

DISSERTATION

ADELANTE! FROM HIGH SCHOOL TO HIGHER EDUCATION:
AN ANALYSIS OF THE ACADEMIC SUCCESS AND PERSISTENCE
OF HISPANIC STUDENTS THROUGH AN EXPECTANCY-VALUE FRAMEWORK

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ABSTRACT

ADELANTE! FROM HIGH SCHOOL TO HIGHER EDUCATION: AN ANALYSIS OF THE ACADEMIC SUCCESS AND PERSISTENCE OF HISPANIC STUDENTS THROUGH AN EXPECTANCY-VALUE FRAMEWORK

The purpose of this study was to examine relationships between student pre-college academic perceptions with first-year in college academic experiences, specifically in the areas of academic self-efficacy, academic perseverance, and academic engagement, to identify predictors for academic success and persistence in college of Hispanic students. An abbreviated version of the expectancy-value model was utilized as the framework for this study. The guiding question for this study was: Do pre-college experiences and beliefs (expectancies for success) as well as academic engagement (subjective task values) contribute to the academic success (achievement related performance) and persistence to second year (achievement related choice) for first-year Hispanic students? The study sample ($n = 271$) included students at a public Hispanic-serving institution who completed both the BCSSE and NSSE surveys in the given years of the study. Findings identified several variables as predictors of achievement-related performance and choice. The variables identified for achievement-related performance (academic success) were writing skills, speaking skills, quantitative skills, participation in class discussions, finishing tasks, gender and type of school attended. The variables identified for achievement-related choice (persistence) were writing skills and quantitative skills. Additionally, significant differences were identified by gender for academic self-efficacy and by generation-status and by type of school attended for academic engagement.

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CHAPTER ONE – INTRODUCTION

Educational attainment has become an essential component for economic success and social transformation. Allen and Nora (1995) assert that attaining some form of postsecondary education has become central for success in today's economic environment. While at one time a high school education alone was sufficient for continued academic and economic success that is no longer the case today (American Diploma Project, 2004). Kuh, Cruce, Shoup, Kinzie, & Gonyea (2008) propose that a bachelor's degree has now replaced the high school diploma as the means of attaining opportunities for economic and social advancement. Venezia and Kirst (2005) suggest that middle class status can no longer be attained with only a high school diploma. Tierney and Hagedorn (2002) agree that obtaining a degree is now a necessity to achieve middle class status as well as to realize professional career opportunities. Data released by the United States Census Bureau (2011) indicate that the difference in earnings over a 40-year work life between those with a high school diploma and those with a bachelor's degree is equivalent to approximately one million dollars. Similarly, Pascarella and Terenzini (1991) agree that a bachelor's degree is now vital to achieve an individual's economic potential. Seidman (2005) argues that as a nation, the United States should promote educational attainment for its citizens in order to remain competitive in the global arena. Higher levels of educational attainment are linked to economic and social benefits that not only enhance the quality of life for individuals and their families, but also benefit their communities and society as a whole since educated citizens tend to be more involved in national and community initiatives (Kuh, Kinzie, Buckley, Bridges, and Hayek, 2006). The reality, however, does not align with these findings. Statistics released by the Texas Education Agency (2011) indicate that approximately one third of students

do not even graduate from high school; one third that actually graduate after four years of high school do not immediately go on to college; and the remaining third graduate from high school but enter college academically unprepared. Thus, the increasing numbers of students who are either not completing high school or entering college academically underprepared will significantly impact the nation's current and future social and economic structure.

Higher education plays an important role in the economic and social development, not only of the nation, but of the individual as well. Bean (1986) noted a linear relationship between enrollment in higher education and income. The increased demand for higher education also has a direct alignment with persistence and degree completion. Issues regarding academic persistence and degree completion have consistently received increased attention in higher education during the past four decades. Tinto argued that postsecondary institutions should not only provide access to education but should also provide students "a reasonable opportunity to participate in college and attain a degree" (Tinto, 1997, p. 1). Students who do not fulfill their academic goals through the completion of a college degree often encounter fewer job opportunities, lower income possibilities and less job security. Gladieux and Swail (1998) and Swail (2000) linked higher levels of education to higher income throughout the individual's lifetime and have noted that those with less education face greater challenges. Carnevale (2010) estimated that by the year 2018, 63 percent of jobs will require some level of college degree attainment. The economic benefits of educational attainment also impact communities by way of reduced poverty, crime and unemployment rates as well as by increased community and civic involvement and purchasing power.

Statement of the Research Problem

The United States Census Bureau recognizes a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture as Hispanic or Latino (U.S. Census Bureau, 2008). For the purpose of this study, both of the terms Hispanic and Latino are used interchangeably. This ethnic group is considered to be the largest and fastest growing minority population in the United States. Between 2000 and 2010, the Hispanic population grew by 43 percent, roughly 15.2 million people (U.S. Census Bureau, 2011). This increase accounted for almost half of the total national population growth. Thus, as the United States population surpasses 300 million, one out of every six individuals identifies themselves as Hispanic or Latino. This explosive growth has transformed the nation's demographic map to position Hispanics as the majority-minority in numerous states across the nation and has increased the impact and the influence Hispanics have on crucial national issues such as politics, healthcare, education and the economy. Thus, it is in the best interest of the nation that those in the majority have the awareness, understanding and education to address these critical issues appropriately. The Hispanic population, with 54 percent under the age of 30, is also younger than other minority groups (U.S. Census Bureau, 2011). Although the number of Hispanic students enrolled in the myriad educational systems continues to increase, the educational persistence and college completion rates have not maintained the same pace (NCES, 2011). Therefore, as the Hispanic population continues to become the majority in the nation, it is imperative to embrace these changing demographics and identify factors that enhance the educational attainment and workforce preparation for this minority ethnic group.

To illustrate this educational imperative, data based on the United States Census Bureau (2011) records, shown in Table 1.1, demonstrates the educational progression and attainment of a

sample of 100 students from five different ethnic groups: African Americans, Asian Americans, Latinos, Native Americans, and Whites. The first number in each column represents female students and the second number represents male students. As displayed on the first column, Latinos ranked below most of the other ethnic groups at the various levels throughout the educational pipeline, from the high school to the post-graduate level. Additionally, important to note that Latino females had higher educational attainment rates than Latino males at almost all levels of the pipeline, except at the doctorate level.

Table 1.1

U.S. Census Bureau Educational Pipeline by Ethnicity and Gender (2011)

Latino	Native American	African American	White	Asian American
100/100	100/100	100/100	100/100	100/100
Elementary School Students	Elementary School Students	Elementary School Students	Elementary School Students	Elementary School Students
64/61	78/74	85/84	88/87	87/91
Graduate From High School	Graduate From High School	Graduate From High School	Graduate From High School	Graduate From High School
11/9.2	11/10.6	14/12	19.5/20	33/32
Graduate From College	Graduate From College	Graduate From College	Graduate From College	Graduate From College
3.6/3	5.7/2.2	7/5	9.4/9.1	15/18.5
Graduate From Graduate School	Graduate From Graduate School	Graduate From Graduate School	Graduate From Graduate School	Graduate From Graduate School
0.4/0.7	0.4/0.6	0.5/0.6	0.9/1.8	2/5.2
Graduate With Doctorate	Graduate With Doctorate	Graduate With Doctorate	Graduate With Doctorate	Graduate With Doctorate

Fry (2002) and Solorzano, Villalpando, & Osequera (2005) argued that although Latinos have demonstrated tremendous growth in population, as well as increased enrollment in educational institutions, they still have the poorest educational attainment rates when compared to other ethnic student groups. Fry (2002) asserts that although continuous efforts to increase educational opportunities for minority students are ongoing, they are more prone to drop out of

school and still comprise the lowest percentage of students enrolled in college. Solorzano et al. (2005) stipulated that examining educational and social conditions that can enhance the educational attainment and completion rates of this growing population is critical. Nora and Crisp (2009) argued that “Latino students were less academically prepared *for* high school, *during* high school and, ultimately, *for* college as compared to White students” (p. 320). Burciaga, Perez-Huber, & Solorzano (2010) suggest that the future of this nation depends on the improvement and investment of educational opportunities for the Latino population. Given the fact that both the growth of this ethnic population, as well as the demand for a college-educated workforce are escalating, it is logical to explore the significant gaps in Hispanic educational attainment to identify factors that impact these gaps and implement initiatives to positively influence these factors.

Purpose of Study

Persistence and educational attainment are two areas often examined when determining student success. Researchers suggest that multiple factors and experiences influence students’ decisions to persist or drop out of school. Tinto (1993), for example, found that the more academically and socially involved students were, the more likely they would persist in college. Astin (1991) reported that integration was particularly important during the first year of college. Kuh (2001) found that student expectations upon entering college shape their behavior and adjustment to college. Additionally, Kuh (2001) proposed that student engagement in educationally purposeful activities is an important component of student success. Similarly, Bean and Eaton (2000) argued that student perceptions of the campus environment and expectations are critical determinants of student success and persistence. Research conducted by Upcraft and Gardner (1989) and Upcraft, Gardner, & Barefoot (2005) identified the first-year of college as a

pivotal year for students to determine whether they will remain in college. Additionally, McInnis (2001) found that students tend to leave school in greater numbers between the first and the second year of college. Wigfield and Eccles (2000) contend that achievement is determined by individuals' choices, persistence, and performance. Achievement is further impacted by the individuals' belief on how well they can perform an activity and the extent to which they value an activity (Wigfield, 1994; Wigfield and Eccles, 1992). This notion aligns with the constructs of the expectancy-value theory which proposes that expectations of success, ability beliefs, and values associated with certain tasks directly influence achievement and persistence (Wigfield and Eccles, 2000). Simpkins, Davis-Kean, and Eccles (2006) contend that these expectations and beliefs determine the students' choices of and engagement in educational activities.

There is limited research on the connection between pre-college expectations and activities during the first year of college with the impact on the academic success and persistence of minority students; thus, this study focused on exploring the academic success and persistence of Hispanic students through an abbreviated Expectancy-Value framework to identify potential factors that can provide direction for institutional practices. The guiding inquiry for this study was: Do student's experiences and beliefs (Expectancies for Success) as well as activities (Subjective Task Values) contribute to academic success (Achievement Related Performance) and persistence to second year (Achievement Related Choice) for first-year Hispanic college students? A quantitative, non-experimental research design utilizing secondary data analysis explored relationships between student expectations upon entering college and experiences during the first year of college to identify predictors of academic success and persistence of Hispanic students. Three components of the Expectancy-Value Model of Achievement Motivation: (1) Expectancies for Success; (2) Subjective Task Values; and (3) Achievement-

Related Performance and Choices along with three constructs from national student engagement surveys were utilized for this study. These expectancy-value components align with the constructs of academic self-efficacy, academic perseverance, and academic engagement to create a robust framework. Data from three primary data sources, (1) the Beginning College Survey of Student Engagement, a pre-assessment instrument completed prior to the semester students entered college; (2) the National Survey of Student Engagement, a post-assessment instrument completed at the end of their first year of college; and (3) institutional data including demographics such as gender, generation status, and type of high school attended were examined and analyzed. This study was guided by the following research questions.

Research Questions

1. Is academic self-efficacy a predictor of academic success and persistence for Hispanic students at the end of the first year of college?
2. Is academic perseverance a predictor of academic success and persistence for Hispanic students at the end of the first year of college?
3. Is academic engagement a predictor of academic success and persistence for Hispanic students at the end of first year of college?
4. Do the demographic characteristics of gender, generation status, and type of high school attended account for differences in (a) academic self-efficacy; (b) academic perseverance; and (c) academic engagement?

Each of the research questions addressed specific components of the Expectancy-Value model. Research questions 1 and 2 addressed the Expectancies for Success component to examine students' beliefs of how they would perform on an activity or accomplish a task. Research question 3 addressed the Subjective Task Value component to examine the level to

which students valued an activity and how that impacted their level of engagement. Eccles, Adler, Futterman, Goff, Kaczala, Meece, & Midgley (1983) found that a student's "perception of the value of an activity is more important in determining the decision to engage in that activity, while the self-concept of ability is more important in determining actual performance" (p.113). Research question 4 examined the extent to which gender, generation status, and type of high school attended impacted the two components, Expectancies for Success and Subjective Task Value, and if significant differences existed. Collectively, these research questions were meant to examine if student's perceived expectations upon entering college (Expectancies for Success) and their experiences during the first year of college (Subjective Task Values) impacted academic success (Achievement Related Performance) and persistence to second year (Achievement Related Choice).

Definitions of Relevant Terms

Definitions for terms relevant to this study are provided below:

Academic Perseverance – A student's persistence on academic tasks in spite of the lack of motivation or other interests and challenges (BCSSE, 2010).

Academic Success – A grade point average (GPA) of 2.5 or higher at the end of the first academic year of college, from beginning fall semester to end of spring semester, will indicate academic success.

Beginning College Survey of Student Engagement (BCSSE) – A nationally normed survey instrument used to collect self-reported information from students entering the first year of college regarding their high school academic and extracurricular involvement, as well as their expectations about participation in academic and extracurricular activities during their first year of college (BCSSE, 2010).

Engagement – Represented by the amount of time and the level of energy that students devote to educational activities, inside and outside of the classroom. This has been identified as a best practice in higher education by multiple researchers (NSSE, 2011).

First-Generation – Students are identified as first-generation if their parents have not earned a baccalaureate degree from an institution of higher education (Choy, 2001).

Hispanic/Latino – The United States Census Bureau identifies the term Hispanic as an ethnic classification and defines it as a person of Mexican, Puerto Rican, Cuban, Central or South American culture or origin (U.S. Census Bureau, 2008). For the purpose of this study, both the terms Hispanic and Latino were used interchangeably.

National Survey of Student Engagement (NSSE) – A nationally normed survey instrument used to collect self-reported information regarding participation in academic and extracurricular activities from college students during their first-year of college as well as students in their senior year of college (NSSE, 2011).

Self-Efficacy – An individual's perceived capability or belief that they can perform tasks which are necessary to achieve their goals (Bandura, 1997).

Delimitations

This study did not include all entering first-year students, but rather only those that completed both questionnaires. Thus, students who did not complete both the BCSSE and the NSSE instruments were excluded from this study. Data were limited to one particular four-year public Hispanic serving institution in Texas. Additionally, due to a very high percentage (93%) of Hispanic student enrollment, the ethnic distribution of the student population is not diverse; thus, ethnicity was not considered as a variable. The student sample for this study consisted of all

Hispanic students, which was the population of interest; thus, limiting generalizability to other institutions.

Assumptions & Limitations

Assumptions of the study included: (1) students will be willing to complete the questionnaire and will be honest with their responses; (2) the researcher will be allowed access to relevant institutional data for analysis; and (3) the sample size of the data set will be adequate to identify relationships. Limitations identified with research design included: (1) reliance on student's self-reported perceptions about their levels of engagement, self-efficacy, and perseverance; (2) the study relied on secondary data analysis of existing data sets; (3) the questionnaires were completed on a voluntary basis; thus, respondents were not selected at random; (4) responses were limited to include only the participants who completed the questionnaires during the administration and collection timeframe; and (5) the data collected were particular to only one institution.

Significance of the Study

A growing number of research studies have independently explored the constructs of expectancy-value, self-efficacy and ability beliefs, as well as student engagement; however, the focus has mostly been on general student populations, and not specifically on Hispanic students. Gonyea (2006), for example, explored the relationship between student engagement and selected outcomes pertaining to gains in general education learning and intellectual skills. While the study focused on first-year undergraduate students, it did not examine effects on gender or ethnicity. Similarly, Kuh, Kinzie, Cruce, Gonyea, & Laird (2006) explored relationships between high school engagement and college expectations of first-year students at liberal arts institutions; however, while minority students were part of the population, White students were

predominantly represented in the study. Other studies by Durik, Vida, & Eccles (2006) and Wang, Willett, & Eccles (2011) found that both engagement and academic motivation influence a student's selection of potential careers. Utilizing an expectancy-value model, Eccles et al. (1983) found that an individual's achievement is influenced by their own expectations as well as by the value they place on specific occupations. According to Bembenutty (2012), Wigfield recommended that further investigation was needed to determine cultural connections of students' expectations and values. The importance of this study lies at the intersection and urgency of addressing educational disparities within the largest growing demographic group in our country. This particular study is important because limited research exists on the connection between pre-college expectations with activities during the first-year of college and the impact on the academic success and persistence of minority students, particularly those of Latino or Hispanic descent. Therefore, in hopes of contributing to the research gap relative to the fastest growing and increasingly important ethnic population, this study focused on exploring the academic success and persistence of Hispanic students.

Researcher's Perspective

As a first-generation Hispanic student, this researcher is aware of the challenges Hispanic students face as they transition through the educational pipeline. Challenges such as the lack of understanding of academic expectations by students as well as by parents, lack of academic preparation for college, lack of mentors to provide guidance and serve as role models, and lack of financial support are very real to first-generation students and their families. The Hispanic culture is traditional and family-oriented; thus, many students struggle with the desire and the responsibility to help family with everyday necessities. These responsibilities are sometimes greater than an individual's own needs or goals, especially one as demanding and life-altering as

attaining a college education. As a long-time higher education administrator at a Hispanic-serving institution, these scenarios are all too familiar. Although increased attention and services are now provided to minority and first-generation students, there are still many students falling through the cracks because of disconnects between their expectations and experiences. It is the hope of this researcher that this study contributes to the existing research on first-year student self-efficacy and engagement to facilitate and promote academic success and persistence for first-generation Hispanic students.

CHAPTER TWO: REVIEW OF THE LITERATURE

Although Hispanic student enrollment in higher education institutions has increased, the persistence and completion rates have not maintained the same pace. Given the fact that the Hispanic population is on the fast track to become the majority population in the United States, as well as the increased need for a productive and educated workforce, this chapter will review the emerging body of research and evidence that examines the challenges and progression of this significant segment of the nation's population.

Demographics and Educational Challenges of Minority Students

The Hispanic population within the United States has experienced a 43 percent growth rate between the years of 2000 to 2010 (U.S. Census Bureau, 2011). This tremendous growth has transformed the demographic map and ethnic diversity of the nation and this transformation is expected to continue. Along with the increasing population, the number of students entering all levels of the educational system, from kindergarten to college, has also increased. In particular, the National Center for Education Statistics (NCES) reports that enrollment rates for high school age students (16 to 17 years old) increased from 90% to 95% between 1970 and 2009; while enrollment rates at the college level increased from 37% to 50% within the same time frame (NCES, May 2011, p. 2). Although, higher education institutions across the nation have experienced an increase in the enrollment of minority students, a good number of Hispanic students still fail to make the transition from high school to higher education. NCES (2011) data indicates that while the overall dropout rate for 16 to 24 year olds has declined nationwide from 14% in 1980 to 8% in 2009, the dropout rates for Hispanics still remain higher than for any other population group (p. 66). The Pew Hispanic Center (2006) reports that Hispanics have a 9.2%

dropout rate in comparison to 3.9% for Whites, 6.6% for Blacks, and 2% for Asians. In addition, NCES (2011) data indicates that the college enrollment rates immediately after high school were only 62% for Hispanic students as compared to 90% for Asian, 71% for White and 63% for African American students (p. 16). Another disturbing number is the educational attainment rates for Hispanics. Data reported by the Pew Hispanic Center (2006) indicated that only 12.7% of Hispanic students attained a bachelor's degree compared to Whites (31.1%), Blacks (17.7%), and Asians (49.9%). This data affirms that Hispanic students have higher dropout rates and lower college enrollment rates than other population groups. Thus, although the numbers of Hispanic students attending college have increased across time, the persistence and completion rates for this student population have not maintained the same pace (NCES, 2011).

Challenges

Pizzolato, Podobnik, Chaudhari, Schaeffer, & Murrell (2008) suggest that challenges such as first-generation status, lack of academic preparation, lack of adequate financial assistance, and lack of knowledge of the collegiate environment may contribute to the lower persistence and educational attainment rates of minority students. Drawing on Tinto's notion that students who are not well integrated in their academic environment are more likely to depart, Maestas, Vaquera, & Munoz-Zehr (2007) sampled students to measure their academic and social integration. Significant findings indicated that the ability to pay for school, availability of academic support programs, faculty interest, and positive racial and cultural awareness all impact a student's sense of belonging. Locks, Hurtado, Bowman, & Oseguera (2008) also found that sense of belonging plays a key role in whether students have a successful transition into college, whether they persist in college, and eventually whether they graduate from college.

Another challenge that is important to recognize is the college readiness of this student population. Conley (2007) defined college readiness as “the level of preparation a student needs in order to enroll and succeed, without remediation, in a credit-bearing general education course at a postsecondary institution” (p. 5). Venezia and Kirst (2005) found that many students entering postsecondary education today are not academically prepared for college-level work and it becomes necessary to enroll in remedial courses. Tinto (1993) argues that this not only increases the time it takes to complete a degree, but it also increases the cost as well. Data collected by the National Center for Educational Statistics indicated that a higher percentage of minority students need to take remedial courses. NCES (2011) reported that in 2007-2008, 31% of White students took remedial courses compared to Asian (38%), Black (45%), and Hispanic (43%) students (p. 70). Indeed, Flores (2007) noted that higher education leaders should recognize that a more effective job of educating the largest and fastest growing segment of the population is critical. Brown (2009) agreed that given the population growth and the strong linkage between education and workforce prosperity, it is increasingly important to address the need of educating Latinos. Organizations such as *Excelencia in Education* (2009) recommend that increased attention be given to the educational achievement of Latinos because of their status as a majority-minority population, as well as to their increasing economic and civic contributions (Brown, Santiago, & Lopez, 2003; Santiago, 2009). There are multiple challenges facing minority students transitioning to higher education. Along with addressing these challenges on a national level, higher education institutions must look at these challenges through multiple lenses to identify possible strategies. Multiple characteristics including pre-college experiences, first-generation status, self-efficacy, and engagement, have an impact on student persistence and success in college. These factors are examined in the following sections.

Student Success through Different Lenses

The pioneer work of multiple researchers has been instrumental in the foundation and enhancement of theories and models focused on student development and achievement. Evans, Forney, & Guido-DiBrito (1998) agree that these theories provide higher education professionals an understanding of the different phases of student growth and development. Theories, while often viewed as difficult and complex, are valuable in providing researchers direction and validation. Kerlinger and Lee (2000) define theory as “a set of interrelated constructs, definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena” (p. 11). However, there is no one specific theoretical perspective that can account for all the factors that influence student success. The theories cited throughout the following sections stem from diverse perspectives; however, together they provide an understanding of multiple factors that contribute to the development and success of students and provide the foundation for this study.

Student Development

There is a vast collection of research and literature on student development in higher education. Chickering’s (1969) influential work on the Theory of Identity Development, and subsequent revisions with Reisser (1993), introduced seven vectors that symbolize college student development. They noted that these vectors are fluid and not hierarchical in nature, but rather that movement across these vectors occurs at different times and with different levels of intensity depending on the individuals and circumstances. As students transfer from one vector to another, they develop increased skills and awareness of the different phases (Chickering and Reisser, 1993). The vectors encompass: (1) developing competence – through the ability to achieve goals and the capacity to cope with intellectual, physical, and interpersonal situations;

(2) managing emotions – by learning to identify different types of feelings and reactions and developing the ability to respond appropriately; (3) moving through autonomy toward independence – through the enhancement of emotional independence and self-sufficiency; (4) developing mature interpersonal relationships – that are characterized by appreciation for diversity, tolerance and intimacy; (5) establishing identity – by recognizing sense of self and becoming comfortable with individual competencies, appearance, sexual-orientation, and self-esteem ; (6) developing purpose – through increased recognition of abilities and life goals; and (7) developing integrity – through recognition of own values and interests as well as respect of others values and opinions. Chickering and Reisser (1993) proposed that these vectors are representative of the direction and complexity of college student development.

Spady (1970) proposed that a student's interactions within a college environment ultimately influenced development, academic performance, and social integration. Astin (1977, 1993), through the Theory of Involvement, suggested that student growth occurs through a combination of characteristics brought in when entering college as well as the experiences and environment encountered during college. He noted that involvement with faculty and peers not only enhanced student growth but also impacted persistence in and completion of college. Similarly, Bean's (1982) Model of Student Attrition argued that a student's interaction with an institution influenced student satisfaction and ultimately student persistence at that institution. Pascarella and Terenzini (1991, 2005) argued that although theories are essential for the understanding of student development, of equal importance is the development of college impact models to help institutions establish structures facilitating student learning and success. Tinto (1993, 2001) added to the body of literature through his work on student involvement and persistence. He proposed that the academic and social integration of students with peers and

faculty leads to greater goal and institutional commitment. Thus, he contended that increased student involvement leads to greater persistence, especially during the first year of college. His seminal work on student involvement and persistence has been extended into other studies measuring college impact. The work of Kuh (2003) has brought national attention to student engagement in educationally purposeful activities and how these activities lead to academic success, persistence, and completion.

Pascarella and Terenzini (2005) grouped student development theories into two main categories – developmental and college impact. They determined that developmental theories evaluate the individual developmental process, while college impact theories evaluate the changes associated with the experiences students have while enrolled in college. These experiences allow students to establish their own sense of self and identity. Torres, Jones, & Renn (2009) asserted that discovering their abilities and strengths, as well as establishing goals are all part of the process of creating that sense of identity. Pascarella's (1985) general causal model suggested that five sets of variables contribute to this development. In essence, the model stipulates that the student's background and pre-college traits as well as the institutional characteristics together shape three key variables – institutional environment, student interactions with faculty and peers, and quality of student effort – all of which impact student learning and development. Similarly, Bandura (1986) argues that “human functioning is explained in terms of a model of triadic reciprocity in which behavior, cognitive and other personal factors, and environment all operate as interacting determinants of each other” (p.18). Kuh, Kinzie, Buckley, Bridges, & Hayek (2006) agree that the experiences students have before they begin college determine their level of development and their likelihood of obtaining a college degree. This section has illustrated that multiple researchers concur that student-faculty interactions, peer

interactions, and educational environments all influence how students construct their identity. The seminal work of these researchers has influenced multiple studies in the field of student development.

Persistence and Retention

Spady (1970) drew on the concept of Emile Durkheim's theory of suicide to develop the Sociological Model of the Dropout Process, a comprehensive model that illustrates factors impacting student attrition. Spady's assumption was that

the dropout process is best explained by an interdisciplinary approach involving an interaction between the individual student and his particular college environment in which his attributes (i.e., dispositions, interests, attitudes, and skills) are exposed to influences, expectations, and demands from a variety of sources (including courses, faculty members, administrators, and peers) (p. 77).

Spady (1970) proposed that the resulting interaction allows students to “assimilate successfully into both the academic and social systems of the college” (p. 77). This theoretical model proposed that four variables – family background, academic potential, normative congruence, and friendship support – influenced student development, academic performance and social integration. Spady (1970) noted that each college student brings in values and expectations shaped by their family background and pre-college experiences. The assumption is that these experiences provide the ability to adjust to the college environment. Similarly, a student's academic potential influences their intellectual growth and academic performance in college. Spady (1970) proposed that normative congruence is the intersection and compatibility between the characteristics students bring in and those developed while in college. This variable, together with friendship support, account for the student's social integration in college. Spady (1970) contended that these four variables, when combined with the student's satisfaction with and the commitment to the institution, impact the student's decision to persist in college.

Bean's (1982) Industrial Model of Student Attrition, incorporated variables that reflect a student's interaction with an institution, such as grades, self-development, participation, and organizational memberships, and proposed that the combination of multiple variables influenced student satisfaction, and ultimately impacted student persistence. Bean's model incorporated two external variables – the opportunity to transfer and the probability of getting married – both of which strongly impact the decision to persist. Bean (1982) argued that the student's "intent to leave is the best predictor of attrition" (p. 25).

Tinto's (1975, 1987, 1993) Student Departure Model built on the work of Durkheim and Spady. His seminal work depicting student departure is widely used and often cited by researchers when discussing student attrition. Through this model, he analyzed how the combined characteristics of family background, individual attributes, and pre-college education impacted intellectual development and interactions with peers and faculty. Tinto (1987) contended, as did Bean (1982), that increased goal commitment leads to higher grade performance and intellectual development which ultimately lead to academic integration. By the same token, increased peer-group and faculty interactions lead to social integration. Ultimately, Tinto (1993) found that academic and social integration impact goal and institutional commitment and influence student persistence.

Tierney (1992) found that three entities benefit from successful student retention: first, students reap the rewards of a college degree; second, institutions maintain an income stream from student attendance; and lastly, society benefits from skilled and productive citizens. Tierney (1992) considered Tinto's work as a "widely accepted and sophisticated analysis" (p. 615). However, Tierney noted that although Tinto does incorporate culture in his framework, it was not expanded to include critical groups. He argued that Tinto's model did not take into account

integration differences based on class, race, or gender, all of which are important to consider when examining the participation and retention of underrepresented groups.

Astin (1993) suggested that the decision to attend college is one of the most influential decisions with significant future impact in an individual's life. He argued that although attending college is a decision that may not be applicable to all students, for those who do choose to attend college, the decision of which college to attend and what degree program to major in are vital predictors of persistence and completion. This is especially true for underrepresented and minority populations. Astin's input-environment-outcome (I-E-O) model has been an influential guide for studying college impact. The basic elements of this model examine three areas: (1) Inputs: characteristics that students bring with them when they enter college, such as familial background, demographic characteristics, and pre-college academic and social activities; (2) Environment: the experiences, programs, and people students encounter upon entering college; and (3) Outcomes: the student's characteristics, such as knowledge, skills, attitudes, and behaviors, after exposure to the environment. Astin (1993) contended that student growth can be determined by comparing the input and outcome characteristics and also noted that student involvement with faculty and peers not only promotes growth, but also impacts retention as well as degree attainment. Pascarella and Terenzini (2005) agreed with Astin's and Tinto's findings which suggested that the inputs through the student's engagement within the institutional environment shape the outcomes; thus, impacting student change. Both researchers found that academic and social integration are critical factors in the student's decision to persist in college.

Nora and Cabrera's (1996) Student Adjustment Model, drawing from Tinto's and Bean's theoretical frameworks, extended the notion that the connection between the student and the institution is a strong indicator of persistence. Arbona and Nora (2007) noted that student

experiences with faculty, peers and staff collectively enhance the student's allegiance to the institution and their commitment to obtaining a degree. Expanding on this model, Nora (2002) proposed the Student/Institution Engagement Model to emphasize the importance of the interaction between the student and the institution. Nora reasoned that students bring a distinct set of characteristics when they enter school, such as financial situations and academic accomplishments, as well as environmental factors, such as work and family responsibilities, which impact their transition and adjustment to school. Similarly, Cabrera and Nora (1994), Cabrera, Nora, Terenzini, Pascarella, & Hagedorn (1999), and Nora, Cabrera, Hagedorn, & Pascarella (1996) all concurred that a student's commitment to school and to degree completion is strengthened by the support they receive from the institution as well as through their interactions with faculty, staff, and peers in academic and social environments.

Adams and Marshall (1996) state that establishing a sense of belonging allows individuals to feel a connection with the institution they are attending. Astin (1977,1993) contended that this sense of belonging is a key factor which can often determine whether an individual experiences a successful transition to college and eventually remains in college. Kuh, Kinzie, Buckley, Bridges, & Hayek (2006) proposed that student success encompasses not only academic achievement, but also engagement in effective educational practices such as effective study skills, time management, and the ability to work in groups have all been found to positively contribute to persistence and academic success. Other challenges that have been found to have an impact on minority student retention include lack of academic preparation in high school (Benitez, 1998), lack of commitment to educational goals (Hurtado, Milem, Clayton-Pedersen & Allen, 1999), increased family pressures and obligations (Hurtado and Ponjuan, 2005) lack of integration with institution (Swail, Cabrera, Lee, & Williams, 2005) and lack of

adequate financial assistance (Arbona and Nora, 2007). Swail et al. (2005) argued that the fact that certain student populations, such as minority students, have lower participation rates in effective educational practices may help explain the level of persistence rates.

First-Generation Students

Many Hispanic students in higher education today are recognized as the first individual in their families to attend college. The term first-generation is most frequently used to identify students whose parents have not earned a baccalaureate degree from an institution of higher education (Choy, 2001). Results from the National Survey of Student Engagement (2011) indicate that approximately half of the students coming into college report having at least one parent with any type of postsecondary education. While first-generation students exist in every racial group, minority groups exhibit greater numbers in this category. The Higher Education Research Institute (2007) found that although the overall numbers of incoming first-year students identified as first-generation have been steadily declining, the numbers for minority students are still high.

According to Terenzini, Springer, Yaeger, Pascarella, & Nora (1996), the literature on first-generation students can be grouped into three categories. The first category focused on the academic preparation, goals, and background characteristics. Overall, they found that first-generation students, when compared to other students, were more likely to be less academically prepared for college (Billson and Terry, 1982), have lower or unrealistic educational expectations (York-Anderson and Bowman, 1991), and receive less information from their families regarding college matters or activities (Stage and Hossler, 1989). Choy (2001) argued that the probability of first-generation students enrolling in college was related to the educational levels of their parents. Similarly, Thayer (2000) noted that first-generation students do not have

the benefit of learning about college experiences from their family members. Brown, Santiago, & Lopez (2003) agreed that first-generation Latino families face an information gap because their parents may be limited in their ability to understand and maneuver through the higher education system. Additionally, Schmidt (2003) proposed that the academic preparation of Hispanic students is deficient nationwide because of lower scores on college entrance exams as well as the increased need for remedial courses, particularly in math and English. Furthermore, Warburton, Bugarin, & Nuñez (2001) argued that first-generation students were likely to have lower high school grade point averages as well as lower scores on college entrance exams. Harrell and Forney (2003) reiterated that rigorous academic preparation in high school will increase the likelihood of college success and decrease the need for remedial coursework. Adelman (1999) reported that Hispanic students generally score lower than other ethnicities on college entrance exams; however, the results were even lower for students identified as first-generation. Additionally, Harrell and Forney (2003) found that Hispanic parents were the least likely group to obtain college degrees; thus, were least prepared to contribute knowledge about the college process to their children.

Terenzini et al. (1996) indicated that the second category focused on transitioning from high school into higher education. Review of the literature proposed that several factors may contribute to first-generation students having a more difficult transition than other students. Upcraft and Gardner (1989) argued that the first year of college experience is important to ensure future college success; thus, it is especially important for first-generation students who may face additional challenges when transitioning into higher education. Schmidt (2003) found that Hispanic students do have strong parental encouragement to attend college; however, first-generation students may not have anyone in their immediate family that can provide appropriate

insight into the college environment. Vargas (2004) argued that minority and first-generation students were more likely to lack understanding of the higher education process including admission procedures, financial availability and selection of academic major or career choice. For this reason, Choy (2001) proposed that first-generation students were more likely to delay entry into college. Similarly, Arbona and Nora (2007) found that due to the lack of financial resources as well as academic preparedness, first-generation students may initially enroll in community colleges but may never even transfer to four-year institutions or complete their degree. In addition, Thayer (2000) suggested that first-generation students may also encounter a conflict between the home and the college environment. Furthermore, Choy (2001) proposed that many first-generation students may work full-time and attend college part-time because of their sense of responsibility for helping with family needs.

The third category identified by Terenzini et al. (1996) examined the effects of student experiences. They found that the levels of student engagement as well as student's perception of self-efficacy play a significant role on persistence and completion of college. First-generation students, however, seemed less likely to be academically or socially integrated in college. Pike and Kuh (2005) examined 3,000 undergraduate students to assess if differences in their levels of engagement in college were due to first-generation status. They found that first-generation students may be less engaged in college because they may have very few, if any, experiences with college campuses or role models to support college related activities or behaviors. Additionally, they reported that first-generation student's lack of engagement may result from lower educational aspirations or lack of established social networks of support (p. 292). Increased levels of engagement were found for first-generation students who lived on campus. In a separate study, Cruce, Kinzie, Williams, Morelon, & Yu (2005) examined the student

responses from the pilot administration of the Beginning College Student Survey of Engagement (BCSSE) to determine if academic self-efficacy was a factor in academic achievement for first-generation students. Their findings indicated that student's perceived academic preparedness differed based on parent's education. First-generation students entering college had lower academic self-efficacy than students with parents with a college degree. Additionally, Cruce et al. (2005) found that student-teacher interactions had a positive effect on academic self-efficacy, more so for first-generation students than for other students.

Overall, the literature suggests that first-generation students seem to be at a disadvantage due to multiple factors including weaker academic preparation prior to college as well as lack of familial knowledge of the workings of the higher education system. Additionally, the social and academic transitions from high school to higher education may prove to be more difficult for first-generation students in terms of family support and responsibilities.

Student Engagement

Research studies indicate that the experiences students bring in to college are important factors. Allen (1999) found that factors such as high school rank, financial aid status, and parental education had significant effects on the student's performance and persistence. Allen (1999) also noted that minority students, when compared to non-minority students, were most affected by their academic performance during their first year of college as well as by their high school rank and their desire to complete college. Ishitanti and DesJardins (2002) suggested that students with higher levels of degree aspirations and with mothers having at least an undergraduate degree were more likely to persist in college. Cole and Dong (2011) found that students' pre-college experiences serve as predictors of academic engagement during their first year of college. Astin (1993) agreed that high school academic engagement can be associated

with first-year academic engagement. Many institutions now offer first-year initiatives such as learning communities or freshmen seminars to engage incoming students. Gardner, Barefoot, & Upcraft (2005) proposed that these initiatives have been found to enhance successful transitions for incoming high school students, particularly for first-generation students. Cole and Dong (2011) found that high school experiences, engagement, and academic achievement are all important predictors of student success. Cole and Kinzie (2007) propose that pre-college achievement and behaviors relate to the academic performance and behaviors while in college. Therefore, Cole and Kinzie (2007) suggested that prior high school engagement is an indicator of engagement in college.

Student engagement, or involvement, is identified in the literature as a factor that may enhance the student's overall educational experience. Multiple researchers have found that the amount of time and the level of energy that students devote to educational activities, inside and outside of the classroom, are effective predictors of student development and success. In an effort to develop a set of principles that could span across undergraduate education, Chickering and Gamson (1987) identified seven effective educational practices that enhance student learning. These seven practices include: (1) student-faculty contact; (2) cooperation among students; (3) active learning; (4) prompt feedback; (5) time on task; (6) high expectations; and (7) respecting diverse ways of learning. These principles have been widely distributed in higher education as well as incorporated into other adaptations. For example, Ewell and Jones (1996) added these principles to a larger list of practices which appeared in the influential report, *Making Quality Count in Undergraduate Education* (1995), issued by the Education Commission of the States. Additionally, building upon these educational practices, Ewell led the

creation of the National Survey of Student Engagement (NSSE) which has become a prominent instrument widely used in higher education to measure student engagement.

Kuh (2003) proposed that both the student, through the time and energy they devote to educationally activities, as well as the institution, through the implementation of effective practices, must be involved in the engagement process. As Astin (1977) stated, “Students learn by becoming involved” (p. 133). Engagement occurs at all levels of the educational process, not only through classroom activities and experiences, but also through activities that occur outside of the academic environment. Kuh, Kinzie, Schuh, & Whitt (2005) believe that “what students do during college counts more than what they learn and whether they persist in college than who they are or even where they go to college” (p. 8).

Astin’s (1993) Student Involvement Theory focused on the behavioral aspects that impact student development, not only through academic activities, but also through interactions with faculty and students and involvement in university organizations and activities. Astin (1993) argued that in order for growth or development to take place, students need to be involved in the environment. In addition, Astin (1993) found that positive associations with retention occurred most often when student characteristics indicated higher levels of involvement with faculty, peers and academics.

The literature indicates that there is growing focus on and increased importance placed on high impact practices. Institutions would benefit from incorporating engagement opportunities for students and faculty. In addition, given the increased focus on accountability measures for access, completion, retention as well as for transparency of data and resource allocation, understanding and enhancing student engagement is a critical element for institutions of higher education.

Self-Efficacy and Expectancy Value

The constructs of ability beliefs and expectancy-value are included in several models and theories. Pintrich and Schunk (1996) suggested that both self-efficacy and expectancy-value are types of research that can be conducted to explore expectancy beliefs. Bandura (1986) proposed that self-efficacy is an individual's belief or perception of their capacity to perform in a certain manner to achieve certain goals. Self-efficacy is a central concept of Bandura's social cognitive learning theory and applies to an individual's judgment of their capability to perform specific tasks in specific situations. According to Bandura (1997), people with high self-efficacy are more likely to view difficult tasks as something that needs to be mastered rather than avoided. Thus, students will be more inclined to take on tasks, such as school and coursework, if they believe they can be successful. Similarly, Bandura (1997) reported that students are more likely to be motivated and persist longer if they believe they can accomplish the task. A student's beliefs in their own abilities affect their academic achievement and eventually their academic goals; therefore, students may engage in activities they feel competent in and avoid those they do not have the same level of confidence in. Thus, Bandura (1986) proposed that outcomes are connected to actions and the outcomes of those actions are relative to the individual's behavior and the judgment of their self-efficacy. Similarly, Zimmerman, Bandura, & Martinez-Pons (1992) agreed that students set their expectations, based on their level of self-efficacy, and apply specific efforts and strategies relevant to accomplishing those goals.

Pajares (2007) found that three main areas concerning self-efficacy have been studied in educational research, including: efficacy in relation to degree major selection; teacher efficacy; and efficacy in relation to academic achievement. Choi (2005), Pajares (1996) and Pajares & Schunk (2001) all found that self-efficacy impacts student academic achievement because it

influences how much effort a student puts into academic related tasks. Additionally, self-efficacy has been found to impact several college related factors including adjustment in college (Chemers, Hu, & Garcia, 2001), grades in college (Bong, 2001; Brown, Lent, & Larkin, 1989) as well as persistence (Zhang and RiCharde, 1998). Similarly, Bandura, Barbaranelli, Caprara, & Pastorelli (1996) found that self-efficacy levels can serve as predictors of academic achievement and social relationships. Lotkowski, Robbins, & Noeth (2004) proposed that academic self-confidence was a strong predictor of student persistence. Gaeke (2009) reported that “use of expectancy-value theory allows determination of a person’s self-assessment of his or her ability on the task, the importance of doing well, the interest in doing the task, and the value placed on doing those tasks” (p.16). Pintrich and Schunk (1996) found that an individual’s judgments of their abilities are representative of self-efficacy in the same way that expectancy-value is representative of self-concept on specific tasks. Wigfield and Eccles (2000) suggested there are two types of values – intrinsic value and utility value. Intrinsic value drives the individual’s behavior based on the enjoyment from engaging in the task, while utility value aligns with the usefulness of the activity to accomplish an individual’s future goals. The application of the expectancy-value model allows for the assessment of student ability as well as their interest and utility of completing certain tasks.

The expectancy-value model actually incorporates two components – expectancy and value. Eccles and Wigfield (2002) proposed that the expectancy component focuses on an individual’s confidence of their own ability or self-efficacy; while the value component looks at four specific sections – attainment value, intrinsic value, utility value, and cost. Eccles and Wigfield (2002) defined these sections further: attainment value is the importance an individual’s places on doing a task well; intrinsic value involves an individual’s enjoyment from performing a

task or activity; utility value looks at how the task or activity aligns with future goals; and cost involves a negative aspect such as anxiety over taking on a task for fear of failure or success. Hood, Creed, & Neumann (2012) found that the expectancy-value model can be used for a comprehensive range of variables because of the fact that it goes beyond self-efficacy by incorporating multiple factors such as attitudes, values, effort, and expectancies for success. The expectancy-value model, derived from Atkinson's (1964) expectancy-value theory, most used for student perception of academic ability and achievement was developed by Eccles and colleagues (Eccles et al., 1983). Wigfield and Eccles (2000) reported that the expectancy-value model has mostly been used in educational settings and studies to explore relationships between an individual's choices, persistence and performance on achievement tasks, their beliefs of how well they will do and to what extent they value the task. Jacobs and Eccles (2000) found that studies utilizing the expectancy-value model have usually focused on how goals and self-efficacy impact academic achievement. In particular, the expectancy-value model was utilized for three longitudinal studies. The first study explored gender differences in beliefs and values on mathematics and English achievement (Eccles et al., 1983; Eccles and Wigfield, 1995; Meece, Wigfield, & Eccles, 1990). The second study focused on elementary school students transitioning to middle school and how this influenced their beliefs and values on academic and social activities (Eccles, Wigfield, Flanagan, Miller, Reuman, & Yee, 1989; Wigfield, Eccles, MacIver, Reuman, & Midgley, 1991). The third study was a ten year longitudinal study that followed a group of students from elementary school through high school graduation to identify changes in beliefs and values over time (Eccles, Wigfield, Harold, & Blumemfeld, 1993; Wigfield, Eccles, Yoon, Harold, Arbreton, Freedman-Doan, & Blumemfeld, 1997). Wigfield and Eccles (1992) suggested that an individual's belief in their competence had a stronger link with

achievement than subjective task values did. Hancock (1995) suggested that “the strength of a student’s motivation toward learning depends on the strength of the student’s expectation that learning is accomplishable and will result in a valued outcome” (pg. 174).

Expectancy-Value Framework

The Expectancy-Value model has provided a solid foundation to understand how attitudes and behaviors can lead to achievement related choices and performance. Xie and Andrews (2012) noted that two crucial areas of this model, expectation of success and subjective task value, serve as the factors linking an individual’s goals with achievements. Expectation of success makes reference to an individual’s belief of how well they can accomplish an outcome. Schunk (1991) reported that this area refers to how well students believe they can successfully complete an academic task or goal. This idea is related to Bandura’s (1982) concept of self-efficacy indicating an individual’s perceived capability of performing tasks which are necessary to reach goals. Plante, O’Keefe, & Theoret (2013) conducted a study to test four theoretical conceptions and found that “expectancies and task values were both directly related to the achievement outcomes and predicted stronger performance goals” (p. 75).

The Expectancy-Value model has multiple components; however, for this study only three components were utilized: expectancies for success, achievement-related choices and performance, and subjective task values. Wigfield and Eccles (2000) proposed that expectations of success, ability beliefs, and values associated with certain tasks directly influence achievement and persistence. Each research questions addressed specific components of the Expectancy-Value model. The three sections: (1) Expectancies for Success, (2) Subjective Task Values, and (3) Achievement Related Choice or Performance, were analyzed through select subscale data from the BCSSE and NSSE instruments as well as through institutional grade point average

records and persistence in college data. The full scope of the Expectancy-Value model is illustrated in Figure 2.1; however, an abbreviated portion of the model, specifically the areas dealing with Expectancies for Success, Subjective Task Value, and Achievement Related Performance and Choices, is the appropriate framework for this study.

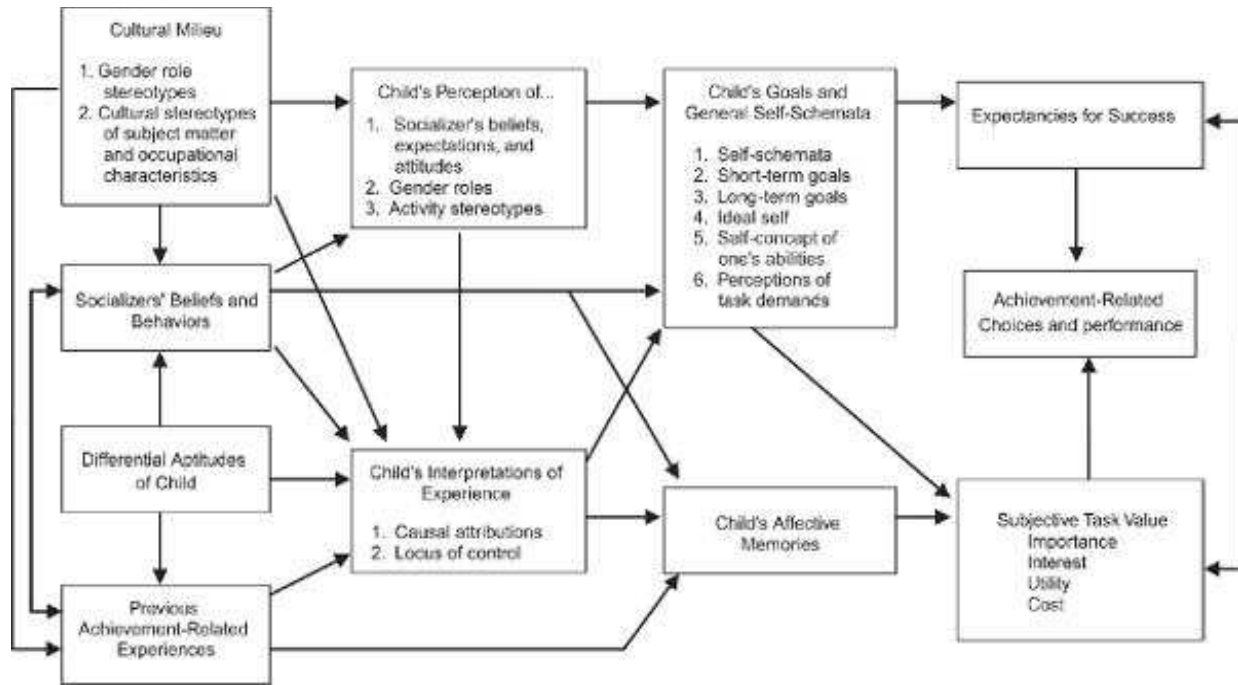


Figure 2.1. Framework of Expectancy-Value Model (Wigfield & Eccles, 2000)

Three components of the Expectancy-Value Model: (1) Expectancies for Success; (2) Subjective Task Values; and (3) Achievement-Related Performance and Choices along with three constructs from national student engagement surveys were utilized for this study. These expectancy-value components align with the constructs of academic self-efficacy, academic perseverance, and academic engagement to create a robust framework for this study.

Summary of Literature Review

Persistence and educational attainment are two areas often examined when determining student success. The literature suggests that multiple factors and experiences influence students' decisions to persist or drop out of school. Tinto (1993) reported that the more academically and socially involved students were, the more likely they would persist in college. Astin (1991) found that integration was particularly important during the first year of college. Kuh (2001) argued that student expectations upon entering college shape their behavior and adjustment to college. Additionally, Kuh (2001) proposed that student engagement in educationally purposeful activities is an important component of student success. Upcraft and Gardner (1989) and Upcraft, Gardner, & Barefoot (2005) identified the first-year of college as a pivotal year for students to determine whether they will remain in college. McInnis (2001) found that students tend to leave school in greater numbers between the first and the second year of college. Wigfield and Eccles (2000) contend that achievement is determined by individuals' choices, persistence, and performance. Achievement is further impacted by the individuals' belief on how well they can perform an activity and the extent to which they value an activity (Wigfield, 1994; Wigfield and Eccles, 1992). This notion aligns with the constructs of the expectancy-value theory which proposes that expectations of success, ability beliefs, and values associated with certain tasks directly influence achievement and persistence (Wigfield and Eccles, 2000). Simpkins, Davis-Kean, & Eccles (2006) contend that these expectations and beliefs determine the students' choices of and engagement in educational activities. Institutions create opportunities for students to engage in a variety of activities. Schunk, Pintrich, & Meece (2008) proposed that these experiences allow students to discover their interests, competence, and values. Additionally,

Simpkins, Davis-Kean, & Eccles (2006) agree that these experiences influence their engagement in myriad activities and ultimately their future educational and career goals.

While some studies have independently examined various factors to determine student success and persistence, Arbona and Nora (2007), as well as Kuh, et al. (2008), recommend that given the increase in minority student populations, more studies must include interactions with factors such as gender, first-generation status and ethnicity. There is limited research on the connection between pre-college expectations and activities during the first year of college with the impact on the academic success and persistence of minority students. Additionally, few studies have applied the expectancy-value framework to examine the academic success and persistence of minority students, and in particular Hispanic students. Based upon the review of the existing literature, a logical next step is to connect theory to practice; therefore, this study utilized the abbreviated expectancy-value model to explore relationships between the factors of academic self-efficacy, academic perseverance and academic engagement as predictors of academic success and persistence Hispanic students transitioning from high school into higher education.

CHAPTER THREE: METHODOLOGY

Research Approach and Design

Creswell (2009) defines research design as the connection between philosophy, strategy, and methods. The individual researcher's philosophical belief, therefore, impacts the selection of the strategy and the research methods to be applied to a study. Likewise, Gliner, Morgan, & Leech (2009) concurred that the research design guides the type of analysis; thus, both should be considered as one rather than separate processes. This study was based on a post-positivist or quantitative paradigm and aligned with the philosophy that causes determine effects. Creswell (2009) suggested that through the post-positivist approach, a researcher challenges the concept of absolute truth; thus, instead of proving a hypothesis, a researcher indicates failure to reject a hypothesis. Gliner, et al. (2009) contended that if the researcher's intent is to identify causes or predict effects, then it is best to utilize an approach that supports the scientific method of inquiry. Creswell (2009) defined the quantitative approach as a means of testing theories by way of examining relationships among variables.

This study utilized a quantitative non-experimental comparative design through an abbreviated expectancy-value framework to explore possible relationships between pre-college experiences and expectations with first-year in college experiences in the areas of academic self-efficacy, academic perseverance, and academic engagement. The Expectancy-Value model is composed of multiple pieces; however, for this study only three sections were utilized: expectancies for success, achievement-related choices and performance, and subjective task values. Wigfield and Eccles (2000) proposed that expectations of success, ability beliefs, and values associated with certain tasks directly influence achievement and persistence.

Astin (1993) and Chickering and Reisser (1993) suggest that the time and effort students allocate to effective educational activities, both before and during college, are strong predictors of their academic and personal development. High school experiences combined with expectations upon entering college have been found to be important predictors of success for first-year students (Pascarella and Terenzini, 2005). In addition, Chickering and Gamson (1987) and Kuh et al. (2005) found that activities such as student-faculty interaction, collaborative activities with peers, and active participation in learning contribute to effective engagement practices and promote student success. Thus, it is important to understand the relationship between such activities, as well as between student perceptions and attitudes, such as self-efficacy, expectations, and effort, and how these factors impact academic achievement. A graphic of the alignment between the expectancy-value model and the research questions examined are illustrated in Figure 3.1.

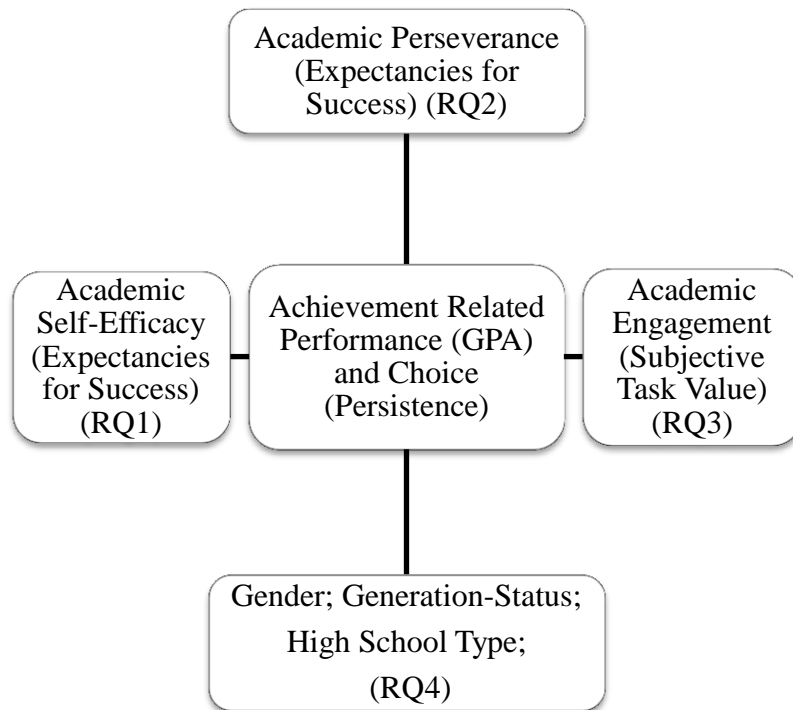


Figure 3.1. Graphic of Expectancy-Value Concepts and Research Questions

Each of the research questions addressed specific components of the Expectancy-Value model. The three sections: (1) Expectancies for Success, (2) Subjective Task Values, and (3) Achievement Related Choice or Performance, were analyzed through select subscale data from the BCSSE and NSSE instruments as well as through institutional grade point average records and persistence in college data.

Research questions 1 and 2 examined how students believed they would perform on an activity or accomplishment of a task and addressed the Expectancies for Success component. This area was analyzed through scores on BCSSE items selected from the Perceived Academic Self-Efficacy and Expected Academic Perseverance components of the questionnaire. These items measured student perceptions of their academic preparation as well as their certainty of persevering through academic challenges.

Research question 3 addressed the Subjective Task Value component by examining the extent to which students valued an activity and how that impacted their level of engagement. This area was analyzed through scores on BCSSE questions related to academic engagement during the last year of high school as well as NSSE questions related to academic engagement in the first year of college to determine interest and effort in academic engagement activities.

Finally, research question 4 addressed Achievement Related Choices and Performance and was analyzed through institutional records by way of end of first-year grade point average (performance) and persistence to second year (choice). In addition, the independent variables, gender, generation-status, and type of high school attended were analyzed to determine if these characteristics made a difference on any of the three constructs – academic self-efficacy, academic perseverance, and academic engagement.

The study was organized to facilitate the examination of relationships between three main constructs with the three independent variables and two outcome variables as illustrated in Figure 3.2. The three (3) main constructs of academic self-efficacy, academic perseverance, and academic engagement were examined through three (3) dichotomous variables – gender, generation status, and type of high school attended – to determine if differences existed between the two levels of each of these variables. The same three constructs were examined to determine if they served as predictors of the two (2) outcome variables – academic success (by way of grade point average) and persistence (by way of continuation to second year of college).

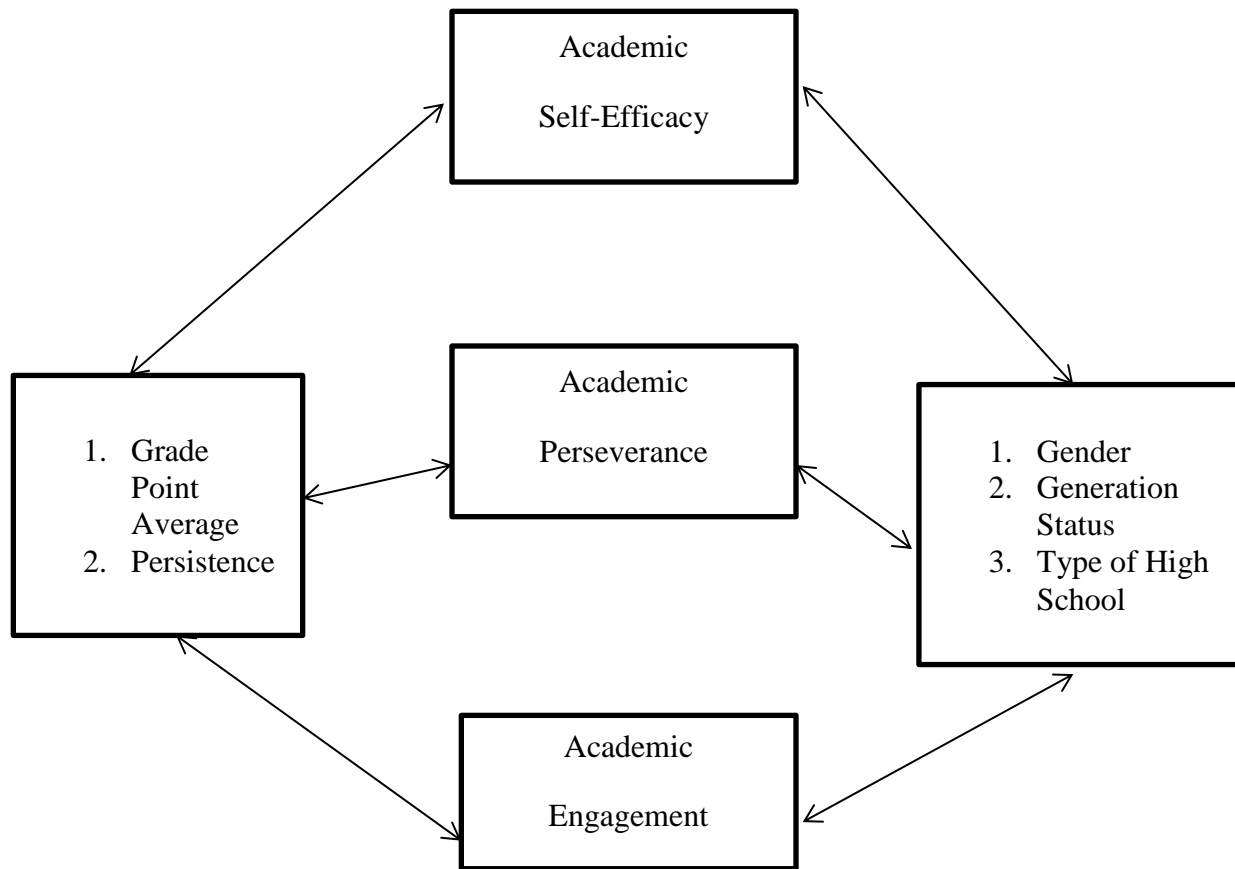


Figure 3.2. Outline of Research Design

This research design facilitated the examination of all variables. Initially, of the dependent variables – academic self-efficacy, academic perseverance, and academic engagement – as predictors of success (grade point average) and persistence. Additionally, it also allowed examination of the three dependent variables to identify differences based on the individual student attribute variables of gender, generation-status, and type of high school attended.

Research Questions

To understand the relationships between student expectations upon entering college and experiences during the first year of college with academic success and persistence, the variables of academic self-efficacy, academic perseverance, and academic engagement were examined. The guiding question for this study was: Do student's experiences and beliefs (Expectancies for Success) as well as activities (Subjective Task Values) contribute to academic success (Achievement Related Performance) and persistence to second year (Achievement Related Choice) for first-year Hispanic college students? Institutional data including gender, generation status, and type of high school attended were also examined through deeper investigation using the research questions listed below.

1. Is academic self-efficacy a predictor of academic success and persistence for Hispanic students at the end of the first year of college?
2. Is academic perseverance a predictor of academic success and persistence for Hispanic students at the end of the first year of college?
3. Is academic engagement a predictor of academic success and persistence for Hispanic students at the end of the first year of college?

4. Do the demographic characteristics of gender, generation status, and type of high school attended account for differences in (a) academic self-efficacy; (b) academic perseverance; and (c) academic engagement?

Each of the research questions addressed specific components of the Expectancy-Value model. Research questions 1 and 2 examined how students believed they would perform on an activity or accomplishment of a task and addressed the Expectancies for Success component. Research question 3 addressed the Subjective Task Value component by examining the extent to which students valued an activity and how that impacted their level of engagement. Eccles et al. (1983) found that a student's "perception of the value of an activity is more important in determining the decision to engage in that activity, while the self-concept of ability is more important in determining actual performance" (p.113). Research question 4 examined the extent to which gender, generation status, and type of high school attended impacted the components of Expectancies for Success and Subjective Task Value, and if significant differences existed. Collectively, these research questions examined what effect student's perceived expectations upon entering college and their experiences during the first year of college had on their Achievement Related Performance (academic success) and Achievement Related Choice (persistence to second year).

Research Site

The research site for this study was a comprehensive four-year public Hispanic serving institution in Texas referred to within the study as Texas Public University (TPU). The institution has a student population of approximately 7,500 students, of which the majority of students were identified as undergraduate (89%), Hispanic (93%), and first-generation (61%), with a gender composition of females (60%) and males (40%). The majority of students entering

TPU come from local and regional public high schools. Thus, the research site aligned with the study focus of first-generation Hispanic students transitioning from high school to higher education.

Population and Sample

The theoretical population included all students graduating from high school and transitioning to higher education. For this study, the sample was drawn from all undergraduate students enrolling at TPU for the first-time. The typical entering freshman class size is approximately 900 students. Participants for this study were selected from the entering first-year students who completed the Beginning College Survey of Student Engagement (BCSSE), during summer orientation sessions in 2010 and 2012 prior to their first semester at TPU and who also completed the National Survey of Student Engagement (NSSE) at the end of their first year of college during spring 2011 and spring 2013. Thus, only students who completed both questionnaires were included in the study sample.

The demographic characteristics of the study sample were comparable to the institutional composition with a greater number of females (67%, n = 182) than males (33%, n = 89) and more first-generation (62%, n = 169) than not first-generation (38%, n = 102) students. Not surprisingly, females (70%, n = 118) comprised a greater number of first-generation students than males (30%, n = 51), as well as not first-generation students where females (62%, n = 63) outnumbered males (38%, n = 39). Additionally, more females (66%, n = 156) and males (34%, n = 79) attended public high schools, while fewer females (69%, n = 25) and males (31%, n = 11) attended private high schools.

Instruments and Measures

This study utilized secondary data analysis from three primary data sources at Texas Public University: The first data source were results from the Beginning College Survey of Student Engagement (BCSSE) survey instrument administered to incoming first-year students during summer 2010 and summer 2012; the second data source were results from the National Survey of Student Engagement (NSSE) administered to freshmen students at the end of their first-year of college during spring 2011 and spring 2013; and the third data source were institutional data, linked by way of student identification number, to obtain demographic characteristics such as gender, generation status, type of high school attended, grade point average at the end of the first year of college, and persistence to the second year of college. The institution staggered the administration of the BCSSE and NSSE instruments on a biennial basis; thus, data were not generated each year but rather every two years.

Student data on activities and perceptions of academic engagement, academic self-efficacy and academic perseverance were obtained from responses to the BCSSE and NSSE survey instruments. These activities effectively aligned with the components of the expectancy-value model. In addition, these activities engaged students in academic experiences which researchers have found to be effective educational practices. Pascarella and Terenzini (2005) suggested that students who work together on both internal and external course activities were able to engage in their learning as well as to think more critically. Similarly, McCormick (2010) reported that curricular interaction with peers allowed students to increase their level of academic engagement through “substantive academic exchanges” (p. 19). McCormick (2010) also found that students who actively engaged in learning activities were more likely to view their campus environment positively. Academic engagement was measured by responses to

questions regarding class participation as well as interaction with peers and faculty; academic self-efficacy was measured through the students' perception of their level of academic preparation; and academic perseverance was measured through the student's level of certainty that they would persist in the face of adversity (BCSSE, 2010). Data measuring academic engagement and academic self-efficacy were also obtained from the NSSE survey. Choi (2005) as well as Pajares and Schunk (2001) found that self-efficacy impacts students' academic achievement because it influences the level of effort students put into performing and persevering on tasks. Academic achievement was determined by the successful completion of the first-year of college as measured by end of first year grade point average (GPA) and persistence was determined by continuation to the second year of college for this specific student sample. This study explored the relationships of multiple variables as predictors of academic success at the completion of the first year and persistence in college for an underrepresented population of students. Both the BCSSE and NSSE survey instruments incorporate multiple variables; however, not all of the survey variables were utilized for this study. A complete list of the variables utilized as well as the scale of measurement for each is provided in Table 3.1.

Table 3.1
List of Variables Utilized for Study

Predictor Variables
Academic Engagement (Subjective Task Value)

Q: During last year of high school, how often did you do each of the following?
High School Academic Engagement
(from BCSSE)

Asked questions in class/contribute to discussion
Made a class presentation
Discussed grades/assignments with teacher
Worked with student on projects during class
Worked with classmates outside of class
Discussed ideas with faculty outside of class
Discussed ideas with others outside of class

Scale: 1=Never; 2=Sometimes; 3=Often;
4=Very Often.

Q: During first year of college, how often did you do each of the following?
Academic Engagement at end of first year of college
(from NSSE)

Asked questions in class/contribute to discussion
Made a class presentation
Discussed grades/assignments with teacher
Worked with student on projects during class
Worked with classmates outside of class
Discussed ideas with faculty outside of class
Discussed ideas with others outside of class

Scale: 1=Never; 2=Sometimes; 3=Often;
4=Very Often.

Academic Perseverance (Expectancies for Success)

Q. How certain are you that you will do the following? Expected
Academic Perseverance
(from BCSSE)

Study when other interesting things to do
Find information when material not understood
Participate in discussions when don't feel like
Ask instructors for help when struggling
Finish something when challenges encountered
Stay positive even when doing poorly in class

Scale: 1=Not at all certain; 2=Not certain;
3=Somewhat uncertain; 4=Somewhat certain;
5=Certain; 6=Very Certain.

Academic Self-Efficacy (Expectancies for Success)

Q. How prepared are you to do the following in your academic work? Perceived
Academic Self-Efficacy
(from BCSSE)

Prepared to write clearly and effectively
Prepared to speak clearly and effectively
Prepared to think critically and analytically
Prepared to analyze math & quantitative problems

Prepared to use computing & information technology
 Prepared to work effectively with others
 Prepared to learn effectively on your own

Scale: 1=Not at all prepared; 2=Not prepared;
 3=Somewhat unprepared; 4=Somewhat prepared;
 5=Prepared; 6=Very prepared

Gains (Subjective Task Value)

Q: To what extent did your experience contribute to?
 (from NSSE)

Writing clearly and effectively
 Speaking clearly and effectively
 Thinking critically and analytically
 Analyzing quantitative problems
 Using computing & information technology
 Working effectively with others
 Learning effectively on your own

Scale: 1=Very little; 2=Some; 3=Quite a bit;
 4=Very much.

Independent Variables	
Gender	Female = 0; Male = 1
First-Generation Student	No = 0; Yes = 1
High School Attended	Public = 0; Private = 1

Outcome Variables	
Academic Achievement	End of first-year GPA (Institutional Records) Interval Scale (0 to 4)
Persistence	Continuation to second year (Institutional Records) No = 0; Yes = 1

Beginning College Survey of Student Engagement

The Beginning College Survey of Student Engagement (BCSSE) collects data from entering first-year college students regarding their academic and co-curricular experiences during the last year of high school as well as their academic and co-curricular expectations for the first year of college (BCSSE, 2010). The principal areas of the BCSSE instrument used for this study were demographic data, such as gender, type of high school attended, and generation status, as

well as responses to questions dealing with high school academic engagement experiences, perceived academic self-efficacy, and perceived academic perseverance expectations during the first year of college. The fact that the BCSSE survey focuses on the transition from high school to higher education makes this instrument appropriate for this study. A copy of the 2010 BCSSE instrument can be found in Appendix A.

Instrument Reliability

The BCSSE instrument is composed of 97 questions, 48 of which are focused on high school experiences and 49 are focused on college experiences. Data are collected for each individual question based on Likert summative rating scales; however, these questions are also grouped into six scales that further explore specific student's experiences in high school, expectations during college and perceptions of skills and preparedness for academic work. Questions are grouped into clusters designated into nine scales. Each scale has a specific focus and are divided into three areas: one area focuses on the student's engagement in high school, the second area focuses on the student's expectations during the first year of college, and the third area focuses on expected academic perseverance, expected academic difficulty, perceived academic preparation, and importance of campus support (BCSSE, 2013). The scale scores are computed by converting each item response to a zero to ten point range and then averaging the score among all the items within the group (BCSSE, 2010). Two techniques are used to examine the instrument's psychometric properties. First, descriptive statistics are used to examine the data distribution and then, confirmatory factor analysis is used to examine the scale construct validity (BCSSE, 2013). Additionally, according to the BCSSE (2013) psychometric portfolio, each confirmatory factor analysis model is further evaluated through "the four fit indices: the Chi-square statistic and degrees of freedom, the Root Mean Square Error Approximate (RMSEA),

the Tucker-Lewis Index (TLI), and the Comparative Fit Index (CFI)” (p. 3). Reliability for the instrument scales have been estimated using Cronbach’s alpha. For purposes of this study, individual items from three scales will be utilized. The first scale, High School Academic Engagement ($\alpha = .68$) is composed of items that explore the student’s academic engagement during the last year of high school by asking how often students participated in academic engagement activities during their last year in high school, such as asking questions in class and working with peers or faculty during class or outside of class. The item response options are measured on a four-point Likert scale where 1 = never, 2 = sometimes, 3 = often, and 4 = very often. The second scale, Expected Academic Perseverance ($\alpha = .80$) is composed of items that explore students’ perceptions of their ability to handle difficult situations by asking how certain they are of their ability to study, to participate in course discussions, to ask faculty for help when struggling, and to stay positive when encountering challenges. The item response options are measured on a six-point Likert scale which range from 1 = not at all certain to 6 = very certain. The third scale, Perceived Academic Preparation ($\alpha = .83$) is composed of items that explore students’ perceptions of their level of academic ability by asking how prepared they are to do academic work such as written and oral communication, critical thinking, quantitative analysis, computing technology, teamwork, and learning effectively on their own. The item response options are measured on a six-point Likert scale which range from 1 = not at all prepared to 6 = very prepared.

Researchers have used the BCSSE instrument to explore pre-college activities and characteristics. Cole and Korkmaz (2010) as well as Schneider and Ward (2003) argued that in order to understand first-year student engagement, it is necessary to explore their high school experiences, expectations, and perceptions. Cole and Dong (2011) utilized both the BCSSE and

the NSSE instruments to examine the relationship among high school engagement, college environment, and first-year engagement. They categorized academic engagement into two areas: one was externally regulated engagement where students had almost no autonomy, and the other was internally regulated engagement with various levels of autonomy on how to engage in activities. The Cronbach's alpha for internal reliability were acceptable for pre-college ($\alpha = .70$) and first-year ($\alpha = .68$) internally regulated engagement scales as well as for pre-college ($\alpha = .63$) and first-year ($\alpha = .59$) externally regulated engagement scales. Findings demonstrated that school environments have a role in facilitating or inhibiting student engagement behavior. Cruce, Kinzie, Williams, Morelon, & Yu (2005) examined the differences in academic self-efficacy of first-year students by first-generation status for 11,112 first-year students from 28 institutions who administered the BCSSE survey. Academic self-efficacy was measured by student's perceived academic preparedness for college-level work. Cruce et al. (2005) reported that the "coefficient alpha statistic for internal consistency was ($\alpha = .72$)" (p. 8). Findings indicated that first-generation students had lower self-efficacy than other first-year students. Several studies have reported similar consistency with the BCSSE instrument; therefore, the researcher is confident that it is reliable and appropriate for this study.

National Survey of Student Engagement

The National Survey of Student Engagement (NSSE) survey is administered during the spring semesters to students completing their first year of college and to senior students prior to graduation. The principal areas of the NSSE instrument used for this study will be demographic data, such as gender and first-generation status, as well as responses to questions dealing with academic engagement experiences and perceived academic gains during the first year of college. Ewell (2010) reports that the survey content is based on prior empirical evidence regarding

relationships between student learning and student development; thus, the NSSE instrument will be used as a follow-up survey for the students who completed the BCSSE survey as they entered college. A copy of the 2011 NSSE instrument can be found in Appendix B.

Instrument Reliability

The NSSE instrument is composed of 99 questions focused on multiple activities and experiences identified as high-impact practices. Data are collected for each individual question based on Likert summative rating scales; however, these questions are also grouped into five benchmarks that further explore student's experiences in specific activities. The benchmark scores are computed by converting each item response to a 100- point range and then averaging the score among all the items within the group (NSSE, 2011). Kuh (2003) indicated that the "benchmarks were created with a blend of theory and empirical analysis" (p. 30). Cronbach's alpha is used to measure the consistency of the group of items and as noted by Litwin (2003) "it is an indication of how well the different items complement each other in the measurement of the same variable or quality" (p. 22). For purposes of this study, individual items from two of the five benchmark scales will be utilized. The first benchmark scale, Active and Collaborative Learning ($\alpha = .67$), is composed of items that explore the student's active engagement in their learning during the first year of college by asking how often they have done the following: (a) asked questions in class or contributed to class discussions; (b) made a class presentation; (c) worked with other students on projects during class; (d) worked with classmates outside of class to prepare class assignments; and (e) discussed ideas from readings or classes with others outside of class. The item response options are measured on a four-point Likert scale where 1= never, 2= sometimes, 3 = often, and 4 = very often. The second benchmark scale, Student-Faculty Interaction ($\alpha = .71$), is composed of items that explore the student's interactions with faculty

inside and outside of class by asking how often they have engaged in the following activities: (a) discussed grades or assignments with an instructor, and (b) discussed ideas from readings or classes with faculty members outside of class. These item response options are also measured on a four-point Likert scale where 1= never, 2= sometimes, 3 = often, and 4 = very often. Additionally, the student's self-reported gains scale ($\alpha = .84$) which explores student's perceptions of how experiences during their first year of college contributed to their academic and personal development of specific academic skills as well as working well with others will also be explored.

Researchers have utilized the National Survey of Student Engagement (2012) in multiple studies and have reported similar alphas. Brint, Cantwell, & Hanneman (2008) sampled 5,327 students utilizing the NSSE instrument to understand the undergraduate experience by academic major and reported similar alphas for the academic challenge scale ($\alpha = .81$) and the student-faculty contact scale ($\alpha = .73$). Their findings indicated that levels of engagement varied by major. Similarly, Carini, Kuh, & Klein (2006) utilized the NSSE instrument to explore linkages between student engagement and college GPA. They sampled 1,352 students at fourteen institutions and found "modest but statistically significant positive partial correlations" (p. 13) within the engagement scales of active and collaborative learning ($r = .13$) and student-faculty interaction ($r = .13$). They also found positive correlations between self-reported outcomes and GPA in the areas of general education gains ($r = .12$) and personal-social gains ($r = .11$). Kuh et al. (2008), through the Connecting the Dots project, analyzed first-year GPA, persistence to second year, and senior grades in combination with NSSE data to explore relationships between engagement and student success. The sample included 6,200 first-year students as well as 5,227 seniors from eighteen institutions and findings indicated that engagement had a statistically

significant effect on persistence in that “students who were engaged at a level of one standard deviation below the average had a probability of returning of ($\alpha = .85$), while students who are engaged at a level of one standard deviation above the average had a probability of returning of ($\alpha = .91$)” (p. 26). Kuh et al. (2008) reported that the “Cronbach’s alpha coefficient for internal consistency for first-year students was ($\alpha = .82$)” (p. 35). Prior studies have indicated similar consistency when utilizing the NSSE instrument; therefore, the researcher is confident that this instrument is reliable and appropriate for this study.

Procedure

Data Acquisition

This study utilized a quantitative approach by way of secondary data analysis of existing data. No interactions with students were conducted; thus, the study met the Institutional Review Board (IRB) Human Research Review Exemption Criteria 45CFR46.101 (b)(4) which involves “the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects “ (Colorado State University, Research Integrity & Compliance Review, 2011). A copy of the IRB letter can be found in Appendix C. The first data collection point occurred prior to the beginning of the fall semester. Students entering Texas Public University (TPU) participated in new student orientation sessions during the summer months of June, July and August prior to the beginning of their first semester of college. All students attending these orientation sessions were encouraged to participate in the Beginning College Survey of Student Engagement (BCSSE). The questionnaires were completed online in the university’s computer labs during student participation in orientation activities. Students were provided a link to access

the online questionnaire and asked to enter their student identification number as validation that they were registered students at TPU. The individual responses remained confidential and were not made available to anyone except the administrator. However, as part of the agreement to participate, students consented to the use of their institutional student data for further study. A high response rate is usually obtained due to the fact that the administration occurs during orientation. The second data collection point occurred during the following spring semester when freshmen completing their first year of college are invited to participate in the National Survey of Student Engagement (NSSE). The NSSE serves as a follow-up to the BCSSE. However, given the fact that the NSSE is completed on an individual basis rather than in a classroom setting, the response rate was not as high as that of the BCSSE. A data file of respondents' demographic characteristics as well as a compilation of responses to both BCSSE and NSSE questionnaires were requested from the Director of Institutional Research. The director utilized the institutional assigned identification number to pair student responses. Only those students who participated in both the BCSSE and the NSSE were included in this study. All student identification elements were removed prior to dissemination of the data file provided for analysis for this study.

Statistical Analysis

Variables were analyzed through exploratory descriptive statistics, multiple regression, and independent samples *t*-tests utilizing the software, Statistical Package for the Social Sciences (SPSS) Version 22. Descriptive analysis were conducted to identify student characteristics such as gender, generation status, and type of high school attended. Multiple regression analyses were conducted to explore the strength and direction of the relationships among the variables. Creswell (2009) stated that through correlational research design, researchers can identify relationships between variables, as well as predict outcomes based on these relationships.

Independent samples *t*-tests were conducted to evaluate the differences between the means of two independent groups. The statistical methods and data sources that were used to analyze the data generated by the research questions are outlined in Table 3.2.

Table 3.2
Statistical Methods Utilized for Research Questions

Research Questions	Data Source	Statistical Method
Is academic self-efficacy a predictor of academic success and persistence for Hispanic students at the end of the first year of college?	BCSSE NSSE Institutional Data	Regression
Is academic perseverance a predictor of academic success and persistence for Hispanic students at the end of the first year of college?	BCSSE Institutional Data	Regression
Is academic engagement a predictor of academic success and persistence for Hispanic students at the end of the first year of college?	BCSSE NSSE	Regression
Do the demographic characteristics of gender, generation status, and type of high school attended account for differences in (a) academic self-efficacy, (b) academic perseverance, and (c) academic engagement?	BCSSE NSSE Institutional Data	Independent Samples <i>t</i> -Tests

Each of the research questions addressed specific components of the Expectancy-Value framework. Research questions 1 and 2 addressed the Expectancies for Success component to examine how well students believe they will perform on an activity or how well they can accomplish a task. Research question 3 addressed the Subjective Task Value component to examine the extent to which students value an activity and how that impacts their level of engagement. Eccles et al. (1983) found that a student’s “perception of the value of an activity is

more important in determining the decision to engage in that activity, while the self-concept of ability is more important in determining actual performance” (p.113). Research question 4 examined the impact gender, generation status, and type of high school attended had on the components of Expectancies for Success and Subjective Task Value, and if significant differences existed. Collectively, these research questions examined the effect of student’s perceived expectations upon entering college and their experiences during the first year of college on Achievement Related Performance (academic success) and Achievement Related Choice (persistence to second year).

CHAPTER 4: FINDINGS

An abbreviated expectancy-value framework was used to explore possible relationships between pre-college experiences and expectations with first-year in college experiences. Three components of the expectancy-value model of achievement motivation – (1) Expectancies for Success, (2) Subjective Task Values, and (3) Achievement-Related Performance and Choice – were utilized to analyze data on academic self-efficacy, academic perseverance, and academic engagement. This study was guided by the following primary research questions:

1. Is academic self-efficacy a predictor of academic success and persistence for Hispanic students at the end of the first year of college?
2. Is academic perseverance a predictor of academic success and persistence for Hispanic students at the end of the first year of college?
3. Is academic engagement a predictor of academic success and persistence for Hispanic students at the end of the first year of college?
4. Do the demographic characteristics of gender, generation status, and type of high school attended account for differences on (a) academic self-efficacy; (b) academic perseverance; and (c) academic engagement?

Descriptive Statistics

The overall sample for this study was 271 students ($n = 271$). The demographic variables of gender, generation status, and type of high school attended were included in the analysis as independent variables. Initial exploratory data analysis did not identify any missing data. Female students comprised a higher percentage (67%, $n = 182$) within the sample than male students (33%, $n = 89$). About two-thirds of students (62%, $n = 169$) identified themselves as first-

generation, indicating that their parents did not have a college education. The majority of the students transitioning to Texas Public University (TPU) attended public high schools (87%, n = 235), while the remaining attended private high schools (13%, n = 36). Students represented all four of the academic colleges at TPU as follows: College of Arts and Sciences (60%, n = 163), College of Business Administration (13%, n = 35), College of Education (13%, n = 36), and School of Nursing (14%, n = 37). The demographic characteristics are displayed in Table 4.1.

Table 4.1
Demographics of Study Sample

Variable	N	Percent
Gender		
Male	89	32.8%
Female	182	67.2%
Generation Status		
First-Generation	169	62.4%
Non-First-Generation	102	37.6%
Type of High School Attended		
Public	235	86.7%
Private	36	13.3%
Academic Major in College		
Arts & Sciences	163	60.1%
Business Administration	35	12.9%
Education	36	13.3%
Nursing & Health Sciences	37	13.7%

The variable Gender was coded as Female (0) and Male (1). The study participants (n = 271) consisted of males (n = 89) and females (n = 182). The variable Generation Status was defined and coded as Not First-Generation (0) and First-Generation (1) with first-generation students identified as having parents without a college education. There were more first-generation students (n = 169) than non-first generation students (n = 102) in this study sample. The variable School Type, coded as Public (0) and Private (1), identified which type of high

school students in this sample attended. Within this sample, more students attended public high schools (n = 235) than private high schools (n = 36). There are few private high schools within this city; thus, students predominantly transition into TPU from local and out-of-town public high schools. Although the sample size for private high schools was smaller; nonetheless, it was important to examine if private high school attendance was a predictor of academic success and persistence. The student sample utilized for this study was representative of all four TPU academic colleges and was distributed by college as follows: Arts and Sciences (n = 163); Business Administration (n = 35); Education (n = 36); and Nursing and Health Sciences (n = 37).

Data elements were screened for missing values and normality. No missing data were identified within the sample. Visual examination of histograms and plots indicated some deviation from expected normality lines; however, no skewness statistics exceeded +/-1. Statistical analyses under the general linear model were relatively robust and tolerant of variations from normality and therefore no transformations were performed on the data.

Research Question 1: Academic Self-Efficacy

The first research question examined the Expectancies for Success component of the expectancy-value model and analyzed academic self-efficacy variables from both the BCSSE and NSSE survey instruments as predictors of academic success and persistence.

Pre-College Academic Self-Efficacy

Students completed the BCSSE instrument as they transitioned into college and responded to the question: *How prepared are you to do the following in your academic work at this college?* Six statements measured student perception of the level of preparedness to accomplish these tasks. Responses ranged from (1) not at all prepared to (6) very prepared.

Descriptive statistics from BCSSE data for each academic self-efficacy statement are displayed in Table 4.2.

Table 4.2
Descriptive Statistics for BCSSE Academic Self-Efficacy Statements

Statement	M	SD	SE	95% Confidence Interval	
				Lower	Upper
Write clearly and effectively	4.25	1.26	.077	4.10	4.40
Speak clearly and effectively	4.27	1.25	.076	4.12	4.41
Think critically and analytically	4.39	1.19	.072	4.25	4.53
Analyze math or quantitative problems	4.10	1.37	.083	3.94	4.26
Use computing and information technology	4.52	1.11	0.67	4.38	4.65
Work effectively with others	4.65	1.19	0.72	4.51	4.79

The mean scores for all statements indicated that on average, most students perceived they were “somewhat prepared” to undertake this academic work. The statements with the highest mean scores were “work effectively with others” (M = 4.65) and “use computing and information technology” (M = 4.52). The statement with the lowest mean score was “analyze math or quantitative problems” (M = 4.10). Confidence interval data indicated 95% confidence that samples of the population mean fell within its limits.

Multiple regression analysis of the pre-college academic self-efficacy factors, measured by the BCSSE instrument, were conducted to identify predictors of academic success at end of first year as well as persistence to second year of college. The independent variables of gender,

generation-status, and type of high school attended were included in the analysis along with academic self-efficacy variables. The summary of regression analysis for pre-college academic self-efficacy variables predicting grade point average and persistence are illustrated in Table 4.3.

Table 4.3
Summary of Regression Analysis for Pre-College Academic Self-Efficacy

Variable	GPA			Persistence		
	B	SE B	β	B	SE B	β
Write clearly and effectively	.15	.05	.29*	.01	.03	.04
Speak clearly and effectively	-.16	.05	-.30*	-.03	.03	-.12
Think critically and analytically	.07	.05	.13	.04	.03	.13
Analyze math or quantitative problems	.08	.03	.17*	.02	.02	.09
Use computing and information technology	.02	.05	.03	-.01	.03	-.02
Work effectively with others	-.04	.05	-.07	-.01	.02	-.02
Gender	-.17	.09	-.12*	.04	.05	.05
Generation Status	-.10	.08	-.07	-.05	.04	-.07
School Type	.21	.11	.11	.12	.06	.12
R^2			.13			.05
F			4.04**			1.29

* $p < .05$; ** $p < .01$

The multiple regression model with the inclusion of all the predictors produced significant results for prediction of grade point average, $R^2 = .13$, $F(10, 260) = 4.04$, $p = .001$, indicating that the model significantly improved the ability to predict the outcome variable. Four of the nine variables used to examine academic self-efficacy were found to be statistically significant in predicting academic success as measured by end of first year grade point average. Findings indicated that the academic self-efficacy variables – writing skills, speaking skills, and quantitative skills – were predictors of academic success. Additionally, gender was also found to be significant. Of the BCSSE pre-college academic self-efficacy variables, *cgnwrite* (write clearly and effectively), $p = .02$; *cgnspeak* (speak clearly and effectively), $p = .02$; and *cgnquant* (analyze math or quantitative problems), $p = .02$; as well as the demographic variable Gender, $p = .04$, had statistical significance at an alpha level of .05. The multiple regression model with the inclusion of all the predictors did not produce significant results for persistence to second year of college, $R^2 = .05$, $F(10, 260) = 1.29$, $p = .23$, indicating that the model did not improve the ability to predict the outcome variable. None of the other BCSSE pre-college academic self-efficacy variables statistically contributed to the model.

First-Year of College Academic Self-Efficacy

Students also completed the NSSE instrument at the end of their first year in college and responded to the question: *How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?* Students responded to six statements which measured their perception of the level of development on specific tasks. Responses ranged from (1) very little to (4) very much. Descriptive statistics from the NSSE data for each academic self-efficacy statement are displayed in Table 4.4.

Table 4.4
Descriptive Statistics for NSSE Academic Self-Efficacy Statements

Statement	M	SD	SE	95% Confidence Interval	
				Lower	Upper
Write clearly and effectively	3.08	.78	.05	2.98	3.17
Speak clearly and effectively	3.11	.81	.05	3.01	3.20
Think critically and analytically	3.20	.78	.05	3.10	3.29
Analyze math or quantitative problems	3.01	.79	.05	2.92	3.11
Use computing and information technology	2.97	.90	.05	2.87	3.08
Work effectively with others	3.13	.78	.05	3.04	3.23

The statement with the highest mean score was “think critically and analytically” (M = 3.20). The statements with the lowest mean scores were “use computing and information technology” (M = 2.97) and “analyze quantitative problems” (M = 3.01); thus, aligning with the lower self-efficacy attitudes on quantitative skills identified for the students transitioning from high school. Confidence interval data indicated 95% confidence that samples of the population mean fell within its limits.

Regression analysis were conducted to examine the academic self-efficacy factors, measured at the end of the first year of college by the NSSE instrument, as predictors of student’s end of first year academic success and persistence to second year. The summary of regression analysis for first year in college academic self-efficacy variables predicting grade point average and persistence are illustrated in Table 4.5.

Table 4.5
Summary of Regression Analysis for First Year Academic Self-Efficacy

Variable	GPA			Persistence		
	B	SE B	β	B	SE B	β
Write clearly and effectively	-.02	.07	-.02	.09	.04	.22**
Speak clearly and effectively	.02	.08	.02	-.05	.04	-.13
Think critically and analytically	.03	.08	.03	.01	.04	.03
Analyze math or quantitative problems	.16	.07	.20*	.13	.04	.30**
Use computing and information technology	-.05	.06	-.07	-.03	.03	-.09
Work effectively with others	.05	.08	.06	-.04	.04	-.09
Gender	-.12	.09	-.08	.05	.04	.07
Generation Status	-.13	.08	-.09	-.07	.04	-.11
School Type	.24	.12	.12*	.10	.06	.10
R^2			.09			.13
F			2.44**			3.93**

* $p < .05$; ** $p < .01$

The multiple regression model with the inclusion of all the predictors produced significant results for end of first year grade point average, $R^2 = .09$, $F(10, 260) = 2.44$, $p = .01$; thus, indicating that the model significantly improved the ability to predict the outcome variable.

Of the NSSE academic self-efficacy variables, *gnquant* (analyzing quantitative problems), $p = .02$, as well as School Type, $p = .04$, had statistical significance at an alpha level of .05. The other variables analyzed did not significantly contribute to the regression model. Two of the nine variables used to examine first-year academic self-efficacy were found to be statistically significant in predicting academic success as measured by end of first year grade point average and persistence to second year. The variables were quantitative skills and type of high school attended for grade point average.

Regression analyses of the first year in college academic self-efficacy factors were also conducted to identify predictors of student's persistence to second year. The multiple regression model with the inclusion of all the predictors produced significant results for persistence, $R^2 = .13$, $F(10, 260) = 3.93$, $p = .01$, indicating that the model significantly improved the ability to predict the outcome variable. The NSSE academic self-efficacy variables, *gnquant*, (analyzing quantitative problems), $p = .01$, and *gnwrite*, (writing clearly and effectively), $p = .01$, had statistical significance at the alpha level of .05. For persistence, the variables of writing and quantitative skills were both significant. None of the other NSSE first year in college academic self-efficacy variables statistically contributed to the model.

Research Question 2: Academic Perseverance

The second research question also addressed the Expectancies for Success component of the model and examined student's academic perseverance. Students completing the BCSSE survey responded to the question: *During the coming school year, how certain are you to do the following?* Six statements measured student perceptions of the level of certainty they would accomplish these tasks. Responses ranged from (1) not at all certain to (6) very certain. The descriptive statistics for each statement are displayed in Table 4.6.

Table 4.6
Descriptive Statistics for BCSSE Academic Perseverance Statements

Statement	M	SD	SE	95% Confidence Interval	
				Lower	Upper
Study when other interesting things to do	4.46	1.20	.07	4.31	4.60
Find information when class material not understood	4.86	1.15	.07	4.72	4.99
Participate in class discussions when not interested	4.15	1.22	.07	4.00	4.29
Ask instructors for help when struggling	4.92	1.20	.07	4.78	5.07
Finish something when challenges encountered	4.99	1.11	0.7	4.86	5.12
Stay positive even when doing poorly	4.98	1.25	0.8	4.84	5.13

Statements with high mean scores were “finish something you have started when you encounter challenges” ($M = 4.99$) and “stay positive even when doing poorly” ($M = 4.98$). The statement with the lowest mean score was “participate regularly in course discussions, even when you don’t feel like it” ($M = 4.15$). Confidence interval data indicated 95% confidence that samples of the population mean fell within its limits.

Regression analysis of the pre-college academic perseverance factors, measured by the BCSSE instrument, were conducted to identify predictors of academic success at end of first year as well as persistence to second year of college. The independent variables of gender, generation-status, and type of high school attended were included in the analysis along with academic

perseverance variables. The summary of regression analysis for pre-college academic perseverance variables predicting grade point average and persistence are illustrated in Table 4.7.

Table 4.7
Summary of Regression Analysis for Pre-College Academic Perseverance

Variable	GPA			Persistence		
	B	SE B	β	B	SE B	β
Study when other interesting things to do	.09	.05	.17	-.01	.03	-.03
Find information when class material not understood	-.07	.05	-.12	-.02	.03	-.08
Participate in class discussions when not interested	.01	.05	.02	.03	.02	.10
Ask instructors for help when struggling	-.05	.05	-.10	-.04	.02	-.01
Finish something when challenges are encountered	.15	.06	.25*	.01	.03	.03
Stay positive even when doing poorly	-.06	.04	-.11	.03	.02	.01
Gender	-.13	.09	-.09	.05	.05	.06
Generation Status	-.11	.08	-.08	-.05	.04	-.08
School Type	.23	.12	.12*	.12	.06	.12
R^2			.09			.03
F			2.59**			.95

* $p < .05$; ** $p < .01$

The multiple regression model with the inclusion of all the predictors produced significant results for grade point average, $R^2 = .09$, $F(10, 260) = 2.59$, $p = .05$. The BCSSE academic perseverance variable, *cfinish*, (finish something you have started when you encounter challenges), $p = .01$, and the demographic variable School, $p = .04$ were statistically significant at the alpha level of .05.

Regression analysis of the academic perseverance factors were also conducted to identify predictors of persistence to second year. The multiple regression model with the inclusion of all the predictors did not produce significant results for persistence, $R^2 = .03$, $F(10, 260) = .95$, $p = .49$. None of the variables had significant positive regression weights; thus, indicating that there were no significant relationships between the academic perseverance variables and persistence to the second year of college.

Findings indicated that two of the nine variables used to examine academic perseverance were found to be statistically significant in predicting academic success as measured by end of first year grade point average. The two variables were finish something when challenges encountered and type of high school attended. None of the other academic perseverance variables had statistically significant levels.

Research Question 3: Academic Engagement

The third research question addressed the Subjective Task Value component of the expectancy-value framework and examined the academic engagement variables from both the BCSSE and the NSSE survey instruments as predictors of academic success and persistence.

Pre-College Academic Engagement

Students completing the BCSSE survey responded to the question, *During the last year of high school, how often did you do each of the following?* Seven statements measured student's

expected academic engagement in college. Responses ranged from (1) never to (4) very often.

Descriptive statistics for each statement are displayed in Table 4.8.

Table 4.8
Descriptive Statistics for BCSSE Academic Engagement Statements

Statement	M	SD	SE	95% Confidence Interval	
				Lower	Upper
Asked questions in class	3.01	.79	.05	2.92	3.10
Made a class presentation	2.88	.76	.05	2.79	2.97
Worked with other students on projects	2.79	.83	.05	2.69	2.89
Worked with class mates outside of class	2.93	.76	.05	2.84	3.02
Discussed grades with instructor	2.41	.84	.05	2.31	2.51
Discussed ideas from classes with faculty	2.15	.91	0.5	2.04	2.26
Discussed ideas from class outside of class	2.53	.84	0.5	2.43	2.63

The statements with high mean scores were “asked questions in class or contributed to class discussions” (M = 3.01) and “worked with classmates outside of class” (M = 2.93). The statement with the lowest mean score was “discussed ideas from readings or classes with teachers outside of class” (M = 2.15). Confidence interval data indicated 95% confidence that samples of the population mean fell within its limits.

Regression analysis of the pre-college academic engagement factors, measured by the BCSSE instrument, were conducted to identify predictors of academic success at end of first-year as well as persistence to second year of college. The independent variables of gender,

generation-status, and type of high school attended were included in the analysis. The summary of regression analysis predicting grade point average and persistence are illustrated in Table 4.9.

Table 4.9
Summary of Regression Analysis for Pre-College Academic Engagement

Variable	GPA			Persistence		
	B	SE B	β	B	SE B	β
Asked questions in class	.03	.06	.03	-.02	.03	-.04
Made a class presentation	-.03	.07	-.04	.01	.03	.03
Worked with other students on projects	-.08	.07	-.09	.01	.04	.01
Worked with class mates outside of class	-.03	.06	-.04	-.03	.03	-.08
Discussed grades with instructor	.07	.05	.09	-.02	.03	-.05
Discussed ideas from classes with faculty	.03	.05	.04	.02	.03	.07
Discussed ideas from class outside of class	.04	.06	.05	.01	.03	.02
Gender	-.14	.09	-.10	.04	.05	.06
Generation Status	-.11	.08	-.08	-.05	.04	-.08
School Type	.22	.12	.11	.12	.06	.12
R^2			.05			.04
F			1.30			.94

* $p < .05$; ** $p < .01$

The multiple regression model did not produce significant results, $R^2 = .05$, $F(11, 259) = 1.30$, $p = .22$, for relationships between the pre-college academic engagement variables from the BCSSE instrument with end of first year grade point average. Regression analysis were also conducted to identify predictors of the pre-college academic engagement factors, as measured by the BCSSE instrument, with student's persistence to second year of college. The multiple regression model did not produce significant results, $R^2 = .04$, $F(11, 259) = .94$, $p = .50$, between the pre-college academic engagement variables from the BCSSE instrument with persistence to second year of college. None of the variables used to examine pre-college academic engagement were found to be statistically significant in predicting academic success as measured by end of first year grade point average or persistence to the second year of college.

First-Year in College Academic Engagement

Students in this study sample also completed the NSSE instrument at the end of their first year of college and responded to the question, *During the current school year, how often have you done each of the following?* Seven statements measured student's level of engagement during their first year of college. Responses ranged from (1) never to (4) very often. Descriptive statistics for each statement are displayed in Table 4.10.

Table 4.10
Descriptive Statistics for NSSE Academic Engagement Statements

Statement	M	SD	SE	95% Confidence Interval	
				Lower	Upper
Asked questions in class	2.74	.82	.05	2.65	2.84
Made a class presentation	2.37	.81	.05	2.27	2.47
Worked with other students on projects	2.81	.79	.05	2.71	2.90

Worked with class mates outside of class	2.72	.87	.05	2.62	2.82
Discussed grades with instructor	2.57	.89	.05	2.46	2.67
Discussed ideas from classes with faculty	2.34	.95	.06	2.23	2.45
Discussed ideas from class outside of class	2.83	.85	.05	2.72	2.93

The statements with high mean scores were “discussed ideas from readings or classes with others outside of class” (M = 2.83) and “worked with other students on projects” (M = 2.81). The statements with the lowest mean scores were “discussed ideas from readings or classes with faculty members outside of class” (M = 2.34) and “made a class presentation” (M = 2.37). Confidence interval data indicated 95% confidence that samples of the population mean fell within its limits.

Regression analysis of the pre-college academic engagement factors, measured by the NSSE instrument, were conducted to identify predictors of academic success at end of first-year as well as persistence to second year of college. The independent variables of gender, generation-status, and type of high school attended were also included in the analysis. The summary of regression analysis for first year in college academic engagement variables predicting grade point average and persistence are illustrated in Table 4.11.

Table 4.11
Summary of Regression Analysis for First-Year Academic Engagement

Variable	GPA			Persistence		
	B	SE B	β	B	SE B	β

Asked questions in class	.14	.06	.17*	.05	.03	.11
Made a class presentation	-.05	.06	-.06	.02	.03	-.05
Worked with other students on projects	-.06	.06	-.07	-.08	.03	-.19
Worked with class mates outside of class	.03	.06	.04	.04	.03	.11
Discussed grades with instructor	.06	.06	.08	-.01	.03	-.02
Discussed ideas from classes with faculty	-.07	.06	-.10	.08	.03	.05
Discussed ideas from class outside of class	.07	.06	.09	.03	.03	.06
Gender	-.14	.09	-.10	.04	.04	.06
Generation Status	-.09	.08	-.06	-.05	.04	-.07
School Type	.23	.12	.12*	.12	.06	.12
R^2		.08			.07	
F		1.96*			1.76	

* $p < .05$; ** $p < .01$

The multiple regression model with the inclusion of all predictor variables produced significant results for end of first-year grade point average, $R^2 = .08$, $F(11, 259) = 1.96$, $p = .03$. The NSSE academic engagement variable of *clquest* (asked questions in class), $p = .01$, as well as the demographic variable of School Type, $p = .05$, were statistically significant at an alpha of .05. The other variables analyzed did not significantly contribute to the regression model.

Regression analysis of the first year in college academic engagement factors were also conducted to identify predictors of student's persistence to second year of college. The multiple

regression model with the inclusion of all predictor variables did not produce significant results for persistence to second year in college, $R^2 = .07$, $F(11, 259) = 1.76$, $p = .06$. Thus, results of the regression analysis did not identify significant relationships between first year in college academic engagement and persistence.

Findings indicated that two of the ten variables used to examine first-year academic engagement were found to be statistically significant in predicting academic success as measured by end of first year grade point average. The two variables, *asked questions in class* and *type of high school attended*, made an impact on grade point average. None of the first-year academic engagement variables had statistically significant levels for persistence to second year of college.

Research Question 4: Demographic Characteristics

The fourth research question examined gender, generation status, and type of high school attended to explore if these accounted for differences in three areas: academic self-efficacy, academic perseverance, and academic engagement. The dichotomous variables of gender, generation status, and type of high school attended, with two levels each, were analyzed through independent sample *t*-tests. Results are disaggregated by each of the three areas examined.

Academic Self-Efficacy

Gender

Independent samples *t*-tests were conducted to examine differences between overall means of the variables for gender and academic self-efficacy. Gender is denoted in this study as Female (0) and Male (1). The Levene's test was significant for the variables *cgnwrite* (write clearly and effectively) at $p = .01$ and for *cgnquant* (analyze quantitative problems) at $p = .02$; thus, the assumption of homogeneity of variances was not met. Differences were significant only for the self-efficacy variable of analyzing quantitative problems, $t(182.20) = 2.21$, $p = .02$,

with a small effect size ($d = .33$). Findings suggested that male students exhibited higher academic self-efficacy on quantitative skills than female students. No other variables exhibited significant differences. The means, standard deviations, and the t -test summary for the significant variables are displayed in Table 4.12.

Table 4.12
Summary of t -Test Analysis for Academic Self-Efficacy and Gender

Variable	M	SD	t	df	p	d	95% Confidence Interval	
							Lower	Upper
Gender			2.21	182.20	.02	.33	-.7228	-.0403
<i>Quantitative Skills</i>								
Females (n = 182)	3.98	1.38						
Males (n = 89)	4.36	1.32						

Generation Status

Independent samples t -tests were also conducted to examine differences between overall means of the variables for generation status and academic self-efficacy. Generation status is denoted in this study as First-generation (1) and Not-first-generation (0). The Levene's test was not significant for any of the variables; thus, the assumption of homogeneity of variances was met. There were no significant differences in any of the scores for the academic self-efficacy factors in relation to generation status.

Type of High School Attended

Independent samples t -tests were also conducted to examine differences between overall means of the variables for type of high school attended and academic self-efficacy. Type of high school attended was denoted in this study as Public high school (0) and Private high school (1). The Levene's test was not significant for any of the variables; thus, the assumption of

homogeneity of variances was met. Overall, there were no significant differences in any of the scores for the academic self-efficacy variables in relation to type of high school attended.

Academic Perseverance

Gender

Independent samples *t*-tests were conducted to analyze differences between overall means of the variable gender and academic perseverance factors. Gender is denoted in this study as Female (0) and Male (1). The Levene's test was not significant for any of the variables; thus, the assumption of homogeneity of variances was met. There were no significant differences in any of the scores for the academic perseverance factors in relation to gender.

Generation Status

Independent samples *t*-tests were also conducted to analyze differences between overall means of the variables for generation status and academic perseverance. Generation status is denoted in this study as First-generation (1) and Non-first-generation (0). The Levene's test was not significant for any of the variables; thus, the assumption of homogeneity of variances was met. There were no significant differences in any of the scores for the academic perseverance factors in relation to generation status.

Type of High School Attended

Again, independent samples *t*-tests were conducted to analyze differences between overall means of the variables for type of high school attended and academic perseverance. Type of high school attended was denoted in this study as Public high school (0) and Private high school (1). The Levene's test was not significant for any of the variables; thus, the assumption of homogeneity of variances was met. Overall, there were no significant differences in any of the scores for the academic perseverance variables in relation to type of high school attended.

Academic Engagement

Gender

Independent samples *t*-tests were conducted to analyze differences between overall means of the variables for gender and academic engagement. Gender is denoted in this study as Female (0) and Male (1). The Levene's test was not significant for any of the variables; thus, the assumption of homogeneity of variances was met. Overall, there were no significant differences in any of the scores for the academic engagement variables in relation to gender.

Generation Status

Independent samples *t*-tests were also conducted to analyze differences between overall means of the variables for generation status and academic engagement. Generation status is denoted in this study as First-generation (1) and Non-first-generation (0). The Levene's test was not significant for any of the variables; thus, the assumption of homogeneity of variances was met. Differences were significant on the engagement variable for *clquest* (asked questions in class), $t(269) = 2.15$, $p = .03$, with a small effect size ($d = .26$). Findings suggested that students who were not-first-generation were more actively involved in class discussions by asking questions than first-generation students. No other variables exhibited significant differences.

Table 4.13 displays the means, standard deviations, and *t*-test summary for significant variables.

Table 4.13
Summary of *t*-Test Analysis for Academic Engagement and Generation

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>	95% Confidence Interval	
							Lower	Upper
Generation Status			2.15	269	.03	.26	.0186	.4206

Asked Questions in Class

Not First Generation (n = 102)	3.07	.77
First Generation (n=169)	2.98	.79

Type of High School Attended

Independent samples *t*-tests were also conducted to analyze differences between overall means of the variables for type of high school attended and academic engagement. Type of high school attended was denoted in this study as Public high school (0) and Private high school (1). There were significant differences in the scores for four academic engagement variables. The first variable, *hclassgr* (worked with other students during class), did not have a significant Levene's test; thus, the assumption of homogeneity of variances was met. Differences between Public (M = 2.97) and Private (M = 2.67), were significant, $t(269) = 2.23, p = .02$, with a small effect size ($d = .27$). The Levene's test for the second variable, *hocgrp* (worked with classmates outside of class), was not significant; thus, the assumption of homogeneity of variances was met. Differences between Public (M = 2.46) and Private (M = 2.08) were significant, $t(269) = 2.55, p = .01$, with a small effect size ($d = .31$). The Levene's test for the third and fourth variables were not significant; thus, meeting the assumption of homogeneity of variances. For the third variable, *hfacidea* (discussed ideas with faculty outside of class), scores for Public (M = 2.20) and Private (M = 1.81), had significant differences, $t(269) = 2.46, p = .01$, with a small effect size ($d = .30$). The fourth variable *hoccidea* (discussed ideas with others outside of class) had differences for Public (M = 2.58) and for Private (M = 2.19), that were significant, $t(269) = 2.60, p = .01$, with a small effect size of ($d = .31$). No other academic engagement variables exhibited significant differences. The means, standard deviations, and *t*-test summary for the significant variables are displayed in Table 4.14.

Table 4.14

Summary of *t*-Test Analysis for Academic Engagement and School Type

Variable	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>	95% Confidence Interval	
							Lower	Upper
Type of School Attended			2.23	269	.02	.27	.0346	.5639
<i>Group Work during Class</i>								
Public School (n = 235)	2.97	.76						
Private School (n = 36)	2.67	.68						
Type of School Attended			2.55	269	.01	.31	.0865	.6744
<i>Group Work outside Class</i>								
Public School (n = 235)	2.46	.87						
Private School (n=36)	2.08	.50						
Type of School Attended			2.46	269	.01	.30	.0801	.7172
<i>Discussions with Faculty out of Class</i>								
Public School (n = 235)	2.20	.92						
Private School (n = 36)	1.81	.75						
Type of School Attended			2.60	269	.01	.31	.0949	.6822
<i>Discussions with Others out of Class</i>								
Public School (n = 235)	2.58	.84						
Private School (n =36)	2.19	.79						

Overall, the abbreviated expectancy-value model provided a sound framework for this study. Aligning the three components of the model, Expectancies for Success, Subjective Task Values, and Achievement-Related Performance and Choice, with the BCSSE and NSSE

constructs of academic self-efficacy, academic perseverance and academic engagement proved to be effective. Plante et al. (2013) proposed that the integration of expectancy-value with other models provides researchers the opportunity to appreciate multiple perspectives rather than focus on a single one. For this study, examining multiple constructs provided a broader understanding of some of the factors impacting student success and persistence. Each of the research questions produced findings to inform the study. In the Expectancies for Success component (Research Question 1), academic self-efficacy exhibited relationships with both pre-college and first year in college variables. Academic perseverance, aligned with the Expectancies for Success component, (Research Question 2) surprisingly did not exhibit many associations with achievement related performance or choice. The Subjective Task Values component (Research Question 3) encompassed both pre-college and first year in college academic engagement; however, few associations were exhibited. Regardless of the expectancy-value component or the effective educational practice examined, there existed a link to achievement-related performance (academic success). Although, there were a few significant associations, there seemed to be less of a connection with the achievement-related choice (persistence). Analysis of the demographic variables produced few significant relationships. Findings suggested that gender and generation status were not as influential as was type of high school attended. The following chapter provides a comprehensive discussion of the findings and possible recommendations for future research.

CHAPTER 5: DISCUSSION

Overview of Research Problem

The rapidly increasing Hispanic population is poised to become the majority population in the United States. With this population growth, Hispanics have also become the youngest population with the largest group under the age of thirty. This explosive growth, along with concerns about low educational attainment rates, has caused national concern. Solorzano, et al. (2005) reported that although Latinos have demonstrated increased enrollment in higher education, they still have the lowest educational attainment rates when compared to other ethnic groups. Notwithstanding the economic benefits afforded by a college education, other benefits to the nation are increased civic and community involvement as well as reduced poverty, crime, and unemployment rates. Thus, higher education plays an important role in the economic and social development for the nation, as well as for the individual. As a nation, it is important to identify factors that can potentially contribute to increased participation and attainment rates in higher education for the Hispanic student population.

This study utilized an abbreviated expectancy-value model approach to examine factors that may potentially serve as predictors of student academic success and persistence in college. The entire scope of the expectancy-value model is composed of multiple sections. For purposes of this study, the focus was limited to three sections of the model: (1) Expectancies for Success, (2) Subjective Task Values, and (3) Achievement-Related Choices and Performance. These constructs propose links between expectations for success and task values with achievement related performance and choices. For this study, the expectancy-value model was aligned with the constructs of academic self-efficacy (expectancies for success), academic perseverance

(expectancies for success), academic engagement (subjective task values), and the outcome variables grade point average (achievement-related performance) and persistence (achievement-related choices). Independent data analysis were conducted for each of the three areas – academic self-efficacy, academic perseverance, and academic engagement. Findings for each are reported separately by area in the following sections.

Main Findings of Study

Academic Self-Efficacy

The expectancy-value theory attempts to explain how the choice of tasks, persistence on accomplishing these tasks, and performance on these tasks relate to the individual's belief on how well they will do on an a particular task or activity (Wigfield and Eccles, 2000). The full scope of the Expectancy-Value model is illustrated in Figure 2.1; however, an abbreviated portion of the model, specifically the areas dealing with Expectancies for Success, Subjective Task Value, and Achievement Related Performance and Choices, is the appropriate framework for this study. Bandura (1997) referred to efficacy expectations as the belief an individual has on their ability to accomplish a task. Similarly, Eccles et al. (1983) defined expectancies for success as the perception an individual has of their competence to achieve certain tasks in the future. Accordingly, the instruments used for this study measured individual's perceptions. Two separate instruments were used to measure academic self-efficacy at different points during the student's college year.

The first instrument, the Beginning College Survey of Student Engagement (BCSSE) measured the individual's perception of how prepared they were to accomplish certain academic tasks when entering college. Students completing the questionnaire reflected on their academic preparation during the last year of high school when they responded to the question, *How*

prepared are you to do the following academic work? The six academic self-efficacy variables included writing, speaking, thinking critically, quantitative skills, computer technology, and teamwork. Responses ranged from (1) not at all prepared to (6) very prepared. Overall mean scores indicated that most students felt “somewhat prepared” for these tasks when entering college. The actual mean scores ranged from lowest (least prepared) to highest (most prepared): quantitative skills (M = 4.10); writing (M = 4.25); speaking (M = 4.27); thinking critically (M = 4.39); computer technology (M = 4.52), and teamwork (M = 4.65). Students felt most prepared to work with others and to work with technology; however, they felt less prepared with their math, writing, and speaking skills coming into college.

Regression analysis was used to examine if relationships existed between pre-college academic self-efficacy variables and achievement-related performance (academic success) and choice (persistence). Data results identified three pre-college academic self-efficacy variables as significant predictors which explained 13% of the variance ($R^2 = .13$, $F(10,260) = 4.04$, $p < .001$). The variables *ability to write clearly and effectively* ($\beta = .29$, $p < .02$), *ability to speak clearly and effectively* ($\beta = .30$, $p < .02$), and *ability to analyze quantitative problems* ($\beta = .17$, $p < .02$) were found to significantly predict academic success. Additionally, the variable *gender* ($\beta = .12$, $p < .04$) was also found to be a significant predictor. No pre-college academic self-efficacy variables were found to be significant predictors of achievement-related choice (persistence).

The second instrument, the National Survey of Student Engagement (NSSE) also measured the individual’s academic self-efficacy through the perception of their knowledge and skills after the first year of college. Students reflected on their first year in college when they responded to the question, *To what extent has your educational experience prepared you to do the following?* Exactly like the BCSSE instrument, the six academic self-efficacy variables

included writing, speaking, thinking critically, quantitative skills, computer technology, and teamwork. Responses ranged from (1) very little to (4) very much. Overall mean scores indicated that most students felt that their educational experience prepared them “somewhat to quite a bit” for these academic tasks during the first year in college. The actual means scores ranged from lowest (little preparation) to highest (much preparation): computer technology (M = 2.97); quantitative skills (M = 3.01); writing (M = 3.08); speaking (M = 3.11); teamwork (M = 3.13); and thinking critically (M = 3.20). Students felt more prepared to be able to think critically and analytically after the first year of college; however, they did not feel their experience provided much in terms of computer technology. A possible explanation could be that technology is so commonly used on a daily basis that students already have a high sense of self-efficacy regarding technology.

Regression analysis were also conducted to examine if relationships existed between first year in college academic self-efficacy variables and achievement-related performance (academic success) and choice (persistence). Data results identified one significant academic self-efficacy variable that explained 9% of the variance ($R^2 = .09$, $F(10,260) = 2.44$, $p < .01$). The variable *ability to analyze quantitative problems* ($\beta = .20$, $p < .02$) was found to be a significant predictor of academic success at end of first year in college. Additionally, the variable *type of high school attended* ($\beta = .13$, $p < .04$) was also found to be a significant predictor.

In relation to the achievement related choice (persistence) component of the expectancy-value model, results identified two significant variables for first year in college academic self-efficacy which explained 13% of the variance ($R^2 = .13$, $F(10,260) = 3.93$, $p < .01$). The two variables, *ability to analyze quantitative problems* ($\beta = .30$, $p < .01$) and *writing clearly and effectively* ($\beta = .22$, $p < .01$) were found to be significant predictors of achievement related

choice (persistence to second year of college). Findings suggested that student perceptions of their academic capabilities in writing and in mathematics at the end of the first year of college significantly contributed to their persistence to the second year of college.

Corresponding *t*-tests were conducted to determine differences in academic self-efficacy by gender, generation status, and type of school attended. The predictor variable gender ($p = .02$) was identified to be statistically significant, at an alpha level of .05, for the pre-college academic self-efficacy variable of quantitative skills. The differences were significant, $t(182.20) = 2.21$, $p = .02$, with a moderate relationship ($d = .33$). Male ($n = 89$) students displayed a higher mean score ($M = 4.36$) on academic self-efficacy of quantitative skills than female ($n = 182$) students ($M = 3.98$).

Overall, variables were found to be significant for both pre-college and first year in college academic self-efficacy. These findings suggested that student's perceptions of their academic abilities can be predictors of grades. This is consistent with Wigfield and Eccles (2000) findings that "children's beliefs about their ability and expectancies for success are the strongest predictors of subsequent grades" (p. 77).

Responses from the BCSSE and NSSE questionnaire responses indicated that students perceived positive changes in their abilities or skills from first entering college to the end of the first year of college. Approximately 72.7% of students completing the BCSSE upon entering TPU felt "somewhat prepared" to "very prepared" in their academic self-efficacy for written communication skills. At the end of the first year of college, 78.6% of students completing the NSSE were confident in their abilities and felt their knowledge and skills had increased. About two-thirds of entering students (72.7%) reported that they were "somewhat prepared" to "very prepared" to do well in oral communication skills. After the first year of college, 78.6% reported

that their knowledge and skills were “quite a bit” to “very much” enhanced. Approximately, 66.8% of students felt they were “somewhat to very prepared” in quantitative skills upon entering college. At the end of the first year of college, 75% of students felt their educational experience had enhanced their quantitative skills “quite a bit to very much”. These responses align with Wigfield and Eccles (2000) proposal that “performance is mediated through children’s ability and expectancy beliefs” (p. 78).

Academic Perseverance

The expectancy-value model not only examines an individual’s belief in their performance, but also examines their persistency on accomplishing these tasks (Wigfield and Eccles, 2000). Bandura (1993) also contended that a student’s self-efficacy belief impacted their motivation and persistency to accomplish certain tasks. Hood, Creed, & Neumann (2012) found that those students who perceive themselves as more competent were more successful at persisting or accomplishing certain tasks. The academic perseverance variables on the BCSSE instrument align with these findings and measure students’ perceptions of their level of certainty to accomplish specific tasks when entering college, such as their ability to handle difficult situations, how certain they are of their ability to study, to ask faculty for help when struggling, and to stay positive when encountering challenges.

Academic perseverance data were collected solely by the BCSSE instrument at the time students entered college. Students completing the questionnaire reflected on their academic preparation during the last year of high school when they responded to the question, *How certain are you that you will do the following?* Responses ranged from (1) not at all certain to (6) very certain. Overall mean scores indicated that most students felt “somewhat certain” they would accomplish these tasks when entering college. Actual mean scores for the six academic

perseverance variables ranged from lowest (least certain) to highest (most certain) as follows: finish something when challenges encountered (M = 4.99); stay positive even when doing poorly (M = 4.98); ask instructors for help when struggling (M = 4.92); find information when class material not understood (M = 4.86); study when other interesting things to do (M = 4.46), and participate in class discussions when not interested (M = 4.15).

Student responses to the six variables indicated that, *finish something you have started when you encounter challenges* (88.2%) and *stay positive even when you do poorly on a test* (87.4%) were high on the list of tasks students felt “somewhat certain” to “very certain” they would accomplish in college. The variable with the lowest percentage (70.9%) was *participate regularly in course discussions, even when you don't feel like it*. Students felt most certain that they would persevere and stay positive in face of challenges; however, they felt less certain that they would participate in class discussions.

Regression analysis was used to examine if relationships existed between pre-college academic perseverance variables and achievement-related performance (academic success) and choice (persistence). Data results identified one pre-college academic perseverance variable as a significant predictor which explained 9% of the variance ($R^2 = .09$, $F(10,260) = 2.59$, $p < .05$). The variable *finish something you have started when you encounter challenges* ($\beta = .25$, $p < .01$) was found to have a significant relationship with academic success. Additionally, the variable *type of school attended* ($\beta = .12$, $p < .05$) was also found to be a significant predictor. Additionally, corresponding *t*-tests were conducted to determine differences in academic engagement by gender, generation status, and type of school attended; however, no significant findings were produced.

Overall, significant findings were identified for relationships between the academic perseverance variable of finishing tasks and achievement related performance (grade point average), suggesting that a student's level of certainty of completing their tasks, even when challenging, can be a predictor of academic success. This is consistent with Wigfield and Eccles (2000) conclusions that "children's beliefs about their ability and expectancies for success are the strongest predictors of subsequent grades" (p. 77). It is important to note also that the sample size for students in this study attending private schools (n = 36) was much lower than for students attending public schools (n = 235), yet findings were still significant for private schools. This aligns with national discussions regarding the academic preparedness of students transitioning to college as well as the academic content and rigor in public high schools. No significant findings were identified for the academic perseverance variables in relation to the achievement related choice (persistence) component of the expectancy-value model.

Academic Engagement

Eccles et al. (1983) proposed that subjective task values may include multiple components, such as, the value and importance of attaining the task, the usefulness of the task, as well as the cost involved to attain the task. The subjective task value component of the expectancy-value model suggests that when students perceive tasks as valuable, they are more likely to engage in these tasks; thus, this participation will possibly lead to better achievement (Schechter, Durik, Miyamoto, & Harackiewicz, 2011). Likewise, Kuh (2001) proposed that student engagement encompasses the time, effort, and importance students dedicate to educational-related activities. Both instruments used for this study measured levels of student engagement at both the high school and the college environments.

The first instrument, the Beginning College Survey of Student Engagement (BCSSE) measured the individual's engagement in specific academic activities during the last year in high school. Students completing the questionnaire reflected on their academic engagement during the last year of high school when they responded to the question, *How often did you do each of the following activities?* The seven academic engagement measured several variables that are identified by Kuh (2003) as high-impact educational practices. Responses ranged from (1) never to (4) very often. Overall mean scores indicated that most students "sometimes to often" participated in these activities during their last year of high school. The mean scores ranged from lowest (sometimes) to highest (often): discussed ideas from classes with faculty (M = 2.15); discussed grades with instructor (M = 2.41); discussed ideas with others outside of class (M = 2.53); worked with other students on projects (M = 2.79); made a class presentation (M = 2.88), worked with classmates outside of class (M = 2.93), and asked questions in class or contributed to class discussions (M = 3.01). Students indicated they were more actively engaged (71.2%) in asking questions or participating in class discussions while less actively engaged (31.7%) in discussing ideas with instructors outside of class.

Regression analysis was used to examine if relationships existed between pre-college academic engagement variables and achievement-related performance (academic success) and choice (persistence). Data results did not identify significant relationships between any pre-college academic engagement variables with academic success or persistence.

The second instrument, the National Survey of Student Engagement (NSSE) also measured the individual's engagement in specific academic activities but this time during the first year of college. Students reflected on their first year in college when they responded to the question, *How often did you do each of the following activities?* Exactly like the BCSSE

instrument, the seven academic self-efficacy variables focused on high-impact educational practices. Responses ranged from (1) never to (4) often. Overall mean scores indicated that most students “sometimes to often” participated in these activities during the first year of college. The means scores ranged from lowest (sometimes) to highest (often): discussed ideas from classes with faculty (M = 2.34); made a class presentation (M = 2.37); discussed grades with instructor (M = 2.57); worked with classmates outside of class (M = 2.72); asked questions in class or contributed to class discussions (M = 2.74); worked with other students on projects (M = 2.81); and discussed ideas from class outside of class (M = 2.83). Interestingly, results from both BCSSE and NSSE data identified low mean scores for faculty-student interaction outside of class. While college and university campuses are prime locations for these types of exchanges, one possible observation is that faculty-student interactions may begin to develop during the first-year and evolve beyond that.

Regression analysis was used to examine if relationships existed between first year in college academic engagement variables with subjective task values (value and usefulness of certain tasks) when examined for achievement-related performance (academic success) and choice (persistence). The results identified one academic engagement variable as a significant predictor which explained 8% of the variance ($R^2 = .08$, $F(11,259) = 1.96$, $p < .03$). The variable *asked questions in class or contributed to class discussions* ($\beta = .17$, $p < .02$) was found to significantly predict academic success. Additionally, the variable *type of school attended* ($\beta = .12$, $p < .05$) was also found to be a significant predictor. None of the first year in college academic engagement variables were found to be significant predictors of achievement-related choice (persistence).

Corresponding *t*-tests were conducted to determine differences in academic engagement by gender, generation status, and type of school attended. The predictor variable *generation status* ($p = .03$) was identified to be statistically significant, at an alpha level of .05, for the first year in college academic engagement variable, *asked questions in class or contributed to class discussions*. The differences were significant, $t(269) = 2.15, p = .03$. The effect size for strength of relationship was small ($d = .26$). Students who were not first generation ($n = 102$) displayed a higher mean score ($M = 3.07$) on academic engagement of asking questions in class than first generation ($n = 169$) students ($M = 2.98$).

Additionally, the predictor variable, *type of high school attended*, was also identified to be statistically significant for multiple pre-college academic engagement variables. Four of the pre-college academic engagement variables displayed significant differences as follows: (1) The variable *worked with other students during class* was significant at $t(269) = 2.23, p = .02$ with a small effect size for strength of relationship ($d = .27$); (2) The variable *worked with classmates outside of class* was significant at $t(269) = 2.55, p = .01$ with a small effect size for strength of relationship ($d = .31$); (3) The variable *discussed ideas with faculty outside of class* was significant at $t(269) = 2.46, p = .01$ with a small effect size for strength of relationship ($d = .30$); and (4) The variable *discussed ideas with others outside of class* was significant at $t(269) = 2.60, p = .01$ with a small effect size for strength of relationship ($d = .31$).

Overall, significant findings were identified for academic engagement in terms of actively participating in class as well as the type of high school attended. Active learning has been noted as a highly effective educational practice by theorists and practitioners. Astin (1985, 1991) noted that students should be active participants in their learning and in their educational environment. Possible reasons for differences in engagement may also be the extent to which

school environments facilitate or hinder academic engagement activities. Another consideration may be the high enrollment numbers in public schools as compared to private schools and how conducive these environments may be for student-faculty interactions.

Summary of Findings and Implications for Future Research and Practice

The purpose of this study was to examine relationships between student pre-college academic perceptions with first-year in college academic experiences, specifically in the areas of academic self-efficacy, academic perseverance, and academic engagement, to identify predictors for academic achievement and persistence in college. An abbreviated version of the expectancy-value model was utilized as the framework because it not only independently aligned with the three specific areas being examined, but it also served to link the components together to determine achievement-related performance (academic success) and choice (persistence). The expectancies for success component examined the individual's perception of how well they would accomplish an outcome (academic self-efficacy) as well as their belief that they would complete a task (academic perseverance). The subjective task value component examined the extent to which a task was useful or important to an individual (academic engagement). Finally, the achievement-related performance and choice component examined the extent to which the expectancies for success and the subjective task values contributed to the individual's performance (academic achievement) and choice (persistence to second year of college). Overall, the abbreviated expectancy-value model provided a sound framework for this study. Aligning the three components of the model, Expectancies for Success, Subjective Task Values, and Achievement-Related Performance and Choice, with the BCSSE and NSSE constructs of academic self-efficacy, academic perseverance and academic engagement proved to be effective.

Academic Self-Efficacy

The beliefs and expectations of an individual influence their performance on tasks and achievement of goals. Bandura (1997) referred to self-efficacy beliefs as an individual's confidence that they could perform an action. Student's expectancies for success based on responses to the BCSSE and NSSE questionnaires indicated that overall students felt prepared to accomplish certain academic tasks. Findings from this study identified significant relationships between the academic self-efficacy variables of writing, speaking and quantitative skills with academic success at both the pre-college and the first year of college level. Additionally, findings from the first year of college self-efficacy variables identified significant relationships between writing skills and quantitative skills with persistence to second year of college; thus, suggesting that student perceptions of their academic capabilities in writing and in mathematics at the end of the first year of college significantly contributed to their decision to continue college. Overall, variables were found to be significant for both pre-college and first year in college academic self-efficacy. These findings are consistent with the work of Wigfield and Eccles (2000) who found that an individual's "beliefs about their ability and expectancies for success are the strongest predictors of subsequent grades" (p. 77). Bong (2001) also found that student's perceptions of their academic abilities can be predictors of grades. Bean and Eaton (2000) proposed that as academic self-efficacy increases, so will the individual's academic and social participation in college. An important future direction for educators at both secondary and in higher education is to examine the academic curriculum and the academic high school preparation and curriculum of students, particularly of minority students. As Arbona and Nora (2007) reported, a significant factor that leads to college enrollment is a more rigorous academic curriculum.

Academic Perseverance

The definition of academic perseverance utilized for this study is: a student's persistence on academic tasks in spite of lack of motivation or other interests and challenges. Student's expectancies for success based on responses to the BCSSE questionnaire indicated that overall students felt certain that they would accomplish academic tasks. Findings from this study identified significant relationships between the pre-college academic perseverance variable, *completing tasks even when challenging*, and achievement-related performance; thus, suggesting that a student's level of certainty of completing their tasks, even when challenging, can be a predictor of academic success. This is consistent with Wigfield and Eccles (2000) conclusions that "children's beliefs about their ability and expectancies for success are the strongest predictors of subsequent grades" (p. 77). It is important to note that although the study sample size for students attending private schools (n = 36) was lower than students attending public schools (n = 235), findings identified relationship with type of high school attended with academic perseverance. Swail et al. (2005) found differences in the high school and pre-college academic preparation of Latino students and White students. These findings support the need for national discussions with education leaders regarding the academic readiness of students transitioning to college as well as the academic content and rigor in public high schools.

Academic Engagement

The construct of academic engagement is aligned to the expectancy-value section of subjective task values. Wigfield (1994) identified subjective task values as activities that individuals value, enjoy, or have use for, such as a particular class or degree. Overall, significant findings were identified for academic engagement in terms of *actively participating in class* as well as the type of high school attended. Active learning has been noted as a highly effective

educational practice by theorists and practitioners. Astin (1985, 1991) noted that students should be active participants in their learning and in their educational environment. Chickering's (1969) seminal work identified student-faculty interaction as a positive contributor to student development. Possible reasons for differences in engagement may also be the extent to which school environments facilitate or hinder academic engagement activities. Another consideration may be the higher enrollment numbers in public schools as compared to private schools and how conducive these environments may be for student-faculty interactions.

Although this study was limited in scope, as it focused on data from only one institution, it did provide some significant findings relevant to student success and persistence in college. To have a more accurate picture of Hispanic students in higher education, it would be ideal to expand this study to include all incoming students and follow up with a second study four years later. A separate study of high school seniors, prior to their transition to college, would provide a more accurate representation of their expectancies for success. Zarate and Gallimore (2005) agree that higher education institutions need to know more about the differences in Latino students who enroll in college and those that do not. As a first-generation Hispanic student, I am aware of the challenges faced when transitioning through the educational systems. It is critical for education decision makers and school leaders to examine and implement best practices for the academic readiness of students, primarily by ensuring that students at both public and private high schools have rigorous curricula to prepare them for college. The academic achievement and behaviors of students should be measured earlier, when transitioning into high school rather than college, in order to identify deficiencies and provide students essential academic advising and mentoring. Given the urgency of addressing educational disparities for the largest growing demographic group in this country, these conversations must turn to action. *Adelante!*

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APPENDIX A: BEGINNING SURVEY OF STUDENT ENGAGEMENT (BCSSE)



Beginning College Survey of Student Engagement

We are interested in your high school experiences and how often you expect to participate in certain activities during your first year of college. The information that you provide will help your institution improve teaching, learning and the quality of the student experience. Thanks for your help. Write or mark your answers in the boxes. Examples: or

Please print your student ID number in the box below. Do not print your Social Security number.

Please print the first three letters of your last name:

When are you taking this survey:

- Before attending orientation
- While attending orientation
- After attending orientation
- Not applicable, not attending orientation

Please write in the 5-digit ZIP code of your home during your last year of high school.

 (U.S. residents only)

High School Experiences

1 Please write in the year you graduated from high school. (For example, "2010")

2 From which type of high school did you graduate? (Select only one.)

- Public
- Private, religiously-affiliated
- Private, independent
- Home school
- Other (e.g., GED)

3 What were most of your high school grades? (Select only one.)

- A
- A-
- B+
- B
- B-
- C+
- C
- C- or lower
- Grades not used

4 To date, in which of the following math classes did you earn a passing grade?

	Did not take	Passed	Did not pass
a. Algebra II	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Pre-Calculus/Trigonometry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Calculus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Probability or Statistics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5 During high school, how many years of the following subjects did you complete?

Years:	0	1	2	3	4	5 or more
a. English/Literature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Math	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. History/Social Sciences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Foreign language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 During high school, how many of the following types of classes did you complete?

	0	1	2	3	4	5 or more
a. Advanced Placement (AP) classes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Honors classes (not AP) taught at your high school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. College courses for credit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 During your last year of high school, about how much reading and writing did you do?

	Very much	Quite a bit	Some	Very little	None
a. Assigned reading (textbooks or other course materials)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Books read on your own (not assigned) for personal enjoyment or academic enrichment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Writing short papers or reports (5 or fewer pages)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Writing longer papers or reports (more than 5 pages)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8 During your last year of high school, about how many hours did you spend in a typical 7-day week doing each of the following?

a. Preparing for class (studying, doing homework, rehearsing, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hours per week	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
b. Working for pay (before or after school, weekends)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hours per week	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
c. Participating in co-curricular activities (arts, clubs, athletics, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hours per week	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
d. Relaxing and socializing (watching TV, partying, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hours per week	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30

9 During your last year of high school about how often did you do each of the following?

	Very often	Often	Some-times	Never
a. Asked questions in class or contributed to class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Made a class presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Came to class without completing readings or assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Discussed grades or assignments with a teacher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Worked with other students on projects during class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Worked with classmates outside of class to prepare class assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Prepared two or more drafts of a paper or assignment before turning it in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Had serious conversations with students of a different race or ethnicity than your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Discussed ideas from your readings or classes with teachers outside of class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Discussed ideas from your readings or classes with others outside of class (students, family members, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Talked with a counselor, teacher, or other staff member about college or career plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Missed a day of school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10 Did you take the SAT and/or ACT?

Yes No

If yes, please write your scores below (as best you remember):

SAT (possible range=200-800)

ACT (possible range=1-36)

Critical Reading

Composite

Mathematical Reasoning

Writing

11 During your high school years, how involved were you in the following activities at your school or elsewhere?

	Not involved	1	2	3	4	5	Highly involved
a. Performing or visual arts programs (band, chorus, theater, art, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Athletic teams (varsity, junior varsity, club sport, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Student government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Publications (student newspaper, yearbook, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Academic honor societies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Academic clubs (debate, mathematics, science, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Vocational clubs (business, health, technology, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Religious youth groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Community service or volunteer work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12 Overall, how academically challenging was your high school?

Not at all challenging Extremely challenging

1 2 3 4 5 6

College Experiences

13 During the coming school year, about how many hours do you think you will spend in a typical 7-day week doing each of the following?

a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
	Hours per week							
b. Working for pay on- or off- campus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
	Hours per week							
c. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
	Hours per week							
d. Relaxing and socializing (watching TV, partying, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0	1-5	6-10	11-15	16-20	21-25	26-30	More than 30
	Hours per week							

14 During the coming school year, about how often do you expect to do each of the following?

	Very often	Often	Sometimes	Never
	▼	▼	▼	▼
a. Ask questions in class or contribute to class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Make a class presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Work on a paper or project that requires integrating ideas or information from various sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Work with other students on projects during class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Work with classmates outside of class to prepare class assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Put together ideas or concepts from different courses when completing assignments or during class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Discuss grades or assignments with an instructor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Discuss ideas from your readings or classes with faculty members outside of class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Receive prompt feedback from faculty on your academic performance (written or oral)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Work with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Discuss ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Have serious conversations with students of a different race or ethnicity than your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Try to better understand someone else's views by imagining how an issue looks from his or her perspective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Learn something that changes the way you understand an issue or idea	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Have serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15 During the coming school year, how certain are you that you will do the following?

	Not at all certain					Very certain
	1	2	3	4	5	6
	▼	▼	▼	▼	▼	▼
a. Study when there are other interesting things to do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Find additional information for course assignments when you don't understand the material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Participate regularly in course discussions, even when you don't feel like it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Ask instructors for help when you struggle with course assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Finish something you have started when you encounter challenges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Stay positive, even when you do poorly on a test or assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16 During the coming school year, how difficult do you expect the following to be?

	Not at all difficult					Very difficult
	1	2	3	4	5	6
	▼	▼	▼	▼	▼	▼
a. Learning course material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Managing your time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Paying college expenses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Getting help with school work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Making new friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Interacting with faculty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17 How prepared are you to do the following in your academic work at this college?

	Not at all prepared					Very prepared
	1	2	3	4	5	6
	▼	▼	▼	▼	▼	▼
a. Write clearly and effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Speak clearly and effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Think critically and analytically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Analyze math or quantitative problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Use computing and information technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Work effectively with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Learn effectively on your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18 How important is it to you that your college or university provides each of the following?

	Not important					Very important
	1	2	3	4	5	6
a. A challenging academic experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Support to help you succeed academically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Opportunities to interact with students from different economic, social, and racial or ethnic backgrounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Assistance coping with your non-academic responsibilities (work, family, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Support to help you thrive socially	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Opportunities to attend campus events and activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19 About how much of your college expenses (tuition, fees, books, room & board) this year will be provided by each of the following sources?

	None	Less than half	Half or more	All or nearly all	Do not know
a. Scholarships and grants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Student loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Parents/family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Self (work on-campus or off-campus, savings)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20 Did you receive a Federal Pell Grant?

Yes No Do not know

21 What do you expect most of your grades will be at this college during the coming year?

(Select only one.)

A B C

A- B- C- or lower

B+ C+ Grades not used

22 Do you intend to graduate from this college?

Yes No Uncertain

23 What is the highest academic degree that you intend to obtain at this or any college?

(Select only one.)

Associate's degree (A.A., A.S., etc.)

Bachelor's degree (B.A., B.S., etc.)

Master's degree (M.A., M.S., etc.)

Doctoral degree (Ph.D., M.D., J.D., etc.)

Uncertain

Additional Information

24 What month are you completing this survey?

<input type="checkbox"/> Jan	<input type="checkbox"/> May	<input type="checkbox"/> Sep
<input type="checkbox"/> Feb	<input type="checkbox"/> Jun	<input type="checkbox"/> Oct
<input type="checkbox"/> Mar	<input type="checkbox"/> Jul	<input type="checkbox"/> Nov
<input type="checkbox"/> Apr	<input type="checkbox"/> Aug	<input type="checkbox"/> Dec

25 Do you know what your major will be?

No

Yes, specify:

26 Are you, or will you be, a full-time student this fall term?

Yes No

27 How many of your close friends will attend this college during the coming year?

None 1 2 3 4 or more

28 Your sex:

Female Male

29 Are you an international student or foreign national?

Yes No

30 What is your racial or ethnic identification?

(Select only one.)

American Indian or other Native American

Asian, Asian American, or Pacific Islander

Black or African American

White (non-Hispanic)

Mexican or Mexican American

Puerto Rican

Other Hispanic or Latino

Multiracial

Other

I prefer not to respond

31 Please indicate whether your parents completed a 4-year college degree.

	Completed 4-year degree	Did not complete 4-year degree	Do not know
Mother (or guardian)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Father (or guardian)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32 How far is your home from this college?

<input type="checkbox"/> 20 miles or less	<input type="checkbox"/> 101-200 miles
<input type="checkbox"/> 21-50 miles	<input type="checkbox"/> 201-400 miles
<input type="checkbox"/> 51-100 miles	<input type="checkbox"/> More than 400 miles

THANKS FOR SHARING YOUR RESPONSES!

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APPENDIX B: NATIONAL SURVEY OF STUDENT ENGAGEMENT (NSSE)



National Survey of Student Engagement 2011

The College Student Report

1 In your experience at your institution during the current school year, about how often have you done each of the following? Mark your answers in the boxes. Examples: or

	Very often	Often	Some-times	Never
a. Asked questions in class or contributed to class discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Made a class presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Prepared two or more drafts of a paper or assignment before turning it in	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Worked on a paper or project that required integrating ideas or information from various sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Come to class without completing readings or assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Worked with other students on projects during class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Worked with classmates outside of class to prepare class assignments	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j. Tutored or taught other students (paid or voluntary)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Participated in a community-based project (e.g., service learning) as part of a regular course	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Used e-mail to communicate with an instructor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Discussed grades or assignments with an instructor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Talked about career plans with a faculty member or advisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Discussed ideas from your readings or classes with faculty members outside of class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Received prompt written or oral feedback from faculty on your academic performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Very often	Often	Some-times	Never
r. Worked harder than you thought you could to meet an instructor's standards or expectations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
u. Had serious conversations with students of a different race or ethnicity than your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 During the current school year, how much has your coursework emphasized the following mental activities?

	Very much	Quite a bit	Some	Very little
a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Applying theories or concepts to practical problems or in new situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9 About how many hours do you spend in a typical 7-day week doing each of the following?

a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)

0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30

Hours per week

b. Working for pay **on campus**

0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30

Hours per week

c. Working for pay **off campus**

0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30

Hours per week

d. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)

0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30

Hours per week

e. Relaxing and socializing (watching TV, partying, etc.)

0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30

Hours per week

f. Providing care for dependents living with you (parents, children, spouse, etc.)

0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30

Hours per week

g. Commuting to class (driving, walking, etc.)

0 1-5 6-10 11-15 16-20 21-25 26-30 More than 30

Hours per week

10 To what extent does your institution emphasize each of the following?

	Very much	Quite a bit	Some	Very little
a. Spending significant amounts of time studying and on academic work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Providing the support you need to help you succeed academically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Providing the support you need to thrive socially	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Using computers in academic work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11 To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

	Very much	Quite a bit	Some	Very little
a. Acquiring a broad general education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Acquiring job or work-related knowledge and skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Writing clearly and effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Speaking clearly and effectively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Thinking critically and analytically	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Analyzing quantitative problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Using computing and information technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Working effectively with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Voting in local, state, or national elections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Learning effectively on your own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Understanding yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Understanding people of other racial and ethnic backgrounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Solving complex real-world problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Developing a personal code of values and ethics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Contributing to the welfare of your community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Developing a deepened sense of spirituality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12 Overall, how would you evaluate the quality of academic advising you have received at your institution?

Excellent

Good

Fair

Poor

13 How would you evaluate your entire educational experience at this institution?

Excellent

Good

Fair

Poor

14 If you could start over again, would you go to the *same institution* you are now attending?

Definitely yes

Probably yes

Probably no

Definitely no

15 Write in your year of birth:

16 Your sex:
 Male Female

17 Are you an international student or foreign national?
 Yes No

18 What is your racial or ethnic identification? (Mark only one.)
 American Indian or other Native American
 Asian, Asian American, or Pacific Islander
 Black or African American
 White (non-Hispanic)
 Mexican or Mexican American
 Puerto Rican
 Other Hispanic or Latino
 Multiracial
 Other
 I prefer not to respond

19 What is your current classification in college?
 Freshman/first-year Senior
 Sophomore Unclassified
 Junior

20 Did you begin college at your current institution or elsewhere?
 Started here Started elsewhere

21 Since graduating from high school, which of the following types of schools have you attended other than the one you are attending now? (Mark all that apply.)
 Vocational or technical school
 Community or junior college
 4-year college other than this one
 None
 Other

22 Thinking about this current academic term, how would you characterize your enrollment?
 Full-time Less than full-time

23 Are you a member of a social fraternity or sorority?
 Yes No

24 Are you a student-athlete on a team sponsored by your institution's athletics department?
 Yes No (Go to question 25.)

On what team(s) are you an athlete (e.g., football, swimming)? Please answer below:

25 What have most of your grades been up to now at this institution?
 A B+ C+
 A- B C
 B- C- or lower

26 Which of the following best describes where you are living now while attending college?
 Dormitory or other campus housing (not fraternity/sorority house)
 Residence (house, apartment, etc.) within walking distance of the institution
 Residence (house, apartment, etc.) within driving distance of the institution
 Fraternity or sorority house
 None of the above

27 What is the highest level of education that your parent(s) completed? (Mark one box per column.)

Father	Mother
<input type="checkbox"/>	<input type="checkbox"/> Did not finish high school
<input type="checkbox"/>	<input type="checkbox"/> Graduated from high school
<input type="checkbox"/>	<input type="checkbox"/> Attended college but did not complete degree
<input type="checkbox"/>	<input type="checkbox"/> Completed an associate's degree (A.A., A.S., etc.)
<input type="checkbox"/>	<input type="checkbox"/> Completed a bachelor's degree (B.A., B.S., etc.)
<input type="checkbox"/>	<input type="checkbox"/> Completed a master's degree (M.A., M.S., etc.)
<input type="checkbox"/>	<input type="checkbox"/> Completed a doctoral degree (Ph.D., J.D., M.D., etc.)

28 Please print your major(s) or your expected major(s).

a. Primary major (Print only one.):

b. If applicable, second major (not minor, concentration, etc.):

THANKS FOR SHARING YOUR RESPONSES!

After completing the survey, please put it in the enclosed postage-paid envelope and deposit it in any U.S. Postal Service mailbox. Questions or comments? Contact the National Survey of Student Engagement, Indiana University, 1900 East Tenth Street, Suite 419, Bloomington IN 47406-7512 or nsse@indiana.edu or www.nsse.iub.edu. Copyright © 2010 Indiana University.

APPENDIX C: COLORADO STATE UNIVERSITY IRB APPROVAL LETTER



Research Integrity & Compliance Review Office
Office of Vice President for Research
Fort Collins, CO 80523-2011
(970) 491-1553
FAX (970) 491-2293

Date: February 3, 2015

To: Michael De Miranda, Ph.D.
Professor, School of Education

Veronica Martinez
Doctoral Student, School of Education

From: Evelyn Swiss, CIP, IRB Coordinator

Re: *Adelante!* From High School to Higher Education: An Analysis of
the Academic Success and Persistence of Hispanic Students
through an Expectancy-Value Framework

After review of information regarding the secondary anonymous data from individuals that you will receive for the above-referenced project, it was determined that the data do not meet the requirements of the federal definition of human subject research. "Human subject means a living individual about whom an investigator conducting research obtains data through intervention or interaction with the individual, or identifiable private information" (45CFR46.102(f)).

Living individual – Y
About Whom – Y
Intervention/Interaction – N
Identifiable Private Information – N

Thank you for submitting this information. If you have more projects that are similar, please contact us prior to submission. The IRB must determine whether a project needs to have IRB approval.