ABSTRACT

Student Success in Higher Education:
An Analysis of the Effects of Support and Community

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Student success is the goal of every higher learning institution in America. How these institutions choose to measure success looks different from university to university. The current study investigates how to increase student success in high-achieving, low-income, minority students through various types and levels of support. Student success is measured as grade point average (GPA), student involvement, and leadership. Overall, the current research found perceived support from all sources and that freshman year acclimation increases student success during the junior and senior year of college.

Student Success in Higher Education:
An Analysis of the Effects of Support and Community

by

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CHAPTER ONE

Introduction

Student success, although a goal of every university, is complicated to measure.
Success looks different depending on goals of the type of school (2-year verses 4-year)
and even within types of schools (faith-based verses secular). There are several
definitions of student success that include words and phrases like academic success,
engagement, post-college performance, and skill development (Kuh, Kinzie, Buckley,
Bridges, and Hayek, 2006). The present study is an exploratory study to understand the
relationship between student success and both support and community. Grade point
average (GPA), student involvement, and leadership are all measures of student success.

Student GPA is the most basic and standardized measure for student success
across all higher learning institutions. GPA allows students to evaluate their mastery of
materials throughout the college experience. It allows the university to gauge how their
students perform academically and compare to other universities. A high GPA is linked
to several outcomes for students post-graduation. Students with higher GPAs have better
chances of receiving scholarships, gaining admission into graduate/professional schools,
and being hired in jobs after graduation. In short, a high GPA signifies academic
achievement within and beyond college.

High levels of student involvement help to fulfill a social development aspect of
student success. Students who are involved develop socially by interacting with other
students and grow through this interaction. Higher education research states several

benefits of student involvement. They include but are not limited to: satisfaction with the college in which one attends, higher graduation rates, aspirations for graduate school, moral development, cognitive development, critical thinking, vocational aspirations, and satisfaction with the undergraduate experience overall (Astin, 1984; Gellin, 2003; Moore, Lovell, McGann, & Wyrick, 1998). Student involvement measures student success because it is directly connected to the development of personal and social skills (Flowers, 2004). These personal and social skills can influence other markers of student success, such as leadership.

Students who succeed often lead and are known as leaders on campus. These students view leadership as a positive experience, enjoyable, beneficial to skill development, and important to success in professional, personal and academic arenas (Logue, Hutchens, & Hector, 2005). Students see their leadership skills as a way to relate and motivate others on different levels within the university (Logue et al., 2005), thus leading to social development.

The post-graduation benefits of leadership stem from the development of teamwork. Student leaders see working as a team as valuable to learning and growth (Logue et al., 2005). Seeing oneself as part of a team is imperative to the progression of today's college student. Leaders on college campuses see leadership as action (Logue et al., 2005). They seek opportunities to lead others and see their organizations as a way to create personal identity for the leaders (Logue et al., 2005).

The current study strives to understand how the above measures of student success can be enhanced in the life of high-achieving, low-income, minority students. We do so by looking at various types and levels of support and community. Support and

community are measured in four different ways in the current study, the first of which is through finances. Students finance their education and living expenses a few different ways. The current study assesses the use of parental support, part-time job earnings, and loans. These various avenues of support have differing effects on students' success.

The second way we measure support and community is through expectations. Students experience both external and internal expectations throughout their college careers. The current study examines the personal educational aspirations, family expectations, and community expectations of the undergraduate student. When a student enters college, family becomes increasingly important. The family can become a motivation students use to show that they can achieve something greater (Henderson & Hirt, 2004). The current study seeks to understand how this affects students' success.

Perceived support is the third way support and community is quantified. Support, or perceived support, from various sources on campus is linked to a myriad of benefits for the college student (Pascarella & Terenzini, 2005). There are three sources of support explored in the models: faculty, resident advisor, and other students. Students form social networks through these avenues of support that assist the students when they encounter difficulties in the university setting (Pascarella & Terenzini, 2005). Students make connections that can help with homework or become emotional support. These types of support are explored in this study.

Lastly, campus community measures support and community. Kuh and Kinzie (2005) show the need for an introduction into campus culture within the first couple of weeks on campus. Failure to learn the culture of the university through interactions with

others will quickly cause a student to become an outsider in the university setting, which can lead to negative effects on keeping up with schoolwork and making friends.

In addition, friends are a part of campus community. Friends matter to college completion in more than one way. Literature shows that students who have strong social networks coming into college transition best into and through college (Fletcher and Tienda, 2009). Fletcher and Tienda (2009) studied the number of high school students that enter college with classmates. They found that, overall, college freshmen that enter with more classmates from high school fair better their first year of college.

The current study uses data from the Bill and Melinda Gates Foundation. In, 1999 the foundation started the Gates Millennium Scholarship (GMS) as a way to expand higher education among low-income, high-achieving minority students. Each year, the foundation collects data on students that receive the reward (scholars) and applicants (non-scholars) that follows students until their senior year of college.

As stated above, GMS targets low-income, high-achieving, minority students. Low-income students are eligible for Pell Grants, according to the criteria. High-achieving students have at least a 3.3 GPA on a 4.0 scale and are leaders in community service, extracurricular, or other activities. Lastly, minorities include one of the following: African American, American Indian/Alaska Native, Asian American, Hispanic/Latino, or Pacific Islander background. These criteria make a student eligible to apply for the Gates Millennium Scholarship. GMS pays full tuition to the university the scholars so chooses.

Most universities want to increase service to these students (Hoxby & Avery, 2012) but do not fully know how because of the barriers these students face. Universities

try to combat this issue by visiting schools in high-poverty zip codes, maintaining strong relationships with guidance counselors who have direct contact with low-income applicants, and sending special letters to high achievers (Hoxby & Avery, 2012).

Schools are changing their financial aid policies, but there is still little to no immediate effect on the economic composition of their students (Hoxby & Avery, 2012). There are gaps in attendance levels based on income no matter the level of college readiness (Long & Riley, 2007). Income diversity does not equate to racial diversity. Therefore, colleges can recruit one or the other and not complete both goals.

Barriers minority students face are similar to those of low-income students, but there are major differences. Obvious difficulties for minorities in higher education include removing barriers of racism and discrimination, sometimes legal, which create issues for students of color trying to gain education (Justiz & Others, 1994). Other hidden barriers include recruitment, educational topics, assessment, professor readiness, institutional climate and culture, and financial aid. Most of the issues above are directly linked to retention in this population (Seidman, 2005; Swail, 2003).

Research suggests that the GMS scholarship indirectly influences scholars to be engaged on campus, academically and socially (Hu, 2010). Hu (2010) theorized that high levels of engagement come from two sources. The first is attending private 4-year colleges over 2-year community colleges. Four-year colleges have more opportunities for students to engage in as compared to two-year institutions. Secondly, the GMS scholarship indirectly encourages engagement simply because it adds financial support that the student normally would not have.

Using Gates Millennium Scholarship data provides an exclusive lens in which to conduct research. The data set includes student recipients and students who applied but did not receive the scholarship. This allows us to examine high achieving, low-income, minority students who have the support of GMS and those who do not. It is valuable for universities to have this information to know how to support this select group of students. Scholars and non-scholars are separate throughout the analysis to observe differences that may occur in student success based on support and community. The overarching goal of this study is to examine the effects of support and community on student success in this select group of students.

CHAPTER TWO

Literature Review

The Value of Education

A college education is valuable in American society, as it "opens the door to success" (Allen, Teranishi, Dinwiddie, & Gonzalez, 2000, pg. 3). Research points to reasons such as high labor market returns (Kao & Thompson, 2003), higher median earnings for young adults (U.S. Department of Commerce, 2008; Marks & Reid, 2013), and sustained employment (U.S. Department of Commerce, 2004). Other positive outcomes of higher education include increased civic engagement (Finlay & Flanagan, 2009), decreased involvement in delinquent behavior (Lochner & Moretti, 2004; Nally, Lockwood, Knutson & Ho, 2012), and better health outcomes (Cutler & Lleras-Muney, 2006). For some Americans, college is simply the next logical step after completing high school (Marks & Reid, 2013). No matter the reason, it is well documented that higher education benefits those who attend.

This study examines student success in higher education in high-achieving, low-income minority students, a population that does not have access to higher education at the same rate of other students and needs additional support. This study will give us a closer look at this population to aid support in student success and, therefore, college completion.

Astin (1985) says that there are three benefits to education: educational, fringe, and existential. Educational benefits are the extent to which a student develops talents

because of the education program in which they enroll. Fringe benefits occur post-college, benefits related to the institution itself or the credential in which a student received. Having a degree from a particular institution can afford students occupational and social advantages that have nothing to do with the students' personal qualities or qualifications. Lastly, existential benefits are those outside of educational and fringe benefits. These include students' subjective satisfaction derived from peer contacts, the learning process, interaction with faculty, extracurricular and academic experiences, recreational activities, and so on. All three of these benefits obviously vary from institution to institution and from student to student, but each student receives them to some extent.

Student Success

The current study will focus on the educational benefits of education, as outlined by Astin (1984), through student success while in college. Student success can be hard to define and measure, and varies depending on the institution. There are sociological, organizational, psychological, cultural, and economic perspectives on how to obtain and maintain student success. None of these are comprehensive enough on their own to fully grasp every aspect of student success (Kuh, Kinzie, Buckley, Bridges, and Hayek, 2006). Several definitions of student success include aspects of academic success, engagement, post-college performance, and skill development (Kuh et al., 2006). The present research is an exploratory study to understand more about student success by examining the relationship between student success and both support and community. Grade point average (GPA), student involvement, and leadership measure student success in the current study.

Grade Point Average

The first measure of student success is grade point average (GPA)[1]. GPA is the most basic and standardized measure for student success across all higher learning institutions. No matter what university students attend, their grade point average should be comparable. GPA allows students to evaluate their mastery of materials throughout the college experience. GPA is a marker of student success linked to scholarship money, research opportunities, and employment after graduation.

Background characteristics can influence GPA levels in college students. Parental education and family income are the best predictors of eventual academic outcomes in youth (Kao & Thompson, 2003). Asian American youth are advantaged in terms of parental education levels (Kao & Thompson, 2003). For Hispanic students, fathers' education, families' equal use of English and Spanish, family support of students' growth into areas of their own particular interests, and students' openness to experience had the highest correlations with academic achievement (Cornelius-White, Garza, & Hoey, 2016). In general, connection to racial and ethnic minorities' peers and cultural congruity relate to higher college GPAs in minority students (Cerezo & Chang, 2012), in addition to high school GPA. African American male students rooming with other African American males and African American female students rooming with academically successful students report higher GPAs (Peltier, Laden, and Matranga, 1999). These finding are specific to students at Predominately White Institutions (PWIs). The current

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[1] To calculate grade point average, students must first multiply the number of credits each class is worth by the point value for the letter grade earned in that class. Next, total the grade points of all classes for that semester and divide it by the number of credit hours attempted. In the current study, GPA is self-reported on a 5 point scales.

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study assesses ways to improve GPA in high-achieving, low-income minority students across the board.

Student Involvement

Student involvement is the second measure of student success in the present study. According to the Muscatine Report (Select Committee on Education, 1966), written by a committee of researchers at UC Berkeley, the "chief root" of student disenchantment with the university was the lack of community. Students felt that the university had gotten too large and there was an impersonal quality between the students and faculty (Select Committee on Education, 1966). At that time, the focus on community seemed to counteract preparing students for modern life. Higher education scholars now agree that community is vital for the life of the college student and is achievable at any size institution (Maltby, Brooks, Horton, & Morgan, 2016; Rovai, 2002). There are concrete benefits, as well as psychological realties, to being a part of a community (Maltby et al., 2016; Rovai, 2002).

Astin (1984) states that environment plays a role in student involvement. His model for student involvement is simply input→ environment→ output. Input equals the time and energy the student puts into student involvement. Environment is the institutional climate. Astin (1984) states, "effectiveness of any educational practice is directly related to the capacity of that policy or practice to increase involvement (Astin, 1984 pg. 298)." Students can only be involved as much as the institution is prepared for them to be. The number of clubs, jobs, and research labs on campus has a direct relationship to the amount and type of students involved on campus.

Universities must be committed to student involvement by allocating resources and funds, but it is not that simple. Students must also allocate their time. The time a student gives to subject matter or, in this case, involvement activities is positively related to the amount the student develops during college years (Astin, 1984). Working, engaging with peers, joining and engaging with a club, and socializing with faculty members all infringe on students' time (Astin, 1984).

Astin (1984) proposes the last stage in his model is the output of the student. Students from various backgrounds all benefit from engaging in student involvement with various degrees of benefit (Pascarella and Terenzini, 2005). In African American students, specifically, research shows that "student involvement experiences directly impact student developmental gains in understanding arts and humanities, personal and social development, understanding science and technology, thinking and writing skills, and vocational preparation (Flowers, 2004 pg. 640)." In addition, student involvement is related to college persistence (Gerdes & Mallinckrodt, 1994; Toews & Yazedjian, 2007; Wintre & Bowers, 2007). Students that report putting more time into student involvement activities are likely to feel like they received more from the college experience as a whole (Webber, Krylow, & Zhang, 2013).

Higher education research states the many benefits of student involvement. They include but are not limited to: satisfaction with the college in which one attends, higher grades, better retention, higher graduation rates, aspirations for graduate school, leadership roles on campus, influences on moral development, cognitive development, critical thinking, vocational aspirations, and satisfaction with the undergraduate experience overall (Astin, 1984; Gellin, 2003; Moore, Lovell, McGann, & Wyrick,

1998). These interactions vary depending on the type of interaction and, sometimes, on the demographic characteristics of the student.

Compared to White students, Black students are more involved in social interaction with faculty and academic advisors. Asian American students are less involved with peers compared to White students (Wang & Kennedy-Phillips, 2013). Flowers (2004) conducted an in-depth study of the student engagement patterns of African American students. Compared to White students, Black students had low to moderate levels of student involvement (Flowers, 2004). He also found that, compared with other Black students, students that are involved in academic related student involvement was positively linked to vocational development (Flowers, 2004). In addition, out-of-class recreational experiences such as art, music, and theater had fewer positive effects on educational outcomes than academic related experiences (Flowers, 2004). Lastly, Flowers (2004) found that racial identities might influence levels of participation on campus.

Leadership

The current study examines leadership as the last measure of student success. We measure leadership concretely by the number of leadership positions a student holds. However, leadership is more complex and complicated than a simple measure. Another dimension of leadership is whether a student believes himself or herself to be a leader. The leadership measure in the study allows us to grasp the complexities of leadership.

Higher education plays a critical role in developing the leadership capacity of the college student (Astin & Astin, 2000; Roberts, 2003). "Helping students develop the integrity and strength of character that prepare them for leadership may be one of the

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most challenging and important goals of higher education (Patricia King 1997, pg. 87)." Astin and Astin (2000) reason that leadership within higher education has two basic purposes. The first is "to enable and encourage faculty, students, administrators, and other staff to change and transform institutions so that they can more effectively enhance student learning and development, generate new knowledge, and serve the community (Astin and Astin, 2000, pg. 9)." Secondly, "to empower students to become agents of positive social change in the larger society (Astin and Astin, 2000, pg. 9)." Leadership enhances self-efficacy, peer interaction, civic engagement and responsibility, character development, academic performance, societal awareness, multicultural awareness, skill development, effectiveness in other areas of their lives, and personal development of students (Benson & Saito, 2001; Cress, Astin, Zimmerman-Oster, &Burkhardt, 2001; Eagly, Johannesen-Schmidt, Van Engen, 2003; Fertman & Van Linden, 1999; Komives, Owen, Longerbeam, Mainella, & Osteen, 2005; Posner, 2004; Van Linden & Fertman, 1998).

Students who lead view leadership as a positive experience, enjoyable, beneficial to skill development, and important to success in professional, personal and academic arenas (Logue, Hutchens, & Hector, 2005). Students view their leadership skills as a way to relate and motivate others on different levels within the university (Logue et al., 2005). Student leaders view working as a team as beneficial for learning and growth (Logue et al., 2005). Viewing oneself as a part of a team is imperative in the progression of a modern college student leader. Leaders on college campuses define leadership as action (Logue et al., 2005). They seek opportunities to lead others and view their organizations as a way to create personal identity for the leaders (Logue et al., 2005).

Over time, leadership models have progressed from industrial models to postindustrial models to social change models. In the mid-1990s, new frameworks catering to college student populations began to appear (Higher Education Research Institute [HERI], 1996; Komives et al. 2005), one of which is the social change model. The social change model increases levels of self-knowledge while creating socially responsible students who create change that benefits the common good (HERI, 1996). There are eight main values: consciousness of self, congruence, commitment, collaboration, common purpose, controversy with civility, citizenship, and change (HERI, 1996).

Culture and social identity influence students' understanding and approach to leadership (Dugan, Komives, & Segar, 2008). Based on the social change model of leadership, African American students often had top scores on the social change model of leadership while Asian American students often had the lowest scores (Dugan and Komives, 2007). The same study found first-generation students, African American students, Native American students, and Latino students, score higher on the social change model value of change than their dominant-group peers (Dugan and Komives, 2007). These students seem more comfortable navigating and implementing change (Dugan and Komives, 2007). The strengths of African American and Black students' leadership lie across the values of consciousness of self, citizenship, and change, consistent with the cultural notion of social change through advocacy and education (Arminio et al., 2000; Clayborne & Hamrick, 2007; Harper & Quaye, 2007).

Pacific Asian students experience leadership differently. Culturally, authority, avoidance of conflict, and restraint do not lend themselves to the social change model of

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leadership. However, the cultural values of harmony, collectivism, and interdependence do lend themselves to the social change model of leadership (Balón, 2003; Kawahara, Esnil, & Hsu, 2007; Liang, Lee, & Ting, 2002; Liu & Sedlacek, 1999). It seems that those cultural values do not necessitate leadership based on the social change model of leadership.

African American student leaders favor less structure, want people to feel comfortable, and communicate in ways that support input and feedback (Kruger and Carter, 1991). Actual leadership positions are not as important as with Caucasian students, pointing to the more communal ways of leading (Kezar & Moriarty, 2000). Studies point to underrepresented populations developing collaborative leadership styles as a means for advancement (Madden, 2005; Sanchez-Hucles & Sanchez, 2007). Leadership development occurs differently across campuses in these two populations. African American men are more likely to perform volunteer work, African American women and Caucasian men are more likely elected to a positon, and, lastly, Caucasian women are more active in student organizations in general (Sanchez-Hucles & Sanchez, 2007).

The current study examines the population of high-achieving, low-income, minority university students and their outcomes on the student success measures. We do so by looking at four distinct measures linked to retention in college students: college finances, expectations, support, and the campus community (Braxton et al., 2004; Gerdes & Mallinckrodt, 1994; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Pascarella & Terenzini, 2005; Swail, 2003; Toews & Yazedjian, 2007; Wintre & Bowers, 2007). We examine juniors and seniors, which shows a marker of success, as they are upper level

students. The question remains: are these students exceeding at other dimensions of student success?

<center>*Factors Linked to Retention*</center>

Financial Support

Financial support is essential in the life of every college student for tuition, books, club dues, lab fees, entertainment, and basics like room and board. Students finance their education in different ways. The current study assesses the use of parental support, part-time job earnings, and loans on student success.

Over the past 20 years, costs of higher education have shifted from governments and tax payers to the students and their families (Johnstone, 2003). This shift impacts those at lower rungs of the economic ladder more than those at the top. For students in the lower rungs of the economic ladder, a major shift is in college choice. Avery and Hoxby (2004) found college choice related to parent's college selectivity, private high school attendance, and parent's income. High income students are more attracted by school selectivity than financial aid (Avery & Hoxby, 2004). Low income students are more likely to choose their least selective college compared to high income students (Avery & Hoxby, 2004). In the context of the Avery and Hoxby (2004) study, low-income students would pick a higher selective school if they had similar financial backing of other wealthier students. State and federal governmental programs attempt to combat some of these issues.

After college admission, students must find ways to finance his/her education. For the students in our study, there are various measures of possible sources. Students can

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finance first through parental contributions. We must mention that the cost of college

increased from $9,151 to $15,640 a year from 1993 to 2014 (in 2014 dollars) which is an

increase of 171% (U.S. Department of Education, National Center for Education

Statistics, 2016). During the same period, median income rose and fell ending with an

increase of only a couple hundred dollars from $52,998 in 1994 to $53,657 in 2014 (in

2014 dollars) (U.S. Census Bureau, 2016). These differences affect how much money

parents contribute to finance college educations.

Several studies show the various levels of parental contributions. For example,

divorced parents contribute equally to the education of their college-aged students

(Fabricius, Braver, and Deneau. 2003). Compared to White students, Black students are

more likely to live in single-parent homes (Charles, Roscigno, and Torres, 2007) and

therefore have less parental support in financing their college tuition (Charles et al.,

2007). Lastly, 90% of families with college-educated parents have a college savings plan

for their children (Dynaksi, 2004). Minority parents are less likely to set money aside for

college compared to White parents (Charles et al., 2007). Socioeconomic status

differences account for most of the differences statistically (Charles et al., 2007). There

are financial consequences attached to this statistical difference.

The second source of funding students employ to finance their educations is

through part-time jobs. Students work for innumerable reasons, some of which include

rising cost of college while family income stays the same (as mentioned above),

decreased availability of subsides, subsides that exist are now work related, and a

growing desire for financial independence in the college student. In 2012, 62% of all

students worked regardless of demographic background (Carnevale, Smith, Melton, and

Price, 2015). There is a complex relationship between work and class performance that varies depending on the demographic of the student and the number of hours they work (Carnevale & Strohl, 2013). Working is more positivity correlated with performance in school when the job is more closely related to schoolwork (Carnevale et al., 2015). Additionally, students who work have increased independence and social opportunities, and acquisition of new skills.

There are negative consequences of holding employment while in school as well. Working while in school is detrimental to students at the lowest socioeconomic states the most, as these students are the most likely to be employed full-time (Carnevale et al., 2015). It is unclear why this occurs but it is proven that students who work have less frequent interactions with faculty (Furr & Elling, 2000). Interactions with faculty are valued as a way to increase academic progress and remaining in college (Furr & Elling, 2000).

Parental income and part-time work are not enough, in most cases, to pay for college. Grants and loans are crucial to account for the lack of funding. Grants do not keep up with the rising costs of tuition (Long & Riley, 2007) and college debt has skyrocketed. Currently, 70% of college students graduate with student loans (Cochrane & Cheng, 2016). This is an increase from 19% in the 1989-1990 academic school year (Wei, 2010). There has not been a change in the amount of federal loan a student can acquire while the cost of tuition has risen, and this has increased the amount of unmet need students have in attending college (Long & Riley, 2007). Students in the lowest half of income distributions, students attending private four-year colleges, and black students borrow more money than other students (Long & Riley, 2007).

Expectations

The current study examines the pressures of expectations on student success in the college student. Students experience both external and internal expectations throughout their college careers. Personal education aspirations, family and community expectations of the undergraduate student measure expectations in the current study. When a student enters college, the family becomes increasingly important. The family can motivate students to achieve (Henderson & Hirt, 2004).

Asian American students expressed that their choice to go to college was largely influenced by their families (Surla & Poon, 2015). Minority parents have extremely high educational aspirations for their children and maintain these aspirations over time (Kao, 2002). Research found that only Asian American parents held these high standards while having a high level of savings, as well (Kao, 2002). Other minority groups have the same expectations placed on them without as much financial support.

Aspirations refer to an idealistic value toward education, and expectations refer to a realistic educational plan (Morgan, 1996). High aspirations do not always lead to better outcomes for disadvantaged students (Deil-Amen & Turley, 2007). The gap is wider for Blacks than for Whites (Deil-Amen & Turley, 2007). Black, Hispanic, and Asian students report higher aspirations than would be expected by their SES (Kao & Tienda, 1998). Native American students' aspirations are linked to retention in those same students (Pelter, Laden, & Matranga, 1999). Self-belief and valuing of education leads to decisions towards retention and persistence in Latino students (Gloria, Castellanos, Lopez, & Rosales, 2005).

Kao and Tienda (1998) found a link between personal educational aspirations and family socioeconomic status. All students begin with high education and occupational aspirations. Compared to White students, Asian, Black, and Hispanic students have lower socioeconomic statuses and less formed about college which therefore lessen their aspirations accordingly (Kao & Tienda, 1998). The current study explores expectations and aspirations and the correlations with student success in high-achieving, low-income college students.

Support

Support, or perceived support, from various sources on campus provides a myriad of benefits for the college student (Pascarella & Terenzini, 2005). Students see direct links between their relationships with peers and faculty as reinforcements of their identities as future professionals (Kaufman & Feldman, 2004). "The Strength of Weak Ties" is the most influential study of social networks written by Granovetter in 1973. He states that ties make up social networks. These ties are a combination of the amount of time, emotional intensity, reciprocal services, and intimacy; all four must be mutual for both parties (Granovetter, 1973).

In the university setting, ties occur between students, teachers and students, and the student and the institution itself. This is important for the student because interpersonal networks provide micro and macro bridges that translate to small-scale interactions that could potentially become large scale (Granovetter, 1973). Presently, we examine support from faculty, resident advisors, and other students as on-campus support for the undergraduate student.

Smith, Menon, and Thompson (2011) explain that there are three types of social networks and each one is cognitively activated at different times based on the specific purpose in an individual's life. First is the potential network, which is the "full set of contacts that people have at their disposal (Smith et al., 2011 pg. 68)." In the life of the college student, this is essentially everyone at the university. The second is the activated network, the subset of contact that a person remembers in a given situation (Smith et al., 2011). The mobilized network is the subset of the activated network that people actually use in any given situation (Smith et al., 2011). Close friends and faulty mentors make up this group for the student.

Students that are involved form social networks that can assist the student when they encounter difficulties in the university setting (Pascarella & Terenzini, 2005). These students have networks that are larger and therefore have more individuals to pull social resources from when needed. Students make connections that can help with homework or become emotional support. Again, there are three sources of support explored in the models; faculty, resident advisor, and other students.

Campus Community

Student success correlates with campus community. The current study seeks to understand the impact of the relationship. Campus community is operationalized as dating someone outside of your race, studying with a person of a different racial group, relying on your racial group for social support, feeling like a part of campus, having friends in college, and freshman year acclimation. Each one of these involves students' interactions with and on the college campus, the community in which they implant themselves. Retention and campus community correlate with one another (Swail, 2003).

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Lack of diversity in student population, faculty, and staff can restrict the quality of minority student interactions in and out of the classroom, resulting in lower retention rates in these students (Swail, 2003).

At many universities, minority students create alternative spaces where they can find support and create networks. These spaces are both social and academic. African American students create "counter spaces" to create support within their systems (Solorzano, Ceja, & Yosso, 2000). These spaces are both on- and off-campus and are mostly social spaces for African American students to feel comfortable.

At some universities, Hispanic communities create intentional learning communities. These communities respond to the Hispanic students' needs culturally and linguistically and predict retention at a higher rate than GPA or standardized test scores (Gonzales, Brammer, & Sawilowsky, 2014). These alternate spaces are critical to producing support for these students.

Kuh and Kinzie (2005) show the need for an introduction into campus culture within the first couple of weeks on campus. Without this introduction, students may have a harder time achieving insider status in the university context. Failure to learn the culture of the university through interactions with others will quickly cause a student to become an outsider in the university setting. The identity of outsider can have a negative effect on keeping up with schoolwork, making friends, and being involved in campus community.

Literature shows that students that have strong social networks coming into college transition best into and through college (Fletcher and Tienda, 2009). Fletcher and Tienda (2009) decided to study the number of high school students that enter college with classmates. They found that, overall, college freshmen that enter with more classmates

from high school have better grade point averages and more likely enrolled in the school at the end of four semesters (Fletcher and Tienda, 2009). In addition, students that report having a best friend increase school engagement (Vaquera, 2009). When a student knows other students at the university, they are more comfortable and have a wider social support system, allowing the student to perform better than those who do not have the same support system.

McDonald & Vrana (2007) report that Black students are forced to feel comfortable with white students because they must interact with them more often. Networks that expand past one one's social group is necessary for successful college retention. Students have such networks are less likely to leave college (Tinto & Goodsell-Love, 1993). As mentioned above, they create alternate spaces to create networks within their group and may feel forced to interact when other racial groups are not.

Minorities in Higher Education

As stated earlier, most Americans would agree that higher education is beneficial for countless reasons. It is a way to increase human, social, and financial capital. The same is true within the minority community. However, minorities' relationship with American higher education has included inequality and stifling since its inception. "The development of the potential of the minority community is fraught with difficulties and problems (Justiz & Others, 1994 pg. xvi)." Although higher education will have the same benefits for minority students, the barriers to said education are greater for them than in White communities in American society. Cultural orientations of certain ethnic groups either promote or discourage academic achievement and the structural positions of ethnic

groups affects children's environments (Kao & Thompson, 2003). These two elements together give context to the gap between minorities and Whites in higher education.

The U.S. Census Bureau estimated by the year 2025 that 49% of youth ages 15-19 would be minority students (U.S. Census, 2000). As of the latest 10-year census, the number is around 39% (U.S. Census, 2010). There are the obvious difficulties for minorities in higher education such as the removing barriers of racism and discrimination, sometimes legal, that create issues for students of color to gain education (George, Duran, & Norris, 2014; Grodsky & Jones, 2007; Knaggs, Sondergeld, & Schardt, 2015). "Higher education system does not operate to equalize opportunity but has powerful institutional features that tend to perpetuate separation and inequality (Orefield, 1994, pg. x)." The growing minority youth population makes this a larger concern.

Some difficulties and problems are not as obvious, such as combating the issue of college enrollment for minorities while respecting other's rights to enroll as well. Fisher v. University of Texas (2013, 2016) briefly brought this issue to light with Abigail Fisher addressing Affirmative Action working against her admission into the University of Texas-Austin. Fisher believed that she was more qualified than the minority students the University of Texas-Austin admitted instead of her (Fisher v. University of Texas 2013, 2016). Cases like these lead to potential problems in the admission of minority students into higher education. Affirmative Action results are skewed in favor of white women. White women are by far the greatest beneficiaries of Affirmative Action in all areas of education, employment, and careers. Enrollment of Black and Hispanic students at UC Berkeley and UCLA dropped 50% after Affirmation Action policies rolled back in 1995

(Allen, Bonous-Hammarth, & Teranishi 2001) and has since slowly climbed back up with minorities averaging around 70% of the total undergraduate population for both universities (UC Berkeley Office of Planning and Analysis, 2016; UCLA Academic Planning and Budget Office, 2016).

Barriers to full representation of minorities in higher education are complex, convoluted, and begin at many sources. Barriers include recruitment, educational topics, assessment, professor readiness, institutional climate and culture, and financial aid. Most of the issues above directly link to retention in minorities (Seidman, 2005; Swail, 2003). As we venture through these barriers to higher education, we must note the definition of equity. Astin & Oseguera (2004) cite guaranteeing that opportunities are available for all does not ensure equity unless opportunities themselves are comparable. Therefore, even if each hurdle disappeared there still may not be equity in the education of minorities as compared to White students.

There are a few road blocks minority students face on the way to and within higher education. One such block is exposure to information and recruitment. Both exposure to information and recruitment are lacking in minority communities. Strengthening the efforts to attract academically prepared minority students will increase the knowledge that college is an option (Knaggs et al., 2015). Minority students may not be in universities and colleges because they do not know that there are options for them to go.

Another such block is the education itself. The education does not reflect the richness of all experiences of everyone in the country (Crichlow, 2013). American minorities and their values are neglected or insufficiently represented in college

textbooks, curricular activities, and examples (Pewewardy & Frey, 2002). Students of color can feel as if their experiences and contributions to the world have no value and are not taught in college curriculum (Lewis, Chesler, & Forman, 2000).

Unbiased assessment can level the playing field to higher education. Astin (1994) says assessment measures given to elementary students that measure ability send various messages. Students get the message to work harder or academic work is not for them. These messages sent year after year can cause a student to opt out of education long before college (Astin, 1994). Assessment tests can hinder students from attending college at all. Test bias is presented as a plausible explanation of achievement gaps between White and minority students (Contreras, 2016). In 2015, Asian American students scored an average of 377 points higher on the SAT test than African Americans' average score of 1277 (Jaschik, 2015). White students scored 299 points higher than African Americans (Jaschik, 2015). Native American students scored 146 points higher than African Americans (Jaschik, 2015). Finally, Hispanic students scored 68 points higher than African Americans (Jaschik, 2015). The above tests scores prove that not all students have the equal chances in higher education.

Minority students do not gain graduate degrees at the same rate as White students in America and therefore cannot secure a place in faculty on college campuses. The rate of Black and Hispanic students in professional school remains as low as it was in the late 1960s (Deil-Amen & Turley, 2007). This is another difficulty of minority higher education, because minority students then do not see themselves in higher education. A retrospective analysis of Hispanic doctoral students says that there should be four types of support: financial support and opportunity; emotional/moral support; mentorship from

university faculty or other professionals; and technical support (Valverde & Rodriguez, 2016). Lack of representation in the faculty and staff may directly relate to the amount of support students perceive themselves to have.

Barriers do not cease to exist once minority students reach college. After college admission, minority students identify both academic and behavioral stereotyping as a problem (Lewis et al., 2000). Behavioral stereotypes affect interpersonal behavior and cultural styles (Lewis et al., 2000). Minority students often feel as if they represent their entire race in class discussions (Seidman, 2005). Students felt that White students attempted to erase their differences by treating race and ethnicity as trivial (Lewis et al., 2000). Asian Americans are stereotyped to perform well, which seems like a good thing, but adds pressure for these students to perform academically and ignore differences among and between them (Lewis et al., 2000). These students as a whole felt as if they were isolated from peer interaction by dilation actions and "normal" intergroup relationships (Lewis et al., 2000). They felt they missed networks and were not wanted in certain academic settings (Lewis et al., 2000). Particularly for students of color, Reid and Radhakrishnan (2003) found that Latina/o, African American, and Asian American students perceived a more negative general campus climate and reported more negative experiences with racism than White students report.

Higher education, like most other institutions, has a unique climate that can change within and between differing colleges. Minority students feel a sense of belonging where they are involved (Arbona & Jimenez, 2014; Booker, 2016; Matelski, 2016; O'Keeffe, 2013). Encouraging professors to be mentors encourages students to feel like a part of the institution (O'Keeffe, 2013). Creating places for peer support, strengthening

counseling services, and providing remedial education encourages students as well (Arbona & Jimenez, 2014; Booker, 2016; Matelski, 2016; O'Keeffe, 2013).

Social support for minority students includes keeping connections to family and friends back home. Severing these ties can add additional stress for the minority student (Wagner, 2015) but also can cause issues on campus when trying to make ties to new people. Retention correlates positivity with parental involvement in African American students (Schwartz and Washington, 1999) and Hispanic students (Walker and Schultz, 2001). For Mexican American students, parental involvement aids in college completion (Hurtado-Ortiz & Gauvain, 2007). Asian students report being close to home is important for college choices (Surla & Poon, 2015), further reiterating the importance of family.

This is especially true of Black students that enter into Predominantly White Institutions (PWI). Black students at PWIs rely on family more than students who attend Historically Black College or Universities (HBCUs) (Henderson & Hirt, 2004). This could be true because there is a small network of people that look like them in the classroom, from the teachers to the other students. At PWIs there may be less interaction with one's own race, as stated earlier, which is important in forming identify, especially when going to a new setting like college.

African Americans usually socialize only in segregated settings over the life course and do not develop networks with the majority or the skills to do so (Goldsmith, 2009). Kozol (2005) worked with students in rural areas and noted that they lack knowledge concerning universities and colleges in their city or neighboring cities. His research agrees with the research on African American students and highlights that children in these environments do not receive exposure to the right types of networks.

Students do possess the desire to obtain a college degree, which, in many cases, is step one. This is where the social network or social capital connection breaks down. People who carry "high-status knowledge" increase their life chances (Goldsmith, 2009). These groups do not have this knowledge.

Financial aid is a large barrier to minority students. For African American and Hispanic students, the lack of financial aid positively correlates with low retention (Seidman, 2005; Swail, 2003). Low-income students are less likely to borrow money for school (Perna & Titus, 2005). Being in debt is unrealistic and unattractive to these students. Financial aid can be viewed as an investment in human capital (Justiz & Others, 1994); students that receive a degree can contribute more to society financially and otherwise. Hispanic, Black, and low-income students are more likely to adjust their college choice based on price (Price, 2004). Student loan debt in the United States has exceeded personal credit card debt (Brown, Haughwout, Lee, Mabutas, & Van Der Klaauw, 2012; Johnson-Ahorlu, 2013). The role of grants and financial support is imperative for African American students because they disproportionately have lower socioeconomic statues and represent the racial/ethnic group most sensitive to the costs of college (Perna & Titus, 2005). Although high-achieving students have more academic options after high school, they still have economic challenges (Perna & Titus, 2005).

There are several strategies to combat the financial aid gap. Some of those strategies include creating/expanding aid programs designed for minorities, solely; maintaining low tuitions at public institutions; increasing the amount of grant aid disadvantaged students receive; pursuing polices that increase student retentions and persistence; and, lastly, neutralizing the negative effects of borrowing (Johnson, 2013).

These strategies will not only increase enrollment but also increase completion of the degree, which is important for students.

High Achieving, Low Income Students

Low-income, high-achieving students are desirable by selective universities. These schools seek to increase socioeconomic diversity without lowing academic standards (Hoxby & Avery, 2012). A low-income student is one who comes from a family that earns $41,472 a year or below (U. S. Department of Education, 2015). Schools are changing their financial aid policies, but there is still little to no immediate effect on the economic composition of its students (Hoxby & Avery, 2012). There are gaps in attendance levels based on income no matter the level of college readiness (Long & Riley, 2007). Low-income students who graduate in the top quartile attend college at the same rate as high-income students in the lowest quartile (Advisory Committee On Student Financial Assistance, 2001).

Kane and Avery (2004) found that low-income students have little understanding of how to handle the admissions process or knowledge about college tuition levels. Universities try to combat this issue by visiting schools in high-poverty zip codes, maintaining strong relationships with guidance counselors who have direct contact with low-income applicants, and sending special letters to high achievers (Hoxby & Avery, 2012). For every 1 low income student, 8 to 15 high income students apply to selective colleges (Hoxby & Avery, 2012). It is important to note that the group in question above (high-achieving, low-income) does not automatically include underrepresented minority students (Hoxby & Avery, 2012). Income diversity does not equate to racial diversity. High-income students favor reach colleges over safety

schools, whereas low-income students favor nonselective colleges and schools with lower tuition prices (Hoxby & Avery, 2012). Socioeconomic status matters more than race and ethnicity for entry to selective colleges (Hearn, 1991).

Hoxby and Avery (2012) separate high-achieving, low-income students into two categories: income typical, students characterized more by their income, and achievement typical, students characterized by their achievements. They found that achievement typical students behave like high-income, high-achieving students in application, enrollment, and completion of college. High academic achievement does not secure successful transition to college (Deil-Amen & Turley, 2007). Differences in income on college enrollment vary by race, class, and gender (Deil-Amen & Turley, 2007).

Gates Millennium Scholarship

Colleges, no matter the level or type, want to recruit high-achieving, low-income, and minority students. The obstacles above can slow or stop these students from reaching higher education of any kind. There are state and federal governmental programs that aim to lessen this burden, including, but limited to, Title I programs, TRIO programs, and Georgia's GEAR UP program. Several private organizations aim at the same goal as well. The Gate Millennium Scholarship (GMS) recognizes these issues and seeks to combat some of them through financial support, leadership building, and networking.

The GMS program began in 1999 by the Bill and Melinda Gates Foundation as a 20-year initiative. The goal of the GMS program is to "promote academic excellence and to provide an opportunity for outstanding minority students with significant financial need to reach their highest potential" (Gates Millennium Scholars Program, 2017). GMS has done just that. Gates scholars' five-year graduation rate is 82.2%; above the national

average of 50.1% for minority students over six-years (Camera, 2015). Almost half (48.5%) of scholars transition to graduate school, about 60% of those into GMS-funded fields.

> "The increasing diversity of our society reminds us that all of America's citizens must have access to opportunity for higher education if our nation is to sustain and advance itself as a global, competitive democracy in the new millennium. The future of our nation's economy, democracy, and quality of life is dependent upon the preparation of a diverse cadre of leaders who will help build a stronger society. These potential leaders, drawn from groups that have traditionally and historically been denied access to higher education, must receive the support needed to negotiate the pathway to completing a college education. (Gates Millennium Scholars Program, 2017)."

The scholarship seeks to complete this goal in one of four ways. The first is reducing financial barriers for minority students with high academic and leadership promise who have significant financial need. The scholarship covers all unmet need including tuition and fees. Secondly, by increasing the representation of these target groups in the disciplines of computer science, education, engineering, library science, mathematics, public health and the sciences, where these groups are severely underrepresented. The lack of Native American students in computer degrees is linked to conflicts between culture and their coursework (Kodaseet, 2012). Native American students lack resources to familiarize themselves with computers, IT, and the field of computer science, as well (Kodaseet, 2012). In addition, some students chose to live, work, and play around their communities. Because of this, the computer science degree does not lead to employment in those communities (Kodaseet, 2012). These two factors together create a need for the Gates Scholarship to encourage these students. Third, by developing a diversified cadre of future leaders for America by facilitating successful completion of bachelor's, master's, and doctoral degrees. Lastly, by providing seamless

support from undergraduate through doctoral programs. For continued support after undergraduate graduation must enter one of the target disciplines selected by the Gates Millennium Scholars entering target disciplines. The last two directly combat the representation issue of minority faculty mentioned above.

GMS targets high-achieving, low-income, minority students. High-achieving students are defined as having at least a 3.3 GPA on a 4.0 scale and being a leader in community service, extracurricular, or other activities. Low-income is defined as being eligible for Pell Grants. Lastly, minorities are one of the following: African American, American Indian/Alaska Native, Asian American, Hispanic/Latino, or Pacific Islander background. These students are valued at any higher educational institution.

Low-economic African American students have less access to college education, so therefore overestimate the cost of attendance and misunderstand financial aid (Cabrera & La Nasa, 2000). Davis, Nagle, Richards, & Awokoya (2013) found African American Gates scholars were influenced heavily by finances on which university to attend. The scholarship reduced those concerns and allowed them to pick colleges that fit them better academically and intellectually (Davis et al., 2013). Removing financial hurdles for low-income, high-achieving African American students allows them to attend universities with higher prestige (Davis et al., 2013; Hu, 2010).

Research suggests that the GMS scholarship indirectly influences scholars to be engaged on campus, academically and socially (Hu, 2010). Hu (2010) theorized that high levels of engagement come from two sources. The first is attending private 4-year colleges over 2-year community colleges. Four-year colleges have more opportunities for students to engage in as compared to two-year institutions. Secondly, that the scholarship

indirectly encourages engagement simply because it adds financial support that the student normally would not have. The current study seeks to explore how the Gates Millennium Scholarship effects other areas of student success.

Research Questions

The present study seeks to understand student success in high-achieving, low-income, minority students. This study does so by examining four components of a college student that point to retention using Gates Millennium Scholarship data. The literature review supports five research questions.

How does financial support affect student success in high-achieving, low-income minority students?

How do expectations affect student success in the high-achieving, low-income minority students?

How does support affect student success in high-achieving, low-income minority students?

How does campus community affect student success in high-achieving, low-income minority students?

Does the Gate Millennium Scholarship positively affect student success in high-achieving, low-income minority students?

CHAPTER THREE

Data and Methods

Sample

The current study uses data from the Bill and Melinda Gates Foundation. In, 1999 the foundation started the Gate Millennium Scholarship as a way to expand higher education among low-income, high-achieving minority students. Each year, the foundation collects data on students that receive the reward (scholars) and applicants (non-scholars) that follows students until their senior year of college. Partners at the Institute for Social Research at the University of Michigan distribute the survey.

"The goal of the Gates Millennium Scholarship data was to gather data on the lives of scholars and selected non-recipients in order to analyze the effects on the educational, civic, and personal lives of selected sample members (Gates Millennium Scholars Program, 2017)." The survey includes questions that address social, cultural, linguistic, and economic background; race/ethnicity and gender patterns; high school preparation and experiences; engagement and leadership in college; academic achievement, persistence, and completions; graduate education plans; and career choice. The current study uses Wave 3 of Cohort 5. These students were freshmen in the fall of 2005. Researchers collected data in 2009, via internet, as a second follow-up and students in their senior year of college. This data was chosen because it is the latest data publically available that includes the second wave. There are 1,603 students in the current study; 793 received the Gates Millennium Scholarship (scholars) and 810 did not receive the

scholarship (non-scholars). The sample of this study used junior and seniors as determined by credit hours.

Methodology

Chapter Four contains results for the three dependent variables included in the study. Each dependent variable – GPA, Campus Involvement, and Leadership – is examined using Ordinary Least Squares (OLS) regression models. OLS regression models employed the multiple imputation techniques as suggested by Allison (2002) to account for missing values. There are no patterns of missing variables within the data and the data is thought to be missing at random. Because of this, multiple imputation is the best technique to create data for the missing cases. The multiple imputation technique created values for missing cases to produce 1,425 total cases for this study. Scholars and non-scholars models are separate throughout the study to observe differences. T-Tests examine the difference in means of the three independent variables in the study

Dependent Variables

There are three dependent variables within this research project. Grade Point Average (GPA), Campus Involvement, and Leadership all point to college success in traditional models. All measures are included in Table 1.

Grade point average is measured by the question: *What was your GPA as of April 30, 2007?* GPAs ranged from 0-4.0. The sample's average overall GPA is 3.26. Scholars have an average overall GPA of 3.29 while non-scholars have an average overall GPA of 3.23. The distribution of GPA can be found in Figure 1. GPA is a marker of student success in the current study. It is the most basic measure of how a student performs

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academically. Grade point average is comparable across universities and linked to outside sources of scholarship money and research opportunities in college. Post-graduation, GPA is a stamp for the outside world to say you have succeeded as a college student. Students with higher GPAs have better chances with admission into graduate/professional school and being hired in their first jobs.
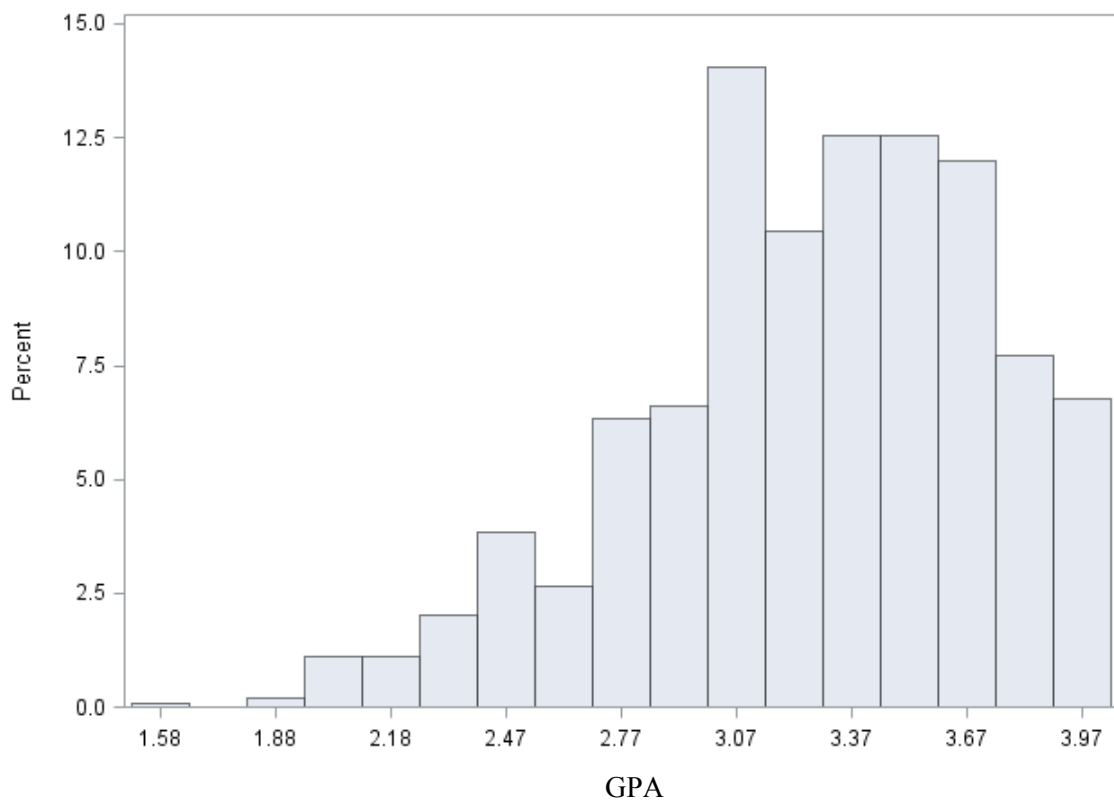
Figure 1. Distribution of GPA

Student Involvement is a created scale with a Cronbach Alpha score of .648. The scale is generated from five questions pertaining to the involvement of a student on campus. The questions asked: *How often have you participated in the following? Events sponsored by a fraternity or sorority; Residence hall activities (e.g. hall council, social*

activities, etc.); Events or activities sponsored by groups reflecting your own cultural heritage; Community service activities; Religious or spiritual activities. The answer choices are *(1) Never, (2) Seldom, (3) Sometimes, (4) Often, (5) Very often, (6) Refused.* The answer choice *refused* became missings in the data. The campus involvement scale ranges from five (5) to twenty-five (25). A score closer to 25 denotes the most involvement recorded by the scale, whereas a score of 5 denotes no involvement at all. The mean score is 14.68; scholars have an average score of 15.10 while non-scholars have an average score of 14.24. Figure 2 shows the distribution of Student Involvement.

Student involvement measures student success in various ways. The literature review points to various benefits of student involvement for the student. Benefits of student involvement include college persistence (Toews & Yazedjian, 2007; Wintre & Bowers, 2007), higher graduation rates (Gellin, 2003), and higher GPAs (Astin, 1984). All the benefits above clearly point to a successful college student.

The last dependent variable measures leadership. This variable is a scale created from six questions pertaining to the perceived leadership of the student. Students responded to the following question. *Please state your level of agreement or disagreement with each of the following statements: It is natural for me to be the leader in a group setting; I feel comfortable being labeled the "leader" in a group setting; I believe I am destined to be a leader; I do not relate to the most common definitions of "leadership"; Others typically perceive me to be the leader in a group setting.* The answer choices include: *(1) Strongly disagree, (2)Disagree, (3)Agree, (4) Strongly agree, (5) Refused.* The answer choice *refused* became missings in the data. If the student actually held a leadership position, they received one more point on the leadership scale.

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The scale ranges from five (5) to twenty-one (21). The index has a Cronbach Alpha score of 0.707. The overall average on the term is 15.20; scholars have an average score of 15.52 while non-scholars have an average score of 14.88. Leadership is an indication of student success. Figure 3 shows the distribution of the leadership variable. Students who lead see leadership as a positive experience, valuable in skill development, and important to success in professional, personal and academic arenas (Logue et al., 2005). Leadership leads to student success in similar ways as GPA and student involvement and, therefore, adds value to the measure of student success.
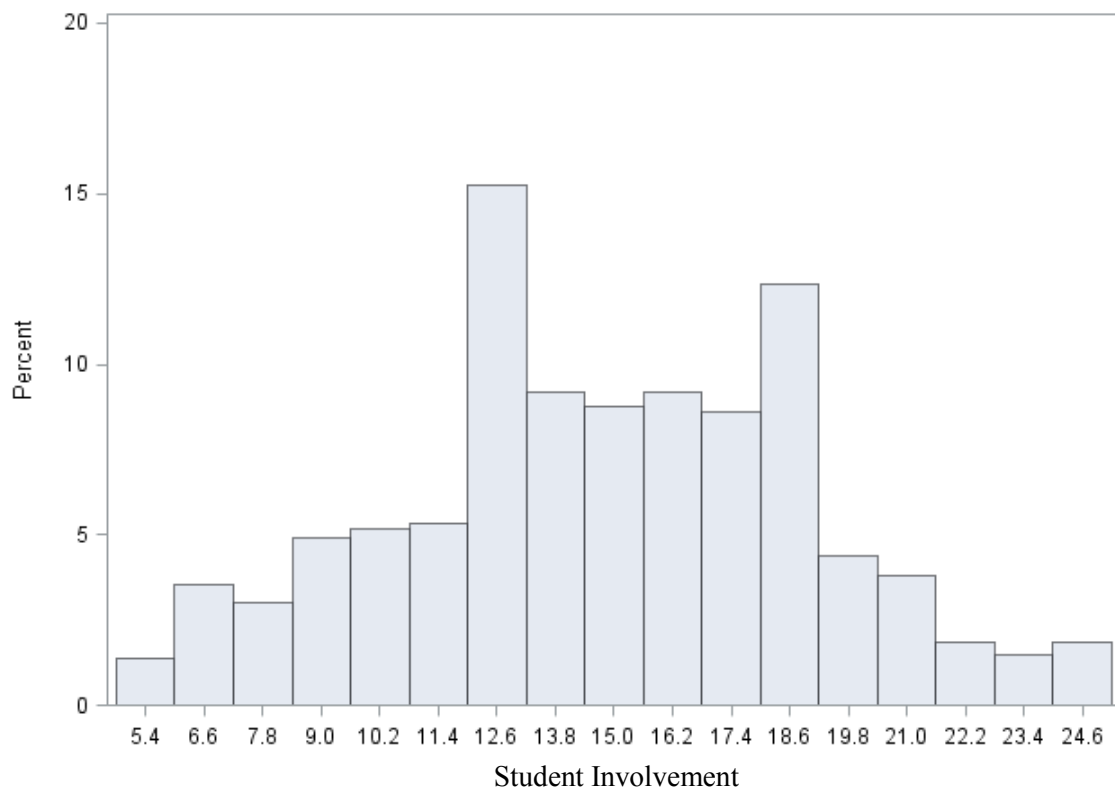
Figure 2. Distribution of Student Involvement
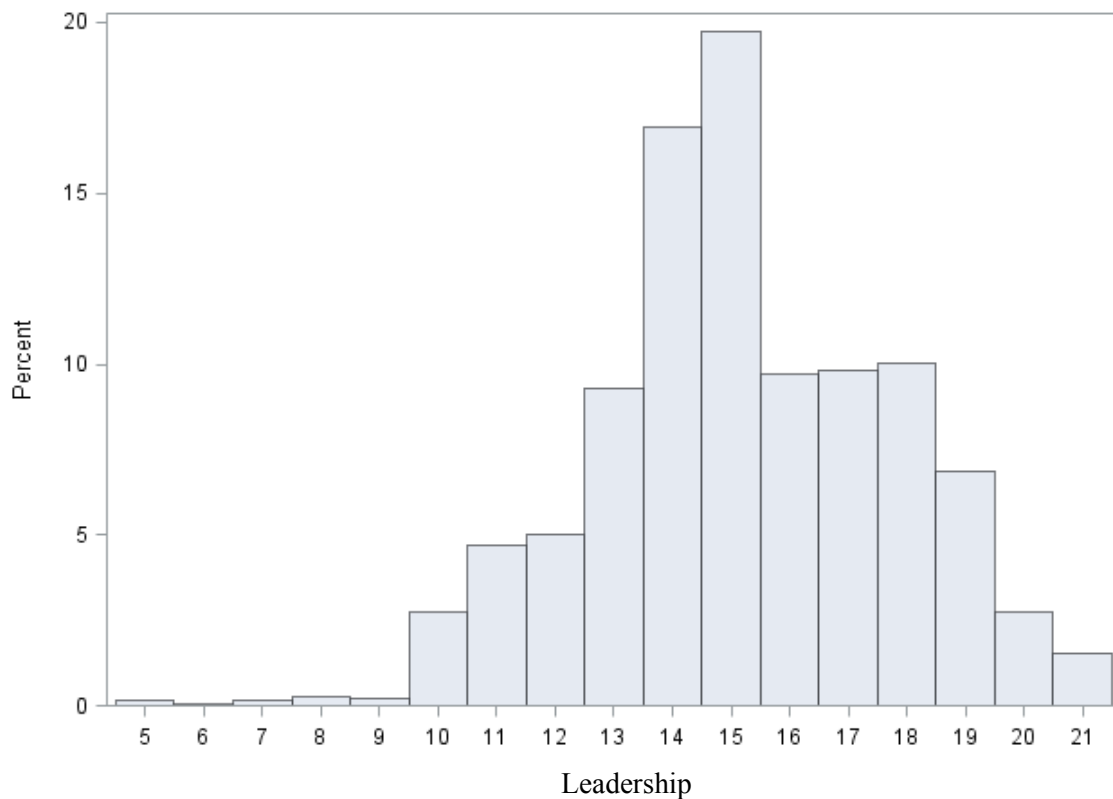
Figure 3. Distribution of Leadership

Independent Variables

There are five distinct independent measure groupings. Control variables include measures such as marital status and the number of children. The second is financial variables. Included are the amount of loans the student assessed and the amount of money the students' parents contributed to their education. Next are the expectation variables. These variables include both internal and external expectations put upon the students. Support variables measure perceived support from groups around campus. Lastly, the community variables ask about the communities in which the students participate. All measures are included in Table 1.

Control Variables

The current study consists of four (4) distinct minority groups: African American, Asian/Pacific, American Indian, and Hispanic. Throughout the study, African American students act as a reference group and, therefore, are not included in the models. Of the sample, 31.86% are African American, 9.97% are American Indian, 20.35% are Asian/Pacific Islander, and 37.82% are Hispanic.

Gender, marital status, presence of children, United States citizenship, first generation college student, attended private high school, and ownership of parents home are all dichotomous variables coded as *(0,1)*. 28.05% of the sample is (1) male; 90.96% is (1) single; 1.74% have (1) children; 94.29% are (1) citizens of the United States; 33.07% are (1) first generation college students; 9.39% (1) attended a private high school; lastly, 65.73% of the students' (1) parents owned their own home.

The data set includes data for date of birth including month, day, and year. The year of birth is subtracted from the 2009 calculated age. The sample ranged from 13 to 26. The average age of the junior and seniors in the study is 23.23.

Most students take either the ACT or the SAT test, depending on what region of the country they live in, as a prerequisite to apply for college. The sample reflects this in that most students had one test score and not the other. SAT and ACT scores are convertible according to the College Board Conversion Chart (See Appendix A). SAT scores converted to ACT score in the study. Students' scores are as follows: (1) 0.98% scored 14 or less, (2)19.72% scored 15 to 19, (3) 45.61% scored 20 to 24, (4) 27.58% scored 25-30, (5) 6.11% scored 31-36. The average ACT score in America is 20 (Jaschik,

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2016) with half of students scoring above this and half scoring below. The average ACT score of the sample is comparable to the national average.

What was the highest grade or level of education that your father/male guardian completed? This question provided the current study with father's educational attainment. The answer choices include: *(1) less than high school 22.98%, (2) GED 2.84%, (3) High school graduation 25.75%, (4) Some college 25.04%, (5) Bachelor's degree, (6) 12.98%, Master's degree or equivalent 7.59%,(7) Doctorate 2.84%.*

There are four categories of home regions recorded within the data. The home region of the student is used in the data instead of the region where the school is located in the study. Students spend more time in their home regions than they do in the region in which their college is located. This may have a larger impact on the student culturally and when it comes to resources. The four regions are Northeast (9.84%), Midwest (11.94%), West (33.04%), and South (45.18%). South is the comparison category and, therefore, excluded from the models.

Financial Variables

There are four financial variables included in the study. Three variables ask about the source of money, and the last variable asks about being able to afford things. The first source of money a student may have is his/her parents. The question asks *How much will your parent/guardian or other relative contribute towards your education this academic year? Please give your best estimate if not sure.* The current study created categories for the variables. Those categories are: (0) $0; (1) $1-1,000; (2) $1,001-10,000; (3) $10,001-20,000; (4) over $20,000. There are 890 students (56.8%) that receive no financial help

from their parents. 241 students (15.4%) receive from $1-1,000 from their parents. The last three categories are 403 (25.7%), 24 (1.5%), and 9 (.6%).

The next source of finances a college student can have is a part time job. The data set includes both the amount of hours per week the student works and their wage per hour. For the current study, both of these numbers were multiplied to see how much the student made per week. 53.3% of the sample held a part time job. The mean amount of money earned per week is $208.95.

Loans are the third source of income a student could have. *What is the total amount of the loans you are receiving this academic year at the college or university you now attend?* There are twelve original answer choice categories; for the current project, answer choices match the amount that parents contribute. 61.5% of students received no loan money in the current academic year (0) $0; (1)1.5% receive between $1 and $1,000; (2) 32.4% receive $1,001-10,000; (3) 3.6% receive $10,001-20,000; (4) and 1% over $20,000.

The study asks if students can afford things other students do. This question assesses the extent to which students compare with the students around them financially. The question asks: *Can you afford to do most things that other students at this college do?* The answer choices *(1) yes and (2) no* became (0) no and (1) yes. 52.0% of students say they can afford to do things that other students can do.

Expectation Variables

The next group of variables asks about the internal and external expectations a student has on them. The internal expectation is their educational aspiration. The question asks: *Now, thinking about the future, what is the highest degree you expect to receive?*

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The answer choices are *(1) Less than two years of college,(2) Two or more years of college,(3) Bachelor's degree, (4) Post-baccalaureate certificate, (5) Master's degree (MA, MS, MBA, etc), (6) First professional degree (M.D., J.D., D.D.S., O.D.),(7) Doctoral degree (PH.D, ED.D, D.P.H., etc),(8) and Not sure.* In the current study, professional and doctoral degrees are combined and coded as 6 and "not sure" coded as missing. 32.4% of students aspire to the master's level and 55.9% aspire to the professional/doctoral level.

The next three have to do with external expectations. These questions are asked in a group that starts with: *Do you agree or disagree with the following statements:* All of the answer choices are: *(1) Strongly disagree, (2) Disagree, (3) Agree, (4) Strongly agree, and (5) Refused.* Refused are coded as missing.

The first statement is: *I feel obligated to financially support my family.* The next statement is: *My family expects me to do well in college/university.* The last statement is: *People in my community are counting on me to do well in college/university.* 30.2% of student either agree or strongly agree that they must financially support their family. 99.4% of students agree or strongly agree that their family expects them to do well in college. 83.1% of students believe that their communities expect them to do well in college.

Support Variables

The next grouping of variables asks about the support that students receive from sources on campus. *Since entering college or a university, to what extent have you turned to each of the following for support and encouragement? One or more faculty members? A resident advisor? Other students?* The answer choices are*: (4) A lot, (3) Some, (2) A*

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little, (1) Not at all, (5) Refused. Students feel *a lot* of support from other students

(52.4%), then faculty members (19.7%), and lastly from resident advisors (12.3%).

Campus Community

Three of the campus community variables involve race and three do not. The first

variable asks: *While in college or in a university, have you studied with someone from a*

different racial/ethnic group? The answer choices are recoded so that no is 0, yes is 1,

and refused is missing. 95.1% of students have studied with someone of a different

racial/ethnic background than themselves.

The second question asks about dating while in college. *While in college or in a*

university, have you dated someone from a different racial/ethnic group? The answer

choices are recoded so that (0) no, (1) yes, and refused is missing. 598 or 42.3% of

students say they have dated someone outside of their racial ethnic group.

The last community question about race/ethnicity asks students to: *Please state*

your level of agreement or disagreement with each of the following statements: I rely on

racial/cultural groups as my main support group on campus. The answer choices are: *(1)*

Strongly disagree, (2) Disagree, (3) Agree, (4) Strongly agree, and (5) Refused (recoded

as missing). 45.7% of students rely on their racial/ethnic group for support.

Freshman year acclimation is a scaled variable created from seven questions that

ask about the first year experience. Freshman year is proven to be critical in the life of

college students, as it tends to set the stage for the next four to five years (Kuh and

Kinzie, 2005). Failure to learn the culture of the university through interactions with

others will quickly cause a student to become an outsider in the university setting (Kuh

and Kinzie, 2005).

The scale ranges from 7 to 28 and has a Cronbach Alpha score of .721. *When you first started college or a university, how difficult did you find each of the following? Keeping up with your schoolwork?; managing your time effectively?; managing your money effectively?; getting help with academic work when you needed it?; making new friends?; having a comfortable living environment?; getting to know your way around?* The answer choices are: *Very difficult (1), Difficult (2), Not very difficult (3), Not difficult (4),* and *(5) Refused* (recoded as missing). The average score is 20.5.

The next question asks directly how the student feels about the campus environment. *Please state your level or agreement or disagreement with each of the following statements: I don't feel like I am part of this campus community.* The question wording is not in the positive direction. For clarity, the answer choices are recoded in the positive direction. The newly coded values are: (4) *Strongly disagree, (3) Disagree, (2)* (2) *Agree, (1) Strongly agree,* and (5) *Refused* (recoded as missing). 45.4% strongly feel like they are a part of the college campus in which they belong to.

The last question is the models asks: *Do you agree or disagree with the following statements: Most of my friends are not in college or a university.* The answer choices are (1) *Strongly disagree,(2) Disagree,(3) Agree,(4) Strongly agree,* and *(5) Refused* (recoded as missing). 75.5% of students have friends are in college.

Table 1

Descriptive Statics for Independent and Dependent Variables

Variable	N	Percent	Mean
Independent Variables			
Race	1494		
American Indian	149	9.97	
Asian Pacific	304	20.35	
Hispanic	565	37.82	
African American	476	31.86	
Gender (Male=1)	1494	28.05	
Age	1492		23.23
Marital Status (Single=1)	1494	90.96	
Children (Yes=1)	1491	1.74	
US Citizen (Yes=1)	1488	94.29	
First Generation College Student (Yes=1)	1494	33.07	
Attended a private high school (Yes=1)	1491	9.39	
ACT/SAT score	1425		
14 or less	14	0.98	
15 to 19	281	19.72	
20 to 24	650	45.61	
25 to 30	393	27.58	
31 to 36	87	6.11	
Father's Educational Attainment	1410		
Less than high school	324	22.98	
GED	40	2.84	
High school graduation	363	25.74	
Some college	353	25.04	
Bachelor's degree	183	12.98	
Master's degree or equivalent	107	7.59	
Doctorate/Professional Degree	40	2.84	
Parents Own Home (Yes=1)	1494	65.73	
Region	1483		
Northeast	146	9.84	
Midwest	177	11.94	
West	490	33.04	
South	670	45.18	

(continued)

Variable	N	Percent	Mean
Finances			
Parent contribute money towards college	1462		1580.18
$0	890	56.8	
Less than $1000	241	15.4	
$1000-$10,000	403	25.7	
$10,001-$20,000	24	1.5	
More than $20,001	9	0.6	
Amount of money made per week	855		208.95
Year Loan amount	1507		
$0	927	61.51	
Less than $1000	23	1.53	
$1000-$10,000	488	32.38	
$10,001-$20,000	54	3.58	
More than $20,001	15	1.00	
Afford things other students do (Yes=1)	1449	51.97	
Expectations			
Educational aspirations	1418		
Less than two years of college	2	0.14	
Two or more years of college	1	0.07	
Bachelor's degree	151	10.65	
Post-baccalaureate certificate	12	0.85	
Master's degree	459	32.37	
Doctoral/ Professional Degree	793	55.92	
Must financially support my family	1478		2.15
Family expects me to do well in	1488		3.83
Community expect me do well	1477		3.31
Support			
Support one or more faculty	1488		2.63
Support a resident advisor	1477		2.07
Support other students	1488		3.34
Campus Community			
Dating someone outside of your race (Yes=1)	1413	42.32	
Study with a person of different racial group (Yes=1)	1489	95.1	
Rely on racial grp for social support (Yes=1)	1459		2.44
Freshman year acclimation (Range 7 to 28)	1480		20.50
Feel like part of campus comm.	1462		3.31
Most friends are not in college	1491		2.03
Classification	1494		
Junior	428	28.65	
Seniors	1066	71.35	

(continued)

Variable	N	Percent	Mean
Dependent Variables			
GPA (Range 1.5 to 4)	1436		3.26
Scholars	727		3.29
Non-Scholars	709		3.23
Campus Involvement (Range 5 to 25)	1468		14.68
Scholars	749		15.11
Non-Scholars	719		14.24
Leadership (Range 5 to 21)	1357		15.20
Scholars	675		15.52
Non-Scholars	682		14.88

CHAPTER FOUR

Results

Several ordinary least squares models help fully understand what contributes to student success in the current population. The results chapter begins with the results of t-test to answer research question 1. The control measure on the student success measures in Table 3. Next, Table 4 includes results for financial related questions. Table 5 answers the second research question. Table 6 contains results for internal and external expectations. Research question 3 asks how internal and external expectations impact student success. Table 6 includes results related to perceived support, which helps to answer research question 4. Lastly, results for research question 5 are in table 7, which includes results for campus community.

Appendix B includes models for other groupings of the independent measures and results for GPA that do not include ACT/SAT scores. The close relationship between high school ACT/SAT score and college GPA caused some concern with the results discussed below. To ensure valid and reliable results, Appendix B Table B-3 shows models without ACT/SAT scores. The results in Appendix B Table B-3 are consistent with the results in all other models in the study. For clarity, results are in the order of the original research questions.

T-Test Results

Results in Table 2 report the difference in means between the three dependent variables in question. Results show using a one-tailed t-test that there is a significant difference between the GPA of scholars (M=3.29) and non-scholars (M=3.23) in the sample. This finding is significant at the .05 level. Scholars (M=15.11) and non-scholars (M=14.24) vary significantly on their rate of campus involvement, as well. This finding is significant at the .001 level. Lastly, there is a significant difference in leadership for scholars (M=15.52) and non-scholars (M=14.88) significant at the .001 level.

Table 2 T-Test Results on Differences on Dependent Variables

Dependent Variables	DF	T Value	P Value
GPA	1433.9	2.35	0.0189
Campus Involvement	1441	3.96	<.0001
Leadership	1345.9	4.61	<.0001

Control Measures

Control Measures-GPA

The first group of variables within the control measures are race. American Indian, Asian Pacific (Asian), Hispanic, and African American are included in this data set and study. African Americans are the comparison group and left out of the models. In Table 3, model 1 includes students that received the Gate Millennium Scholarship. Model 2 includes students that did not receive the scholarship. The scholar model shows that there are no significant differences between African American students and American Indian or Asian American students on GPAs. There is a significant difference between

Hispanics and African Americans. Model 1 shows about a .1-point increase in GPA if the student is Hispanic. This finding is significant at .05 level or above.

Non-scholar model 2 shows that there is no difference between American Indians and African Americans on their GPA. In addition, Asians and Hispanics have higher GPAs than African Americans significant at the .001 level. Asians score a predicted .26 points higher while Hispanics score from between .21 points higher.

ACT and SAT scores have an effect on college GPA at the .01 level in scholars and non-scholars. For every unit increase in ACT or SAT score in scholars, there is a predicted increase of at least .11 points. For every unit increase in ACT/SAT score in non-scholars, there is predicted increase of about .08 points.

Parental educational attainment has a positive effect on GPA for non-scholars; there is no effect for scholars. For every additional level of education, there is an increase of at least .03 points on the GPA scale. These findings are significant at the .01 level.

Lastly, students from the West score .09 less than those from the South. There is no significant difference for both scholars or non-scholars based gender, age, marital status, presence of children, citizenship, status as first generation college student, whether or not the student attended a private high school, or whether or not the student's parents owned a home.

Control Measures-Student Involvement

The first independent variables included in the models are race. For both scholars and non-scholars, race plays a part in the amount to which a student is involved. Table 3 predicts that African Americans are involved on campus more than American Indians, Asians, and Hispanics. Models 3 and 4 predict American Indians to be less involved by

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approximately two events. This finding is significant at the .001 level for scholars and non-scholars. Asian scholars participate in approximately three fewer events on campus than African American scholars do, significant at the .001 level. Asian non-scholars participate at roughly two fewer events on campus. Results are consistent for Hispanic students as well. Hispanic students take part in fewer events on campus than African Americans, significant at the .001 level for scholars and non-scholars.

Single students are more likely to be involved on campus than married students are. This finding is significant in models 3 and 4. Model 3 predicts single students to be more involved, significant at the .001 level. Model 4 predicts single students to be more involved than married students, significant at the .05 level.

Non-scholars who are first-generation college students and have parents that own homes are more likely to be involved than other students are. Model 4 shows these results for non-scholars at the .01 level. First-generation students will be more involved. Model 4 shows that parental home ownership is significant at the .01 level as well.

Region of origin has an effect on the amount a student is involved on campus. Compared to those in the South, students from the West are less likely to be involved on campus. Model 4 shows non-scholars from the West are less involved compared to scholars from the South, significant at the .01 level.

Gender, age, the presence of children, United States citizenship, private high school, and father's educational attainment have no significant effect on a student's level of involvement for either scholars or non-scholars.

Control Measures-Leadership

African Americans score higher on the leadership scale than all other races in the study. Model 5 shows Asian scholars scoring lower on the leadership scale than African American scholars. This finding is significant at the .001 level. Model 6 shows American Indian and Hispanic students scoring lower on the leadership scale by approximately .8 points each.

Age and region have a minimal effect on the created leadership scale. Model 5 predicts older scholars score higher on the leadership scale, significant at the .05 level. Models 6 shows non-scholars from the West have lower scores on the leadership scale compared to students from the South by approximately .5 points. This finding is also significant at the .05 level.

Gender, marital status, presence of children, United States citizenship, first generation college student, attending a private high school, father's educational attainment, and parent's ownership of a home have no effect on the created leadership scale.

Financial Measures

Financial Measures-GPA

What impact do various financial variables have on student success? Table 4 reports there is little to no effect of financial variables on student success for either Gates Millennium Scholars or non-scholars. Scholars who believe they can afford things other students can have a predicted increase of .07 in their GPA, as seen in model 7. This finding is significant at the .05 level. For every unit increase in loans, non-scholars have their GPA decreases by .02 points, significant at the .01 level. (Appendix B Table B

replicates these results.) For every unit increase in loans a student has, their GPA will

decrease by .01 points, significant at the .01 level.

Table 3:
Controls Measures Effects on Student Success

Variable	GPA		Student Involvement		Leadership	
	Scholar Model 1	Non-Scholar Model 2	Scholar Model 3	Non-Scholar Model 4	Scholar Model 5	Non-Scholar Model 6
Intercept	2.470***	2.272**	17.151**	12.318	6.991*	17.219***
Race						
American Indian	-0.059	0.065	-1.812***	-2.239***	-0.551	-0.821*
Asian Pacific	0.086	0.257***	-2.511***	-1.998***	-1.025***	-0.448
Hispanic	0.097*	0.212***	-1.241***	-2.794***	-0.257	-0.794***
Gender	-0.067	-0.043	-0.070	-0.514	0.152	0.338
Age	0.019	0.018	-0.135	0.123	0.325*	-0.110
Marital Status	-0.075	0.017	1.669***	1.179*	0.262	0.469
Children	-0.089	-0.358	-1.274	-3.036	0.190	1.166
US Citizen	-0.055	0.056	-0.677	-0.860	0.551	0.218
First Generation College Student	0.070	-0.030	0.380	1.148**	0.245	-0.150
Attended a private high school	0.026	-0.038	0.455	0.503	0.310	0.510
ACT/SAT score	0.112***	0.080**	0.287	0.025	0.132	0.008
Father's Educational Attainment	0.016	0.032**	0.037	0.024	0.056	0.027
Parents Own Home	0.057	0.019	0.434	0.967**	-0.168	0.197
Region						
Northeast	-0.019	0.048	0.116	-0.221	0.394	0.145
Midwest	-0.016	-0.031	-0.479	-0.720	-0.163	-0.421
West	-0.025	-0.092*	-0.308	-1.181**	-0.124	-0.547*
R-Square	0.078	0.110	0.086	0.126	0.042	0.048
N	718	707	718	707	718	707

***.001; **.01; *.05

Financial Measures-Student Success

Model 9 shows an effect on scholars' student involvement. The more money per

week a scholar makes, the less involved they are on campus. This finding is significant at

the .001 level. This result is repeated in Appendix B (see Table B-2). Financial variables

have no effect on student involvement for non-scholars within this study.

Financial Measures-Leadership

We see that financial variables have significant effects on GPA and student involvement in the current study. However, financial variables have no significant effect on the leadership scale for either scholars or non-scholars. Appendix B Table B-2 replicates these results.

Table 4:
Finance Effects on Student Success

Variable	GPA		Student Involvement		Leadership	
	Scholar	Non-Scholar	Scholar	Non-Scholar	Scholar	Non-Scholar
	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Intercept	2.459***	2.311**	16.962**	11.82	7.023*	17.032***
Controls						
Race						
American Indian	-0.057	0.03	-1.593***	-2.007***	-0.581	-0.688
Asian Pacific	0.086	0.236***	-2.360***	-1.908***	-1.040***	-0.381
Hispanic	0.098*	0.190***	-1.194***	-2.704***	-0.261	-0.728**
Gender	-0.067	-0.037	0.075	-0.517	0.147	0.348
Age	0.019	0.019	-0.092	0.139	0.320*	-0.104
Marital Status	-0.071	0.036	1.595***	1.038	0.271	0.451
Children	-0.073	-0.349	-1.208	-2.935	0.19	1.255
US Citizen	-0.05	0.041	-0.769	-0.788	0.592	0.252
First Generation College Student	0.067	-0.023	0.29	1.079**	0.256	-0.176
Attended a private high school	0.037	-0.013	0.467	0.347	0.305	0.447
ACT/SAT score	0.115***	0.083***	0.311	0.001	0.135	0.01
Father's Educational Attainment	0.014	0.035**	0.002	0.003	0.064	0.033
Parents Own Home	0.052	0.023	0.289	0.919**	-0.151	0.205
Region						
Northeast	-0.015	0.083	-0.048	-0.425	0.434	0.055
Midwest	-0.014	-0.013	-0.506	-0.802	-0.154	-0.445
West	-0.02	-0.082*	-0.351	-1.231**	-0.112	-0.562*
Finances						
Parent contribute money towards college	-0.002	-0.023	0.349	0.272	-0.047	0.023
Amount of money made per week	0.000	0.000	-0.003***	0.000	0.000	0.000
Year Loan amount	-0.01	-0.015***	0.089	0.065	-0.035	0.039
Afford things other students do	0.073*	0.000	0.247	-0.184	-0.089	-0.226
R-Square	0.088	0.131	0.11	0.134	0.044	0.053
N	718	707	718	707	718	707

***.001; **.01; *.05

Expectation Measures-GPA

Results show that expectations have little effect on a student's GPA. The more a scholar agrees that their community expects them to do well, model 13 predicts them to reduce their GPA by .05 points. This finding is significant at the .05 level. Model 14 shows non-scholars who must financially support their families have lower GPAs than non-scholars who do. This finding is significant at the .05 level.

Expectation Measures-Student Involvement

Models 15 and 16 include measure of internal and external expectations put on students. Results indicate that educational aspirations for both scholars and non-scholars show an increase in the amount in which they are involved. For every unit increase in aspiration, scholars increase .4 points on the involvement scale, whereas non-scholars go up .5 point on the scale. These findings are significant at the .05 level. Scholars who feel the external pressure from their community to do well move up a predicted .9 points on the scale for every unit increase in educational aspirations while non-scholars move up .6 points.

Expectation Measures-Leadership

Models 17 and 18 show educational aspirations and community expectations have a positive effect on the leadership scale. Every unit increase in educational aspirations causes scholars to move up roughly .3 points, significant at the .05 level. In non-scholars, the increase is .3 points up the leadership scale, as well, significant at the .001 level.

The results predict scholars that come from a community that expects them to do well score .3 points higher on the scale, significant at the .05 level. The results predict that non-scholars will go up .4 points on the scale significant at the .01 level.

Table 5:
Expectations Effects on Student Success

Variable	GPA		Student Involvement		Leadership	
	Scholar	Non-Scholar	Scholar	Non-Scholar	Scholar	Non-Scholar
	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18
Intercept	2.672***	2.562**	10.279	6.334	2.649	13.058**
Controls						
Race						
American Indian	-0.079	0.047	-1.393**	-1.717**	-0.325	-0.452
Asian Pacific	0.088	0.265***	-2.442***	-1.802***	-0.995***	-0.25
Hispanic	0.094*	0.199***	-1.179**	-2.475***	-0.216	-0.597***
Gender	-0.07	-0.032	0.014	-0.515	0.187	0.372
Age	0.018	0.016	-0.097	0.183	0.343*	-0.084
Marital Status	-0.065	0.01	1.493**	1.03	0.166	0.401
Children	-0.063	-0.354	-1.437	-2.388	0.142	1.68
US Citizen	-0.075	0.056	-0.482	-0.755	0.624	0.256
First Generation College Student	0.083*	-0.022	0.217	0.883*	0.183	-0.288
Attended a private high school	0.028	-0.037	0.398	0.521	0.267	0.54
ACT/SAT score	0.115***	0.074***	0.288	0.037	0.126	0.02
Father's Educational Attainment	0.014	0.031**	0.063	0.023	0.065	0.014
Parents Own Home	0.059	0.023	0.417	0.926**	-0.177	0.163
Region						
Northeast	-0.021	0.046	0.293	-0.253	0.478	0.122
Midwest	-0.02	-0.032	-0.359	-0.687	-0.115	-0.411
West	-0.024	-0.088*	-0.255	-0.993**	-0.106	-0.386
Expectations						
Educational aspirations	-0.027	0.009	0.435*	0.541***	0.258*	0.332***
Must financially support my family	-0.016	-0.044*	0.028	0.314	0.006	0.04
Family expects me to do well	0.046	-0.028	0.087	-0.279	0.358	0.059
Community expects me to do well	-0.051*	-0.021	0.895***	0.632***	0.316*	0.445***
R-Square	0.089	0.121	0.128	0.163	0.069	0.087
N	718	707	718	707	718	707

***.001; **.01; *.05

Support Measures-GPA

In scholars, results show that support from a faculty member have a positive effect on GPA. Model 19 shows students who believe at least one faculty member supports them *a lot* will have an estimated .16 increase in GPA. These findings are significant at the .05 level.

Model 20 of non-scholars show similar results. If a student feels supported by a faculty member *a lot*, they have a predicted increase of .16 in points. Results show the opposite for resident advisor and other students. Students that feel support from a resident advisor will have a lower GPA than those who do not feel supported by a resident advisor, significant at the .05 level. Model 20 shows that students who feel support from other students also have lower GPAs by .04 points, significant at the .05 level.

Support Measures-Student Involvement

Table 6 shows that support has a positive effect on students' level of campus involvement. Models predict scholars who receive support from their resident advisors and other students to be more involved. Support from a resident advisor can increase a scholar's involvement by approximately .4 points. Support from other students can increase a scholar's involvement by 1.1 points, significant at the .001 level.

Non-scholars show similar results to scholars. In addition to support from resident advisors and other students, support from faculty increases involvement in non-scholars. Model 22 shows support from faulty will increase points on the involvement scale significant at the .01 level. Support from a resident advisor and other students both predicts a .8 increase on the involvement scale, significant at the .001 level.

Support Measures-Leadership

Support from outside sources has a positive effect on the leadership scale, as well. Results show receiving support from faculty members has a positive effect on the scale. Model 23 shows scholars who receive faculty support move up the scale by a predicted .4 points, significant at the .001 level. Non-scholars who receive faculty support move up the scale by approximately .4 points, significant at least the .001 level. Model 24 shows non-scholars that have support from other students will have an increase on the leadership scale by roughly .3 points.

Campus Community Measures

Campus Community Measures-GPA

Campus community measures show similar correlations on GPA for scholars and non-scholars. Results show no differences on GPA based on dating someone outside of your race; studying with someone of a different racial group; relying on racial group for social support; and whether or not the student has most of their friends in college.

Differences do occur based on freshman acclimation. The results show for both scholars and non-scholars that for every point increase on the acclimation scale, GPA goes up, significant at the .001 level. For scholars, the predicted increase is .03 points. For non-scholars, the increase is a predicted .02 points. For non-scholars, feeling like a part of campus is important to their GPA. Not feeling like a part of campus correlates with a drop in GPA by .04 points in model 26.

Table 6:
Support Effects on Student Success

Variable	GPA		Student Involvement		Leadership	
	Scholar Model 19	Non-Scholar Model 20	Scholar Model 21	Non-Scholar Model 22	Scholar Model 23	Non-Scholar Model 24
Intercept	2.653***	2.243***	11.728*	5.243	6.211	16.849***
Controls						
Race						
American Indian	-0.058	0.062	-1.740***	-2.000***	-0.610*	-0.611
Asian Pacific	0.079	0.261***	-2.482***	-2.024***	-1.078***	-0.535
Hispanic	0.084*	0.213***	-1.193***	-2.848***	-0.197	-0.824***
Gender	-0.062	-0.062	-0.117	-0.117	0.147	0.402
Age	0.016	0.023	-0.092	0.202	0.29	-0.182
Marital Status	-0.092	0.024	1.252**	1.038	-0.025	0.377
Children	-0.087	-0.446*	-0.958	-2.086	0.11	2.149
US Citizen	-0.07	0.069	-0.664	-0.784	0.382	0.282
First Generation College Student	0.049	-0.017	0.39	0.845**	0.122	-0.128
Attended a private high school	0.015	-0.026	0.483	0.651	0.208	0.6
ACT/SAT score	0.119***	0.090***	0.247	0.02	0.219	0.043
Father's Educational Attainment	0.011	0.029***	0.037	-0.035	0.063	0.029
Parents Own Home	0.053	0.023	0.43	0.809*	-0.213	0.219
Region						
Northeast	-0.027	0.028	-0.08	-0.573	0.317	-0.051
Midwest	-0.023	-0.034	-0.719	-0.808	-0.154	-0.491
West	-0.014	-0.090*	-0.663	-1.062**	-0.191	-0.529*
Support						
Support one or more faculty	0.042*	0.040*	0.172	0.427**	0.438***	0.411***
Support a resident advisor	-0.025	-0.037*	0.365**	0.864***	-0.006	0.019
Support other students	-0.041	-0.042*	1.127***	0.836***	0.188	0.261*
R-Square	0.087	0.128	0.16	0.222	0.079	0.08
N	718	707	718	707	718	707

***.001; **.01; *.05

Campus Community Measures-Student Involvement

Results show that neither dating someone outside of your race nor studying with

someone outside of your racial group increases campus involvement for scholars or non-

scholars. Scholars and non-scholars that rely on their racial group for support are more

involved. This finding is significant at the .001 level. For every point increase in freshman acclimation, students increase approximately .1 points on the involvement scale. This finding is consistent for both scholars and non-scholars. Students that feel like a part of campus show an increase of 1 point on the involvement scale compared to those who do not. This finding is significant at the .001 level for both scholars and non-scholars. Non-scholars who do not have friends score higher on the involvement scale significant at the .01 level.

Campus Community Measures-Leadership

The results show that campus community has a positive effect on the created leadership scale. Students that date someone outside of their race will have an increase on the leadership scale by .4 points. This finding is significant for both scholars and non-scholars. Model 29 shows that studying with a person from a different racial group will positively affect the leadership scale in scholars, significant at the .05 level. Results show that freshman year acclimation has a positive effect on leadership. Every point a student goes up on the acclimation scale correlates with a predicted increase on the leadership scale of .05 points. This finding is significant for scholars and non-scholars at the .05 level. Model 29 demonstrates that scholars who feel like part of campus increase on the leadership scale. This finding is significant at the .05 level.

Campus Community Effects on Student Success

Variable	GPA		Student Involvement		Leadership	
	Scholar Model 25	Non-Scholar Model 26	Scholar Model 27	Non-Scholar Model 28	Scholar Model 29	Non-Scholar Model 30
Intercept	2.218***	1.867*	9.009	4.865	4.889	15.061**
Control						
Race						
American Indian	-0.039	0.068	-1.407**	-2.091***	-0.618**	-0.809*
Asian Pacific	0.137**	0.267***	-2.043***	-1.090**	-0.987***	-0.424
Hispanic	0.106**	0.222***	-1.116**	-2.242***	-0.316	-0.803**
Gender	-0.074*	-0.05	0.077	-0.395	0.151	0.33
Age	0.011	0.031	-0.158	-0.091	0.263	-0.116
Marital Status	-0.086	0.029	0.778	1.073***	-0.05	0.443
Children	-0.051	-0.365	-1.247	-2.624	0.064	1.838
US Citizen	-0.067	0.065	-0.735	-0.112	0.307	0.358
First Generation College Student	0.07	-0.009	0.251	0.792*	0.128	-0.15
Attended a private high school	0.024	-0.037	0.321	0.126	0.184	0.321
ACT/SAT score	0.110***	0.082***	0.298	0.189	0.145	-0.012
Father's Educational Attainment	0.01	0.024*	-0.028	0.003	0.051	-0.002
Parents Own Home	0.051	0.026	0.123	1.013**	-0.238	0.25
Region						
Northeast	-0.03	0.032	-0.074	-0.568	0.436	0.052
Midwest	-0.014	-0.028	-0.896	-0.755	0.015	-0.363
West	0.001	-0.072	-0.527	-1.252***	-0.091	-0.514*
Campus Community						
Dating someone outside of your race	0.031	0.004	0.2	0.132	0.418**	0.407**
Study with a person of different racial group	-0.048	-0.009	0.948	0.081	0.972*	0.389
Rely on racial grp for social support	-0.021	-0.026	1.404***	1.221***	0.077	0.045
Freshman year acclimation	0.030***	0.017***	0.080*	0.098**	0.055*	0.049*
Feel like part of campus comm.	-0.011	-0.046*	1.231***	1.577***	0.464***	0.248
Most friends are not in college	-0.005	-0.017	-0.145	0.443**	0.088	-0.052
R-Square	0.129	0.14	0.226	0.281	0.093	0.068
N	718	707	718	707	718	707

***.001; **.01; *.05

CHAPTER FIVE

Conclusion

The current study sought to explore which factors in the following categories affect student success: finances, expectations, support, and campus community. Secondly, this study explored the impact of the Gates Millennium Scholarship (GMS) on student success in high-achieving, low-income, minority college students. There are five overarching questions used to explore this further. The following chapter will discuss findings and draw conclusions based on the data.

Effect of Gate Millennium Scholarship

The fifth research question in the study asks if the presence of the GMS has a positive effect on student outcomes compared to non-scholars. The GMS offers full financial support, as well as voluntary leadership opportunities for scholars. It would be amiss to not point out these leadership activities. Students are able to opt in and out and attend as many as they please. This layer of the GMS is essential but not quantifiable in a satisfactory way within the current data set. T-test in Table 7 proves there is a positive effect on student success for scholars in the study. These results support research from Hu (2010).

The mean GPA for scholars is statistically higher than the mean GPA for non-scholars. We must remember that non-scholars also applied to the Gates program, which implies they also were high-achieving before college, and high achievement would naturally following them into college. Although beneficial, this information alone does

not attest to the effects of the Gates Scholarship. The next two markers of student success, student involvement and leadership, provide more context.

Scholars have statistically higher levels of involvement, as well, compared to non-scholars. The mean for scholars is higher than the mean for non-scholars. There are two assumptions for why this is true. One, the financial support of the scholarship frees up time for scholars to participate on campus rather than work to earn money. Two, scholars may be encouraged to participate as part of the leadership activities attached to the program.

Scholars are statistically more likely to see themselves as leaders, as well as be leaders on campus, in comparison with non-scholars. It is safe to assume the scholarship aids in the students' perceptions of themselves as leaders. This may be a supplemental benefit of the leadership activities of the Gates Scholarship.

All three t-tests in Table 7 support that the Gate Millennium Scholarship does positively affect student success. Scholars perform significantly higher on all three dependent variables. The correlations between the scholarship and higher levels on the various scales point to the benefits of fully financially supported college degrees.

Demographic Variables

To begin, we discuss the demographic variables. The control variables in this study highlight one consistent factor – race. Race is the consistent variable that predicts multiple outcomes in student success in both samples. Gates Scholars seem to level the playing field when it comes to GPA and leadership. There are not many differences among scholars in either student success measure. Hispanic scholars have slightly higher GPAs than African American students. Secondly, Asian students score lower on the

leadership scale compared to African Americans. This finding can be attributed to collective cultural differences related to being a part of a group instead of being individualist. Culturally, Asian students value authority and avoid conflict (Kawahara, Esnil, & Hsu, 2007). These values cause differences in how they experience or see themselves as leaders.

More racial differences exist for non-scholars in the study. Non-scholars do not have the benefits of monetary support of the Gates Millennium Scholarship. This lack of support removes the level playing field experienced by scholars. Students of all races are less involved than African American students in the study. This finding is consistent with previous research (Wang & Kennedy-Phillips, 2013). In addition, Asian and Hispanic students have higher GPAs than African American students. This finding is also consistent with previous research (Kao & Thompson, 2003). This reiterates the benefits of the Gates Scholarship on the outcome of race.

Next, region of the country is a significant demographic factor in the study. Non-scholars from the West score lower on all measures of student success than students from the South. There exist wide cultural differences between the southern and western regions of the United States. It seems as if these cultural differences are large enough to effect factors of student success in these students.

The lack of significant predictors from demographic/control variables further reinforces the need for the independent variables in question: finances, expectations, support, and campus community. Four research questions examine how each interact with student success in low-income, high-achieving, minority students. Each grouping in question relates positively to retention in college students (Braxton et al., 2004; Gerdes &

Mallinckrodt, 1994; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Pascarella & Terenzini, 2005; Swail, 2003; Toews & Yazedjian, 2007; Wintre & Bowers, 2007). It is important to examine other dimensions of student success, as not all measures are created equal. The student success measures in the current study are not necessarily a by-product of retention and should be examined individually.

Financial Support and Student Success

Question 1 asks how finances impact student success. There are four distinct variables used to measure finances. They include the amount parents contribute toward college, amount of money the student earns per week, amount of loans a student has, and whether they can afford the things other students can. One financial variable, parental contributions, and one student success variable, leadership, have no correlation with any other measures in the study. Parental contributions toward college have no effect on student success in the current study. All students are Pell Grant eligible, which may contribute to the finding. In addition there is little variation in the variable, 56.8% of the population receive no help from their parents. Again, leadership correlates with no financial variable in the study. This finding is not surprising; students of all economic statues can believe themselves to be leaders and, therefore, lead.

There is a relationship between financial measures and the last two student success measures. Results show that non-scholars with more loans have lower GPAs compared to non-scholars with fewer loans. In all other cases, there is no significant effect between loans and student success. Students that believe they can afford things other students can show an increase in GPAs. There is no other effect on student success.

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There is a negative relationship between the amount of money a Gates Scholar earns with their student involvement. Time is a limited resource; students that work have less time to be involved on campus. It is interesting that Gates Scholars have part-time jobs because of the full monetary support they receive from the Gates scholarship. Equally as fascinating is that this finding is not consistent for non-scholars, who I would assume work more than non-scholars. In addition, the amount made per week has no significant effect for any other student success measure in the study.

Overall, it seems the effects of finances are nominal and inconsistent on student success in both populations. This finding is negative in that it does not show support for programs like the Gates Millennium Scholarship and the monetary benefits attached. This finding is positive in other aspects. Although loans are not the preferred way for any student to fund his/her education, students can fund their college degrees numerous ways and are predicted to have the same rates of college success. This indicates if we can convince low-income, high-achieving students to apply to school and find a way to fund it, they have the possibility of succeeding to their junior or senior year of college.

Expectations and Student Success

The second research question explores how expectations affect student success. The current study shows there are negative effects, but the other variables are overwhelmingly positive. There are no positive correlations between expectations and college GPA in either scholars or non-scholars. One can assume that external expectations are not support to perform, but rather a pressure to succeed.

Students with higher educational aspirations are more involved on campus and score higher on the leadership scale compared with those with lower educational

aspirations. Students that lead may see themselves as leaders and consequently express higher aspirations. The opposite may be true; students that have higher aspirations know they must begin to see themselves as leaders, market themselves as such, and then lead. It is safe to say from these findings that the internal expectations of advanced degrees positively correlates with student success.

Students that have communities that expect them to do well are more likely to be involved on campus and score higher on the leadership scale. These students may feel as if campus involvement is something their communities will be proud of them for and, therefore, engage in it.

Internal and external expectations do affect student success in college students. Internal expectations are strong enough to influence students to be leaders and involve themselves on campus. External expectations from people the students assume to be in their community are enough to encourage those two outcomes as well.

Support and Student Success

The third question asks how support affects student success. Students that perceive support from faculty, a resident advisor, and other students have higher GPAs. This effect is evidenced more in non-scholars than scholars. In scholars, only support from faculty shows a rise in GPA. In non-scholars, support from all three sources shows an increase in GPA. This finding is telling of the importance of programs like the GMS. The Gates Scholarship seems to help scholars circumvent the need for on-campus support; the off-campus programs may cause this. This does not necessarily mean scholars do not feel support from other students. It means the support is not imperative for a higher GPA in these students.

Scholars who receive support from a resident advisor and other students are more likely to be involved. Non-scholars who perceive high levels of support from all sources in the study are more involved on campus. Faculty support has no significant effect on scholars' level of involvement. Scholars may receive support from adults in places outside of campus that non-scholars do not because of the nature of the program. Faculty support may not be as beneficial to them.

Support from faculty is the only measure of support that correlates with the leadership scale in question for both scholars and non-scholars. (For non-scholars, there is one instance where support from other students leads to higher scores on the leadership scale). Faculty members may be a more valid "other" to think these students are leaders than other students in any capacity.

Perceived support from outside sources has an overall positive effect on student success. There are negative effects on GPA when the support comes from other students. This negative effect could just be an effect of the type of support. Other students could encourage the students in the study to interact more on campus and consequently have less time to focus on academics. Non-scholars correlate more positively with support more often compared to scholars.

Campus Community and Student Success

Campus community is the last independent variable to affect student success. In the current study, dating relationships correlate with leadership. Scholars and non-scholars that date outside of their race score higher on the leadership scale than those who do not. Leadership does not have a race attached to it, but it may attach to branching

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outside of your race. In addition, scholars who study with someone outside of their racial group score higher on the leadership scale, as well.

Students that rely on their racial group for social support are more likely to be involved on campus. These students may feel safer at the university knowing students similar to them; feeling safe leads to students being part of the campus. Relying on your racial group for social support does not correlate with any other success variable.

Freshman year acclimation has a positive effect on student success GPA as a junior and/or senior. This finding is significant in both scholars and non-scholars in the study. Freshman year is when students move to a new environment away from their families and friends to start over. This time can be stressful and, if not done well, can be detrimental to the student returning sophomore year.

Students that acclimate well to the university during the freshman year of college are more likely to be involved on campus during their junior/senior year of college, as well. It is imperative that students feel comfortable on campus as soon as they get there to ensure that they retain, as well as get involved on campus. The current study shows students who acclimate successfully are more likely to lead, be seen as leaders, and think of themselves as leaders in their junior/senior year of college.

A noteworthy finding in this study is that students who feel like a part of campus have lower GPAs than students who do not. At first glance, it seems counterintuitive, but it is not in combination with other findings in the study. Students that feel like a part of campus are more involved and score higher on the leadership scale. It could be true that students who feel more comfortable are more involved or that students that are involved become more comfortable. Either way the study shows positive correlation in the life of

the student. For scholars, feeling like a part of campus helps to form their perception of leadership within themselves and allows them to lead. Scholars that feel like a part of campus probably feel more freedom to assert themselves as leaders on campus.

Campus community does affect student success in the current population. There is only one instance of campus community negatively affecting student success. All other correlations are positive. Having differing experiences on campus overall had a positive effect on student success. There will be positive returns on student success.

Limitations

As with other studies, there are a few limitations with the current study. The current study uses a specific sample of students. This limits the generalization to the whole population. In addition, the data set does not include the cost of tuition for the students in the data set. This measure would be beneficial within the financial section to get a better grasp of the amount of loans the students have taken out.

The study shows that the presence of the Gates Millennium Scholarship enhances three measures of student success. The scholarship is not solely financial but includes other forms of support like leadership activities and connection to other scholars on campus. There are no measures of these informal interactions. In addition, all of the students are high-achievers so there may be selection bias in within the data set.

Lastly, there are a few limitations to the data set. The data set does not include information on the living situation of the students. This is helpful when examining the campus community of the student to give more depth to their interactions with others. The other issue may be there the dataset includes self-reported GPA. There could be biases to report higher GPAs than they actually have.

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Overall Findings

This study illustrates there are several paths to student success in low-income, high-achieving, minority students. Increased GPA, student involvement, and leadership all have different means to enhance them. Finances, expectations, support, and campus community affect all three student success measures in different ways. What is beneficial for one aspect of student success is not for the other two measures.

Factors linked to retention do not have an overwhelmingly positive effect on GPA in the current study. In some cases, there is a negative effect. Variables in the current study cannot alter GPA. Research points to factors such as time studying and ACT/SAT score as having positive effects on a student's GPA.

The most telling are expectations and feeling like a part of campus. Students with higher community expectations have lower GPAs but are more involved on campus and see themselves as leaders. The same is true for students that feel like a part of campus. It is important to note here that the average GPA for these students is above 3.0 on a 4-point scale.

There are three conclusive results in the current study: 1) perceived support from any source increases student success in both populations; 2) freshman year acclimation is beneficial to student success during junior/senior year of college; and 3) the Gates Millennium Scholarship does cause significant differences to student success overall in comparison to non-scholars. This is not to say that all students should receive full-support programs like GMS. All universities can ensure that high-achieving, low-income, minority students feel support and acclimate well by offering programing that increases their involvement and comfort with the university itself.

The Gates Millennium Scholarship is no longer awarding students scholarships, as they have reached their goal number of students. Until another program similar to GMS is created, we must treat all students like the non-scholars in this study. Non-scholars in the current study need support from all sources to succeed during their junior/senior year of college. Faculty should seek out and encourage these students in informal ways.

Freshman year acclimation seems to be the most essential to student success during junior/senior year of college. Kuh and Kinzie (2005) show the need for an introduction into campus culture within the first couple of weeks. Without this introduction, students may have a harder time achieving insider status in the university context. These effects continue throughout the college career of the student. The population of students in question is one of the most vulnerable to attrition. Acclimation combats dropout and aids student success.

The current study shows that there are ways to increase student success in low-income, high-achieving, and minority students. These students are missing from our higher education system and therefore missing from our workforce. Scholarships like the Gates Millennium Scholarship increase attendance and matriculation through college. The current study shows relational support and aiding in freshman year acclimation, not monetary support, can bolster student success in these talented students.

Student success is achievable in the life of high-achieving, low-income, minority students. The current study shows that there are concrete ways to ensure this population of students succeeds and moves toward graduation from a 4-year institution despite the odds stacked against them. Money is not the only way to ensure success in these students.

The Gates Millennium Scholarship is indeed an asset to the students that receive it. For

students without the scholarship, support from staff and faculty does not cost the

university any money but can provide the backing these students need to succeed.

APPENDICES

APPENDIX A

The most accurate concordance tables come directly from the makers of the test –

College Board. These are the most up to date tables officially released.

TableA-1:
SAT-ACT Conversion Table

SAT	ACT	SAT	ACT	SAT	ACT
1600	36	1250	26	900	17
1590	35	1240	26	890	16
1580	35	1230	25	880	16
1570	35	1220	25	870	16
1560	35	1210	25	860	16
1550	34	1200	25	850	15
1540	34	1190	24	840	15
1530	34	1180	24	830	15
1520	34	1170	24	820	15
1510	33	1160	24	810	15
1500	33	1150	23	800	14
1490	33	1140	23	790	14
1480	32	1130	23	780	14
1470	32	1120	22	770	14
1460	32	1110	22	760	14
1450	32	1100	22	750	13
1440	31	1090	21	740	13
1430	31	1080	21	730	13
1420	31	1070	21	720	13
1410	30	1060	21	710	12
1400	30	1050	20	700	12
1390	30	1040	20	690	12
1380	29	1030	20	680	12
1370	29	1020	20	670	12
1360	29	1010	19	660	12
1350	29	1000	19	650	12
1340	28	990	19	640	12
1330	28	980	19	630	12
1320	28	970	18	620	11
1310	28	960	18	610	11
1300	27	950	18	600	11
1290	27	940	18	590	11
1280	27	930	17	580	11
1270	26	920	17	570	11
1260	26	910	17	560	11

Source: "Concordance," 2015https://collegereadiness.collegeboard.org/
educators/higher-ed/scoring-changes/concordance

Table B-1:
Support and Campus Community Variables Regressed on Student Success Variables

Variables	GPA		Student Involvement		Leadership	
	Scholar	Non-Scholar	Scholar	Non-Scholar	Scholar	Non-Scholar
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	2.354***	1.925**	6.364	1.042	4.36	15.245**
Controls					0.05	
Race						
American Indian	-0.019	0.068	-1.452**	-1.955***	-0.585	-0.657
Asian Pacific	0.130*	0.268***	-2.050***	-1.229**	-0.988***	-0.534
Hispanic	0.103*	0.221***	-1.072**	-2.263***	-0.278	-0.884***
Gender	-0.074*	-0.066	0.015	-0.139	0.131	0.397
Age	0.006	0.03	-0.117	-0.001	0.25	-0.173
Marital Status	-0.06	0.025	0.632	1.021*	-0.099	0.431
Children	-0.078	-0.38	-0.994	-1.897	0.095	2.179
US Citizen	-0.063	0.053	-0.688	-0.135	0.318	0.295
First Generation College Student	0.073*	0.002	0.317	0.668*	0.142	-0.133
Attended a private high school	0.026	-0.033	0.354	0.252	0.154	0.495
ACT/SAT score	0.118***	0.084***	0.256	0.149	0.195	0.043
Father's Educational Attainment	0.009	0.024*	0.017	-0.024	0.058	0.001
Parents Own Home	0.044	0.023	0.172	0.940**	-0.246	0.253
Region						
Northeast	-0.026	0.009	-0.133	-0.667	0.332	-0.072
Midwest	-0.026	-0.034	-1.042*	-0.787	-0.092	-0.446
West	0.011	-0.063	-0.694*	-1.187**	-0.136	-0.444

Variables	GPA		Student Involvement		Leadership	
	Scholar Model 1	Non-Scholar Model 2	Scholar Model 3	Non-Scholar Model 4	Scholar Model 5	Non-Scholar Model 6
Support						
Support one or more faculty	0.042*	0.039*	0.041	0.265**	0.380***	0.392***
Support a resident advisor	-0.029	-0.044***	0.293*	0.723***	-0.031	-0.006
Support other students	-0.032	-0.023	0.761***	0.637***	0.126	0.211
Campus Community						
Dating someone outside of your race	0.04	-0.003	0.127	-0.001	0.430**	0.442**
Study with a person of different racial group	-0.038	0.003	0.543	-0.14	0.796	0.298
Rely on racial grp for social support	-0.012	-0.021	1.215***	1.060***	0.034	-0.035
Freshman year acclimation	0.028***	0.017***	0.081*	0.100**	0.055*	0.050*
Feel like part of campus comm.	-0.007	-0.035	1.011***	1.294	0.355***	0.126
Most friends are not in college	-0.011	-0.023	-0.123	0.450**	0.064	-0.06
R-Square	0.131	0.145	0.251	0.327	0.115	0.097
N	718	707	718	707	718	707

***.001; **.01; *.05

Table B-2:
All Independent Measures Regressed on Student Success Measures

Variables	GPA		Student Involvement		Leadership	
	Scholar Model 7	Non-Scholar Model 8	Scholar Model 9	Non-Scholar Model 10	Scholar Model 11	Non-Scholar Model 12
Intercept	2.432***	2.346**	-0.200	-1.354	0.809	10.458*
Control						
Race						
American Indian	-0.057	0.041	-0.916*	-1.634**	-0.324	-0.422
Asian Pacific	0.139**	0.263***	-1.892***	-1.325**	-0.923**	-0.407
Hispanic	0.117**	0.197***	-0.950**	-2.186***	-0.26	-0.661**
Gender	-0.082*	-0.042	0.222	-0.169	0.123	0.365
Age	0.006	0.019	-0.017	0.048	0.281	-0.085
Marital Status	-0.045	0.046	0.451	0.853	0.019	0.423
Children	-0.058	-0.33	-1.12	-1.648	0.189	2.241
US Citizen	-0.066	0.039	-0.564	-0.115	0.64	0.35
First Generation College Student	0.091**	-0.004	0.171	0.574	0.229	-0.221
Attended a private high school	0.037	-0.015	0.319	0.139	0.208	0.441
ACT/SAT score	0.127***	0.082***	0.216	0.158	0.147	0.075
Father's Educational Attainment	0.01	0.034**	0.045	-0.026	0.07	-0.02
Parents Own Home	0.046	0.027	0.105	0.918**	-0.209	0.189
Region						
Northeast	-0.031	0.057	-0.004	-0.751	0.387	-0.076
Midwest	-0.025	-0.024	-0.903*	-0.811	-0.193	-0.451
West	0.002	-0.064	-0.668*	-1.068**	-0.125	-0.287
Finances						
Parent contribute money towards college	0.007	-0.023	0.299	0.108	-0.013	-0.044
Amount of money made per week	0.000	0.000	-0.003***	-0.001	0.000	-0.001
Year Loan amount	-0.012	-0.013**	0.121*	0.035	-0.036	0.045
Afford things other students do	0.048	-0.036	0.093	-0.31	-0.07	-0.099
Expectations						
Educational aspirations	-0.03	0.009	0.464**	0.345**	0.261*	0.311**
Must financially support my family	-0.006	-0.031	0.068	0.182	0.006	0.031
Family expects me to do well in	0.031	-0.024	0.03	0.018	0.179	0.061
Community expect me do well	-0.044	-0.019	0.776***	0.164	0.291*	0.404**

(continued)

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Variables	GPA		Student Involvement		Leadership	
	Scholar Model 7	Non-Scholar Model 8	Scholar Model 9	Non-Scholar Model 10	Scholar Model 11	Non-Scholar Model 12
Support						
Support one or more faculty	0.042*	0.042*	-0.075	0.17	0.372***	0.342**
Support a resident advisor	-0.02	-0.027	0.293*	0.614***	-0.043	-0.019
Support other students	-0.031	-0.023	0.753	0.622***	0.159	0.177
Campus Community						
Dating someone outside of your race	0.031	-0.002	0.109	0.228	0.389*	0.458**
Study with a person of different racial group	-0.044	0.033	0.466	-0.143	0.543	0.281
Rely on racial grp for social support	-0.004	-0.02	1.074***	0.854***	-0.044	-0.13
Freshman year acclimation	0.029***	0.018***	0.089*	0.065	0.053*	0.052*
Feel like part of campus comm.	-0.014	-0.051*	1.008***	1.275***	0.252*	0.121
Most friends are not in college	0.001	-0.013	-0.158	0.354*	0.062	-0.098
R-Square	0.155	0.179	0.299	0.325	0.124	0.131
N	718	707	718	707	718	707

***.001; **.01; *.05

Table B-3:
GPA Results Without Test Scores

Variables	GPA	
	<u>Scholar</u> Model 13	<u>Non-Scholar</u> Model 14
Intercept	2.544***	2.639***
Control		
Race		
American Indian	-0.056	0.051
Asian Pacific	0.212***	0.286***
Hispanic	0.152***	0.198***
Gender	-0.069	-0.018
Age	0.014	0.020
Marital Status	-0.070	0.039
Children	-0.082	-0.473
US Citizen	-0.016	0.026
First Generation College Student	0.058	-0.010
Attended a private high school	0.038	0.020
Father's Educational Attainment	0.013	0.037***
Parents Own Home	0.022	0.027
Region		
Northeast	-0.061	0.057
Midwest	-0.057	-0.020
West	-0.062	-0.071
Financial		
Parent contribute money towards college	0.025	-0.014
Amount of money made per week	0.070*	-0.032
Year Loan amount	0.000	0.000
Afford things other students do	-0.008	-0.015***
Expectations		
Educational aspirations	0.002	0.010
Must financially support my family	0.006	-0.027
Family expects me to do well	0.009	-0.033
Community expects me do well	-0.047*	-0.021
Support		
Support one or more faculty	0.027	0.032
Support a resident advisor	-0.021	-0.022
Support other students	-0.016	-0.012
Campus Community		
Dating someone outside of your race	0.038	0.002
Study with a person of different racial group	-0.009	0.043
Rely on racial grp for social support	-0.003	-0.022
Freshman year acclimation	0.027***	0.017***
Feel like part of campus comm.	-0.013	-0.059*
Most friends are not in college	-0.014	-0.020
R-Square	0.111	0.150
N	757	737

***.001; **.01; *.05

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