someone successful. And then kind of getting that satisfaction of doing well. I think that really goes to show like how successful person is. How happy they are with what they're doing because of the effort that they're putting in to doing it.

She stated that one's desire to achieve is what drives the will to do well and invest in the work. Thereafter, she explains that she obtains satisfaction from a job well-done. She continues that there is a resultant happiness that is derived from the energy invested. She explained that personal academic success is related to the effort invested by the student.

I think it's all about how much I'm studying. And like, I know I'm putting in the effort, and either seeing an increase in my grades. Even if they're not, like going from a B to an A, I would be satisfied if I saw a jump from a B to a B+, just because I know I'm putting in that effort. And I know that I'm, I'm going to the teacher and asking for help, and I'm mastering the material, and then reflecting that.

This non-minority female student suggests that she garners personal satisfaction when improves her performance by working with the teacher. Her capacity to seek help in mastering the material is proactive and productive. For this student, this self-efficacy has resulted in an increase in grades. She has illustrated a parallel between her own self-efficacy and her academic achievement.

One white male respondent reflected while grades can define academic success, being a member of clubs and being a contributing member of society is also reflective of academic success.

I think academic success is not only defined by the grades somebody gets, but also by their participation in clubs, by their involvement sports, by the social networks they make. By their ability to talk to teachers, interact with different

people, join Boy Scouts, Girl Scouts, different clubs, organizations, church groups, and just be a better member in the community be better involved and a better influence on society as a whole.

Interestingly, this respondent stated that academic success is not solely defined by grades but also a capacity to positively influence society as well. He believes that positioning oneself for success by talking to teachers and being involved in society is also a direct component of achievement.

Similarly, this student also spoke to the importance of personal motivation as a large contributing factor toward success.

Commitment, devotion, motivation, and ready to be prepared to fall and rise again and accepting the challenge. You're ready to learn. Be excited about learning and just put yourself in an atmosphere in which you know you will better yourself if you keep trying. And you keep just being motivated.

He suggests that one's willingness to recover after failure and maintain motivation can also influence one's success. He highlights the importance of being excited to learn. He suggests one's willingness to accept challenges will ultimately enable improvement.

One female minority interviewee stated that while academic success is related to grades, she also felt that it tied to her own long-term goals. She drew out her explanation by suggesting that her achievement will correlate with the long-term rewards of having a job that she enjoys. Her long-term goals help drive her achievement in the present.

I feel like success is like, in terms of academic successes ... I feel like a lot of people think of like a grade as their academic success. I feel like in the future one day, it'll mean I have the job that I want. Like, I'm successful, but I'm doing what I want to do. I go to work, and I'm not dreading it all the time. I mean, like outside of academics, I'd hope to just be like, happy I guess.

She suggested that by having a job that she has chosen and that she likes will contribute to her success and her happiness. Having the capacity to create a life that she enjoys will contribute to and define her success.

While each of the students interviewed spoke to academic success as being connected to grades, each of the respondents also emphasized that achievement is more meaningful than that. One interviewee suggested that academic success is related to involvement in society. Another student suggested that success is connected to reaping the rewards from the investment in their schoolwork. After taking the time to work with a teacher and study harder, seeing an improvement in the academic achievement provided this student with satisfaction. Two student respondents suggested that their own personal motivation to do well also impelled them to succeed. Placing themselves in challenging situations that could better their performance proved to be a large component of their achievement. Fascinatingly, each of the students that were interviewed alluded to personal ambition and drive. Academic success, as defined by these high school students, outlined a sincere and mature understanding that achievement was not only dictated by grades and GPA, but also by involvement in society and the ability to garner satisfaction from a job well-done.

### **Reflections: Differences Among Student Responses and Race**

While the initial intent of this dissertation was to analyze the factors that influence academic success among Latinx high school students, only five students that responded to the survey request self-identified as Hispanic. Therefore, the information gleaned from these responses cannot be analyzed as conclusive findings; the data are instead understood as impressions. Further analysis is conducted with the understanding that it serves as rumination and not conclusive findings.

Among the student responses, few Hispanic students share conversations with their families regarding course selection or school programs (2, 40%). In addition, only a couple of the Hispanic respondents share regular conversations with their families regarding their academic grades (2, 40%). Of the Latinx students that responded to the survey, none talk with their families regarding their preparation for the SATs (0, 0%).

Support from teachers and parents can directly impact a child’s path to achievement. Additionally, students that have informed parents to guide their trajectory enable stronger outcomes. Students that can rely on parents to help them with the college entrance exams and guide the financial aid process have an advantage over those that do not. Among the races surveyed, the modal category of White students did seek information from their parents about college entrance requirements (18, 75%). Only one Hispanic respondent (1, 20%) reported seeking information from their parents about college entrance requirements and financial aid. A notably larger percentage of African-American students sought information from their parents about college entrance requirements (4, 80%). See Table 4.26 below for further details.

**Table 4.26**

**Crosstabulation of Race by Whether Student Sought Information from Parents**

**About College Entrance Requirements and Financial Aid**

	Yes	No	Total
African-American	4 (80%)	1 (20%)	5 (100%)
Hispanic	1 (20%)	4 (80%)	5 (100%)
White	18 (75%)	6 (25%)	24 (100%)
Other	1 (100%)	0 (0%)	1 (100%)
Total	24 (100%)	11 (100%)	35 (100%)

$\chi^2 = 6.695, p = 0.082, V = 0.437$

The desire to obtain a good job and get a good education are indicators that the student is on a path toward academic success. A statistical comparison of means was conducted between race and ethnicity and the importance of occupational success. The results were found to be insignificant. They are discussed further in Appendix C. An additional comparison of means was also conducted for race by the importance of out of school priorities. While the results were found to be insignificant, they are discussed further in Appendix C. A third comparison of means was conducted for race by the importance of being a good citizen. While the results were found to be insignificant, they are discussed further in Appendix C.

## **Conclusion**

Chapter four of this dissertation outlined the details of data collection for this study as well as highlighted important findings from the data analyses. This research study utilized a mixed methods approach to illustrate student perceptions of success. The data were driven by a survey administered to high school students. Quantitative analysis of the survey data was conducted to draw larger conclusions between various independent variables, such characteristics of the respondents, and the dependent variable of student educational aspiration. These quantitative analyses were complemented by qualitative analyses in the form of open-ended interviews in which volunteer students were prompted to express themselves freely about academic achievement. The interviews served to complement the survey results and further draw out the relationships between the variables.

The quantitative analyses revealed interesting results. It was expected that males and females would harbor similar aspirations for educational attainment. It was surprising to uncover a statically significant relationship between gender and student educational expectations. However, statistically significant relationships were not consistently present between all variables. It was expected that a parent's expectation for their child's educational achievement would impact the student's own drive for achievement. Quantitative analysis confirmed this to be true. Interestingly, quantitative analysis also revealed that the greater the number of people that expect higher education for the student also mirrors the students increased aspiration for higher education.

Taken together, the quantitative and qualitative analyses allowed for a greater understanding of student perception of academic success in high school. The qualitative analyses highlighted the importance of a parent's influence for educational advancement and entry to college. Each of the five students who were interviewed spoke to the positive influence of supportive parents. Each student also iterated the import of building relationships with teachers to enhance learning. Finally, the interviews further drew out the impact of administration upon their academic success. Each student confirmed that the direct involvement of an administrator demonstrated an investment that positively impacted the student's scholastic experience.

Taken together, the quantitative and qualitative analyses allowed for a greater understanding of student perception of academic success in high school. The mixed methods approach to analysis enabled a layered and replete understanding of student academic success in high school. Quantitative analysis confirmed relationships between variables as well as uncovered unexpected significant findings. The qualitative analysis

illustrated commonalities among successful students and deepened student perception of academic success. The subsequent chapter further draws upon this study's conclusions, summarizes important factors that influence student success as well as makes recommendations for administrative practices and proposes further research based upon these findings.

## CHAPTER 5

### SUMMARY OF THE STUDY

This study used mixed-methods approach to address seven research questions. The survey was used to obtain student insight about their high school experiences. The follow-up interviews were conducted to complement the survey data and as a means for students to reflect personally and in an open-ended manner about what constitutes educational success. The purpose of this study was to investigate factors that influence student academic achievement in high school.

The first phase of this research study began by gaining access to student populations that could take the survey. This proved to be time-consuming for two reasons: first, gaining the school's approval to partake in the research process involved multiple meetings and presentation of material to the board of one school in order to work with the student body. Second, obtaining access to students that were younger than 18 to take the survey was complicated further by the need to obtain parental consent to take the survey and participate in interviews.

This study was conducted at three public high schools, one urban and two suburban, and one urban private high school. One of the suburban high schools was located 35 miles to the Southeast of Philadelphia while the other suburban high school was located in the surrounding suburbs of Harrisburg, PA. The third public high school wherein the research study was conducted is located in Philadelphia. Finally, this study was also conducted at one urban private high school, also located in Philadelphia.

The survey was emailed to approximately 500 students (or parents for students under the age of 18). The survey was optional. In total, 44 students volunteered to participate in the research study by taking the survey. Of the 44 students who responded to the survey, fourteen students volunteered to participate in a follow-up interview. Invitations to interview for this research project were emailed to these fourteen students. Ultimately, five students volunteered to be interviewed for 30-60 minutes about their experiences in high school and their own perceptions of academic success. The interviews enabled a qualitative analysis approach to understanding factors that influence achievement in high school and served to augment the primary quantitative analyses that were conducted using the survey data.

### **Summary of the Findings**

Initially, the analysis proposed to focus solely on factors that influence Latina female academic achievement by identifying factors that enhanced their own performance with comparison to other comparison groups. However, the focus of the dissertation altered to encompass factors that influence student success in high school for all races and genders.

Among the many conclusions drawn from the data, students reported that parents' support bore a positive impact on their academic success. One hundred percent of students surveyed reported sharing conversations with parents about attending college. The majority of students surveyed also reported sharing conversation with their parents about what they study in class. Interestingly, however, while 70.8% of white respondents and 50% of African-American respondents reported speaking to their parents about preparation for the SATs; none of the Hispanic respondents reported speaking to their

parents about the SATs. Additionally, virtually all of the white respondents reported speaking to their parents about course selection (23, 95.8%) followed distantly by African-American students (5, 83.3%) whereas only a couple Hispanic students shared conversations with their families regarding academic course selection (2, 40%). The interviews further confirmed the importance and influence of strong parental role models and parents who afforded their children with the opportunities for enhanced learning at home. This conclusion aligns with the academic literature which establishes that parental influence directly impacts student success.

The interviews also reiterated the importance of caring teachers, guidance counselors, and involved principals. The student respondents suggest that when these school personnel invest their energy in caring relationships with the students, there is a greater likelihood that the student feels supported and understood. Resultantly, the student is more willing to be invested in their scholastic achievement. Administrative transparency and visibility ultimately lead to an improved high school experience for students.

Students also relayed the importance of time-management skills to guide their academic successes. Involvement in sports and other school activities encouraged the students to use their time more wisely to accomplish their necessary tasks. Interviews confirmed the importance of self-efficacy and personal motivation to guide their success. These reflections confirmed the importance self-advocacy to drive academic achievement.

The data also confirmed that female respondents have greater educational aspirations, specifically for a higher degree attainment, than do male respondents. Eighty

percent of male respondents reported an expectation to graduate from college in comparison with 25.0% of females. On a percentage basis, however, females were more apt to expect to earn a master's degree or a doctoral degree (13, 54.0%) than males (3, 15.0%). In turn, these data suggest that female respondents could be more driven to succeed in high school than their male counterparts in anticipation of their future career trajectories and desired career goals. These findings are interesting in the context of female advancement within the United States. These results confirm the positive impact of the women's liberation movement of the late 1960s-early 1980s in which women fought for greater equality between genders and opened doors for greater intellectual and academic advancement, ultimately promoting greater work place opportunities. Clearly, fifty years later, women are striving for even more academic advancement.

Education is the tool through which humans have developed and advanced, socially and intellectually. It is imperative that we routinely and professionally reflect upon the successes and failures within our American education system to improve it. At this time, our American education system is not able to adequately serve all of its students. The Latinx student population has been historically marginalized due to lack of resources and language barriers and this trend is mirrored through access to high quality education, as well. While the intellectual property of the Hispanic population in the United States continues to grow, there is still far more that needs to be done at the grassroots level to ensure the success and the growth of the fastest-growing population within the United States. Studying ways that students are better equipped to succeed is only one avenue worth exploring to ameliorate the potential for maximized human capital. It is my hope that the findings from this research project can serve to improve

understanding for success in high school and thereafter impact school systems and organizations to better serve its students.

## **Implications**

This study uncovered multiple factors that influence and guide academic success. These factors should be highlighted and promulgated within educational organizations in order to proliferate student achievement across the United States. This research study also revealed unanticipated truths about the Covid-19 pandemic's impact on student learning. These findings should be received and modified for future amelioration of the virtual learning experience.

First, it is imperative to address the different systems in place for communication and recruitment. The large urban charter high school yielded only two student responses. With the support of the Vice Principal, email recruitment was initiated by the grade dean. This attempt to garner study participants returned no respondents. Thereafter, a video was also created to encourage student participation in the study; however, it was not clear whether or not this video was actually played during advisory time. The study would have benefitted from the support of a Lead Administrator to impel student responses.

The Suburban School located 35 miles southwest of Philadelphia garnered the most student responses ( $n = 37$ ) for two reasons: A) the research was supported by the Assistant Superintendent and B) the district's advanced email system and communication portal. Upon the Assistant Superintendent's recommendation, a presentation was prepared for the School Board and the research was thereafter granted approval. This entrant enabled the opportunity to communicate directly with the High School to recruit students. More specifically, connections were fostered with the high school Guidance

Counselor on multiple occasions and she was thus able to recruit students more directly. The Guidance Counselor also communicated with the School Principal to ensure correct recruitment protocols as well. The school had established a communication portal during the Covid-19 pandemic through which the school could send email blasts to parents to and students. This school-wide communication system was extremely helpful in recruiting participants. It also helped to tailor different emails to be sent to parents for students under the age of eighteen and directly to students that were over the age of eighteen. Parents were able to directly respond to my email inquiry and provide written consent for their students to take the survey. Certainly, a large part of my success in recruiting the 37 participants from this High School was due to the support from the District's Assistant Superintendent and the advanced communication system that was already in place. If districts do have the resources available to purchase a virtual communication portal with parents, it is recommended that the investment be made for a variety of beneficial reasons.

Among the various implications for enhanced administrative practices, schools should first consider implementing a class or an elective course about "getting in to college." This class could include various career paths, it could highlight job responsibilities, the education required for various career choices, and this class could enlighten students about anticipated college course load. Ideally, this can help students garner a greater understanding for their long-term goals. In turn, this could impel students to maintain higher expectations during their high school experiences.

It is recommended that the school host panels to inform parents about the college process, registering for SAT prep courses, and how to apply for and enroll in college. The

data revealed that talking to parents about classes was not consistent among families of different races/ethnicities. Families that are unfamiliar with school processes for college application should obtain ancillary support to help guide their child's application process. If schools established community forums to provide information about the college application process, this would foster a greater understanding for minority families and could potentially directly benefit school-aged minority students. This recommendation also aligns with the finding that additional support personnel who believe that the student is college-bound will propel student self-belief for anticipated educational attainment.

The data also confirmed that when administrators make a personal investment in the student body, this positively impacts the student's attitude toward the school and thus benefits their performance. Administrators are encouraged to be present and visible for students, participating in their activities and helpful in a myriad of individual ways. It is recommended school leaders and school administrators make genuine efforts to personalize their leadership strategies to include daily involvement in student activities.

Murakami, Valle, and Méndez-Morse's research (2013) established four common dispositions and best practices for principals in their work with successful minority students. Their work suggests that these four traits are effective and powerful because the leaders who displayed these successful strategies tapped into aspirational, navigational, linguistic, and social capitals present in the school community. Murakami et al. state that effective educational leaders must have a clear mission for their school; such leaders must also have a strong belief in the ability of their students to learn, achieve, and perform at high academic standards (Murakami et. al, 2013). In addition to a clear mission, effective educational leaders must demonstrate acceptance and responsibility for

their students' learning. Murakami states that the second effective trait for school leaders is that they must have knowledge of and implement appropriate instructional programs (Murakami et al., 2013). Likewise, Murakami states that effective teachers base their practices on students' identified needs rather than a prescribed curriculum. The third trait that Murakami identifies is "collaboration and communication." Effective educational leaders consistently use a collaborative approach to include teachers, students, and families into their decision-making processes. Leaders thereby benefit by tapping into the social and navigational capitals of the community members. The inclusion of minority families in discussing school affairs increases the likelihood of the information being disseminated through the community. The fourth trait for effective leadership is consistent community outreach (Murakami et al., 2013). Successful educational leaders communicate with and collaborate regularly with parents and community members. These effective leaders thus engage families in their children's education. By increasing community involvement, families further invest in their child's education and this promotes increased academic excellence.

This study reaffirmed the benefits of student involvement in school activities. The findings revealed that students who partook in school-sponsored activities were better able to manage their time, which bore a positive impact on their achievement. It is recommended that schools provide a myriad of clubs and sports activities for students to partake in which will, in turn, increase their investment in and value for school.

This study confirmed that self-efficacy directly impacts student expectations for learning, thus driving student achievement. It is recommended that educational institutions provide various motivational activities for students to incite ambition. This

should also relay that the student's future is self-determined. Perhaps successful high school graduates who embody student success could talk to younger students to encourage taking rigorous school classes and focusing on schoolwork. Positive role models that relay their own self-motivated trajectories could inspire current students to improve their own academic investment.

### **Education Policy**

This research study revealed that there are differences between genders for desired future educational attainment. Students revealed that they are motivated to attain higher education degrees to achieve their long-term career goals. This motivation can drive student investment in high school. State departments of education should engender a policy in which students conduct a self-directed study that outlines where they see themselves in ten years and what would be required to achieve their goals. Under special education law in Pennsylvania, for example, students are required to check-in with their special education liaisons to outline steps for the child to succeed after high school. A similar policy, or one with the same intent, should be designed to encourage student educational success in college.

As recommended above, schools could offer a college preparedness course. Perhaps policy-makers should consider instituting a mandatory post-secondary success course for all junior or senior students. This course might inform students about their post-secondary options and thereby impel clearer understanding for how to attain future career goals. While seemingly unacademic such that the suggested course does not align with specific curricula, education policy should consider mandating such a class for all public high school students to engender success in their post-secondary lives.

## **Limitations of the Study**

Various limitations to this study are acknowledged. Foremost, the study could have suffered from self-selection bias because the respondents had chosen to participate; resultingly, it is possible that the students that chose to respond are actively engaged in their own academic success in contrast with students who selected not to contribute to a study that focused on academic success.

The low number of Latinx respondents is an important indicator of something greater at play. First, it is possible that the title of the study “Academic Success in High School,” could have deterred various students from responding due to the nature of the topic. Such that Latinx students may experience subtle feelings disenfranchisement among their wealthier white counterparts, perhaps this subset of respondents did not feel empowered to respond. To extend this thinking, if Latinx students already experience a lack of social capital among the dominant culture, it is possible that they may not have felt impelled to participate. Additionally, among the families that did respond “yes” to allowing their child to take the survey, email was the preferred mode of communication. It is possible that the virtual communication system elicited response bias because non-minority families may have had greater access to and facility with email communication. Even if a student would have been inclined to participate in the study, it is possible that the initial recruitment email remained unread by the family. In this scenario, the parents simply did not have the opportunity to give their student permission to take part in the survey because they remained unaware of the study.

Principals and administrators can increase avenues for clear communication by handing out flyers to students and families to participate. Also, if this study were to be

enhanced for a greater number of minority students' involvement, the research could be announced and perhaps explained at the beginning of the year at Back to School Night. This might offer a more diverse audience to learn about the project and increase understanding to increase participation. If consent forms were handed out in-person by the researcher, this too may increase the number of students willing to participate in the study.

Additionally, the study was only conducted at four schools. While these schools are within 110 miles of one another, two of the schools are urban while the other two are suburban. Additionally, the sampling technique could have limited individuals who were able to participate. For example, one school specifically chose to narrow requests to students only over the age of 18. Another school did not make great efforts to recruit participants. Furthermore, reactivity could be an issue in that the participants' responses could be affected by the question content. It is also possible that some student responses could have been skewed due to their ignorance to the survey question's meaning.

This study was limited by too few respondents. Only 44 students from different high schools responded to the initial survey and only five students volunteered to be interviewed. Due to the small numbers of students that participated in this study, the research findings cannot be generalized. To obtain a deeper understanding of student perception of success, more students should be surveyed and interviewed.

Also, the study was limited in the number of Latino and minority students that volunteered to participate. Of the 44 students who responded to the survey, 33 were white. This is yet another aspect of response bias. The goal of the research was to expand upon factors that influenced Latino academic success in high school, but the research

became substantially more limited in scope when it was discovered that only a small number of Latino students agreed to participate. A more diverse sampling of the student population in the United States would provide a more accurate understanding the influences upon success between and among races. The research should be expanded to encourage more participation and input from minority students about the factors that influence and guide their academic achievement.

Additionally, the survey focused only upon student reflection and did not provide a forum for school teachers or administrators to comment on important aspects and components of student success. The research could be extended and enlarged to include parent, teacher, and administrator perspectives on components that influence the student's success. These unique perspectives could be harnessed to facilitate a greater understanding for how educational institutions can help students to succeed. Additionally, there was a lack of questions embedded in the student survey about administrative practices. If obtained, these survey responses could be expanded upon to further enhance student performance and directly impact administrator practices for the benefit of the student.

One research question focused upon the differences between students who are successful with comparison to students who are not as successful. While the interview sought to highlight some of the main differences between successful students and students that were not high achievers, this divide could be more clearly highlighted through a more direct survey question.

Also, the survey did not seek response from students regarding GPA. While this study reflects upon and discusses academic achievement, it does not confirm success by

any standard or benchmark. This research study does not include reports of student grades or SAT scores; thus there is no objective measure for academic success to allow for a formal comparison among students or corroboration between respondents. This research can therefore not be triangulated to confirm self-reported measures for academic success as they align with student GPA.

### **Recommendations for Future Research**

Perhaps the most significant finding from this research study includes the conclusion that more female student respondents aspired to attain a higher education degree while most male participants responded that they had hopes to attain a college degree. While both goals are laudable, it was not anticipated that females would strive for higher educational attainment with comparison to males. It is recommended that future research be conducted to explore differences between gender and personal educational expectations to uncover the rationale and context behind desired educational aspirations. A more in-depth research study focusing on this conclusion would allow the researcher to place these truths in the historical context of gender studies and determine the present-day implications of such findings.

A great deal of energy was invested into recruiting Latino and Hispanic respondents from two high schools. These high schools were selected for this research study due to the significant percentage of Latino students among the student population. However, despite heavy recruitment and multiple outreaches, very few Hispanic students responded to the survey ( $n = 5$ ). More research should be conducted to determine why so few Latino students responded to the opportunity to participate in a study that focuses on academic success.

It is therefore recommended that future research be conducted to obtain a larger number of minority respondents, specifically Latinx high school students. Greater input from Hispanic students would provide a more fully developed understanding of the differences among races in attaining success in high school. A larger number of Latino participants would provide educational institutions with more resplendent insight about the ways in which these institutions can better serve the growing Latinx population in the United States.

It would be beneficial to recruit a greater number of minority students to investigate the impact of cultural differences on student success. This research study gained the most responses from the student body when the Assistant Superintendent was able to support the study and the Principals contributed with recruitment. It is therefore recommended that administration themselves actively recruit students to be involved in research. The diversity among student responses could be studied to better serve the different school-aged populations. As cultural wealth among different populations bears more value among school communities than it did previously, administrators can thus embrace the data collected from this research to better inform the success of their schools.

Administrators must be intentional about meeting the needs of all of their students, especially those who are struggling socially or those who are economically disadvantaged. To do this, school leaders can increase the number of avenues for communication with families. While email messaging works for many families to enable direct and time-efficient communication, this may not be an efficient method for families whose jobs are not tied to computer systems. School leaders should consider sending

home informational flyers for families that do not check email regularly; administration might also consider hosting monthly informational sessions to inform all parents of school-wide endeavors. Further research can be conducted to uncover effective communication systems that reach all families.

It is also recommended that more work be done to analyze the impact of Covid-19 on learning. The interviews obtained valuable information from students as they reflected upon their experience with virtual learning. This proposed research could enable a greater understanding of the long-term impact of Covid-19 on student academic achievement and knowledge acquisition. This research could also be drawn out to consider the differences between races with respect to academic success during the 2020 time-period in which schools closed their doors and halted in-person instruction. Students that responded to research question number 4 “How has the school’s transition to virtual instruction from the Covid-19 pandemic impacted the students’ academic trajectories?” offered incredible insight about their experiences with distanced-learning. It is recommended that educational institutions conduct this research sooner, rather than later, to obtain valuable data about the students’ experiences during virtual instruction while the memory of the experience is still near. These insights could help educators to improve their online learning models for the future.

Multivariate analysis revealed a significant relationship between educational expectations, gender, and the number of support personnel that believe that the student will attend college and obtain a degree. Further research should be conducted to investigate the relationship between these three variables. Research has proven that protective factors such as a supportive family and caring teachers positively impacts

student success (Perez, 2009). I recommend that extended research be conducted to better understand the relationship between expectations for higher education, gender, and environmental protective factors. By investigating these specific influential factors that positively impact student success, educators could more accurately be informed for how to change their practices to better serve their students and their families.

## **Conclusion**

*Improving Academic Success in High School, ¡Mejorándonos!* focuses on factors that influence student academic achievement in high school. This research is relevant for school administrators to improve educational practices across the United States. Among the pertinent findings from this study, it was uncovered that female students are more apt to desire to earn a higher education degree such as a Masters or a Doctoral degree, whereas male students reported ambition to earn a college degree. It was also concluded that as the number of people who encourage the high school student to strive for a college degree increases by one, so increases the student's own educational expectations by approximately one year. Certainly, having supportive family members, teachers, and counselors impacts the student's academic success and can even guide their ultimate educational attainment.

It was also confirmed that self-efficacy with respect for academic achievement as well as personal motivation to succeed are important factors that guide educational attainment. While there was no difference between genders with respect to the amount of time spent on homework, the data did confirm that students who demonstrated a commitment to extracurricular activities gained ancillary organization and time-

management skills which helped guide success. The data also revealed that conversations among parents and students differed between races.

Administrators and education policy makers should use the results from this study to inform their understanding of how students themselves perceive success. The information gleaned from this research can engender new education policies to amplify student success. In sum, the information gleaned from the survey results and the student interviews can guide enhanced educational practice to create high school environments that equip their students for academic success.

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## APPENDIX A

### SURVEY AND INTERVIEW QUESTIONS

#### Survey Questions

Q1 What is the name of your school? \_\_\_\_\_

Q2 Gender

Male (1)

Female (2)

Non-binary / third gender (3)

Prefer not to say (4)

Q3 What Racial/ Ethnic Group do you identify with?

African American or Black (1)

Asian (2)

Hispanic (3)

White (4)

Other. Please specify. (5)

Q4 During Spring 2021, what grade were you in?

10th? (1)

11th? (2)

12th? (3)

Other? Please explain. (4) \_\_\_\_\_

Q5 When you complete your current school program, which one of the following are you most likely to receive?

Regular high school diploma? (1)

Honors diploma? (2)

International Baccalaureate diploma (IB diploma)? (3)

Certificate of attendance? (4)

GED certificate? (5)

Other? Please explain. (6) \_\_\_\_\_

Q6 Throughout high school, how many of the following science courses have you completed? Count only courses that meet three periods a week.

	None or less than half a year (1)	Half a year (2)	One whole school year	More than 1 whole year
General science				
General physical science				
Biology (3)				
Botany (4)				
Earth science (5)				
Chemistry (6)				
Physics (7)				
Zoology (8)				
Other (9)				

Q7 Throughout high school, how many of the following mathematics courses have you completed? Count only courses that met three periods a week. Include summer school and advanced placement courses.

	None or less than half a year (1)	Half a year (2)	One whole school year (3)	More than one whole year (4)
General math (1)				
Algebra 1 (2)				
Geometry (3)				
Algebra 2 (4)				
Trigonometry (5)				
Pre-calculus (6)				
Calculus (7)				
Consumer or business meth (8)				
Statistics (9)				
Other (10)				

Q8 Now we would like to know how often you feel the following:

	Almost never	Sometimes (2)	Often (3)	Almost always (4)
I'm confident that I can do an excellent job on my math tests.				
I'm certain I can understand the most difficult material presented in my math textbooks. (2)				
I'm certain I can understand the most difficult material presented in my math textbooks. (3)				
I'm certain I can master the skills being taught in my math class. (4)				
I'm confident I can do an excellent job on my math assignments (5)				

Q9 Have you taken or plan to take any of the following?

	Yes	No, but I plan to (2)	No and I do not plan to
PSAT (College Board Preliminary Scholastic Assessment Test) (1)			
PLAN (American College Testing Program's PLAN) (2)			
SAT or ACT (College Board Scholastic Assessment Test or American College Test) )			
AP tests (College Board Advanced Placement test(s) given in May of each year). (4)			
ASVAB (Armed Services Vocational Aptitude Battery). (5)			

Q10 To prepare for the SAT and or the ACT, did you do or do you plan to do any of the following?

	Yes	No (2)
Take a course offered by a commercial test preparation service. (1)	<input type="radio"/>	
Receive private one-to-one tutoring (2)	<input type="radio"/>	
Study from test preparation books (3)	<input type="radio"/>	
Watch a test preparation video (4)	<input type="radio"/>	
Use a test preparation computer program. (5)	<input type="radio"/>	

Q11 What do you plan on doing right after leaving high school?

Getting a fulltime job (1)

Entering college (2)

Other. Please specify/ (3) \_\_\_\_\_

Q12 We'd like to know about your educational expectations. As things stand now, how far in school do you think you will go?

(Less than high school graduation, GED, High school diploma, Attend a community college or a vocational school, Take some college courses, Graduation from college, Earn Master's Degree, Earn a PhD, MD, or JD, Other)

You expect (1)

Your mother expects? (2)

Your father expects? (3)

Your friends expect? (4)

Your guidance counselor expects? (5)

Your favorite teacher expects? (6)

Q13 We'd like to know a bit more about your school. During the last (fall 2020-Spring 2021 school year, did you experience any of the following?

	Never	Once or twice (2)	Many times (3)
Had something stolen from you? (1)			
Was offered drugs to buy? (2)			
Was threatened or hurt? (3)			
Were made uncomfortable because of your race or gender? (4)			

Q14 Now we'd like to know more about your school involvement during the 20-21 school year. Did you participate in any of the following school-sponsored activities?

	No, I did not participate because not available at my school	No I did not participate because I was not interested	Yes I did participate as a member	Yes I participated as a captain, editor, etc.
Intramural sports (competition between teams in your school)?				
Interscholastic sports (competition with teams from other schools)? (2)				
Music groups such as band, orchestra, chorus, or choir? (3)				
Student government (4)				
Academic honor society such as the National Honor Society? (5)				
School yearbook, newspaper, or literary magazine? (6)				
Service club such as Big Brother or Big Sister, Tutoring) (7)				
Academic club such as computer science, science, or art) (8)				

Hobby club  
such as  
photography,  
dance (10)

Q15 In a typical week, about how many hours do you spend on the following?

	None	Less than an hour (2)	1 - 5 hours (3)	6 - 10 hours	More than 10 hours (5)
Homework (1)					
School activities (2)					
Meeting with your friends					
Household chores (4)					
Watch TV, videos, and movies (5)					
Other. Please explain. (6)					

Q16 We'd like to know a bit more about you. Please tell us how important each of the following are to you.

	Not important (1)	Important (2)	Very Important (3)
Being successful (1)			
Finding the right person to marry and having a happy family life (4)			
Making lots of money			
Having great friends (6)			
Being able to find steady work (7)			
Helping people in your community (8)			
Being able to give your children better opportunities that you've had (9)			
Living close to your parents and relatives			
Moving away from Philadelphia (11)			
Working to correct social and economic inequalities (12)			
Having children (13)			
Having enough leisure time to enjoy your interests (14)			
becoming an expert in your field of work			
Getting a good education			
Getting a good job (17)			
Being an active and informed citizen			
Supporting environmental causes			
Being patriotic			
Being well liked			

Q17 How are you planning on spending your summer?

	Yes (1)	Maybe (2)	No (3)
Work part-time (1)			
Work full-time (2)			
Take some high school courses (3)			
Take some college courses (4)			
Volunteer or do community service (5)			
Other (6)			

Q18 Which of the following are reasons why you have decided not to continue school right after high school?

	Yes	Maybe (2)	No (3)
You really don't like school (1)			
You don't think your grades are good enough (2)			
You don't think you need more school for the career you want (3)			
You can't afford to go to school (4)			
Your guidance counselor told you to do something else (5)			
You don't feel that you have taken the right courses (6)			
You don't feel that you know enough about college (7)			
You'd rather work and earn money than go to school. (8)			
You need to help support your family (9)			

Q19 Excluding you family and teachers, do you know anyone who has gone to college?

Yes (1)

No (2)

Q20 Do you plan to continue your education at some time in the future?

No, I do not have any plans at this time. (1)

Yes, I hope to go back to school after staying out for up to a year. (2)

Yes, I plan on continuing sometime in the future. (3)

I don't know. (4)

Q21 Where have you gone for information about college entrance requirements and possible financial aid?

	Yes (1)	No (2)
Guidance counselor (1)		
Teacher (2)		
Coach (3)		
Parent (4)		
Brother or sister (5)		
Friend (6)		
College representative (7)		
College website (8)		
School library (9)		
Public library (10)		
None of the above. I did not look for any information (11)		

Q22 If you decide to apply to a college, please rank your choice as to most likely with "1" being your highest choice.

\_\_\_\_\_ Four-year college or university (1)

\_\_\_\_\_ Two-year community college (2)

\_\_\_\_\_ Vocational, technical or trade school (3)

Q23 How many colleges or schools have you applied to?

None, I will not graduate until next year (1)

None, I am not interested at this time. (2)

1 school (3)

2-5 schools (4)

5 or more schools (5)

Q24 If you are not going to school, please tell us the job or occupation you expect to have right out of high school. \_\_\_\_\_

Q25 Please tell us what job or career you would like to be in when you are 30. \_\_\_\_\_

26 How much education do you think you need for the career you listed?

High school diploma (1)

Some college (2)

College degree (3)

Master's degree (4)

Doctoral degree PhD, EdD) (5)

Professional degree (JD, MD) (6)

I am not planning on working or having a career (8)

I don't know (9)

Q27 Which of the following types of organizations were you involved in on a volunteer basis?

	Yes (1)	No (2)
A sports team (1)		
A school or community service organization such as Big Sisters )		
A church group (3)		
A community center program or neighborhood improvement group. (4)		
A political organization (5)		
A hospital or nursing home program (6)		
A educational program (7)		
An environmental group (8)		
I didn't have time to do any volunteering (10)		
Other. Please specify. (9)		

Q28 During the school year did you talk with your parents about any of the following?

	Yes	No (2)
Selecting courses or programs at school (1)		
School activities (2)		
Things you studied in class (3)		
Your grades (4)		
Jobs you would like after completing school (5)		
Plans or preparation for taking SATs (6)		
Going to college (7)		
Community, city, national, or world events (8)		
Things troubling you (9)		
Other. Please explain. (10)		

Q29 To the best of your knowledge how many of your friends

	None of them	A few of them	Some of them	Many of them	All of them (5)
Dropped out of high school before graduating? (1)					
Plan to have a regular full-time job after high school? (2)					
Plan to attend a community college or vocational school?					
Plan to attend a 4 yr college or university? (4)					

Q30 Would you be willing to chat with me for a short time after school? I'd like to know more about what you need to succeed.

Yes. Please enter your email address (1)

Sorry, not at this time (2)

-----

Q31 If you replied yes, please indicate when you are generally available to talk

	Monda ys (1)	Tuesda ys (2)	Wednesda ys (4)	Thursda ys (5)	Frida ys (6)
3 - 6p m (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6 - 8p m (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q32 Is there anything more that you would like to add?

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### Interview Questions

1. What factors do students feel support them in attaining academic success?
2. What societal influences (factors external to school environment) do students feel to have impacted their trajectories?
3. What has guided their academic journey that distinguishes students with consistent academic achievement compared to students that are not as academically successful?
4. How has the school's transition to virtual instruction from the Covid-19 pandemic impacted the students' academic trajectories?
5. What school programs or influences have best supported you toward consistent achievement?
6. Are there any aspects of your administration that you feel has contributed directly or indirectly to your success?
7. What does academic success mean to you? What do you perceive to be successful?

**APPENDIX B**  
**EXAMPLE EMAILS**

**Example Emails that were sent by Principals, Vice Principals, or Counselors**

**Example 1: Sent to students that were over the age of 18:**

Hello!

Elizabeth Cooper, a doctoral student at Temple University, is inviting you to participate in her research study entitled Factors that Influence Academic Performance in High School.

Ms. Cooper wants to understand what factors influence academic success among high school students. She would like to know more about student perceptions of success and their understanding of what academic achievement looks like.

Temple University's Institutional Review Board has approved this research project. Kennett Consolidated School District has also granted permission for Ms. Cooper to conduct her research.

Students that agree to participate will take a survey. Students may also volunteer to participate in a one-on-one follow-up interview through Zoom. If you want to know more, please email Elizabeth ([elizabeth.cooper@temple.edu](mailto:elizabeth.cooper@temple.edu)).

Taking part in this research is voluntary. Whether you take part is up to you, but I hope you are willing to take this survey! It should only take 15 minutes. Please click here: [https://educationtemple.qualtrics.com/jfe/form/SV\\_4It4W6aq67eY09U](https://educationtemple.qualtrics.com/jfe/form/SV_4It4W6aq67eY09U)

Thank you.

¡Hola!

Elizabeth Cooper, una estudiante doctorada en la Universidad de Temple, invitase a participar en su estudio de investigación titulado Factores que influyen el rendimiento académico en la escuela secundaria.

La Sra. Cooper quiere comprender cuáles factores influyen en el éxito académico entre los estudiantes de secundaria. Le gustaría saber más sobre las percepciones de éxito de los estudiantes y su comprensión de cómo ven el rendimiento académico.

La Junta de Revisión Internacional de Temple University ha aprobado este proyecto de investigación. El Distrito Escolar Consolidado de Kennett (KCSD) también ha otorgado permiso para que la Sra. Cooper realiza su investigación.

Los estudiantes que acepten participar deberán realizar una encuesta breve en línea. Los estudiantes también pueden ofrecerse como voluntarios para participar en una entrevista de seguimiento individual a través de Zoom. Si desea saber más, envíe un correo electrónico a Elizabeth ([elizabeth.cooper@temple.edu](mailto:elizabeth.cooper@temple.edu)).

La participación en esta investigación es voluntaria. Si participas depende de ti, ¡pero espero que estés dispuesto a responder esta encuesta! Solo debería tomar 15 minutos.

Haga clic aquí: [https://educationtemple.qualtrics.com/jfe/form/SV\\_4It4W6aq67eY09U](https://educationtemple.qualtrics.com/jfe/form/SV_4It4W6aq67eY09U)

Gracias.

**Example 2: Sent to students that were over the age of 18:**

Hello!

Elizabeth Cooper, a doctoral student at Temple University, is inviting your student to participate in her research study entitled Factors that Influence Academic Performance in High School.

Ms. Cooper wants to understand what factors influence academic success among high school students. She would like to know more about student perceptions of success and their understanding of what academic achievement looks like.

Temple University's Institutional Review Board has approved this research project. Kennett Consolidated School District has also granted permission for Ms. Cooper to conduct her research.

Students that agree to participate will take a brief online survey. Students may also volunteer to participate in a one-on-one follow-up interview through Zoom. If you want to know more, please email Elizabeth ([elizabeth.cooper@temple.edu](mailto:elizabeth.cooper@temple.edu)).

**Parent permission is required for students that are under the age of 18.** If you would like your student to participate in this study about academic success:

- Please reply to this email with YES to provide permission.
- Please include your email signature along with your student's email address.

Once permission has been granted, your child will be sent a link to the survey through email.

Taking part in this research is voluntary. I hope that you allow your student to take the survey! It should only take 15 minutes.

Thank you.

¡Hola!

Elizabeth Cooper, una estudiante doctorada en la Universidad de Temple, invita a su estudiante a participar en su estudio de investigación titulado Factores que influyen el rendimiento académico en la escuela secundaria.

La Sra. Cooper quiere comprender cuáles factores influyen en el éxito académico entre los estudiantes de secundaria. Le gustaría saber más sobre las percepciones de éxito de los estudiantes y su comprensión de cómo ven el rendimiento académico.

La Junta de Revisión Internacional de Temple University ha aprobado este proyecto de investigación. El Distrito Escolar Consolidado de Kennett (KCSD) también ha otorgado permiso para que la Sra. Cooper realiza su investigación.

Los estudiantes que acepten participar deberán realizar una encuesta breve en línea. Los estudiantes también pueden ofrecerse como voluntarios para participar en una entrevista de seguimiento individual a través de Zoom. Si desea saber más, envíe un correo electrónico a Elizabeth ([elizabeth.cooper@temple.edu](mailto:elizabeth.cooper@temple.edu)).

**Se requiere el permiso de los padres para los estudiantes menores de 18 años.** Si desea que su estudiante participe en este estudio sobre el éxito académico:

- Responda a este correo electrónico con **SÍ** para dar permiso, por favor.

- Incluye su firma de correo electrónico junto con la dirección de correo electrónico de su estudiante.

Una vez que se haya otorgado el permiso, su hijo se le enviará un enlace a la encuesta por correo electrónico.

La participación en esta investigación es voluntaria. ¡Espero que le permita a su estudiante tomar la encuesta! Solo debería tomar 15 minutos.

Gracias.

## **APPENDIX C**

### **ADDITIONAL TABLES**

Based on the information provided, the research study was conducted over a period lasting almost two years (roughly 20 months). During the first quarter, materials were developed and submitted materials to IRB and approval to conduct this study was confirmed. The study's progress slowed slightly during the second quarter as the researcher secured administrative approval from different schools. During the third quarter, surveys were emailed and data was collected. Interviewees were identified and interview sessions were completed during the third quarter. For the fourth quarter, the results that were obtained were consolidated and analyzed. The results of the research inquiry were thereafter be presented to all schools that opted to participate in the research. Please see Table 3.8 for further clarification.

**Table 3.8****Timeline of Tasks Required to Complete the Study**

Date	Task
March-June 2021	Submitted Proposal to IRB for to conduct Minimal Risk Research to secure approval.
April 2021	Defended proposal to conduct research through Temple University
June 2021	Established relationship with one high school to conduct research beginning the Fall of 2021
August 2021	Amended proposal to include more leadership studies information
October 2021	Went before the board of one high school to secure the opportunity to conduct research with their students
October 2021-March 2022	Administered Surveys/Analyzed Surveys
April-July 2022	Conducted Interviews/Initial draft of dissertation
May- January 2023	Data Analysis
January-March 2023	Final Draft of Dissertation/Defense

Table 4.27 below outlines the research questions, the data sources, as well as the analyses of the quantitative and qualitative data for this mixed-methods study. See Table 4.27 for further details.

**Table 4.27**

**Research Questions, Data Sources, and Analyses**

Research questions	Data source	Analysis	
RQ 1: What factors do students feel support them in attaining academic success?	Survey	Quantitative	Univariate and bivariate analysis
	Interviews	Qualitative	Coding schema
RQ 2: What societal influences (factors external to school environment) do students feel to have impacted their trajectories?	Survey	Quantitative	Univariate and bivariate analysis
	Interviews	Qualitative	Coding schema
RQ3: What has guided their academic journey that distinguishes students with consistent academic achievement compared to students that are not as academically successful?	Survey	Quantitative	Univariate, bivariate, and multivariate analysis
	Interviews	Qualitative	Coding schema
RQ 4: How has the school's transition to virtual instruction from the Covid-19 pandemic impacted the students' academic trajectories?	Survey	Quantitative	Univariate and bivariate analysis
	Interviews	Qualitative	Coding schema

RQ 5: What school programs or influences have best supported you toward consistent achievement?	Survey	Quantitative	Univariate, bivariate, and multivariate analysis
	Interviews	Qualitative	Coding schema
RQ 6: Are there any aspects of your administration that you feel have contributed directly or indirectly to your success?	Survey	Quantitative	Univariate, bivariate, and multivariate analysis
	Interviews	Qualitative	Coding schema
RQ 7: What does academic success look like and feel like to you? What does academic success look like to you?	Survey	Quantitative	Univariate, bivariate, and multivariate analysis
	Interviews	Qualitative	Coding schema

**Table 4.28****Comparison of Means of Race/Ethnicity by the Number of Sources for Information about College Entrance Requirements and Possible Financial Aid**

	Mean Number of Sources for College Entry	Standard Deviation	Maximum	Minimum	F Statistic	P value
African-American	15.00	1.87	17	13	F= 1.562	<i>p</i> = ns
Hispanic	15.00	2.74	10	18		
White	16.70	2.09	20	13		
Other	17	0.01	18	18		
Total	16.24	2.28	20	10		

eta = 0.135

Although the results were not significant, Hispanic respondents indicated a slightly higher desire (4.40 scaled value of importance) to obtain a good job and get a good education than African-American respondents (3.67 scaled value of importance) or White respondents (3.64 scaled value of importance). See Table 4.29 for further details.

**Table 4.29****Comparison of Means of Race/Ethnicity by the Importance of Occupational Success**

		Number of Respondents	Mean Scaled Value of Importance	Standard Deviation	Maximum	Minimum		
Importance of Occupational Success	African American	6	3.67	2.42	0	6	F= 0.677	<i>p</i> = ns
	Hispanic	5	4.40	1.67	2	6		
	White	25	3.64	1.41	0	6		
	Other	1	2.00	0.01	2	2		
	Total	37	3.70	1.61	0	6		

Eta = 0.058

White respondents indicated a nearly uniform desire (3.36 scaled value of importance) to marry the right person, have children, and have enough time to spend on leisure activities as Hispanic respondents (3.20 scaled value of importance). Both White respondents and Hispanic respondents valued these elements more highly than did African-American respondents (2.17 scaled value of importance). See Table 4.30 for further details.

**Table 4.30**

**Comparison of Means of Race by the Importance of Out of School Priorities**

		Number of Respondents	Mean Scaled Value of Importance	Standard Deviation	Maximum	Minimum		
Importance of Out of School Priorities	African American	6	2.17	1.47	0	6	F= 0.853	p = ns
	Hispanic	5	3.20	1.30	0	4		
	White	25	3.36	1.73	2	5		
	Other	1	3.00	0.01	0	6		
	Total	37	3.13	1.63	0	6		

Eta = 0.072

Among those that responded to the survey, Hispanic respondents indicated a slightly higher desire (2.80 scaled value of importance) to help people in their communities and be an active and informed citizen than White respondents (1.76 scaled value of importance) or African-American respondents (1.33 scaled value of importance). Please see Table 4.31 below for further detail.

**Table 4.31****Comparison of Means of Race by the Importance of Bring a Good Citizen**

		Number of Respondents	Mean Scaled Value of Importance	Standard Deviation	Maximum	Minimum		
Importance of Being a Good Citizen	African American	6	1.33	1.37	0	4	F= 1.028	p = ns
	Hispanic	5	2.80	1.30	1	4		
	White	25	1.76	1.56	0	5		
	Other	1	2.00	0.01	1	1		
	Total	37	1.81	1.51	0	5		

Eta = 0.085

On average, African-American respondents sought help at a greater percentage (5, 83.3%) from their guidance counselor for information about college. This was followed closely by Hispanic respondents (4, 80.0%) and distantly by White respondents (13, 54.2%). Please see Table 4.32 below for further details.

**Table 4.32****Crosstabulation of Respondent Race by Whether Respondents Sought Information about College Entrance Requirements from a Guidance Counselor**

	Yes	No	Total
African-American	5 (83.3%)	1 (16.7%)	6 (100%)
Hispanic	4 (80.0%)	1 (20.0%)	5 (100%)
White	13 (54.2%)	11 (45.8%)	24 (100%)
Other	0 (0.0%)	1 (10.0%)	1 (100%)
Total	22 (61.1%)	14 (38.9%)	36 (100%)

 $\chi^2 = 4.056, p = ns, V = 0.336$

**Table 4.33****Crosstabulation of Respondent Gender by Father’s Expectations for Educational****Attainment**

	High School Diploma	Attend Community College or Vocational School	Take some College Classes	Graduate from College	Earn a Master’s Degree	Earn a Ph.D., M.D., or J.D.	Other	Total
Male	1 (5.3%)	0 (0%)	0 (0%)	15 (78.9%)	2 (10.5%)	1 (5.3%)	0 (0%)	19 (100%)
Female	3 (13.6%)	1 (4.5%)	1 (4.5%)	9 (40.0%)	4 (18.2%)	2 (9.1%)	2 (9.1%)	22 (100%)
Non-binary	1 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)
Prefer not to say	0 (0%)	0 (0%)	0 (0%)	1 (50%)	1 (50%)	0 (0%)	0 (0%)	2 (100%)
Total	5 (11.4%)	1 (2.3%)	1 (2.3%)	25 (56.8%)	7 (15.9%)	3 (6.8%)	2 (4.5%)	44 (100%)

$\chi^2 = 17.542, p = 0.486, V = 0.365$

**Table 4.34****Crosstabulation of Respondent Gender by Guidance Counselor’s Expectations for****Educational Attainment**

	High School Diploma	Attend Community College or Vocational School	Take some College Classes	Graduate from College	Earn a Master’s Degree	Earn a Ph.D., M.D., or J.D.	Other	Total
Male	0 (0.0%)	0 (0.0%)	1 (5.3%)	16 (84.2%)	1 (5.3%)	0 (0.0%)	1 (5.3%)	19 (100%)
Female	6 (27.3%)	1 (4.5)	0 (0.0%)	9 (40.9%)	3 (13.6%)	1 (4.5%)	2 (9.1%)	22 (100%)
Non-binary	1 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)
Prefer not to say	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)
Total	7 (15.9%)	1 (2.3%)	1 (2.3%)	27 (61.4%)	4 (9.1%)	1 (2.3%)	3 (6.8%)	44 (100%)

$\chi^2 = 18.621, p = 0.415, V = 0.376$

**Table 4.35****Crosstabulation of Respondent Gender by Teachers' Expectations for Educational Attainment**

	High School Diploma	Graduate from College	Earn a Master's Degree	Earn a Ph.D., M.D., or J.D.	Other	Total
Male	0 (0.0%)	15 (78.9%)	2 (10.5%)	1 (5.3%)	1 (5.3%)	19 (100%)
Female	4 (18.2%)	8 (36.4%)	6 (27.3%)	3 (13.6%)	1(4.5%)	22 (100%)
Non-binary	1 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (100%)
Prefer not to say	1 (50.0%)	1 (50.0%)	0 (0%)	0 (0%)	0 (0%)	2 (100%)
Total	6 (13.6%)	24 (54.5%)	8 (18.2%)	4 (9.1%)	2 (4.5%)	44 (100%)

$\chi^2 = 17.689, p = 0.125, V = 0.366$

## APPENDIX D

### SUMMARY: CONTEXTUAL IMPORTANCE OF STUDY

Improving Academic Success in High School, ¡Mejorándonos! focuses on factors that influence student academic achievement in high school. This research is relevant in Pennsylvania due to the growing number of school children that are Hispanic. The Annie E. Casey foundation reports that the percentage of Hispanic children enrolled in a Pennsylvania public school in 2018-2019 was 12.1%. This figure has nearly tripled since 2009 wherein only 4.4% of publicly enrolled students as Hispanic (Annie E. Casey Foundation, 2019).

The remarkable growth of the Hispanic population in public schools is not only increasing in Pennsylvania, but across the United States. The National Center for Education Statistics reports that in 2009, the percentage of Hispanic student enrollment in U.S. public schools was 22%. The number of U.S. Hispanic student enrollment in public schools increased to 28% in 2020 (National Center for Education Statistics, 2022). In the fall of 2020, 13.8 million school children in the United States were Hispanic (National Center for Education Statistics, 2022). Such that Latino students in the United States are among the highest at-risk population for dropping out of high school, it is paramount that leaders address the educational needs of the school-aged Hispanic population. At this time, our American education system does not holistically promise a free and appropriate education for all Hispanic students. As the Latino-American population grows, ensuring the future success of nearly one third of our nation's children is imperative.

At its inception, this research study proposed to investigate factors that influenced the academic success of Latina female high school students. This study expanded its

parameters to focus not only on the academic success of Latino-American high school females, but all high school students. By increasing the data collection measures to include a variety of races and genders, valuable data for comparative purposes was obtained. It also enabled a more complex illustration of student success in high school.