

LATINA/O/X COMMUNITY COLLEGE STUDENT ENGAGEMENT:
A QUANTITATIVE STUDY OF GOAL TO TRANSFER

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ABSTRACT

The Hispanic community within the U.S. has steadily grown over the last few decades. People identifying as Latina/o/x are already the largest minority population and are projected to become 29% of the U.S. population by the year 2050 (Salinas, 2015). Since 1980, the number of school age children within the Latina/o/x community increased from 8.1% to 25%. Additionally, the Latina/o/x student population in states such as California, New Mexico, and Texas has already accounted for more than half of all school children (Gandara, 2017). As these children approach college going years, it is reasonable to assume that the number of students seeking immediate college entry will increase. According to the recent data, 26% of enrolled students (the second largest ethnic population) at over 1,000 community colleges identify as Hispanic (American Association of Community Colleges, 2020). This confirmatory quantitative study sought to test a new hypothetical conceptual model of factors on first-generation and non-first-generation Hispanic community college students. It also sought to go beyond the benchmarks used in the Community College Survey of Student Engagement (CCSSE), to test re-conceptualized CCSSE factors that increase likelihood of not a goal to transfer to a four-year institution. The results indicated that while first-generation students were more likely to indicate a goal to transfer and to have a higher overall GPA, non-first-generation students were more engaged in their community colleges. Further, factors of engagement were predictive of an intent not to transfer to a four-year institution.

DEDICATION

For my parents, Alice and Gerald. Thank you for instilling in me a passion for education and life-long learning. Thank you for providing a supportive and loving home where I was allowed to focus on being a successful student. To my wife, Kay-Lynn. Thank you for your love, encouragement, and your willingness to increase your workload so that I could spend a few years in classes and writing. You are truly my best friend and we did this together.

LIST OF ABBREVIATIONS AND SYMBOLS

B	Beta coefficients
CI	Confidence interval
df	Degrees of freedom
M	Mean
<i>n</i>	Number of cases
p	Significance
R^2	R square
SD	Standard deviation
Exp(B)	Odds Ratio
Wald	Wald test
=	Equal to
α	Cronbach alpha index of internal consistency
+	Plus or higher
%	Percentage or percent
/	Divided by

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CHAPTER I:

INTRODUCTION

Overview

At their core, American colleges and universities have sought to educate and prepare students for research and professional careers, but American society has also turned to higher education to solve social ills, such as racial segregation, unemployment, substance abuse, and wage inequities (Cohen, Kisker, & Brawer, 2013). Since the early 20th century, community colleges have thrived, in large part to this expansion of expectations for the breadth of the potential impacts of higher education. They benefited from not being beholden to the traditions, alumni influence, and institutional philosophies that limited the scope of the four-year institutions (Cohen et al., 2013). In addition, community colleges have also provided a more egalitarian pathway to education and social class advancement than that of their four-year counterparts, many of which historically were only available to White males of high socio-economic status (Metzger, 1961; Shea, 1974). At just over \$3,700 for annual tuition and fees, community colleges are almost one third of the expense of four-year colleges and universities (American Association of Community Colleges, 2020). Increased access to higher education is not, however, where community colleges' responsibility to their communities ends, and there is much work to be done to increase their effectiveness.

The low community college rates for Latina/o/x student completion and transfer to four-year institutions in the United States continue to be cause for concern. There is a significant

underrepresentation of Hispanic students attaining a bachelor's degree in higher education (Fry, 2004). Latina/o/x students are more likely to enroll in less selective or "open door" institutions. Selectivity among institutions correlates to completion of the bachelor's degree. Thus, Latina/o/x students' decision to enroll in less selective institutions and community colleges means that they begin from a much lower trajectory than other student populations (Fry, 2004). This is a complex challenge with several key contributors.

When reviewing data from 2000 to 2012, however, there have been encouraging trends. The number of Hispanic high school graduates enrolling in college has exceeded that of White students in recent years, if even by a slight margin, but there is still much more colleges and universities can achieve in their efforts to increase support for Hispanic students. Hispanic students continue to signal key differences in areas such as academic goals, institutional preference, and competing responsibilities. They are 18% less likely than White students to enroll in a four-year institution, they continue to enroll in less selective institutions, and they are more likely to be enrolled as part-time students (Fry & Taylor, 2013). The underrepresentation could be attributed to poor K-12 academic preparation, institutional reliance upon SAT scores, poor advising by high school counselors, and a lack of knowledge from family members about navigating college entrance and finances (Gandara, 2017; Zell, 2010). When considering these important indicators and systemic barriers to success, it is no surprise that Hispanic students are less likely to complete a bachelor's degree than their White counterparts (Fry & Taylor, 2013).

Higher education in the United States has historically aspired to be democratic and available to citizens regardless of socio-economic class (Graham & Diamond, 1997). Consequently, the education system has become intertwined with income potential. American workers holding an Associate's degree earn almost \$10,000 more per year than workers with a

high school diploma as their highest degree, and workers holding a Bachelor's degree earn more than \$25,000 over high school diploma workers (American Association of Community Colleges, 2020). Considering that the Hispanic population has become the largest minority population and is projected to become 29% of the U.S. population by the year 2050, the economic, health care, education, and government stability of the U.S. are inextricably linked to the well-being of Latinas/os (Salinas, 2015). Since 1980, the number of school age Latina/o/x children increased from 8.1% to 25%, and the Latina/o/x student population in California, New Mexico, and Texas already accounts for more than half of all school children (Gandara, 2017). As these children mature, it is reasonable to assume that the trends of immediate college entry will continue to increase. According to the most recent data from the American Association for Community Colleges, 26% of enrolled students, the second largest ethnic population, at over 1,000 community colleges identify as Hispanic (American Association of Community Colleges, 2020). Further, it has been documented that community colleges have a higher proportion of less well-prepared students academically than baccalaureate-granting institutions (Cohen et al., 2013). Considering the large number of Hispanic students that enroll in two-year colleges as opposed to baccalaureate-granting institutions, community colleges must be prepared to adapt to the quickly changing demographics of their communities and be willing to observe critically the systemic barriers to student success and engagement that may contain unconscious, implicit bias.

An additional identity possessed by many community college students is that of first-generation college student, or the first member of the family to have attended a college or university. Approximately 29% of community college students in 2018 identified themselves as first-generation college students (American Association of Community Colleges, 2020).

Community colleges should be prepared for the next generation of college students that is increasingly of Hispanic descent, and the needs of a changing demographic will likely have different needs and priorities than predominantly White student populations in previous generations.

Ethnic Terminology

The terms Hispanic, Latinx, and Latina/o were used interchangeably and will refer to students at large with Mexican, Caribbean, South or Central American heritage. Latino and Latina will be used when referring to gender differences specific to the culture and where students have self-identified as either Latino or Latina. Some terminology in the literature is culturally specific to gender roles, and therefore is important for a deeper understanding of the context and magnitude of the challenges Latino students face. *Caballerismo* and *machismo* refers to the responsibility to provide for the family that many Latino men experience (Gloria et al., 2017). Familialism or *familismo* is a term used to describe the pressure many Latina women feel when sensing an obligation to serve as a family caretaker (Aguinaga & Gloria, 2015; Castillo, Conoley, & Brossart, 2004; Gloria et al., 2017).

Statement of Problem

The current literature on Latina/o/x community college students, although limited, has effectively communicated the experiences of several students and provides insight into why some students have had an academic experience that is different from their White peers. The research has typically offered a qualitative methodological approach to understanding how Latina/o/x community college students experience and engage their campus communities, but there is a dearth of research that seeks to extrapolate their experience on a national scale (Bukoski & Hatch, 2016; Huerta & Fishman, 2014; Padilla, Brown, & Abrica, 2019; Sáenz,

García-Louis, Drake, & Guida, 2018; Vasquez, Vang, Garcia, & Harris, 2019). Consequently, we cannot confirm that the systemic obstacles, cultural difference, and barriers to success articulated in the student stories in the current body of research are typical of Latina/o/x community college students. Furthermore, we are unable to identify if the engagement strategies that were effective in promoting goals to transfer to a four-year institution and acquiring an Associate's degree in some qualitative studies are successful with Latina/o/x community college students nationally. Additionally, community colleges are geographically placed by the state legislature and, consequently, are also assigned their institutional mission. This designation means that the relationship between how an institution chooses to engage with its students is closely tied to the student enrollment from the local population (Bray, 2018). The importance of geographic location (rural, suburban, and urban) and its impact on community college student engagement and student academic goals is unknown.

Research on the validity of the five benchmarks used in the Community College Survey of Student Engagement (CCSSE) were found to be strongest when determining cumulative GPA, the attainment of academic milestones, and degree completion (McClenney & Marti, 2006). McClenney and Marti also concluded, however, that the strength of the validity was dependent upon student outcome variables (Nora, Crisp, & Matthews, 2011). Given some criticism of the CCSSE benchmarks for failing to capture non-behavioral aspects of the student experience, such as student beliefs, attitudes, and perceptions that are ensconced in Salomon and Globerson's (1987) definition of student engagement (Nora et al., 2011), additional research is needed to move beyond the benchmarks and draw from existing theoretical models.

Statement of Purpose

The rates of Latina/o/x students enrolling in community colleges has continued to increase in recent years, and are likely to continue with the national Latina/o population trends (Fry & Taylor, 2013; Ponjuán, Palomín, & Hernández, 2017). Community college administrators and faculty will need to develop a better understanding of the cultural differences of the Latina/o student population and how background characteristics such as, family support, academic preparation, and learning style might impact the ways in which they engage with their institution (Saenz Nisson, 2017; Sáenz, de las Mercédez, Rodriguez, & García-Louis, 2017; Tovar, 2015a). The purpose of this study is multifaceted and includes four elements of the Latina/o/x community college student and the ways in which they engage with their institutions. First, this study seeks to better understand how Latina/o/x student experiences increase student engagement in the community college through the use of a three year cohort of a national data set from the Center for Community College Student Engagement (CCSSE). Second, this study will seek to move beyond the CCSSE benchmarks and test re-conceptualized CCSSE factors of first-generation and non-first-generation Hispanic community college students of traditional age. Third, the research will test a new hypothetical conceptual model of factors that increase the likelihood of Latina/o/x community college student's goal to transfer to a four-year institution. Fourth, given the paucity of research on Latina/o/x community college student engagement, this study will provide recommendations for effective engagement strategies and further research.

Research Questions

This study aims to describe the characteristics of Latina/o students in community colleges, investigate the impact gender roles have on the student experience, and identify factors

that best predict a goal to transfer to a four-year institution. The literature review addresses the following research questions:

1. What are the background characteristics and engagement experiences of Hispanic students in community colleges?
2. Do factors such as overall GPA, academic knowledge and skills, faculty relationships, academic advising, and helping to cope with non-academic responsibilities differ between first generation and non-first generation Hispanic community college students of traditional age?
3. How do background characteristics, enrollment, transfer student capital, validation, the new engagement constructs, and college culture and emphasis predict a student's goal to transfer to a four-year institution?

Significance of the Study

Community colleges continue to serve as a critical point of entry to higher education for Latina/o students, and community colleges are known to play an important role in the pathway of community college students seeking to continue their education at a four-year institution (Laanan, 2006; Sáenz et al., 2017). This study is significant because it seeks to deepen the understanding of and contribute to the research and literature for Latina/o students seeking higher education and what positively influences their aspirations to attain a four-year degree. Additionally, since much of the research on Latina/o community college students uses a qualitative methodology to measure student engagement, this study will provide a necessary quantitative perspective that will assess student engagement with a much broader scope that accounts for Latina/o/x community college students nationally.

The CCSSE benchmarks consist of active and collaborative learning, student-faculty interaction, academic challenge, student effort, and support for learners that are heavily influenced by Chickering and Gamson's (1987) work on the principles of good practice (Nora et al., 2011). Thorough research has been completed that validates CCSSE as an important and valuable resource to better understand community college student engagement, and this study is significant because it will go beyond the benchmarks to provide an understanding of how culture and other background characteristics impact student engagement and academic goals (; McClenney, Marti, & Adkins, 2012; McClenney & Marti, 2006; Nora et al., 2011).

Conceptual and Theoretical Framework

Conceptual Framework

The hypothetical conceptual model is based on Astin's Inputs-Environment-Outputs (IEO) model (Astin, 1985). The IEO model was used to assess the unique background characteristics of Hispanic community college students and how they interact with the community college environment. Through this assessment, the researcher hopes to learn how the environment can better support Hispanic students in their goal to transfer to a four-year institution. In the model, the inputs (I) refer to the background characteristics and demographics that all students bring to the college experience. The environment (E) facet of the model represents the involvement and engagement opportunities that shape the student experience. Environmental factors could consist of faculty-student engagement, co-curricular involvement, social activities, and much more. The outputs (O) signify a multitude of different student outcomes, such as degree attainment or certificate completion. The ways in which the inputs, environment, and outputs interact represent a unique educational experience for each individual student.

Theoretical Framework

The three theoretical frameworks used in this study were Rendon's Validation Theory (2002), Student Engagement Theory (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007), and Transfer Student Capital Theory (Laanan, Starobin, & Eggleston, 2011). The primary theory used in the study will be Rendon's Validation Theory.

Validation Theory

Rendon created Validation Theory to describe the concept that historically under-represented students, such as minoritized populations, non-traditional students, and working students benefit from encouragement and support while they pursue their academic goals. Hispanic community college students would certainly qualify as at least one of the minoritized populations, and some students will represent multiple identities that are historically under-represented in higher education, such as first generation, female, non-traditional, and working students. The theory is based on the following six elements:

- 1) Faculty and counselors initiating contact
- 2) Building self-confidence
- 3) Increase likelihood of student involvement
- 4) Anyone can validate a student
- 5) Validation is most effective when it is persistent
- 6) Validation is especially important upon student entry

Student Engagement Theory

Although the scholarly work on student engagement and involvement from authors such as Astin, Chickering, Pascarella, Terenzini, Gamson, and others contributed to the knowledge

base in deep and meaningful ways, this study will focus on the contributions of Kuh, Kinzie, Schuh, and Whitt to Student Engagement Theory (2011) which carries forward the work done by Astin in his Student Involvement Theory (Ko, Park, Yu, Kim, & Kim, 2016). Kuh et al. describe student engagement as the time and energy devoted to academic pursuits that build knowledge. Student engagement also refers to the ways in which an institution devotes resources and structures curriculum to promote student learning. The authors describe institutional practices across six categories:

- 1) Living mission and lived educational philosophy
- 2) Unshakable focus on student learning
- 3) Environments adapted to educational enrichment
- 4) Clearly marked pathways to student success
- 5) Improvement oriented ethos
- 6) Shared responsibility for educational quality and student success

Transfer Student Capital (TSC)

Transfer Student Capital (TSC) was developed to better assess the importance of knowledge and skill acquisition in the transfer student process. Laanan initially advanced the concept to acknowledge the value and different forms of capital that students accumulate while enrolled in community college (Laanan & Jain, 2016). The model was designed to recognize the community and cultural wealth possessed by the large proportion of first generation, low income, and racial minorities (Laanan & Jain, 2016; Laanan et al., 2011). TSC was later expanded to include seven constructs to assess social and cultural capital of community college students (Moser, 2012). The constructs include the following:

- 1) Academic counseling
- 2) Learning and study skills
- 3) Experiences with faculty
- 4) Faculty interaction
- 5) Financial knowledge
- 6) Mentor relationship
- 7) Motivation and self-efficacy

The theory of TSC is an important tool for community colleges because the higher the TSC a student possesses and the more effective a community college is at supporting and validating that capital, the more likely a student is to successfully transfer to a four-year institution (Laanan, F. S., 2007). The use of TSC will help the researcher validate the importance of Hispanic community college students' acquisition of knowledge when seeking to transfer to a four-year institution.

Definition of Terms

The following definitions were used for the purposes of this study:

Benchmarks: Groups of conceptually related survey items that focus on institutional practices and student behaviors that promote student engagement and that are positively related to student learning and persistence.

Community college: Two-year or technical institutions granting less than two-year certificates, an Associate of Arts, Associate of Science, Associate of Applied Sciences, or Associate of General Studies.

Community College Survey of Student Engagement (CCSSE): A national survey instrument of two-year colleges designed to measure levels of student engagement.

First-Generation College Student: For the purpose of this study, a first generation student is considered someone whose mother or father did not attend at least some college.

Student engagement: A term used to describe the time spent by students in educationally purposeful activities.

Validation: a theoretical model that suggests college students, particularly under-represented populations, benefit from affirming and encouraging relationships inside and outside of the classroom (Rendon, 2002).

Chapter Summary and Dissertation Outline

This study examined the student engagement factors that positively affected the academic goal of transferring to a four-year institution. Through an examination of a three-year cohort of national data, the researcher was able to identify how the background characteristics, unique to Hispanic community college students, impacts student engagement. In an effort to move beyond the CCSSE benchmarks, this study tested re-conceptualized factors of student engagement that informed recommendations for community college faculty and administrators seeking to increase academic goal attainment. Chapter 2 provides a thorough review of literature on topics related to Hispanic students, the CCSSE instrument, first generation students, and student engagement. Chapter 3 details the methodology and research design employed by the researcher. More specifically, this chapter describes the research questions, population and sample, instrumentation, data analysis, ethical considerations, delimitations, and limitations of the study. The detailed findings and data analysis are presented in Chapter 4. Lastly, Chapter 5 comprises a summary of the results of the research, and provides commentary on the impact of the study, implications for practice and future research, and recommendations for future research.

CHAPTER II:

REVIEW OF LITERATURE

Overview

This chapter focuses on the review of literature related to Latino/a/x student engagement in higher education. This study sought to analyze effective engagement strategies that increase the academic goal of transferring to a four-year institution. In order to assess effective strategies, it is also important to understand the cultural, societal and systemic barriers that exist for Latina/o/x students.

The review of literature allows for a deeper understanding of Latina/o/x characteristics and potential factors that may influence the student experience. The review of published articles, books, and dissertations seeks to reveal gaps in the literature and opportunities for greater understanding of the challenges Hispanic students face in attending college. Additionally, the study will provide recommendations for increasing student persistence and academic achievement. The literature review for this paper incorporated search patterns and terms in Scout, ERIC EBSCOhost, JSTOR, PsycINFO and Google Scholar databases. Terms used in the search process included the following: (a) “Latinos or Latinas or Hispanics in Community College” and (b) “Latinos or Latinas or Hispanics in Higher Education”. A review of the search terms in ERIC EBSCOhost yielded 177 articles published between 2004 and 2020. Articles were deemed relevant to this study based on their focus on student access, persistence, and barriers to

success. Some additional articles written before 2004 were included in the study based on their importance to the body of knowledge and theoretical concepts (Hurtado, Carter, & Spuler, 1996; Pascarella & Terenzini, 1980). By synthesizing themes from the literature on Latina/o/x students, the paper aims to add to the scholarly consensus on the strategies that are most effective at creating a campus community inclusive of the needs of Hispanic students that promotes academic persistence.

This chapter synthesizes the literature into five sections. First, the researcher will discuss the background, purpose, value, and criticism of the American community college. Second, he will take into account Latina/o/x student backgrounds and forms of engagement. This section describes the background characteristics, engagement experience, and educational aspirations seen in Hispanic students in higher education, particularly in a two-year setting. The third section draws attention to persistence and academic success with particular emphasis on validation and encouragement, environmental impact, and support services. Fourth, this chapter draws awareness to gender, family, and employment roles that are unique to Latina/o/x culture and the ways in which those variables interact with the student engagement experience. Next, this chapter will review the three theories that are being tested, from which the lens was developed and utilized to conduct this study. The penultimate theme discussed examines what the literature says about CCSSE. The researcher examines the literature for the ways in which previous research using CCSSE data were conducted, and identifies extent criticism of the instrument. Lastly, the chapter will assess the literature on first-generation college students.

American Community Colleges

Since the early part of the 20th century, community colleges have been multi-dimensional and broadly purposed. Initially, community colleges were tasked with social accountabilities

such as training an expanding industrialized workforce, caring for an extended adolescent developmental period, and providing upward social mobility (Cohen et al., 2013; Shea, 1974). Over the next 100-plus years, American society continued to turn to the nation's community colleges to address social concerns. Racial segregation, unemployment, substance abuse, and continued wage inequities have all emerged as points of emphasis for the community college mission (Cohen et al., 2013).

For decades, scholars have debated the effectiveness and value of community colleges. Critics of the two-year degree argue that the community college re-enforces social stratifications instead of creating a more egalitarian form of higher education that leads to upward social mobility (Karabel, 1986). Karabel referred to this notion of low-income students enrolling in community colleges and high-income students enrolling in selective institutions as *tracking* (1986). Another critic of the community college, Dougherty (2001) acknowledged the critical importance of the community college to the American educational system, but also questioned whether or not declines in transfer to a four-year institution warranted community colleges' shedding university preparation from their mission lists. Even in community colleges' service to minoritized populations, a characteristic most scholars tout as a strength and an asset to the educational system, some scholars still highlight the low degree completions among minorities and first-generation college students (Huerta & Fishman, 2014).

Proponents of the approximately 1,100 community colleges argue that the adaptability and inclusivity of the community college system is part of what distinguishes the U.S. as a champion for education. It is indisputable that two-year colleges not only educate almost half of all college-going students, but they also serve high percentages of first generation college students, ethnic and racial minorities, and low-income students (Laanan, 2003). Through his

research on academic aspirations, Laanan points to the one-third of community college students that indicate a goal to obtain an associate degree and the more than one-quarter of students that state a goal of aspiring to a bachelor's or master's degree (Laanan, 2003). A recent study shared findings that the perception of the two-year institution may be improving among college students. One qualitative study found that its participants viewed the two-year institution as a superior option to the four-year institution (Padilla et al., 2019). The participants continued to say that factors such as diversity, affordability, and myriad pathways to well-paying careers influenced their perspective of the community college being the most desirable educational pathway.

Student Background and Engagement

Poor academic preparation, a lack of college guidance, college admission departments that are overly dependent upon standardized test scores, and student financial insecurity are all factors that have been attributed to the underrepresentation of the Hispanic community in higher education (Barnett, 2010; Zell, 2010). Zell also states that a theme among students was a general feeling that while college was an aspiration, Latinx students believed that college was not a place where they belonged (2010). Feeling as though the money was not available or that college was only for top students caused some students to delay college entry or opt for a more accessible community college experience (Zell, 2010). As important as student perceptions of their access to education are, inequities in access to academic resources, academic preparation, transfer guidance, and degree progression were also legitimate considerations that limited enrollment (Tovar, 2015b). Negotiating family responsibilities, a challenging matriculation into college, and the rigor of academic responsibilities proved to have a harmful effect on students (Tovar, 2015b).

The Pew Hispanic Center has provided valuable demographic data and trends to provide an illustration of the education landscape across the U.S. (Fry, 2004; Fry & Taylor, 2013). In 2012, Hispanic high school graduates immediately enrolled in college at a record rate of 69%, which was two percentage points higher than their White counterparts and was up from 54.2% in 2005 (Fry & Taylor, 2013; Greene, Marti, & McClenney, 2008). While those numbers are encouraging, Hispanics are still less likely to enroll in a four-year institution, less likely to enroll in a selective institution, and less likely to enroll as a full time student (Fry & Taylor, 2013). While academic preparedness has already been stated as an issue for this community, this lack of readiness cannot account for the disproportionate underrepresentation of Latina/o/x students in baccalaureate programs (Tovar, 2015b). Fry states that some of the factors that influence the path Hispanics students take to post-secondary education and degree completion include delayed college entry, financial responsibilities to the family, and living away from campus (2004). Community colleges offer Latina/o/x students a lower cost option that is often closer to family and can accommodate a working student. The two most important factors that negatively impact Latina/o/x students are enrollment in less selective institutions with low rates of degree completion and a campus environment typically oriented to the historic White student majority (Fry, 2004). A scarcity of jobs during the economic recession and a greater sense of importance placed on education by Hispanic families may be causes for an increase in retention (Fry & Taylor, 2013).

Several studies cited the importance of student-faculty engagement in the community college environment and its influence on Latina/o/x students' intent to persist, actual persistence, and academic success (Cejda & Hoover, 2011; Greene et al., 2008; Tovar, 2015b; Zell, 2010). Engagement is a broad term encompassing the time spent by students in educationally purposeful

activities, and it is said to have a positive correlation to desirable outcomes (Greene et al., 2008). Hispanic students, along with African American students, are said to be more engaged students than their White counterparts (Greene et al., 2008). Community college faculty that demonstrated a knowledge, appreciation and sensitivity for Hispanic culture were able to more successfully establish relationships with their students (Cejda & Hoover, 2011). Cejda and Hoover note that some sub-cultures within the Hispanic community cause students to be suspicious of authority figures, and thus it can be challenging for faculty to gain the trust of their Hispanic students (2011). One article revealed that increased interaction with faculty outside of the classroom did not impact intent to persist to goal completion; however these interactions had a positive influence on student GPA (Tovar, 2015b). Perhaps that type of engagement and level of commitment from faculty can account for some of the variance in the results. Some community college faculty have demonstrated a commitment to extending classroom experiences into the community, and thus have made the material more relevant to the lives of the Hispanic students they teach (Cejda & Hoover, 2011). When one community college faculty member observed Hispanic students talking at the beginning and end of class, it was understood that the students were building a support network. Rather than forcing these students to conform to the precise start and stop times, the faculty member embraced flexibility, and in the process, developed an atmosphere in which Hispanic students were more engaged in the class. Additional indicators of Hispanic students as social learners were illustrated by a preference for group projects and collaborations as opposed to individual and competition-based class assignments. It is not surprising that these social learners would also be better motivated by recognizing the achievements of the class over individual accomplishments (Cejda & Hoover, 2011). Zell confirmed earlier findings that positive interactions with faculty positively influenced persistence

and educational satisfaction (2010). Hispanic students were sought out by faculty inside and outside the classroom for academic challenges, personal issues, and navigating the college landscape. These positive interactions and relationships led to students viewing faculty as role models (Zell, 2010). Two studies that were researched cited that while there was a lack of Latinx faculty at the institutions studied, the students successfully formed relationships with diverse faculty and the lack of Latinx faculty did not negatively impact the students (Cejda & Hoover, 2011; Zell, 2010).

Engagement with student support services and counselors had a significant impact on Hispanic student success and intention to persist in community colleges (Tovar, 2015b). Not all impacts were positive, however. Some Hispanic community college students were frustrated by advisors that were seen as disappointing and unhelpful (Zell, 2010). Poor advising on the requisite courses for transfer, lack of awareness of students' interests, inaccurate data on financial aid, and a general lack of interest in helping have frustrated community college students (Ornelas & Solorzano, 2004; Zell, 2010). Zell highlights advisors associated with TRIO programs for their commitment to visiting colleges, identifying scholarships, and connecting with the TRIO programs at prospective colleges (Zell, 2010). When Hispanic students increase their engagement levels they also see increases in achievement and persistence (Greene et al., 2008).

Persistence and Academic Success

When reviewing factors that have influenced Latinx community college students' persistence to degree and/or academic success, three sub-themes emerged from the literature: (1) the level of encouragement received by students; (2) the level of cultural distress experienced by students as a result of the environment; and (3) the degree to which student services provided

student support. While there was some consistency in the sub-themes across the literature, the discussion focused on the impact of both the presence and absence of each factor on the Hispanic community college student.

Validation and Encouragement

As was stated previously in this paper, Hispanic community college students have been characterized as social learners in that they have generally demonstrated a preference for collaboration and forming relationships that serve as a support network (Cejda & Hoover, 2011). Community college faculty that have invested in engendering these relationships have been able to provide encouragement through consistent and frequent feedback and small celebrations (Cejda & Hoover, 2011). Pedagogical strategies of encouragement that faculty have found particularly effective include having students share their culture when discussing relevant social issues, practical applications of materials, and journaling exercises that promote reflection (Cejda & Hoover, 2011). Multiple authors cited Rendon's work on validation theory as a significant strategy to positively affect college transition, development, and persistence among minority students (Barnett, 2010; Cejda & Hoover, 2011; Rendon, 2002; Tovar, 2015b). Failure by faculty members to be flexible in their teaching style can lead to a classroom environment that detaches the student from the learning (Rendón, 2009). Since Latina/o/x faculty are disproportionately underrepresented compared to White faculty, a diverse faculty willing to commit to personal reflection, personal accountability, and personal investment in educating themselves to effectively mentor a diverse student population will help mitigate faculty from creating a mentoring experience that is racialized for the student and promotes cultural deficit thinking (Figueroa & Rodriguez, 2015).

In addition to faculty and other institutional actors seeking opportunities to engage students, formal programs designed to connect Hispanic community college students with mentors can influence persistence by allowing the student to build social capital through social networks (Tovar, 2015b). Practices such as emphasizing the students' academic journey, or lived experience, and a commitment to serving as a champion for mentees are among the practices that effective and supportive advisers incorporated into their mentoring relationships (Figueroa & Rodriguez, 2015). Ornelas and Solorzano (2004) indicate that the interest and investment from faculty and other institutional agents in Hispanic students creates a role model effect that is important for many students, but first generation students in particular.

Environmental Impact

The literature highlighted both the positive and negative effects the environment has on Latina/o/x students. In negative scenarios, college students may be criticized for missing class when attending to family or work responsibilities (Aguinaga & Gloria, 2015). This failure to account for cultural differences from the expectations of a predominantly white institution's academic structure places Latina/o/x students at a distinct disadvantage. Not surprisingly, Hispanic students with a high ethnic identity, or students that are less acculturated into White-dominant society, had higher instances of negative perceptions of their respective institutions (Aguinaga & Gloria, 2015). In campus communities that have historically been White-centric, some Hispanic students have reported feeling marginalized by differences in language, culture, gender, and socio-economic status (Rodriguez & Blaney, 2020). Latino males have reported hostile environments in which micro-aggressions and micro-assaults characterize their experience inside and outside of the classroom (Gloria et al., 2017). Latina students have also

reported both racism and sexism as barriers to a sense of belonging within campus life (Rodriguez & Blaney, 2020).

Offering opportunities to engage in food, music, and religious services that are more consistent with Latina/o/x cultures can create environments that can have a significant impact on persistence and positive attitudes to the institution (Aguinaga & Gloria, 2015; Gloria et al., 2017). Furthermore, the development of learning communities in community colleges allows faculty to create a positive and inclusive environment that allows educators to be flexible with class start and stop times, assignment due dates, and the frequency and type of evaluations. Some Latina students have reported reframing their experience as helpful. Rather than outsiders or interlopers, these students identified themselves as trailblazers (Rodriguez & Blaney, 2020). Additionally, Latina students in the same study indicated that identity-based student organizations helped them find supportive communities. Providing these types of academic settings in which students can collaborate and support one another is particularly effective in battling low self-confidence in a community college setting (Cejda & Hoover, 2011).

Support Services

There was consistency across the literature in calls for community colleges to demonstrate a commitment to developing a welcoming student engagement experience and assisting students with the transfer process (Aguinaga & Gloria, 2015; Gloria et al., 2017; Harris, 2017; Tovar, 2015b; Zell, 2010). Deploying financial resources was frequently advanced as a solution, although the recommendations for how to use those funds varied. One recommendation focused on the personal development of the student (Aguinaga & Gloria, 2015). By offering students trainings and workshops designed to build self-efficacy and self-awareness, students are thought to be more empowered to advocate for themselves. Another recommendation centered

on the responsibility of the institution to develop transparent practices about the services they offer to Latinx students (Aguinaga & Gloria, 2015; Cejda & Hoover, 2011; Gloria et al., 2017). Funding programming, services, and cultural spaces communicates an investment in the Hispanic community and can increase congruence between institutional values and personal values, which have been shown to positively correlate with degree persistence. The final priority concentrated on recruiting and training academic advisors and counselors that recognize the importance of assisting with Latina/o/x students with financial aid, scholarships applications, navigating the transfer process, and developing an academic plan (Cejda & Hoover, 2011; Harris, 2017; Zell, 2010).

Considerable research is also being done around the effectiveness and value of mentoring practices in colleges (Figueroa & Rodriguez, 2015; Huerta & Fishman, 2014; Ponjuán et al., 2017; Rodriguez, Lu, & Bartlett, 2018; Sáenz et al., 2018; Sanchez, Huerta, & Venegas, 2012). Mentors are typically described in the literature as faculty members, academic advisors, and Latina/o/x leaders at large (Rodriguez & Blaney, 2020; Saenz & Ponjuan, 2009; Sáenz et al., 2018). Through formal and informal methods, mentors provide students with the necessary culturally relevant support, campus navigation, and transfer guidance that can create self-efficacy and a strong sense of belonging (Bensimon & Dowd, 2009; Sáenz et al., 2018).

Gender and Family Roles

The cultural relevance of the Hispanic family and the roles and relationships many Hispanic students have within their respective families is an important part of understanding and supporting this student population. For many Hispanic students, family and employment are regarded as their first and second most important responsibilities. Education is prioritized as a distant third, and thus, Latinx students will frequently sacrifice class attendance or assignments

in favor of higher priorities (Cejda & Hoover, 2011). The role and importance of the family is undeniable; however, the impact of family on student success, retention, and persistence to goal completion is complicated and inconsistent. Some authors reference the expectations many Latina/o/x families place upon their students to provide childcare, elder care, and financial support to both immediate and extended family (Cejda & Hoover, 2011; Harklau, 2013). Although some articles focused on the experience of Hispanic students at four-year institutions, parallel experiences can be drawn to community college students. One author references a student attending to family issues instead of academic responsibilities (Aguinaga & Gloria, 2015). Another article describes the pressure to provide financial support (*caballerismo*) that many Latino male students experience (Gloria et al., 2017). Gloria et al. characterize this pressure for males to either forego immediate college entry or to stop-out as a rite of passage for many Latinos (2017). Latinas also experience family and employment pressures. *Marianismo*, or the notion that Latina women should be family-centric and passive, are among the cultural norms that can create conflict between Latina students and their academic goals (Rodriguez & Blaney, 2020). The power and impact of the Latino family is undeniable, but meaningful influence is also evident when considering the factors that promote persistence to goal completion.

For many Hispanic community college students, family members have a primary role in students' success. Students have reported feeling loved and supported when transferring from the community college to a four-year institution (Harris, 2017). Providing transportation for campus tours and rides for regular course attendance were meaningful and tangible ways family members demonstrated support for academic goals and were viewed as key to academic success (Castro & Cortez, 2017; Harris, 2017; Zell, 2010). In one study, Latina students emphasized the important role partners played in persistence to degree (Zell, 2010). Zell points out that some

husbands and boyfriends were credited for postponing their own educational ambitions to support their partners (2010). Emotional support and validation were broadly identified as the reasons Hispanic students enroll in community colleges and why they persist to goal completion (Barnett, 2010; Castro & Cortez, 2017; Cejda & Hoover, 2011; Zell, 2010). The familial factors that influence student academic success are not necessarily two distinct experiences within the Latinx community.

In Linda Harklau's article about one Latina community college student's educational journey, the author captures the tension experienced when some students feel the obligations of meeting family responsibilities combined with strong familial love, support, and encouragement (2013). The encouragement and validation from family was present for the student featured in the article; however, the pressures to perform academically without letting coursework impact family responsibilities resulted in frustration. The student saw income from a job as a path to increased independence and decision making. In this case, the student experienced both validation and cultural norming from her family, but ultimately, the cultural norms and the opportunity to have more freedom in her decision making led to the student stopping out (Harklau, 2013).

Theory

Validation

The value many authors have placed on encouragement and validation has emerged in a variety of contexts throughout this paper. When discussing faculty–student engagement, it was evident that faculty who demonstrated an appreciation for Hispanic culture and created an affirming relationship with Latinx community college students promoted student participation and student confidence (Cejda & Hoover, 2011). Connecting Hispanic community college

students to mentors that can validate their experience and help them navigate the academic experience has been encouraged as a programmatic best practice, as well as an effective strategy for community college faculty (Ornelas & Solorzano, 2004; Tovar, 2015a). I have also highlighted the important role family plays for Hispanic community college students. Emotional support, transportation, guidance, mentoring, financial support, and encouragement were all cited as forms of family support that were key to student success, self-confidence, and persistence to goal completion (Castro & Cortez, 2017; Cejda & Hoover, 2011; Harklau, 2013; Harris, 2017; Zell, 2010). Harris emphasized the value for validation by encouraging community college faculty to enlist family support to work alongside the community college to strengthen the transfer pathway from community college to four-year institutions (2017). With so much emphasis on validation theory, what exactly is it? It is the concept that college students, particularly non-traditional populations such as first-generation, Latina/o/x, low-income, working, and/or adult learners, benefit from relationships that affirm, encourage, and support them inside and outside of the classroom (Rendon, 2002). Validation theory has six elements: (1) the responsibility for initiating contact is on the faculty and counselors; (2) develop self-confidence; (3) increase likelihood of student involvement; (4) almost anyone with whom the student has a relationship can validate the student; (5) validation is most effective when it is happening multiple times over the course of the academic experience; (6) validation is key as a student is entering into the academic community (Rendon, 2002). Puente Community College sought to increase the connection between theory and sample populations through an initiative to improve engagement between Latina/o/x community college students and an English department faculty member, a counselor, and a mentor (Rendon, 2002). Given the importance placed on

non-traditional student populations in the community college setting, validation theory provides a natural application and weaves into it many of the strategies articulated in the literature review.

Student Engagement

In addition to validation theory, student engagement theory is a core framework for both the CCSSE as well as its forerunner the National Survey of Student Engagement (NSSE). As previously stated, the higher rates of low-income, first-generation, and working students in community colleges compared proportionally to four-year institutions likely means that student engagement looks very different on a two-year campus. Working students already have difficult choices to make as they balance competing responsibilities. Student engagement should not be a luxury for any student, but for working students and students with familial responsibilities, student engagement opportunities are a luxury that they often cannot afford. Students across the higher education landscape that find meaning through campus involvement activities such as athletics, on-campus employment, social organizations, and fine arts are more satisfied with their respective institutions and are less likely to see stopping out or dropping out as a viable option (Quaye & Harper, 2014).

NSSE characterizes student engagement as an umbrella term rather than a singular construct. It is a term with roots to Tyler's service studies in the 1930s, Pace's quality of effort in the 1980s, Astin's student involvement theory in the 1980s and 1990s, Tinto's theory of academic and social integration in the late 20th century, Pascarella's general causal model, Chickering and Gamson's common sense principles, and others (National Survey of Student Engagement, 2013). While defining engagement has taken different iterations over the last several decades, Kuh, Kinzie, Buckley, Bridges, and Hayek define student engagement in two ways (2007). First, student engagement is defined as the amount of time and energy a student

devotes to educationally purposeful practices that promote student learning and development. Second, student engagement is characterized by how an institution uses its resources and develops its curriculum and support services to promote student learning and achievement of desirable outcomes (Kuh et al., 2007).

The forerunner to CCSSE, the National Survey of Student Engagement (NSSE), cites a lineage of scholars that contributed to grounding the survey in a collection of theories (National Survey of Student Engagement, 2013). CCSSE extends the work of NSSE by surveying students at the community college level, and thus uses a consistent definition for student engagement based on many of the same scholars (Marti, 2008).

Transfer Student Capital

Transfer Student Capital (TSC) was developed to better assess the importance of knowledge and skill acquisition in the transfer student process. Laanan initially advanced the concept to acknowledge the value and different forms of capital that students accumulate while enrolled in community college (Laanan & Jain, 2016).

Transfer Student Capital (TSC) is used to evaluate the variety of factors such as the relevance and importance of acquiring the knowledge and skills that aid students in the transfer process to a four-year institution (Laanan et al., 2011). Since TSC was designed for historically marginalized student populations such as first-generation college students, students from low socio-economic communities, and ethnic minorities, it is an ideal model to determine what Latina/o/x student experiences might have an impact on students' goal to transfer to a four-year institution (Laanan et al., 2011). Similar to Yosso's (2005) community cultural wealth, Laanan's TSC model was initially designed to move away from deficit laden research and move toward recognition of the large proportion of first-generation, low-income, racial and ethnic minorities, and the wealth that

is accumulated during the community college experience (Laanan & Jain, 2016; Laanan et al., 2011). In a later study, Moser (2012) carries forward Laanan's TSC model to include seven additional constructs that assess social and cultural capital of community college students (Moser, 2012). The constructs include the following:

- 1) Academic counseling
- 2) Learning and study skills
- 3) Experiences with faculty
- 4) Faculty interaction
- 5) Financial knowledge
- 6) Mentor relationship
- 7) Motivation and self-efficacy

Community colleges that help students find meaningful ways to engage across these constructs can increase their TSC. The higher the TSC a student develops, and the more effective a community college is at supporting and validating that capital, the more likely a student is to successfully transfer to a four-year institution (Laanan, 2007). The use of TSC will help the researcher validate the importance of Hispanic community college students' acquisition of knowledge when identifying their academic goals – specifically, the goal to transfer to a four-year institution.

CCSSE

A review of literature on the role CCSSE data has played in scholarly research was conducted for this study. The literature review revealed a series of overlapping themes. Target populations of several publications were consistently focused on minorities (Black and Latino)

and males. The factors clustered around themes such as academic outcomes, faculty interactions, socialization, and the CCSSE benchmarks.

Some authors used CCSSE data to complement the body of qualitative research done on minority male community college students (Martinez, 2018; Wood & Palmer, 2016). Wood and Palmer's (2016) study on Black community college men found that, among other factors, social integration positively predicted intent to transfer to a four-year institution. Martinez's (2018) study focused on the generational differences of Black and Latino community college males. The study revealed that while generational status was not a significant factor of social engagement for minority males, race and ethnicity were a significant factor for social engagement. Specifically, the study found that Black and Latino males had higher mean scores for the active and collaborative learning and social engagement benchmarks.

While not specific to community college males, the importance of faculty interactions continued in a study by Lundberg, Kim, Andrade, and Bahner (2018) with a population limited to Latina/o. The authors determined frequent, high-quality discourse between faculty and Latina/o community college students was a strong contributor to student learning, regardless of gender. The strongest predictor of student learning was when faculty challenged their students to meet expectations (Lundberg et al., 2018).

Similarly, another study measured the ways in which student socialization shapes educational expectations and how expectations and socialization experiences relate to educational progress (Wang, 2016). The results of this study revealed that the sources of socialization had a strong impact on both aspirations to transfer to a four-year institution and to obtain a credential, but the sources of socialization were distinctly different for the two most prominent community college goals. Additionally, the sources benefiting one goal actually had a

negative influence on the other, and vice versa. Wang (2016) found that academically centric socialization (academic services and course-related activities) increased aspirations to transfer, while decreasing the likelihood of completing a credential. Conversely, she discovered that socialization with faculty outside of class and strong interpersonal relationships on campus positively influence aspirations to complete a credential while negatively impacting a goal to transfer. The author concludes that a broad and robust array of socialization is advisable for community colleges seeking to serve a diverse set of educational expectations (Wang, 2016).

Greene, Marti and McClenney's (2008) study centers on the engagement experiences and academic outcomes of Black and Hispanic community college students. The authors find that although both Black and Hispanic students indicate higher levels of social engagement than their White student peers, they also demonstrate lower levels of academic achievement. The study claims that the lower levels of academic outcomes are not related to lower levels of effort, but rather suggest other factors such as institutional barriers, systemic racism, under-preparedness, and other contributing variables (Greene et al., 2008).

Some researchers have been critical of the CCSSE instrument. Nora, Crisp, and Matthews (2011) questioned the validity of the study based on the lack of testing outside of CCSSE staff researchers. Understanding that student engagement studies such as NSSE and CCSSE have been used by policy makers and boards of trustees (against the recommendation of CCSSE) as a measuring stick for quality and overall effectiveness, the authors established their own survey to test the validity of the five CCSSE benchmarks. In their findings, they argue that some items nested within the constructs may be misspecified and therefore create flawed data when measuring the constructs (Nora et al., 2011). To account for these misspecifications, the authors propose a new model of reconceptualized constructs that includes factors they argue are

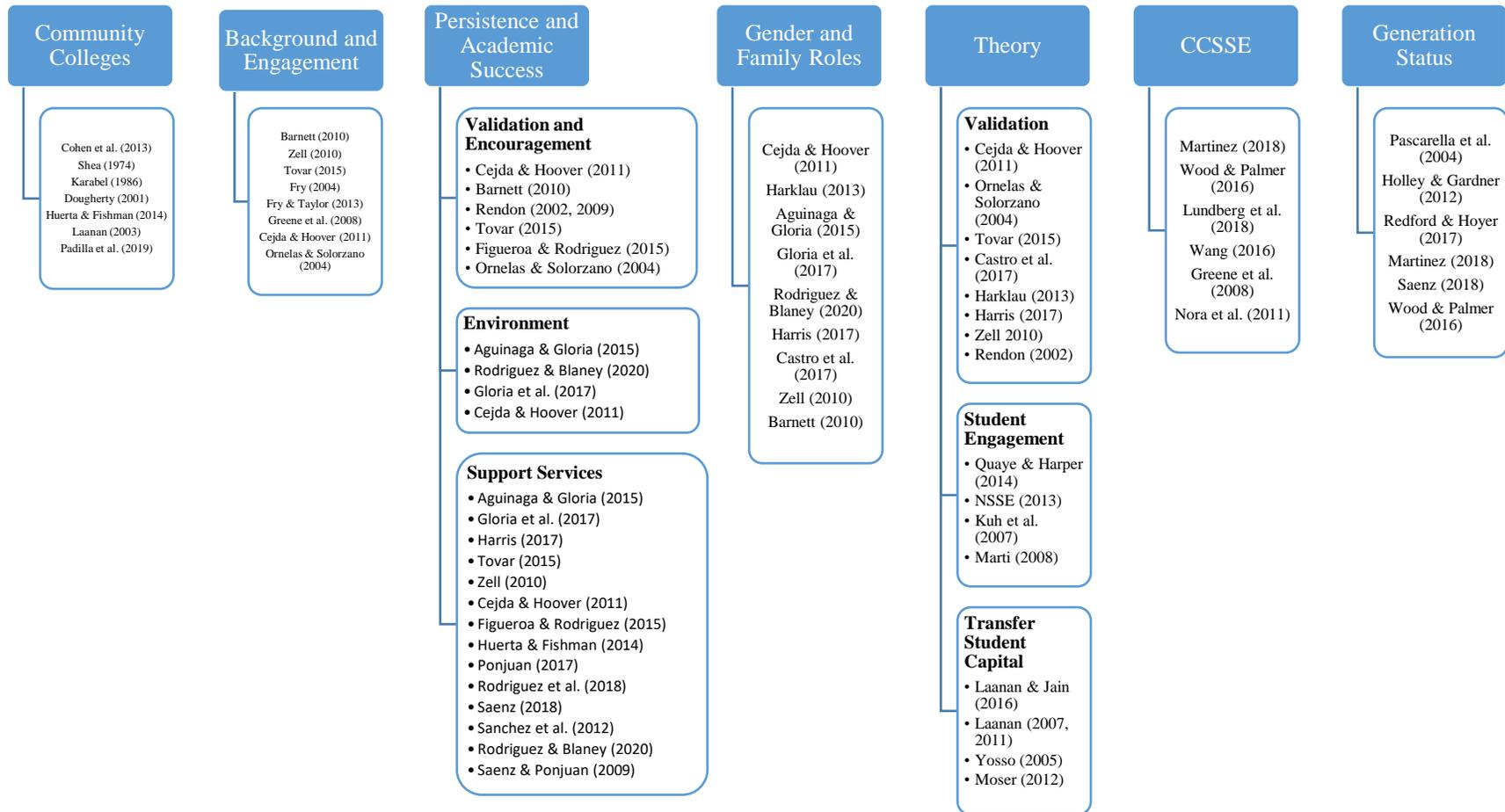
missing from the CCSSE instrument. Specifically, the reconceptualized model factors include non-behavioral aspects such as student beliefs and attitudes, which can be just as impactful on students' classroom experiences and academic outcomes (Nora et al., 2011).

Generational Status

Among the many characteristics attributed to the proportionally high numbers of demographic data on community college students is that of generational status. Unlike most other demographic data, defining what it means to be a first-generation college student is inconsistent in the literature. Perhaps the most commonly ascribed definition is that of a student from a family in which neither parent attended a post-secondary institution (Pascarella, Pierson, Wolniak, & Terenzini, 2004). This definition also happens to be the one used by CCCSE, and thus will be the definition used by the researcher in this study. It is important to note, however, that generational status can also consider if siblings have attended college, or if one or more parents attended some college but did not necessarily obtain a credential or degree (Holley & Gardner, 2012; Redford & Hoyer, 2017).

Regardless of how they are defined, first-generation college students face challenges that are consistently documented (Holley & Gardner, 2012; Martinez, 2018; Redford & Hoyer, 2017; Sáenz et al., 2018). Of particular interest was the study conducted by Sáenz et al. (2018) that focused on first-generation Latino male community college students. The authors found that first-generation status, when coupled with academic preparedness, resulted in significant challenges for Latino community college students. Literature has shown that non-first-generation college students are more likely to transfer to four-year institutions (Wood & Palmer, 2016) and have fewer barriers thanks to navigational capital aspects such as access to college experiences and information (Sáenz et al., 2018).

Figure 1. Literature Map



CHAPTER III:
METHODOLOGY

Overview

The primary purpose of this study is to use a national dataset to examine the background characteristics and experiences of Latina/o community college students and to test a new hypothetical conceptual model to increase the likelihood of a Latina/o community college student's goal to transfer to a four-year institution.

The researcher will focus the study on the dependent variable of the goal to transfer to a four-year college or university. Of key interest to this study will be the unique cultural difference among Latina/o/x students that influences their academic aspirations and how their college experiences may correlate their intentions to transfer to a four-year institution. The findings of this study will influence community college administrators and faculty to implement effective engagement strategies that increase educational opportunity for Latina/o/x community college students.

This chapter describes the researcher's epistemological approach and research design, and it outlines research questions, the population, the survey instrument, reliability and validity, variables in the study, data management, and method of data analysis for the quantitative study. The chapter concludes with ethical considerations, delimitations, and limitations of the study.

Epistemology

This study is limited by the epistemological approach of the researcher and his associated beliefs that guide his decision making on research design (Calabrese, 2006; Creswell & Creswell, 2018). The researcher's epistemology or philosophical worldview is best characterized as postpositivist, thus believing that causes most likely determine outcomes (Creswell & Creswell, 2018). By reducing an idea to variables in research questions, the postpositivist researcher is able to develop an understanding through close observation and measurement of an instrument (Creswell & Creswell, 2018). By testing the theoretical frameworks of this study, the researcher will develop a better understanding of the most effective engagement strategies for Latina/o community college students for increasing transfer as a goal.

Research Design

The researcher will use a quantitative research design for this study. An *ex post facto* survey research design will be employed to assess the relationship between Latina/o community college student engagement experiences and their academic goals. An *ex post facto* survey design, or causal-comparative approach, will be implemented over experimental, historical, or normative surveys. *Ex post facto* allows for a complex setting in which several natural occurring factors are influencing one another (Lord & Syracuse City School District, Ny., 1973). Additionally, this design allows the researcher to work back from educational outcomes to predictors (Jackson, 2010). The survey design "tests for associations among variables of a population, by studying a sample of that population (Creswell & Creswell, 2018). The survey used will help the researcher determine the relationships between the variables and will also help identify predictive relationships between variables, such as the academic goal to transfer to a four-year institution, of a population of Latina/o community college students. Using a survey

design with a large sample population will allow for needed generalizations of the population to complement a plethora of rich qualitative studies on individual experiences.

The survey used for this study was the Community College Survey of Student Engagement (CCSSE). The CCSSE data represents a full national data set from a three-year cohort between 2014 and 2016. The survey consists of a variety of questions aimed at collecting information, such as demographic data, background characteristics, and experiential data. The survey questions are focused on community college practices and student behaviors, such as engagement in coursework, with peers, and with college faculty and staff (The Center for Community College Student Engagement, n.d.b).

Research Questions

The following quantitative research questions will guide this study:

1. What are the background characteristics and engagement experiences of Hispanic students in community colleges?
2. Do factors such as overall GPA, academic knowledge and skills, faculty relationships, academic advising, and helping to cope with non-academic responsibilities differ between first-generation and non-first-generation Hispanic community college students?
3. How do background characteristics, enrollment, the new engagement constructs, validation, transfer student capital, and college culture and emphasis predict goal to transfer to a four-year institution?

Population and Sample

The target population in this study is Latino/a/x community college students. The dataset used for the study will include approximately 430,000 full-time and part-time community college students. The participants represent a three-year cohort from the 2014, 2015, and 2016 surveys and are identified as the 2016 cohort. Of that population, about 18%, or 74,188 students, classified their ethnicity as Hispanic. Since the researcher compared full- and part-time, Hispanic, first-generation students to full- and part-time, Hispanic, non-first-generation students, the sample was further delimited to these sub-populations and consisted of 37,635 students and 27,305 students, respectively. With the preceding delimitations, the total sample included 69,940 Latino/a/x full-time community college students that are identified as either first-generation or non-first-generation college students.

Instrumentation

The instrument used for this quantitative study was a survey. More specifically, the researcher was given access to secondary data from a three-year cohort of the CCSSE national dataset. The sites of this study included community colleges in 47 states of the United States that chose to participate in the CCSSE survey. CCSSE defines community colleges as two-year community and technical colleges. There were 694 member colleges that chose to participate during the three-year cohort.

In order to better understand what CCSSE is and why it was created, it is helpful to understand the history behind its predecessor, the National Survey of Student Engagement (NSSE). NSSE was established at Indiana University in 1998 and is embedded within the Center for Post-Secondary Research and Planning (The Center for Community College Student Engagement, n.d.a). NSSE, the student engagement survey for four-year colleges and

universities, was established to provide data on student learning that had been omitted from many of the national college and university rankings (The Center for Community College Student Engagement, n.d.a). In 2001, the Community College Leadership Program at the University of Texas at Austin worked to develop a student engagement survey for the community college setting with the understanding that community colleges have increasingly faced demands for increased efforts on assessment, retention, and accountability. Since 2004, CCSSE has provided clarity on student engagement, a key indicator of student learning, in community colleges by analyzing student behaviors and institutional practices.

With over 2 million community college students surveyed at over 900 institutions, the CCSSE expansive data on the student experience (McClenney, Kay et al., 2012). CCSSE includes 38 items to measure college student experiences, how students spend their time, what they feel like they have gained from their coursework, relationships with members of the college community, the type of work students are challenged to complete, and how the college supports student learning. Refer to Appendix A to review a copy of the CCSSE. The survey contains 153 items organized into 38 main items, and the types of questions consist of a combination of closed-ended and Likert-type scale.

CCSSE organizes a subset of the items into 5 groups, or *benchmarks*, of questions that are closely related to student engagement. The benchmarks were identified as active and collaborative learning, student effort, academic challenge, student-faculty interaction, and support for learners (The Center for Community College Student Engagement, n.d.d). For the purpose of this study, the researcher sought to move beyond the CCSSE benchmarks and built upon the 6 reconceptualized CCSSE factors that were first introduced by Laanan, Gorman, and Hirst (Laanan, Gorman, Hirst, & Hardy, April 28, 2018). The re-conceptualized CCSSE factors

analyzed faculty interaction, out-of-class learning, academic quality, intercultural dialogue, personal development, and academic knowledge and skills.

Data Collection

This quantitative study used secondary data from a three-year cohort of CCSSE data. Approval from the Institutional Review Board (IRB) at the University of Alabama was required for this study. Refer to Appendix C for a copy of the IRB's approval. The researcher and his faculty advisor obtained permission from CCSSE to study an entire national dataset from the 2016 three-year cohort. The three-year cohort consisted of 694 member colleges across 47 states (M. Bohlig, personal communication, April 29, 2020). Participating colleges chose their own pattern of participation with most participating annually, every two years, or every three years. When the full national three-year cohort was created, current year CCSSE data are combined with data from the prior two years. For colleges distributing the survey annually or bi-annually, only the most recent year's data were used in the cohort with previous years being removed.

To ensure a consistent administration of the survey across each of the member colleges nationally, CCSSE provides ongoing support to college liaisons, or *survey administrators* (The Center for Community College Student Engagement, n.d.c). CCSSE asks college administrators to use a script when administering the paper surveys at approximately the mid-point of the spring semester to gather data. Since the surveys were distributed in a paper format, the classes selected must be credit-eligible courses, including developmental education courses. In advance of the survey distribution, each participating college sends CCSSE a list of credit-eligible classes along with the number of registered students for each course. CCSSE uses this information to create a sampling frame where the number of students is equivalent to the target sample size (number of students necessary for a representative sample) plus 60%. The oversample of 60% helps CCSSE

account for a variety of factors such as, students that refused to complete, student absences, or faculty refusal to participate. Of this total distribution, CCSSE reports an average response rate between 45% and 50% (M. Bohlig, personal communication, April 29, 2020). Respondents completed the CCSSE survey voluntarily (The Center for Community College Student Engagement, n.d.c).

Reliability and Validity

The reliability of an instrument refers to whether or not the consistency or ability to be replicated is in an acceptable range (AllPsych, 2018; Creswell & Creswell, 2018). Creswell also states that researchers should be able to determine both the stability and consistency of scores in a measurement when a survey is used to assess a variable (p.180-181). Using test-retest reliability, CCSSE researchers analyzed repeat surveys from individual participants (Marti, 2008). The type of reliability coefficient used by CCSSE was Cronbach's alpha. Named for Lee Cronbach's 1951 work on internal consistency, alpha is measured between 0 and 1, and it is used to measure the consistency of items answered in a construct within an instrument. The researcher of this study also used Cronbach's alpha to assess reliability in each of the re-conceptualized constructs.

The validity of a study refers to how meaningful the inferences are that the researcher is making on a given population (Creswell, 2015). Three independent researchers assessed the validity of CCSSE in a 2006 project (McClenney & Marti, 2006). The authors were able to demonstrate the validity of the CCSSE instrument by conducting a comparison of CCSSE data to three external student data sets. The data sets included a) the Florida community colleges; b) the CCSSE Hispanic Student Success Consortium; and 3) 24 of 27 colleges that participated in the

national Achieving the Dream initiative. Their research concluded that student engagement could serve as a proxy for student success.

Variables in the Study

Dependent Variable

Logistic Regression

This study measured a dependent variable related to student academic goals. The dependent variable assessed Latina/o/x community college student not a goal to transfer to a four-year institution. In other words, these are community college students who reported they did not have a goal to continue their education at a four-year college or university. Response options for these items included “primary goal,” “secondary goal,” and “not a goal”. The researcher collapsed primary and secondary goals into one response in an effort to create the necessary dichotomous responses for a logistic regression.

Independent Samples *t* Test

The study also measured five additional dependent variables through an independent samples *t* test. The dependent variables included overall GPA, academic advising usage, quality of relationships with faculty, the development of academic knowledge and skills, and level of emphasis helping to cope with non-academic responsibilities. The coding structure for overall GPA was an ordinal scale with eight possible responses including pass/fail classes, do not have GPA, and C- or lower through A. The remaining dependent variables consisted of four and seven-point Likert scales. The *t* test dependent variables and their corresponding codes are shown in Table 1.

Table 1. Dependent Variables

Variable	Coding/Scale
Logistic Regression	
Goal to Transfer to a Four-Year Institution	0= Primary/Secondary Goal 1= Not a Goal
Independent Samples t Test	
Overall GPA	1=Pass/fail classes only 2=Do not have a GPA at this school 3=C- or lower 4=C 5=B- to C+ 6=B 7=A- to B+ 8=A
Academic Advising	0=Don't know.N.A. 1=Rarely/Never 2=Sometimes 3=Often
Relationships with Faculty	1=(1) Unavailable, unhelpful, unsympathetic 2=(2) 3=(3) 4=(4) 5=(5) 6=(6) 7=(7) Available, helpful, sympathetic
Academic Knowledge and Skills	1=Very little 2=Some 3=Quite a bit 4=Very much
Helping Cope with Non-Academic Responsibilities	1=Very little 2=Some 3=Quite a bit 4=Very much

Independent Variable

This study has 51 independent variables that were sorted into six groups. One of those groups in the hypothetical conceptual model in Figure 2, is the new engagement constructs. The new engagement constructs were developed based on the re-conceptualized CCSSE engagement factors in an effort for the researcher to go beyond the CCSSE benchmarks. The new engagement constructs group is comprised of the following six sub-constructs: (a) faculty interaction (construct 1); (b) out-of-class learning (construct 2); (c) academic quality (construct 3); (d) inter-cultural dialogue (construct 4); (e) personal development (construct 5); (f) academic knowledge and skills (construct 6).

Table 2. Reconceptualized CCSSE Factors

Construct	# of Items	α
Faculty Interaction	6	.759
Out-of-Class Learning	4	.627
Academic Quality	3	.637
Intercultural Dialogue	2	.847
Personal Development	4	.860
Academic Knowledge and Skills	5	.837

Table 3. Independent Variables

Construct/Variable	Coding
Background Characteristics	
Sex	1=Yes 2=No
Age	2=18 to 19 3=20 to 21 4=22 to 24 5=25 to 29 6=30 to 39 7=40 to 49 8=50 to 64 9=65+
Native English	1=Yes 2=No
International	1=Yes 2=No
Have Kids	1=Yes 2=No
Enrollment	
Enrollment status	1=Less than full-time 2=Full-time
Total Credit Hours	0=None 1=1-14 credits 2=15-29 credits 3=30-44 credits 4=45-60 credits 5=Over 60 credits
Developmental Reading	1=Have not done/no plan to 2=Plan to 3=Have done
Developmental Writing	1=Have not done/no plan to 2=Plan to 3=Have done
Developmental Math	1=Have not done/no plan to 2=Plan to

Construct/Variable	Coding
	3=Have done
Overall GPA	1=Pass/fail 2=Do not have a GPA 3=C- or lower 4=C 5=B- to C+ 6=B 7=A- to B+ 8=A
Transfer Student Capital Academic Advising	0=Don't know 1=Rarely/never 2=Sometimes 3=Often
Career Counseling	0=Don't know 1=Rarely/never 2=Sometimes 3=Often
Peer or Other Tutoring	0=Don't know 1=Rarely/never 2=Sometimes 3=Often
Skill Labs	0=Don't know 1=Rarely/never 2=Sometimes 3=Often
Transfer Credit Assistance	0=Don't know 1=Rarely/never 2=Sometimes 3=Often
Disability Services	0=Don't know 1=Rarely/never 2=Sometimes 3=Often
Validation Support from Family	1=Not Very

Construct/Variable	Coding
Support from Friends	2=Somewhat 3=Quite a bit 4=Extremely 1=Not Very 2=Somewhat 3=Quite a bit 4=Extremely
Relationships with Students	1=(1) Unfriendly, unsupportive, sense of alienation 2=(2) 3=(3) 4=(4) 5=(5) 6=(6) 7=(7) Friendly, supportive, sense of belonging
Relationships with Faculty	1=(1) Unavailable, unhelpful, unsympathetic 2=(2) 3=(3) 4=(4) 5=(5) 6=(6) 7=(7) Available, helpful, sympathetic
Relationships with Staff	1=(1) Unhelpful, inconsiderate, rigid 2=(2) 3=(3) 4=(4) 5=(5) 6=(6) 7=(7) Helpful, considerate, flexible
Construct 1: Faculty Interaction Used email to communicate with an instructor	1=Never 2=Sometimes 3=Often 4=Very Often
Discussed grades or assignments with an instructor	1=Never 2=Sometimes 3=Often

Construct/Variable	Coding
	4=Very Often
Talked about career plans with an instructor or advisor	1=Never 2=Sometimes 3=Often 4=Very Often
Discussed ideas from your readings or classes with instructors outside of class	1=Never 2=Sometimes 3=Often 4=Very Often
Received prompt feedback from instructors on your performance	1=Never 2=Sometimes 3=Often 4=Very Often
Worked harder than you thought you could to meet an instructor's standards or expectations	1=Never 2=Sometimes 3=Often 4=Very Often
Construct 2: Out-of-Class Learning	
Worked with classmates outside of class to prepare for class or assignments	1=Never 2=Sometimes 3=Often 4=Very Often
Tutored or taught other students	1=Never 2=Sometimes 3=Often 4=Very Often
Participated in a community-based project as a part of a regular course	1=Never 2=Sometimes 3=Often 4=Very Often
Worked with instructors on activities other than coursework	1=Never 2=Sometimes 3=Often 4=Very Often
Construct 3: Academic Quality	
Made a class presentation	1=Never 2=Sometimes

Construct/Variable	Coding
	3=Often 4=Very Often
Prepared two or more drafts of a paper or assignment before turning it in	1=Never 2=Sometimes 3=Often 4=Very Often
Worked on a paper or project that required integrating ideas or information from various sources	1=Never 2=Sometimes 3=Often 4=Very Often
Construct 4: Intercultural Dialogue	
Had serious conversations with students of a different race or ethnicity other than your own	1=Never 2=Sometimes 3=Often 4=Very Often
Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values	1=Never 2=Sometimes 3=Often 4=Very Often
Construct 5: Personal Development	
Understanding yourself	1=Very Little 2=Some 3=Quite a bit 4=Very Much
Understanding people of other racial and ethnic backgrounds	1=Very Little 2=Some 3=Quite a bit 4=Very Much
Developing a personal code of values and ethics	1=Very Little 2=Some 3=Quite a bit 4=Very Much
Contributing to the welfare of your community	1=Very Little 2=Some 3=Quite a bit 4=Very Much

Construct/Variable	Coding
Construct 6: Academic Knowledge and Skills	
Acquiring a broad general education	1=Very Little 2=Some 3=Quite a bit 4=Very Much
Writing clearly and effectively	1=Very Little 2=Some 3=Quite a bit 4=Very Much
Speaking clearly and effectively	1=Very Little 2=Some 3=Quite a bit 4=Very Much
Thinking critically and analytically	1=Very Little 2=Some 3=Quite a bit 4=Very Much
Solving numerical problems	1=Very Little 2=Some 3=Quite a bit 4=Very Much
College Culture and Emphasis Encourage Time Studying	1=Very little 2=Some 3=Quite a bit 4=Very much
Providing Support to Succeed	1=Very little 2=Some 3=Quite a bit 4=Very much
Encourage Contact with Diverse Students	1=Very little 2=Some 3=Quite a bit 4=Very much
Help Cope with Non-academic Responsibilities	1=Very little 2=Some

Construct/Variable	Coding
	3=Quite a bit 4=Very much
Support to Thrive Socially	1=Very little 2=Some 3=Quite a bit 4=Very much

Data Analysis

Figures two and three illustrate a hypothetical conceptual model of studying goal to transfer to a four-year institution. The model is based on Astin's (1985) Input-Environment-Output (IEO) model. In the first block, the background characteristics variables represent the Input. In the second block, the enrollment, validation, transfer student capital, new engagement constructs, and the college culture and emphasis embody the environmental variables. In the third block, goal to transfer to a four-year college or university characterize the output, or goal. The output of the study is the dependent variable.

The researcher will attempt to replicate an earlier study conducted by Laanan et al. with a goal to use the reconceptualized CCSSE factors (April 28, 2018). Cronbach's alpha tests were used to test the reliability of the factors in the hypothetical conceptual model and are reported in Table 4. Prior to conducting the regression statistics, a confirmatory factor analysis was conducted to determine if there is a correlation between the items embedded within each of the reconceptualized CCSSE constructs.

Table 4

Cronbach's Alpha Reliability of Coefficients

Variable	α	Number of Items
Transfer Student Capital	.697	6
Validation	.697	5
New Engagement Construct		
Faculty Interaction	.759	6
Used e-mail to communicate		
Discussed grades/assignments		
Discussed career plans		
Discussed ideas on readings/class		
Received prompt feedback		
Worked harder than previously thought		
Out of Class Learning	.638	4
Worked with classmates		
Tutored/taught classmates		
Community-based project		
Worked with instructors		
Academic Quality	.647	3
Class presentation		
Prepared 2+ drafts		
Integrating ideas		
Intercultural Dialogue	.857	2
Serious conversations with others – race		
Serious conversations with others – beliefs		
Personal Development	.855	4
Understanding self		
Understanding others – race		
Developing personal values		
Contributing to community		
Academic Knowledge and Skills	.838	5
Acquiring broad education		
Writing clearly		
Speaking clearly		
Thinking critically		

Cronbach's alpha reliability, inferential statistical analysis, hierarchical logistic regression, and descriptive statistical analysis such as frequencies, crosstabulations, means, and standard deviation will be used in this quantitative study. The population of the study includes respondents from a three-year national cohort and will be conducted to better understand the engagement experiences of Latino/a/x students community college students and their goals to either transfer to a four-year institution or graduate with an Associate degree.

In an effort to calculate explained variations, the researcher will use two pseudo R square values, the Cox and Snell R Square and the Nagelkerke R Square. Additionally, a Hosmer and Lemeshow Test will be used to test the model adequacy. The test will assess how poorly the model predicts categorical outcomes. If the Hosmer and Lemeshow Test is above .5, the model fit will be confirmed.

Inferential Statistic t-Test

This study will also incorporate inferential statistics into the data analysis. Specifically, a *t*-test will be employed to see if there is a difference in the mean of two student populations, first generation Hispanic community college students and non-first generation Hispanic community college students. Omnibus Tests of Model Coefficients will be used to measure the effect size. Since the *t*-test only measures if there is a real difference in the mean between the two groups, the researcher will want to remedy this limitation by determining if the size of the effect is small,

medium, or large (Laerd Statistics, 2018). Specifically, it will test how well the model predicts the independent variables compared to no variable at all.

Descriptive Statistics

Research question 1. Descriptive statistics will be used to answer research question 1: “What are the background characteristics and engagement experiences of Hispanic students in community colleges?” The background characteristics that was studied include sex, age, primary spoken language, country of origin, and having children living with you. The engagement experiences that was studied include out-of-class learning, academic quality, intercultural dialogue, personal development, and academic knowledge and skills. The purpose of this analysis was to assess the distribution of the background characteristics and engagement experiences of Hispanic students enrolled in community colleges.

Inferential Statistics

Research question 2. Inferential statistics was engaged for research question 2: “Do factors such as overall GPA, academic knowledge and skills, faculty relationships, academic advising, and helping to cope with non-academic responsibilities differ between first generation and non-first generation Hispanic community college students?” Several variables from the hypothetical conceptual model were selected to see if any discrepancies existed between first-generation and non-first-generation Hispanic community college students.

Hierarchical Logistic Regression

Research question 3. Logistical regression was employed for research question 3: “How do background characteristics, enrollment, the new engagement constructs, validation, transfer student capital, and college culture and emphasis predict having a goal to transfer to a four-year

institution?” A hierarchical logistic regression was used to predict how the various clusters of independent variables in the proposed hypothetical model relate to the dependent variable, transfer to a four-year institution. This statistical model determined the variables that influence Hispanic community college students to set a goal to transfer to a four-year institution.

Table 5

Variables, Research Questions, and Statistical Analysis

Variable Name	Research Questions	Statistical Analysis
	1. What are the background characteristics and engagement experiences of Hispanic students in community colleges?	Descriptive statistics
Relating independent variables: Overall GPA, Academic Advising, Faculty Relationships, Academic Knowledge and Skills, and Helping to Cope with Non-academic Responsibilities to dependent variables: Goal to transfer to a four-year	2. Do factors such as, overall GPA, academic advising, faculty relationships, academic knowledge and skills, helping to cope with non-academic responsibilities, and goal to transfer to a four-year institution differ between first generation and non-first generation Hispanic community college students?	(Inferential) <i>t</i> -test
Relating independent variables: Background Characteristics, Enrollment, New Engagement Constructs, Validation, Transfer Student Capital, and College Culture and Emphasis to dependent variable: Goal to transfer to a four-year	3. How do background characteristics, enrollment, transfer student capital, validation, the new engagement constructs, and college culture and emphasis predict goal to transfer to a four-year institution?	Logistic regression

Figure 2. Hypothetical Conceptual Model of Studying Goal to Transfer to a Four-Year Institution

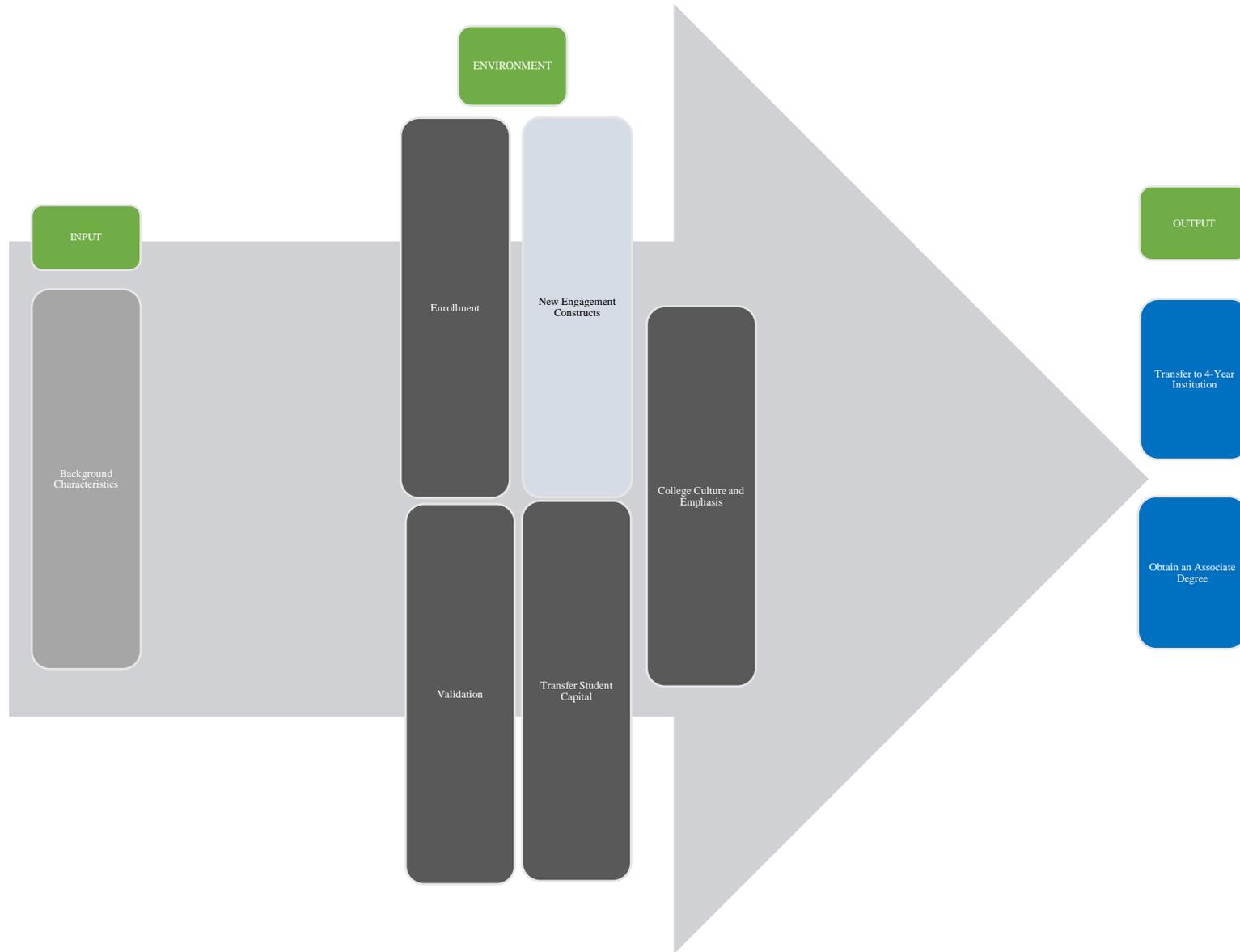
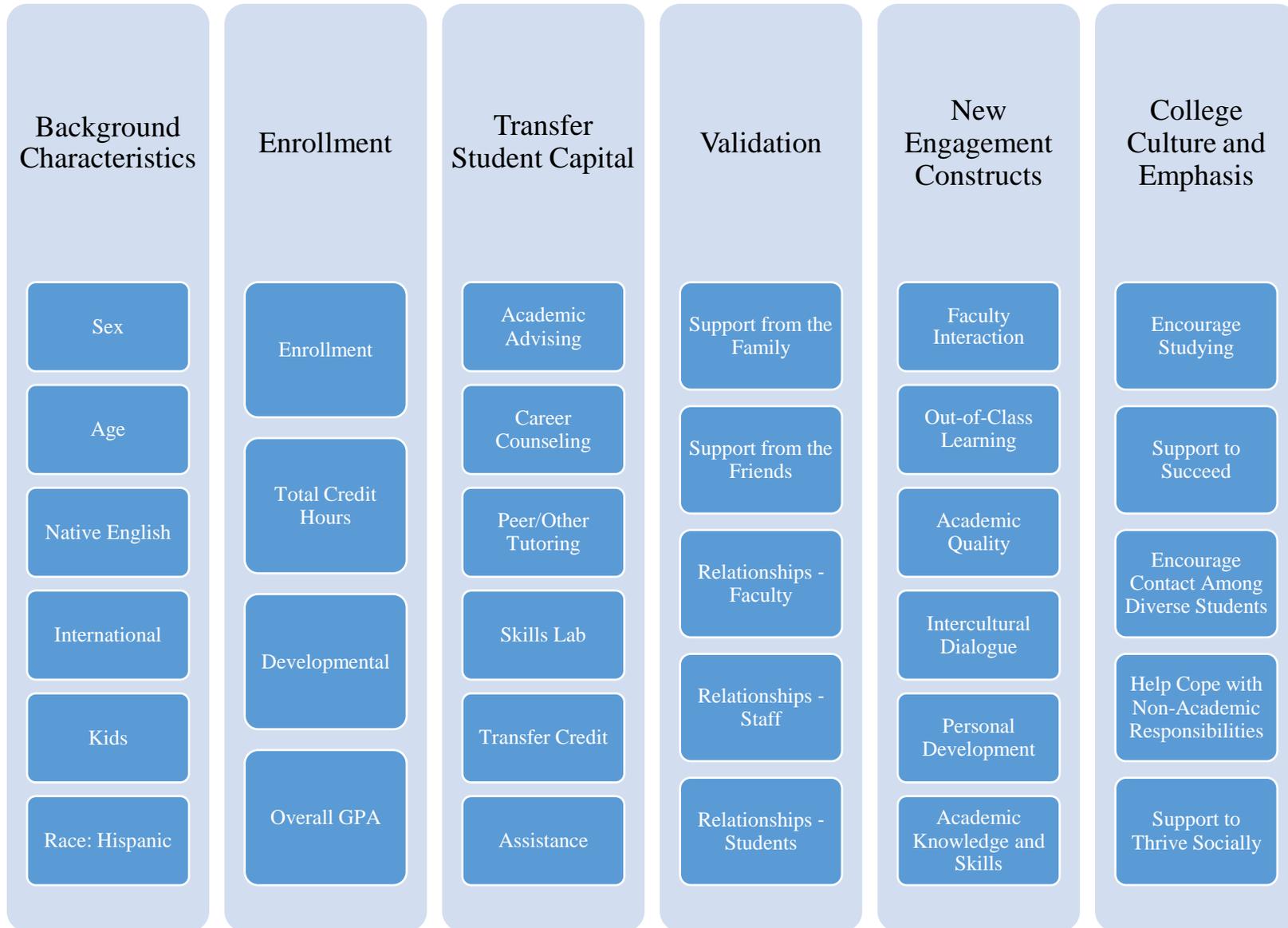


Figure 3. Description of Hypothetical Conceptual Model of Studying Goal to Transfer to a Four-Year Institution



Ethical Considerations

The researcher was able to obtain approval from the IRB prior to gaining access to the national dataset from CCCSE because the data used in the study are part of a broader study being done at the University. Refer to Appendix C for a copy of the IRB approval letter. No personal identifiable data was shared with the researcher. The researcher is only being given de-identified data and will not have access to any individual's information. There is a minimal risk to students, and it was reflected in the IRB proposal.

Delimitations

The researcher will delimit the study to community college students that identified as Hispanic on the CCSSE instrument. These students also identified that they started their education at the school in which they were enrolled when they completed the survey. The findings of this study are limited to community college students who are identified as Hispanic or Latino/a/x. Therefore, the data should not be generalized to students of color. Additionally, the study was further delimited to students who were identified as either first generation or non-first generation college students.

Limitations

The study used secondary source data from CCCSE. The study did not consider several variables within the dataset such as, institutional effectiveness, institutional satisfaction, nor the level of importance of student services. An additional limitation of the study was the consideration of other dependent variables, such as completion of a certificate program, obtaining job-related skills, personal development, or change of careers. The study will be limited to students that identify as Hispanic, and thus, an additional limitation to the study is that

the results cannot be generalized to students of color or other racial and ethnic groups. Since the study was quantitative, the study did not capture the unique lived experience of the students that were surveyed.

Summary

In this chapter, the researcher stated the purpose and objective of the study. Furthermore, the chapter described the epistemology and research design, and it outlined the research questions, the population, the survey instrument, reliability and validity, variables in the study, data management, and method of data analysis for the quantitative study. The chapter concluded with ethical considerations, delimitations, and limitations of the study.

CHAPTER IV

FINDINGS

Overview

This chapter provides an overview of the quantitative results and analysis of the study. The chapter is organized by sections corresponding to each of the research questions. The first section uses descriptive statistics and frequencies to provide a thorough review of the results of the background characteristics for Hispanic Community College students. This section also includes descriptive statistical and frequency analysis on enrollment, transfer student capital, validation, new engagement construct, and college culture and emphasis. The tables reflect the number of the total Hispanic Community College student participants (N) that completed the survey. Totals and percentages within the tables reflect the total number of participants that responded to the items in the instrument. This section provides an overview of the statistical analysis for each of the elements contained within the hypothetical conceptual model used for this study. The second section provides a statistical analysis of variables such as, overall GPA, academic advising, relationships with faculty, academic knowledge and skills, helping to cope with non-academic responsibilities, and goal to transfer to four-year institution by generational status. Finally, the third section reports the results of the hierarchical logistic regression analysis for the dependent variable, goal to transfer to a four-year institution.

Background Characteristics

Research question one asked, what are the background characteristics and engagement experiences of Hispanic students in community colleges? Descriptive statistics are reported on the responses to several items on the CCSSE instrument specific to background data. The sample size of Hispanic Community College students is 74,188. Frequencies were employed in Table 6 to measure the distribution of respondents' background characteristics.

Sex, Age, Children Living at Home, and Generation Status

The instrument classified the respondents by sex, and consequently the students were asked if they identified as female or male. Of the 74,028 students that chose to respond to the item, 57.9% ($n = 42,840$) identified as female and 42.1% ($n = 31,188$) identified as male. Age groupings were used to measure the age of the student respondents. The eight groupings ranged from 18 to 65 or older. Students of traditional college age, 18-24, made up the bulk of the data with 77.8%. The remaining 22.2% of respondents in the sample, identified their age as 25 or older. Students with children living with them at home comprised 28.9% ($n = 21,354$), as opposed to 71.1% ($n = 52,501$) of students that do not have children in the home. When considering the level of education by the mother and father of each of the student respondents, 55.4% ($n = 31,121$) identified as a first-generation college student, and 44.6% ($n = 25,101$) of respondents claimed at least one parent had at least some college experience. First-generation status was identified as neither mother nor father having more than a high school diploma or GED. Results are reported in Table 6.

Table 6

Background Characteristics of the Sample Population (n = 74,188)

Variable	<i>n</i>	%
Sex		
Female	42,840	57.9
Male	31,188	42.1
Total	74,028	100
Age		
18 to 19	24,574	33.3
20 to 21	21,022	28.5
22 to 24	11,783	16.0
25 to 29	7,993	10.8
30 to 39	5,660	7.7
40 to 49	1,981	2.7
50 to 64	767	1.0
65 or older	60	0.1
Total	73,840	100.0
Children living at home		
Yes	21,354	28.9
No	52,501	71.1
Total	73,855	100
First-Generation Status		
Yes	31,121	55.4
No	25,101	44.6
Total	56,222	100

English as a Native Language

The following table represents another item in the survey that reflects background information. Table 7 shows the number of students that responded to the survey item asking if English was their native or first language. Slightly over half (52.5%, $n = 38,853$) of the respondents reported English as their native language, and 47.5% ($n = 35,184$) indicated that a language other than English was their native language.

Table 7

Background Characteristics of the Sample Population (n = 74,188)

Variable	<i>n</i>	%
English as a native language		
Yes	38,853	52.5
No	35,184	47.5
Total	74,037	100

International Student or Foreign National

An additional item in the survey collecting background characteristics of the respondents related to students' status as an international student or foreign national. Table 8 reflects the responses to the binary choice of yes or no to the question of if you are an international student or foreign national. Almost one-tenth (9.1%, $n = 6,730$) of the respondents indicated they were, indeed, an international student or foreign national, and 90.9% of the student respondents claimed they were not international students nor were they foreign nationals. Of the 74,188 students identifying as a Hispanic Community College students, 73,652 students responded to this particular item.

Table 8

Background Characteristics of the Sample Population (n = 74,188)

Variable	<i>n</i>	%
International student or foreign national		
Yes	6,730	9.1
No	66,922	90.9
Total	73,652	100

Developmental Courses

In the following table, results to items on the survey asking students about their enrollment in developmental courses for reading, writing, and math. Each of the three items

related to these courses asked if the student has done, is doing, or plans to do at this college. Response options for the items included: I (the student) have done; plan to do; or have not done, nor plan to do. Table 9 provides an overview of the responses. For the item on developmental reading courses, 22.7% ($n = 16,527$) of respondents reported having completed a developmental reading course, and 11.9% ($n = 8,660$) responded that they plan to enroll in such a course. Over 65% ($n = 47,633$) responded that they have not completed the course, nor do they plan to at this college. There was a slightly higher percentage (25.4%, $n = 18,532$) of students reporting having already done a developmental writing course over the developmental reading, and the percentage of students planning to take a developmental writing course was also elevated to 13.9% ($n = 10,147$). The percentage of students having not completed, nor planning to complete a developmental writing course was 60.6% ($n = 44,182$). Of the three developmental courses, developmental math had the highest percentages of respondents reporting having taken (32.4%, $n = 23,559$) and planning to take (17.3%, $n = 12,572$). Approximately 50% ($n = 36,569$) of the students reported having not taken, nor planning to take developmental math.

Table 9

Enrollment Factors (n = 74,188)

Variable	<i>n</i>	%
Developmental Reading		
Have done	16,527	22.7
Plan to do	8,660	11.9
Do not plan to do	47,633	65.4
Developmental Writing		
Have done	18,532	25.4
Plan to do	10,147	13.9
Do not plan to do	44,182	60.6
Developmental Math		

Have done	23,559	32.4
Plan to do	12,572	17.3
Do not plan to do	36,569	50.3

Enrollment Status and Credit Hours

In addition to the developmental courses, the CCSSE survey also asks students if they are enrolled full-time or less than full-time in the institution, and how many credit hours students have earned at the institution. In response to the former, Table 10 shows 68% ($n = 50,459$) reported full-time enrollment status compared to 32% ($n = 23,729$) enrolled less than full-time. Students responded to the question of earned credit hours with six options ranging from none to over 60 credits. Approximately 9% ($n = 6,503$) of the respondents reported having earned no credit hours. Respondents reporting at least one credit hour and no more than thirty credit hours totaled 55.7% ($n = 40,884$). The remaining 35.5% ($n = 25,999$) of the respondents reported having earned thirty or more credit hours at their institution.

Table 10

Enrollment Factors ($n = 74,188$)

Variable	<i>n</i>	%
Enrollment Status		
Less than full-time	23,729	32.0
Full-time	50,459	68.0
Total	74,188	100.0
Total credit hours		
None	6,503	8.9
1-14 credits	24,340	33.2
15-29 credits	16,544	22.5

30-44 credits	11,300	15.4
45-60 credits	9,155	12.5
Over 60 credits	5,544	7.6
Total	73,386	100.0

Overall GPA

The final variable in the enrollment factors is overall GPA. Respondents were asked what range their overall GPA was based on letter grade ranges. Possible responses started at A and proceeded in a graduated scale down to A- to B+ until C- or lower. Additional options were provided for students with no GPA and pass/fail class only. Almost 10% ($n = 6,971$) of the respondents reported an overall GPA of an A. Slightly more than 30% ($n = 22,131$) indicated that had earned an A- to B+ GPA. Almost 24% ($n = 17,520$) students reported having achieved a B- to C+ GPA. The final two categories of C and C- or lower totaled 10.2% ($n = 7,464$). An additional 2.3% ($n = 1,692$) of the student respondents indicated they either had no GPA or were in pass/fail classes. The results are reported in Table 11.

Table 11

Enrollment Factors (n = 74,188)

Variable	<i>n</i>	%
Overall GPA		
A	6,971	9.5
A- to B+	22,131	30.2
B	17,520	23.9
B- to C+	17,435	23.8
C	5,506	7.5
C- or lower	1,958	2.7
Do not have GPA	1,171	1.6
Pass fail class only	521	0.7

Transfer Student Capital Construct

Table 12 reports the results of the six items embedded within the transfer student capital construct. To create the construct, the researcher averaged the variables by using SPSS to add each of the variables associated with TSC and divided them by six. The survey items associated with TSC asked students about the frequency of usage of available resources on their campus for academic advising/planning, career counseling, peer or other tutoring, skill labs (for writing, math, etc.), transfer credit assistance, and services to students with disabilities. The available responses were using a four-point Likert type scale of often, sometimes, rarely/never, and don't know. Almost 66% ($n = 47,693$) of respondents indicated they had accessed academic advising often or sometimes, and just under 29% ($n = 20,712$) rarely or never used academic advising services. Respondents indicating they had accessed career counseling services often or sometimes totaled 39.8% ($n = 28,737$). Over 45% ($n = 32,690$) of the respondents reported rarely or never using career counseling, and 14.9% ($n = 10,752$) of student respondents said they don't know if they have accessed career counseling. Responses to peer or other tutoring tracked similarly to that of career counseling. Only 38.5% ($n = 27,568$) of respondents reported accessing peer or other tutoring services with a frequency of often or sometimes. The remaining 42.5% ($n = 30,431$) and 19% ($n = 13,589$) reported rarely or never using tutoring and don't know, respectively. Respondents to the item on using skills labs, such as writing and math labs,

were more evenly distributed on the scale. Respondents using skills labs rarely or never comprised 33.9% ($n = 24,220$) of the responses, and 16.3% ($n = 11,678$) reported not knowing if they had used a skills lab. Approximately 30% ($n = 21,271$) of respondents reported having accessed assistance with transfer credits often or sometimes. About 39% ($n = 27,914$) of respondents rarely or never received help with transfer credits, and another 31.4% ($n = 22,549$) of students were unsure if they had received transfer credit assistance. Responses to using disabilities services often or sometimes accounted for only 9.5% ($n = 6,867$). Another 34.5% ($n = 24,824$) of students indicated they had rarely or never used services to students with disabilities, and the majority of student respondents, 56% ($n = 40,257$), reported not knowing if they had received these services.

Table 12

Transfer Student Capital Construct (n = 74,188)

Variable	<i>n</i>	%
Academic Advising		
Often	14,171	19.6
Sometimes	33,522	46.3
Rarely/Never	20,712	28.6
Don't Know	4,014	5.5
Career Counseling		
Often	7,676	10.6
Sometimes	21,061	29.2
Rarely/Never	32,690	45.3
Don't Know	10,752	14.9
Peer or Other Tutoring		
Often	8,984	12.5
Sometimes	18,584	26.0
Rarely/Never	30,431	42.5
Don't Know	13,589	19.0

Skill Labs		
Often	15,220	21.3
Sometimes	20,327	28.5
Rarely/Never	24,220	33.9
Don't Know	11,678	16.3
Transfer Credit Assistance		
Often	6,894	9.6
Sometimes	14,377	20.0
Rarely/Never	27,914	38.9
Don't Know	22,549	31.4
Services to Students with Disabilities		
Often	3,400	4.7
Sometimes	3,467	4.8
Rarely/Never	24,824	34.5
Don't Know	40,257	56.0

Validation through Support

Table 13 provides data analysis on the level of support Hispanic community college students reported receiving from family and friends. The responses on the four-point Likert scale on how supported students felt consisted of extremely, quite a bit, somewhat, and not very. An overwhelming 87.6% ($n = 64,202$) of students reported feeling either extremely or quite a bit supported by family, with 71% of that total reporting extremely supported. The distribution of percentages for support among friends, while not quite as impressive as family, was still mostly positive with 78% ($n = 57,337$) of respondents reporting having felt extremely or quite a bit supported. Percentages for students feeling not very supported across both items were encouragingly low with 2.7% ($n = 1,977$) for family and 4.1% ($n = 3,018$) for friends.

Table 13

Validation Construct (n = 74,188)

Variable	<i>n</i>	%
Support from Family		
Extremely	52,055	71.0
Quite a bit	12,147	16.6
Somewhat	7,094	9.7
Not Very	1,977	2.7
Total	73,273	100.0
Support from Friends		
Extremely	37,805	51.4
Quite a bit	19,532	26.6
Somewhat	13,191	17.9
Not Very	3,018	4.1
Total	73,546	100.0

Validation Through Relationships

The CCSSE survey also gauges the level of support students feel from their relationships with faculty, staff and friends. Responses to the items range from 1) unavailable, unhelpful, unsympathetic to 7) available, helpful, sympathetic. Table 14 provides an overview of the level of validation students feel from each of their relationships. Faculty were viewed as the most supportive with 64.4% of students indicating that they considered faculty relationships to be a six or seven. By the same measure, relationships with friends were reported as the next most validating with 55.2%. The least validating relationships were those with staff members. At a percentage of only 46.5%, respondents reported that they feel supported by staff at six or seven on the seven-point Likert type scale.

Table 14

Validation Construct (n = 74,188)

Variable	<i>n</i>	%
Relationships with Faculty		
(1) Unavailable, unhelpful, unsympathetic	382	.5
(2)	954	1.3
(3)	2,429	3.3
(4)	8,193	11.2
(5)	14,189	19.3
(6)	22,213	30.3
(7) Available, helpful, sympathetic	25,028	34.1
Total	73,388	100.0
Relationships with Staff		
(1) Unavailable, unhelpful, unsympathetic	2,302	3.1
(2)	3,223	4.4
(3)	5,728	7.8
(4)	12,917	17.6
(5)	15,014	20.5
(6)	16,600	22.6
(7) Available, helpful, sympathetic	17,564	23.9
Total	73,348	100.0
Relationships with Friends		
(1) Unavailable, unhelpful, unsympathetic	801	1.1
(2)	1,707	2.3
(3)	3,407	4.6
(4)	11,427	15.6
(5)	15,534	21.2
(6)	19,023	25.9
(7) Available, helpful, sympathetic	21,490	29.3
Total	73,389	100.0

Faculty Interaction

As a sub-construct to the New Engagement Construct, faculty interaction was measured using six items on the CCSSE instrument. The researcher averaged the six variables using SPSS to create the sub-construct. Table 15 provides an overview of the responses to the various ways students engage with faculty, including e-mail communication, discussions of grades or assignments, conversations about career plans, discussions on ideas from readings outside of class, receiving prompt feedback, and working harder than previously thought possible to meet expectations. The four-point Likert type scale measured frequencies of very often, often, sometimes, and never. When sub-totaling very often with often, the highest reports of engagement were with e-mail communication (67.6%, $n = 49,693$), received prompt feedback (60.6%, $n = 44,559$), worked harder than previously thought to meet expectations (59.5%, $n = 43,758$), and discussed grades or assignments (52%, $n = 38,334$). Variables receiving higher percentages of students reporting they had only sometimes or never engaged in discussions of career plans (64.6%, $n = 47,485$) and ideas on class readings outside of class (79.6%, $n = 58,391$).

Table 15

New Engagement Construct: Faculty Interaction (n = 74,188)

Variable	<i>n</i>	%
Used e-mail to communicate with an instructor		
Very often	26,179	35.6
Often	23,514	32.0
Sometimes	19,711	26.8
Never	4,123	5.6
Discussed grades or assignments with an instructor		

Very Often	15,407	20.9
Often	22,927	31.1
Sometimes	28,683	39.0
Never	6,603	9.0
Talked about career plans with an instructor or advisor		
Very Often	9,613	13.1
Often	16,391	22.3
Sometimes	31,257	42.5
Never	16,228	22.1
Discussed ideas from your readings with an instructor outside of class		
Very Often	4,807	6.6
Often	10,184	13.9
Sometimes	26,836	36.6
Never	31,555	43.0
Received prompt feedback from an instructor		
Very Often	16,531	22.5
Often	28,028	38.1
Sometimes	23,561	32.1
Never	5,392	7.3
Worked harder than you thought you could to meet instructors expectations		
Very Often	15,359	20.9
Often	28,399	38.6
Sometimes	24,596	33.4
Never	5,223	7.1

Out of Class Learning

Another sub-construct created within the new engagement construct measured four items assessing out of class learning. This sub-construct was created by averaging the four variables associated with out-of-class learning. Using a four-point Likert-type scale measuring frequencies

of very often, often, sometimes, and never, the out of class learning sub-construct probed students on working with classmates outside of class, tutoring or teaching other students, participating in a community-based project for a class, and working with an instructor on activities other than coursework. Approximately 30% ($n = 21,993$) of respondents reported working with classmates outside of class very often or often. The majority of respondents indicated they never tutored others, engaged in a community-based project, nor worked with instructors on activities outside of class. Results are shared in Table 16.

Table 16

New Engagement Construct: Out-of-Class Learning ($n = 74,188$)

Variable	<i>n</i>	%
Worked with classmates outside of class on assignments		
Very Often	6,991	9.5
Often	15,002	20.4
Sometimes	28,316	38.5
Never	23,251	31.6
Tutored or taught other students		
Very Often	2,513	3.4
Often	4,435	6.0
Sometimes	14,249	19.3
Never	52,571	71.3
Participated in a community-based project as part of a course		
Very Often	2,020	2.8
Often	4,336	5.9
Sometimes	13,845	18.9
Never	53,231	72.5
Worked with instructors on activities other than coursework		

Very Often	2,717	3.7
Often	6,335	8.7
Sometimes	16,739	23.0
Never	46,887	64.5

Academic Quality

Table 17 reports the results of the academic quality sub-construct in the new engagement construct. The average of the three variables under academic quality were taken to create the sub-construct. To assess academic quality, three survey items asking students about the frequency with which they made a class presentation, prepared multiple drafts of an assignment, and worked on a paper that integrated ideas from multiple sources. The four-point Likert scale of very often, often, sometimes, and never was employed to assess the frequency of these particular types of academic engagement. Within this sub-construct, 72.2% ($n = 53,212$) reported integrating ideas or information from various sources into a paper or project very often or often. Almost 60% ($n = 43,977$) of student respondents reported having prepared at least two drafts of a paper or assignment before turning it in with a frequency of very often or often. Surprisingly, only 40.3% of respondents indicated making presentations very often or often, and another 19.8% reported having never made a class presentation.

Table 17

New Engagement Construct: Academic Quality ($n = 74,188$)

Variable	<i>n</i>	%
Made a class presentation		
Very Often	9,180	12.4
Often	20,580	27.9
Sometimes	29,489	39.9

Never	14,627	19.8
Prepared two or more drafts of a paper or assignment before turning it in		
Very Often	19,318	26.3
Often	24,659	33.5
Sometimes	20,228	27.5
Never	9,374	12.7
Worked on a paper or project that required integrating ideas or information from various resources		
Very Often	24,777	33.6
Often	28,435	38.6
Sometimes	15,898	21.6
Never	4,575	6.2

Intercultural Dialogue

The intercultural dialogue sub-construct consisted of the two survey items with the same four-point Likert-type scale as previous sub-constructs; measuring frequencies of very often, often, sometimes, and never. The two items were averaged to create the sub-construct. The items asked students to respond to how frequently they had engaged in serious conversations with students of a different race or ethnicity other than their own, and how often had they had serious conversations with students with different religious beliefs, political opinions, or personal values. To the former item, respondents were very evenly distributed across the scale with 26% at very often, 25% at often, 28.1% at sometimes, and 21% as never. Responses to the item on beliefs, opinions, and values varied somewhat more with 20.3% saying very often, 22.3% saying often,

30.5% saying sometimes, and 26.9% saying never had they engaged in those types of conversations. The results are reported in Table 18.

Table 18

New Engagement Construct: Intercultural Dialogue (n = 74,188)

Variable	<i>n</i>	%
Had serious conversations with students of a different race or ethnicity other than your own		
Very Often	19,170	26.0
Often	18,414	25.0
Sometimes	20,721	28.1
Never	15,483	21.0
Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values		
Very Often	14,994	20.3
Often	16,463	22.3
Sometimes	22,481	30.5
Never	19,818	26.9

Personal Development

Four items in the CCSSE instrument pertained to the personal development of the student and asked to what degree the experience at their college contributed to their development of an understanding of themselves, an understanding people of other racial and ethnic backgrounds, a personal code of values and ethics, and an understanding of how they contribute to the welfare of

their community. The four point Likert type scale measures how much each of the items contributed to personal development with response options of very much, quite a bit, some, and very little. Table 19 provides an overview of the responses to these four items. More than half of respondents said their experience at their college had impacted their understanding of self, understanding of other racial and ethnic backgrounds, and developing a personal code of ethics either very much or quite a bit. Only the item asking students to what degree their college experience impacted their contribution to the welfare of their community indicated a higher percentage of students reporting some or very little (63.3%, $n = 46,131$) than those students that reported very much or quite a bit (36.7%, $n = 26,699$).

Table 19

New Engagement Construct (n = 74,188)

How much has your experience at this college contributed to your personal development in:

Variable	<i>n</i>	%
Understanding yourself		
Very Much	24,478	33.5
Quite a Bit	24,095	33.0
Some	16,626	22.8
Very Little	7,868	10.8
Understanding people of other racial and ethnic backgrounds		
Very Much	21,777	29.8
Quite a Bit	22,942	31.4
Some	18,496	25.3

Very Little	9,839	13.5
Developing a personal code of values and ethics		
Very Much	19,899	27.3
Quite a Bit	23,047	31.6
Some	19,508	26.7
Very Little	10,532	14.4
Contributing to the welfare of your community		
Very Much	10,694	14.7
Quite a Bit	16,005	22.0
Some	24,271	33.3
Very Little	21,860	30.0

Academic Knowledge and Skills

The final sub-construct of the new engagement construct comprised items in the survey that asked students how their college experience contributed to the acquisition of certain academic knowledge and skills. These six items are highlighted in Table 20 using a four-point Likert scale of very much, quite a bit, some, and very little, the items asked about acquiring a broad education, writing clearly, speaking clearly, thinking critically, and solving numerical problems. Almost 40% ($n = 28,903$) of respondents said their college experience contributed very much to the acquisition of a broad education, and nearly 80% ($n = 58,310$) reported an impact of at least quite a bit. Comparatively, the percentages for items on writing clearly (73.3%), speaking clearly (70.6), thinking critically (79.1%), and solving numerical problems (66.4%) were each considered to be areas of very much or quite a bit of growth to a higher percentage of students.

Table 20

New Engagement Construct (n = 74,188)

How much has your experience at this college contributed to your academic knowledge and skills in:

Variable	<i>n</i>	%
Acquiring a broad general education		
Very Much	28,903	39.5
Quite a Bit	29,407	40.2
Some	11,824	16.2
Very Little	3,024	4.1
Writing clearly and effectively		
Very Much	23,858	32.6
Quite a Bit	29,762	40.7
Some	15,516	21.2
Very Little	4,014	5.5
Speaking clearly and effectively		
Very Much	23,192	31.7
Quite a Bit	28,476	38.9
Some	16,300	22.3

Very Little	5,158	7.1
Thinking critically and analytically		
Very Much	27,974	38.3
Quite a Bit	29,806	40.8
Some	12,736	17.4
Table 20 (continued)		
Very Little	2,576	3.5
Solving numerical problems		
Very Much	22,125	30.3
Quite a Bit	26,340	36.1
Some	17,678	24.2
Very Little	6,910	9.5

College Culture and Emphasis

The final construct in the hypothetical conceptual model is college culture and emphasis which contains five variables. The variables are measured using a four-point Likert scale of very much, quite a bit, some, and very little. Table 21 provides an overview of the results to items gauging the degree to which the college emphasizes encouraging studying, providing support to succeed, encouraging contact among diverse (economic, social, and racial/ethnic) student backgrounds, helping cope with non-academic responsibilities, and providing support to thrive socially. Encouraging studying and providing support to succeed had the highest numbers of students reporting either very much or quite a bit at 79.1% and 77.2%, respectively. Students reported a more moderate level (60.4%) of the college encouraging contact among students of different economic, social, and racial and ethnic backgrounds at frequencies of very much or quite a bit. Students felt their college emphasized helping to cope with non-academic

responsibilities (36.1%) and providing support to thrive socially (44.4%) with the least frequency at very much or quite a bit.

Table 21

College Culture and Emphasis Construct (n = 74,188)

Variable	<i>n</i>	%
Encourage Studying		
Very Much	28,081	38.3
Quite a Bit	29,964	40.8
Some	12,885	17.6
Very Little	2,429	3.3
Total	73,359	100.0
Support to Succeed		
Very Much	29,372	40.1
Quite a Bit	27,171	37.1
Some	13,635	18.6
Very Little	3,035	4.1
Total	73,213	100.0
Encourage Contact Among Diverse Students		
Very Much	21,704	29.7
Quite a Bit	22,473	30.7
Some	18,916	25.9
Very Little	10,065	13.8
Total	73,158	100.0
Help Cope with Non-Academic Responsibilities		
Very Much	10,717	14.7

Quite a Bit	15,618	21.4
Some	23,135	31.6
Very Little	23,640	32.3
Total	73,110	100.0
Support to Thrive Socially		
Very Much	12,599	17.3
Quite a Bit	19,713	27.1
Some	25,218	34.6
Very Little	15,292	21.0
Total	72,822	100.0

First-Generation Status

Inferential statistics were conducted to respond to research question 2. Independent samples *t*-tests were used to compare mean scores on several variables between two groups, first-generation Hispanic community college students and non-first-generation Hispanic community college students. The grouping variable, generation status, was 0 = non-first-generation student and 1 = first-generation college student. The dependent variables in Table 22 consisted of one variable from several of the CCSSE factors in the hypothetical conceptual model combined with the dependent variable of the study, goal to transfer to a four-year institution. The other dependent variables used in the *t* tests were overall GPA, academic advising, relationships with faculty, academic knowledge and skills, and helping to cope with non-academic responsibilities.

As reported in Table 22, the mean GPA of first-generation community college students (5.90) and non-first-generation community college students (6.04) has a difference of 0.14, which is statistically significant between the two groups ($t = -12.93$, $df = 58,455.46$, $p = 0.00$, $d = -.10$) at the $p = .05$ level. The scale was grouped by letter grades.

The mean of the responses among first-generation and non-first generation community college students' usage of academic advising was 1.82 and 1.77, respectively, with a difference of 0.05. The difference was statistically significant ($t = 7.38$, $df = 58,198.99$, $p = .03$, $d = .06$) at the $p = .05$ level. Both first-generation and non-first-generation students reported rarely or never using academic advising services, with first-generation students reporting a higher mean. The scale for this section of the survey was a 4-point Likert scale, ranging from 0 = don't know/N.A. to 3 = often.

Responses between first-generation (5.79) and non-first-generation students (5.71) on the quality of their relationships with faculty had a difference of 0.08. The difference between the two groups was not statistically significant ($t = 7.81$, $df = 64,246$, $p = .33$, $d = .06$) at the $p = .05$ level. Both groups reported relationships that are more positive with their instructors, with first-generation students reporting a slightly higher mean score. The 7-point Likert scale ranged from 1 = unavailable, unhelpful, unsympathetic to 7 = available, helpful, sympathetic.

The mean of the responses for the construct, academic knowledge and skills, for first-generation and non-first-generation students was 3.05 and 2.99, respectively. The difference between the two groups was .06 which is statistically significant ($t = 12.38$, $df = 56,777.21$, $p = .00$, $d = .09$) at the $p = .05$ level. First-generation college students reported that their experience at their college contributed to their academic knowledge and skills quite a bit, whereas non-first-generation college students said their experience contributed some. The academic knowledge and skills construct consisted of five survey items and specifically assessed the areas of acquiring a broad and general education, writing clearly and effectively, speaking clearly and

effectively, thinking critically and analytically, and solving numerical problems. The 4-point Likert scale allowed for responses of 1 = very little, 2 = some, 3 = quite a bit, and 4 = very much.

First-generation respondents (2.21) reported that their college emphasized coping with non-academic responsibilities, such as work and family, more so than non-first-generation respondents (2.11), but both groups agreed that their college only placed some emphasis on helping to cope with responsibilities outside of the classroom. The .10 difference in mean scores ($t = 11.89$, $df = 58,674.03$, $p = .00$, $d = .10$) at the $p = .05$ level is significant. The 4-point Likert scale ranged from 1 = very little to 4 = very much.

First-generation students (2.51) reported a lower goal to transfer to a four-year institution than did non-first-generation students (2.60). The .09 difference between the two groups was statistically significant ($t = -16.69$, $df = 59,795.56$, $p = .00$, $d = -.13$) at the $p = .05$ level.

Effect size, d , was calculated for each variable. The effect sizes for each of the variables ranged from .06 to .13. Although the difference between first-generation and non-first-generation Hispanic community college students was statistically significant for all but one of the variables measured in the t -Tests, the practical significance or magnitude of the differences was small for each of the six variables.

Table 22*Independent Samples t Tests*

Variable	<i>n</i>	M	SD	<i>t</i>	<i>df</i>	<i>p</i>	Lower CI	Upper CI	Effect Size
Overall GPA				-12.93	58,455.46	0.00	-.162	-.120	0.10
First-generation	37,155	5.90	1.37						
Non-first generation	27,002	6.04	1.36						
Academic Advising				7.38	58,198.99	0.03	.035	.061	0.06
First-generation	36,775	1.82	0.82						
Non-first generation	26,796	1.77	0.80						
Relationships with Faculty				7.81	64,246	0.33	.058	.097	0.06
First-generation	37,236	5.79	1.24						
Non-first generation	27,012	5.71	1.23						
Academic Knowledge and Skills				12.38	56,777.21	0.00	.057	.079	0.09
First-generation	37,223	3.05	0.67						
Non-first generation	26,997	2.99	0.70						
Helping to Cope with Non-Academic Responsibilities				11.89	58,674.03	0.00	.082	.115	0.10
First-generation	37,094	2.21	1.05						
Non-first generation	26,920	2.11	1.03						
Goal to Transfer to a 4-Year				-16.69	59,795.56	0.00	-.105	-.083	0.13
First-generation	36,926	2.51	0.73						
Non-first generation	26,814	2.60	0.68						

Goal to Transfer to a Four-Year Institution

A hierarchical logistic regression was used to respond to research question 3. A hierarchical logistic regression was performed to determine the impact of background characteristics (sex, age, English as a first language, international student status, children living in the home), enrollment status (enrolled full-time or part-time, total credit hours earned, developmental reading, writing, and math course enrollment, and overall GPA), transfer student capital construct, validation construct, the new engagement constructs, and college culture and emphasis construct on Hispanic community college students' goal to transfer to a four-year institution. The results are presented in Table 23.

Background characteristics used in block 1 to predict goal to transfer to a four-year institution was statistically significant, $X^2(4) = 1824.27, p < .001$. The model for block 1 explained 4.9% (Nagelkerke R^2) of the variance in goal to transfer to a four-year institution and correctly classified 87.3% of the student responses. Of the five background characteristic variables shown in table 23, sex, age, English as a native language, and children living in the home were the only predictors that were statistically significant. For male students, the odds of indicating a goal to transfer were decreased by a factor of .87. The odds of having a goal to transfer decreased as students got older. As students reported a higher age group, they increased the likelihood of declaring transfer was not a goal by a factor of 1.34. Native English speakers were more likely to indicate a goal to transfer than non-native English speakers. The odds of a native English speaking student not having a goal to transfer decreased by a factor of .93. The odds of a student whose first language was English indicating not a goal to transfer were decreased by a factor of .93. Students with children living with them in the home were more likely to indicate a goal to transfer. Students living with their children decreased their odds on

not a goal to transfer by a factor of .86. It is also worth noting that, while not statistically significant, students whose native language was English were close to being statistically significant ($p = .004$).

The addition of enrollment factors in block 2 to predict goal to transfer was statistically significant, $X^2(4) = 2515.52$, $p < .001$. The variance explained 6.7% (Nagelkerke R^2) for block 2 of the model in goal to transfer and correctly classified 87.3% of the respondents. Of the six predictor variables in block 2, only enrollment status, total credit hours, developmental writing, and developmental math courses were reported as statistically significant. Full-time students were more likely to indicate a goal to transfer. The odds of full-time students not having a goal to transfer decreased by a factor of .94. Students reporting more total credit hours earned were more likely to indicate a goal to transfer than students with fewer credit hours. Students with more credit hours were at decreased odds to indicate not a goal to transfer by a factor of .89. Students that reported having plans to or had already completed a developmental writing course decreased the likelihood of having a goal to transfer. These students slightly increased their odds of not having a goal to transfer by a factor of 1.09. Students that responded with no plans to and never completed developmental math decreased their likelihood to report not having a goal to transfer. The odds of students reporting not a goal to transfer decreased by a factor of .88.

When adding the transfer student capital construct to block 3 to predict goal to transfer, the results were statistically significant, $X^2(4) = 2931.93$, $p < .001$. The model for block 3 explained 7.8% (Nagelkerke R^2) of the variance in goal to transfer and correctly classified 87.4% of Hispanic community college respondents. Results for transfer student capital are shown in Table 23. Students more engaged with the support services associated with TSC were more

likely to identify a goal to transfer. As students increased their use of services, such as academic advising, career counseling, peer tutoring, skill labs, transfer credit assistance, and disability services they decreased the odds of not having a goal to transfer by a factor of .68.

The addition of the validation construct to the previous factors in block 4 to predict goal to transfer was statistically significant, $X^2(4) = 3014.92, p < .001$. The addition of validation in block 4 to the model explained 8.1% (Nagelkerke R^2) of the variance and correctly classified 87.4% of the respondents. As validation related variables increased, students were 1.25 times more likely to indicate a goal to transfer. Essentially, at the block four stage the model correctly predicted goal to transfer 87.4% of the time. As students reported higher levels of validation, they were less likely to indicate a goal to transfer.

The six new engagement constructs, faculty interaction, out-of-class learning, academic quality, intercultural dialogue, personal development, and academic knowledge and skills, were added to block 5 to predict goal to transfer and were found to be statistically significant, $X^2(4) = 3938.05, p < .001$. Adding the six new engagement constructs to block 5 explained 10.5% (Nagelkerke R^2) of the variance and again, correctly classified 87.4% of the student respondents. Each of the six sub-constructs were statistically significant. As students reported higher levels of engagement in academic quality, intercultural dialogue, and academic knowledge and skills each increased the likelihood of a student to have a goal to transfer. Each of these constructs decreased the odds of students indicating they did not have a goal by factors of .70 for academic quality, .90 for intercultural dialogue, and .67 for academic knowledge and skills. As students reported high levels of engagement with personal development, they were less likely to indicate a goal to transfer. The odds of a student reporting they did not have a goal to transfer slightly

increased by a factor of 1.09. Therefore, community colleges have the greatest opportunity to positively influence Hispanic students on their decision to identify a goal to transfer when their students are engaged in quality academic practices, in dialogue with students of diverse backgrounds on topics of difference, and in activities that build academic skills.

The final addition to the model was the college culture and emphasis construct to block 6. The additional construct to the model was statistically significant, $X^2(4) = 3961.72, p < .001$. A Hosmer and Lemeshow test was completed to determine the goodness of fit. The test was not statistically significant ($p = .451$), which indicated that the model was not a poor fitting model. The complete model explained 10.5% (Nagelkerke R^2) of the variance and correctly classified 87.4% of all Hispanic community college student respondents. As college culture and emphasis increased, students were 1.11 times more likely to indicate not having a goal to transfer to a four-year college or university. In other words, students were less likely to have a goal to transfer when the college was viewed to heavily emphasize encouraging studying, providing support to succeed, encouraging contact with diverse students, helping to cope with non-academic responsibilities, and providing support to thrive socially.

Table 23*Hierarchical Logistic Regression: Not a Goal to Transfer to a Four-Year Institution*

Variable	<i>B</i>	SE	Wald	<i>df</i>	<i>p</i>	Exp(B)	Lower CI	Upper CI
Background Characteristics								
Sex: Male	-.14	.02	35.25	1	.000	.87	.83	.91
Age	.30	.01	1485.44	1	.000	1.34	1.32	1.36
(Native) English: Yes	-.07	.02	8.17	1	.004	.93	.89	.98
International	-.05	.04	1.32	1	.250	.95	.88	1.04
Have Kids: Yes	-.15	.03	31.45	1	.000	.86	.82	.91
Enrollment								
Enrollment: Part-time	-.06	.03	5.78	1	.016	.94	.90	.99
Total Credit Hours	-.11	.01	160.29	1	.000	.89	.88	.91
Developmental Reading	.03	.02	1.08	1	.299	1.03	.98	1.08
Developmental Writing: Plan to/done	.08	.02	11.60	1	.001	1.09	1.04	1.14
Developmental Math: Not done/nor plan to	-.13	.02	52.19	1	.000	.88	.85	.91
Overall GPA: Lower	-.01	.01	1.14	1	.286	.99	.97	1.01
Transfer Student Capital Construct	-.39	.02	273.54	1	.000	.68	.64	.71
Validation Construct	.22	.02	156.22	1	.000	1.25	1.21	1.29
New Engagement Constructs								
Faculty Interaction	.06	.03	5.98	1	.014	1.07	1.01	1.12
Out-of-Class Learning	.06	.03	4.83	1	.028	1.06	1.01	1.18
Academic Quality	-.36	.02	363.82	1	.000	.70	.67	.72
Intercultural Dialogue	-.11	.01	72.03	1	.000	.90	.88	.92
Personal Development	.90	.02	20.41	1	.000	1.09	1.05	1.14
Academic Knowledge and Skills	-.41	.02	287.42	1	.000	.67	.64	.70
College Culture and Emphasis Construct	.11	.02	23.66	1	.000	1.11	1.07	1.16

Summary

This chapter presented the results from the 2016 three-year cohort of the CCSSE instrument. Each of the research questions guided the format of the statistical analysis that was conducted. Descriptive statistics, inferential statistics (*t*-Tests), and a hierarchical logistic regression were used to answer each of the three research questions. Analyzing the entire dataset for the three-year cohort allowed for a thorough investigation of the data. The interpretation of the data analysis will be discussed in chapter five.

CHAPTER V:

DISCUSSION, CONCLUSION, AND IMPLICATIONS

Overview

This chapter presents the quantitative findings and a discussion of the overall results of the study. The chapter is organized into seven sections. First, a summary of the study is reviewed. Next, there is a discussion of the quantitative findings. A conclusion is then presented. Finally, the chapter concludes with sections on implications for policy and practice, recommendations for future research, and concluding thoughts.

Summary of the Study

Chapter 1 introduced the importance of developing an appreciation for and understanding of the cultural differences Hispanic students bring to community colleges. The chapter also described a multifaceted purpose that included the following: (a) to better understand how Latina/o/x experiences increase student engagement; (b) to test the re-conceptualized CCSSE factors on the generational status of Hispanic community college students; (c) to test if the factors in the hypothetical conceptual model increase Hispanic community college student goal to transfer to a four-year institution; (d) to provide effective engagement strategies and recommendations for future research.

Chapter 2 provided a review of the literature on Hispanic community college students, and discussed persistence through validation and encouragement, environmental factors, and

support services. The chapter also presented literature on the gendered family roles and responsibilities that Latina/o/x college students are expected to manage. The chapter also reviewed the influence of Astin's (1985) IEO model on the new hypothetical conceptual model developed for this study. Rendon's (2002) validation theory, Laanan's (2016; 2011) transfer student capital theory, and Kuh et al's (2007) student engagement theory were also discussed as the basis for the theoretical framework of the study. The chapter then reviewed literature that had used CCSSE data for studies on community college men of color (Martinez, 2018; Wood & Palmer, 2016), faculty interactions with Latina/o community college students (Lundberg, Kim, Andrade, & Bahner, 2018), student socialization (Wang, 2016), systemic barriers to minority student academic achievement (Greene, Marti, & McClenney, 2008), and also, criticism of the CCSSE benchmarks (Nora, Crisp, & Matthews, 2011). The chapter concluded with an overview of the literature on first-generation status of community college students.

In Chapter 3, the quantitative methodology was presented along with the methods used to design and conduct the study. Specifically, the CCSSE instrument was discussed in detail, as was the population and sample, collection methods, and reliability and validity of the instrument. Variables were presented along with their associated coding scales. Additionally, the method of the data analysis was reported.

Chapter 4 reported the results of the quantitative analysis. The chapter presented a thorough review of the background characteristics through descriptive statistics and frequencies. Additionally, inferential statistics were presented to compare several dependent variables between the groups first-generation Hispanic community college students and non-first-generation Hispanic community college students. Lastly, the results of a logistic regression were

presented to demonstrate if the re-conceptualized CCSSE factors had an impact on Hispanic community college students' goal to transfer to a four-year institution.

Chapter 5 provides an interpretation and discussion of the study. Implications for policy and practice, recommendations for future research, and concluding thoughts are provided.

Discussion of Findings

Research Question One

What are the background characteristics and engagement experiences of Hispanic students in community colleges?

This research question examined the background characteristics and engagement experiences of 74,188 community college students identifying as Hispanic. In an effort to better understand the population and their lived experiences, descriptive statistics were used to measure the frequencies of the responses. Descriptive statistics were employed to assess independent variables grouped by the six factors (background characteristics, enrollment, transfer student capital, validation, the new engagement constructs, and college culture and emphasis) in the hypothetical conceptual model.

Background Characteristics

The variables assessed in the study under background characteristics included sex, age, English as a native or first language, international student status, children living in the home, and Hispanic. Given that the data had already been reduced to include only students that had identified as Hispanic, that particular independent variable was not run as a frequency. Since the item in the CCSSE survey inquired about sex and not gender, the responses were limited to

female and male. Female students comprised about 58% ($n = 42,840$) of the population, and the male respondents totaled slightly more than 42% ($n = 31,188$). Of the 74,188 respondents, 160 students chose not to respond to the item on sex. Almost 78% of the respondents were of the traditional college age range between 18 and 24 years old. The remaining 22.3% were non-traditional college students ranging in age from 25 to more than 65 years old. Nearly 29% ($n = 29,354$) of student respondents reported having children living in the home with them while enrolled. Slightly more than 52% ($n = 38,853$) of the student respondents reported English as their native or first language. More than 9% ($n = 6,730$) of the respondents reported being an international student or a foreign national. Of the 74,188 participants in the study, 536 students chose not to respond to this item.

An additional descriptive statistic was run to assess the frequency with which students reported being a first-generation college student. Consistent with CCSSE's definition and the literature from Pascarella et al. (2004), first-generation in this study was considered to be students with parents that had not had any college experience. More specifically, neither mother nor father had received more than a high school diploma or GED. Over 55% ($n = 31,121$) of the respondents reported that neither mother nor father had any college experience which compares to almost 45% ($n = 25,101$) of students that claim at least some college experience for at least one parent. Of note is that a substantive number of students in the cohort ($n = 17,966$) either did not provide information for either parent, or reported an "unknown" response for both parents. The number of missing students for the items on mother's and father's education level are actually much greater than has been reported, but a decision was made by the researcher to transform the variable to allow student responses that include at least one response to either mother's or father's education level. CCSSE defaults to categorizing students as missing if there

is a missing response to either of these two survey items. The decision to include students that provided the education level to either the mother or father is a unique characteristic of this study that provides a broader understanding of this characteristic that Hispanic community college students bring to their college experience.

Enrollment

Several enrollment variables were measured to assess the frequencies in which Hispanic community college students access their colleges. Specifically, full-time versus part-time enrollment status, total credit hours earned, enrollment in developmental or remedial reading, writing, and math courses, and overall GPA were measured. Students indicated they had already completed or planned to complete developmental reading and writing courses with a response rate of about 35% ($n = 25,187$) and 39% ($n = 28,679$), respectively. Developmental math was a priority for a larger percentage of the population, where 32.4% ($n = 23,559$) had already completed the course and 17.3% ($n = 12,572$) planned to do so. These data affirm literature highlighting the poor academic preparation in K-12 education that is a reality for many Latina/o/x community college students (Gandara, 2017). The need for enrollment in remedial courses also underscores Zell's (2010) research on the systemic barriers to college entry Hispanic students face.

The majority of the students (68%, $n = 50,459$) responding to the survey reported being enrolled at their college full-time, which leaves 32% ($n = 23,729$) of respondents enrolled in less than full-time. Almost 58% ($n = 40,884$) of respondents reported having earned between one and twenty-nine credit hours at their college. Another 28% ($n = 20,455$) indicated they had achieved between twenty-nine and sixty hours toward a degree. When considering these data it is

important to be mindful of the literature that discusses the many roles Latina/o/x students must maintain while making progress at their community college. Latina/o/x students are frequently asked to prioritize financial and care-giving responsibilities over academic responsibilities (Cejda & Hoover, 2011; Harklau, 2013). As Hispanic students are earning credit hours, community college faculty and staff should be mindful that many are doing so in spite of also working full-time jobs or caring for immediate and extended family members.

The final variable reviewed in the enrollment factors was overall GPA. Of the respondents, 87.4% ($n = 64,057$) indicated having earned at least a C+ average at their college. Of that 87.4%, almost 10% ($n = 6,971$) reported an A average. Among all respondents, approximately 12% ($n = 9,156$) of the population sample reported an overall GPA of C or less. With almost 64% of students reporting at least an A – B average, the majority of students indicated they are achieving at a high level.

Transfer Student Capital

Given the importance of TSC variables in determining the knowledge and skills that aid student during the transfer process, the frequency with which students access student services associated with TSC were measured (Laanan & Jain, 2016). The first variable measured the frequency with which students accessed academic advising. Students reported accessing these services at a rate of nearly 66%. Of greater concern was the higher percentage of respondents indicating they had rarely or never used services such as, career counseling (45.3%), peer tutoring (42.5%), skills labs (33.9%), transfer credit assistance (38.9%), and services for students with disabilities (34.5%). Compounding these concerns were large numbers of students reporting they did not know if they had accessed the services. Considering that 68% of students enrolled as

full-time students, the data demonstrating that the majority of students were not connected with key services was even more concerning. These student services have been proven to promote intent to transfer to a four-year institution (Laanan & Jain, 2016).

Validation

The literature indicated a powerful influence family can have on Hispanic community college students, although the literature was inconsistent on whether or not the influence was a positive or negative association (Castro & Cortez, 2017; Cejda & Hoover, 2011; Harklau, 2013; Harris, 2017; Zell, 2010). When family influence validates a student's decision to enroll in college, the literature is clear that family can provide emotional support, guidance, encouragement, financial support, and mentoring. All of these forms of validation contribute to student success, self-confidence, and persistence. Given the importance and value of family influence, it was encouraging to find that 71% ($n = 52,055$) of students reported family as being extremely supportive and another 16.6% ($n = 12,147$) indicated quite a bit of family support. Only 2.7% ($n = 1,977$) said their families were not very supportive of their enrollment in their community college. Another valuable source of support to Latina/o/x community college students can come from friends. About 51% ($n = 37,805$) of respondents reported feeling extremely supported by friends, and almost 27% ($n = 19,532$) said they received quite a bit of support from friends.

Another key source of validation can come from the people and relationships formed at the college a student is enrolled in. The instrument asked students to rate the level of availability, helpfulness, and sympathy of their instructors on a seven-point Likert scale, with seven being the most available, helpful, and sympathetic and one being the least. Over 64% of respondents

indicated their relationships with their instructors were at least a six on the scale. Similarly, relationships with other students were measured with the same seven-point scale, but measuring the level of friendliness, supportiveness, and belonging. Over 55% of respondents indicated a six or seven when they reflected on the validation they received from their peers. The relationships with the fewest number of students indicating a six or seven on a scale measuring how helpful, considerate, and flexible administrative personnel and office staff were toward Latina/o/x students. Only 46.5% reported high levels of support from their relationships with community college staff. These low numbers may help make meaning of the low levels of usage in student services associated with TSC factors. With nearly 33% of student respondents reporting a neutral score of four or worse, this could highlight an opportunity for community colleges to increase connection to student services that increase the likelihood of transfer to a four-year college or university.

Faculty Interaction

Faculty interaction was one of the six new engagement constructs. This particular construct assessed six items on the CCSSE instrument. Of those items, communicated through e-mail (67.6%), discussed grades and assignments (52%), received prompt feedback (60.6%), and worked harder than thought possible to meet faculty expectations (59.5%) were the variables that generated the highest levels of engagement with faculty with students responding they have engaged in these interactions often or very often. Variables where students indicated often or very often faculty interactions at a smaller percentage were when discussing career plans (35.4%) and ideas from readings and assignments outside of class (20.5%). In fact, 43% of respondents indicated they had never discussed ideas from readings and assignments outside of

class. Discussing career plans or academic conversations outside of the classroom may feel less natural to many faculty, but these interactions represent additional opportunities to increase faculty – student engagement and validation, and it is incumbent upon the faculty to initiate these conversations with their students (Rendon, 2002).

Out-of-Class Learning

The second new engagement construct measured was out-of-class learning. This construct consisted of four survey items. The only variable with a majority of student respondents (68.4%) reporting sometimes, often, or very often was the response to worked with classmates on assignments outside of class. In each of the other three items (tutored or taught other students, participated in a community-based project for class, and worked with instructors on projects other than coursework), the majority of students reported never having engaged in the activities.

Academic Quality

The third construct assessed in this study was academic quality. To assess this construct, three variables were identified. Approximately 60% of students reported having prepared two or more drafts of a paper or assignment often or very often before submitting, and over 72% of respondents indicated having often or very often integrated multiple ideas or information into a paper or project. It was surprising that only 40% of students said they had often or very often given a classroom presentation, and almost 20% have never given a presentation in class. Overall, students reported frequent engagement with activities that connote good academic quality.

Intercultural Dialogue

With the established history of emphasis on addressing racial, social, and economic inequities in the U.S. and a well documented diverse demographic nationally, community colleges have an opportunity to create meaningful engagement among diverse student populations on topics of difference (Cohen et al., 2013, Huerta & Fishman, 2014, Laanan, 2003). The fourth new engagement construct aimed to measure intercultural dialogue among Hispanic community college students by asking how frequently they engaged in serious conversations with students who were not Hispanic, and how often did they have serious conversations on topics of religion, politics, and values. Students' response to both items were somewhat evenly distributed with about a quarter of respondents indicating very often, often, sometimes, and never to both of the items. If about 75% of students are indicating that they engaged in serious conversations of difference at least sometimes, and about 75% of students report that these serious conversations were among a diverse student population at least sometimes, then community colleges are living their mission to create positive social change.

Personal Development

The next new engagement construct focused on how students' engagement experience impacts their personal growth and development. This construct assessed responses to items inquiring to the degree of impact the college had on understanding self, understanding people of other ethnicities and backgrounds, developing a personal code of ethics, and contributing to the welfare of one's community. Understanding self (66.5%, $n = 48,573$), understanding people from other ethnic backgrounds (61.2, $n = 44,719$), and developing a personal code of ethics (58.9%, $n = 42,946$) indicated that the majority of students believed their college had affected their personal development very much or quite a bit. This may indicate that the high rates of exposure

to diverse people and ideas assessed in the intercultural dialogue construct are translating to a positive impact on the personal growth and development of students.

Academic Knowledge and Skills

The last of the new engagement constructs assessed many of the other aspects of the multi-faceted community college mission. Items within the construct inquired about several important dimensions of the student experience, such as acquiring a broad education, writing clearly, speaking effectively, thinking critically, and solving numerical problems. Almost 80% of respondents indicated that their community college experience contributed quite a bit or very much to their acquisition of a broad and general education. Between 70% and 80% of respondents indicated their community college experience added quite a bit or very much in their development of writing, speaking, and thinking more effectively. Interestingly, math was the area reporting the lowest percentage of students reporting quite a bit or very much development. While enrollment in the courses was high, successful completion of developmental courses and enrollment in college level courses was not part of this study, but should be studied. There has been a trend in several states to legislate colleges away from remedial courses that are viewed as costly, ineffective, and non-credit bearing (Smith, A., 2015). In Ashley Smith's (2015) article, she describes corequisite remediation, or college level courses that pair students with a tutor, as an increasingly popular innovation that serves as an alternative to traditional remedial courses. Critics of corequisite remediation are leery of its success rates and posit that those most successful are likely White, middle-class students (Smith, A., 2015).

College Culture and Emphasis

The culture of success and degree to which colleges emphasize supportive activities and engagement demonstrate a commitment to and an investment in students. Favorable percentages of students indicated that colleges place very much or quite a bit of emphasis on variables such as, on encouraging studying (79.1%), providing support for success (77.2%), and encouraging contact among diverse students (60.4%). Of particular concern for Latina/o/x community college students were the less favorable rates for helping to cope with non-academic responsibilities (63.9% said very little), and providing support to thrive socially (55.6% said very little or some). As mentioned in the literature, Latina/o/x community college students are often asked to continue to support their families with full- and part-time jobs or through domestic care for young and elderly family members (Aguinaga & Gloria, 2015, Cejda & Hoover, 2011, Gloria et al., 2017). These additional responsibilities can compete with academic responsibilities. Providing coping strategies for non-academic responsibilities is an important support service community colleges should offer. Additionally, Cejda & Hoover's (2011) research on Hispanic students' motivation to collaborate to achieve collective goals and Tovar's (2015) assertion that allowing Hispanic community college students to build social capital through social networking promotes persistence provide just some of the examples in the literature that document the importance and value of thriving socially for this demographic.

Research Question Two

Do factors such as overall GPA, academic knowledge and skills, faculty relationships, academic advising, and helping to cope with non-academic responsibilities differ between first-generation and non-first-generation Hispanic community college students?

The literature is inconsistent in what it means to be first-generation college student. Some authors describe being the first in their family to attend a college, others describe being the first to complete a college degree, and still other authors consider first-generation to mean that neither the mother, nor the father have had any education past that of earning a high school diploma or GED (Holley & Gardner, 2012, Pascarella, Pierson, Wolniak, & Terenzini, 2004, Redford & Hoyer 2017). CCSSE agrees with Pascarella et al. (2004) that first-generation college students are those whose parents' education was limited to high school diploma or GED and have not had any college experience.

The findings of this study support the literature, which states that non-first-generation community college students are more likely to transfer to a four-year institution (Wood & Palmer, 2016). Non-first-generation Hispanic community college students reported statistically significant higher mean scores ($M = 6.04$) on overall GPA compared to first-generation students ($M = 5.90$). Non-first-generation Hispanic community college students also reported a significantly higher mean score ($M = 2.60$) for goal to transfer to a four-year college or university than their first-generation student ($M = 2.51$) counterparts.

The findings also describe a consistent difference in academic engagement between the two groups. First-generation students reported higher mean scores in academic advising, relationships with faculty, academic knowledge and skills, and helping to cope with non-academic responsibilities with each being statistically significant except for relationships with faculty. While the differences between the two populations was mostly statistically significant, the magnitude or practical difference (effect size) between the two groups was small.

Research Question 3

How do background characteristics, enrollment, the new engagement constructs, validation, transfer student capital, and college culture and emphasis predict goal to transfer to a four-year institution?

To respond to this question, a hierarchical logistical regression was conducted to ascertain if the factors in the hypothetical conceptual model, presented in chapter three, have an effect on the likelihood that a student will identify a goal to transfer to a four-year institution. The full model explained 10.5% (Nagelkerke R^2) of the variance and correctly classified 87.4% of student respondents. In other words, the model correctly predicted Hispanic community college students goal to transfer 87.4% of the time. This logistic regression model followed the hypothetical conceptual model, which was based on Astin's (1985) IEO model.

Inputs: Background Characteristics

Block one of the model contained background characteristics that students brought to college, such variables as sex, age, English as a first language, international student status, and children living at home. Sex, age, English as a native language, and children living at home were the only statistically significant variables in the model. Latino male students had a 47% probability of indicating not a goal to transfer. Documentation of the pressures to prioritize family responsibilities ahead of academic commitments has been discussed in the literature and this study, but the ways in which Latinos and Latinas experience those priorities is different (Cejda & Hoover, 2011, Harklau, 2013). Latinos experience *caballerismo* which pressures men to provide for the family financially, and Latinas experience *marianismo* which emphasizes family-centric cultural norms over academics (Aguinaga et al, 2015, Gloria et al., 2017, Rodriguez & Blaney, 2020). It should not be assumed that these pressures are weighted equally.

The burden to work and provide financially may cause Latino male students to feel as though transfer to a four-year institution is not possible. It is also likely that these pressures and the complexity of the responsibilities increase as student's age. As Hispanic students increased in age, their probability for not having a goal to transfer was 43%. Native English speaking students had 48% probability of not having a goal to transfer. It is likely that a higher percentage of students with English as their first language would feel more confident in negotiating the barriers to transfer. Hispanic community college students with children living in their home had a 46% probability of not having a goal to transfer. Added responsibilities of caring for children in the home somewhat diminished Latina/o/x student's academic goals. In order for students to be able to focus on their studies, colleges should work to secure grant funding to help provide childcare services. These data help to affirm the literature supporting community colleges as a pathway that is both more affordable and an accessible option to multiple well-paying careers (Padilla et al., 2019).

Environment: Enrollment

The addition of the six independent variables to the model were statistically significant. Enrollment status, total credit hours, developmental writing, and developmental math were each statistically significant. Students enrolled on a part-time basis had a 48% probability of not identifying a goal to transfer. As total credit hours decreased for students, the probability of not having a goal to transfer was 47%. It is logical to infer that full-time students making progress on their credit hours would feel more hopeful in their intent to transfer. Plans to enroll or completion in developmental writing courses generated only a 52% probability of no intent to transfer. Students who have not completed, nor plan to complete developmental math had a 47%

probability of not having a goal to transfer. Developmental math courses continues to be an important variable for Hispanic community college students in this study, and the data indicate a greater awareness of the need to develop math skills among Latina/o/x community college students. When reviewing frequencies earlier in the study, Hispanic students indicated substantively higher numbers for planned enrollment or completion of math courses compared to developmental reading and writing courses. Enrollment in remedial courses is not necessarily associated with successful completion. Inability to complete remedial courses could discourage students from attempting college level courses for writing and math.

Environment: Transfer Student Capital Construct

The TSC construct was added to block three of the model and was statistically significant. Decreased student connection to support services associated with TSC meant, Hispanic community college students had a 40% probability for no intent to transfer. These data validate the literature on Laanan's (2007) assertion that as students connect with community colleges in ways that build a student's TSC, they increase the likelihood of transfer to a four-year institution. Community college leaders should be encouraged by the findings that support services, common to most community college campuses, can have a truly significant impact on a student's intent to transfer to a four-year college or university.

Environment: Validation

The validation construct was then added to block four of the model and was statistically significant. Validation was measured by assessing the degree of support from friends and family and the quality of relationships with students, faculty, and staff at the college. Essentially, at the block four stage the model correctly predicted goal to transfer 87.4% of the time. As students

reported higher levels of validation, they were less likely to indicate a goal to transfer. As validation increased, students had a probability of 44% for no intent to transfer. These data contradict Rendon's work and should be studied further. Recalling the much more modest results from the frequencies run on relationships with staff, it is plausible that an increase in the helpfulness, consideration, and flexibility in administrative offices would have a stronger impact on the validation construct.

Environment: New Engagement Constructs

When the new engagement constructs were added to block five of the model, the re-conceptualized CCSSE constructs were statistically significant. Each of the six new engagement constructs in block 5 were statistically significant. As faculty interaction increased, students had a probability of 52% of no intent to transfer. Faculty interactions were reasonably positive, but also showed room for growth. Faculty were not seen as engaged in conversations outside of the classroom, nor were they inclined to discuss career plans with students. Both variables are meaningful opportunities for faculty to validate students. There was a 51% probability of not having a goal to transfer for students reporting increased engagement with out-of-class learning activities. Out-of-class learning opportunities, such as tutoring other students can provide a deeper level of learning for students, but also may not come naturally to students. Community college personnel should look for opportunities to connect students with their peers, and encourage students to recognize gifted students ability to teach others. As students reported decreased levels of academic quality, the probability for students identifying no intent to transfer was 41%. Included in academic quality were variables that promote deeper learning, such as the integration of multiple sources into a concept or assignment. Consequently, academic quality

was the second most important construct to the likelihood of intent to transfer. The degree to which students were less engaged in intercultural dialogue decreased the probability of no intent to transfer by 47%. Literature has identified racial integration as one of its many goals and diversity of the community college as a strength that makes it a superior option to four-year institutions (Cohen et al., 2013, Padilla et al., 2019). With this consideration, intercultural dialogue provides a strong affirmation of the impact these conversations can have on the academic goals of community college students. Less influential to goal to transfer was increased levels on personal development growth which only had a probability of 52% of no intent to transfer. The descriptive statistics indicated the majority of Hispanic community college students reported high levels of engagement in almost all of the personal development variables. This construct may be important, but simply may not be as strong of an indication of goal to transfer as other constructs in the model. Students reporting lower degrees of experiences developing academic knowledge and skills had an impressive probability of 40% of no intent to transfer. Essentially, higher degrees of engagement with academic knowledge and skills were the most important variables determining Hispanic students' intent to transfer.

Environment: College Culture and Emphasis Construct

The five independent variables comprising the college culture and emphasis construct were added to block six and were statistically significant. Block six completed the model. Students reporting an increased emphasis from their college on the factors associated with college culture and emphasis had a 53% probability of no goal to transfer. The variables in this construct indicate community colleges have an opportunity communicate care and concern for the well-being of their students through an investment in their academic success, ability to thrive

socially, development of coping skills for non-academic responsibilities, and development of relationships with people different from themselves. These are well-being traits that are not specific to the college experience, but rather characteristics of well-being throughout a person's life.

Conclusions from the Findings

This quantitative study had multiple purposes. First, this study sought to better understand how Hispanic student experiences increase student engagement in the community college through the use of a three-year cohort of a national data set from CCSSE. Second, this study aspired to move beyond the CCSSE benchmarks and test re-conceptualized CCSSE factors of first-generation versus non-first-generation Hispanic community college students. Third, the research tested a new hypothetical conceptual model of factors that increase the likelihood of Latina/o/x community college student's goal to transfer to a four-year institution. Conclusions can be drawn from the findings and can be found below.

Conclusion One

This study deepened understanding of how Hispanic community college students' experiences increase student engagement.

This quantitative study assessed all Hispanic community college students from a three-year cohort of a national dataset from CCSSE. Survey results from 74,188 Hispanic community college students were measured to provide quantitative analysis to a body of literature that leans qualitative. Several findings in the descriptive statistics of background characteristics supported the literature. Gandara (2017) detailed the poor K-12 academic preparation, which was supported by the percentages of students planning to enroll in, or having already completed developmental

courses in reading (35%), writing (39%), and math (50%). This study also builds on previous research done by Cejda & Hoover (2011), Harklau (2013), Aguinaga & Gloria (2015), Gloria et al. (2017), and Rodriguez & Blaney (2020), which discussed the cultural norms associated with Hispanic college students. Specifically, the literature focused on the traditional gender roles for Latinos and Latinas, as well as the family-centric pressures that many Latina/o/x students experience. This study found that Latina women enrolled in community colleges in larger numbers than Latino men, by a rate of 58% to 42%. Of students identifying as Hispanic, almost a third (29%) indicated they had children living with them in their home. Of concern was the low numbers (36%) of Hispanic students reporting that their college helped them cope with non-academic responsibilities.

Conclusion Two

This study moved beyond the CCSSE benchmarks and tested re-conceptualized CCSSE factors between first-generation and non-first-generation college students.

The results of the analysis supported previous research from Wood & Palmer (2017) that stated non-first-generation college students were more likely to transfer to four-year colleges and universities than first-generation students. In this study, non-first-generation students reported higher mean scores for overall GPA and goal to transfer.

Another key difference between the two groups was that of their engagement experiences. First-generation college students were more engaged in services and relationships than non-first-generation students. Specifically, first-generation students indicated increased numbers of connection to academic advising, faculty relationships, academic knowledge and skills, and helping to cope with non-academic responsibilities. It is reasonable to posit that first-

generation students would be actively seeking out services to help them succeed in larger numbers than non-first-generation students that may be able to rely on family for support and validation.

Conclusion Three

The model was an overall good fit for predicting no intent to transfer with transfer student capital, academic quality, and academic knowledge and skills serving as constructs that were clearly the most important factors in the model.

The new hypothetical conceptual model was a good fit for predicting goal to transfer to a four-year institution. The model correctly predicted Hispanic community college students' intent to transfer 87.4% of the time. Following Astin's (1985) IEO model, input variables (background characteristics) were added to the model, followed by environmental variables (enrollment, transfer student capital, validation, and new engagement constructs). Finally, the output variables (college culture and emphasis) were added to the model. Core to the framework of both NSSE and CCSSE is student engagement theory, but student engagement can come in many forms and many theorists have helped shape our understanding of student engagement. While Quaye & Harper (2014) correctly point out that low-income, first-generation community college students do not necessarily have the luxury to participate in engagement activities, some forms of engagement are more accessible. Kuh et al. (2007) added important student services and resources that promote student learning and success to our understanding of engagement. This study reported impressive statistics for the TSC construct (60%), the academic quality construct (59%), and academic knowledge and skills construct (61%); each of which increased the probability of Hispanic community college students' intent to transfer.

Implications for Policy and Practice

There are multiple implications for policy makers stemming from this quantitative study on Hispanic community college student engagement. Hispanic community college students offer a rich culture that compliments community college campuses and will continue to do so in larger numbers in the near future. With this in mind, policy makers should be aware of the benefit student support services have on this population and look for opportunities to expand upon resources like academic advising, career counseling, peer tutoring, skill labs (particularly in writing and math), transfer credit assistance, and disability support services. Support services have demonstrated their ability to promote student success and academic goals. This is especially true of first-generation Hispanic community college students that may not have another resource to help navigate the transfer process.

Additionally, policy makers should look for systemic opportunities to assess the effectiveness of developmental courses in writing and math. Enrollment in both courses were statistically significant, and students engaged in developmental math courses had a higher probability of identifying a goal to transfer.

An additional recommendation stems from the composition of the faculty, staff, and administrators within community colleges. With the impressive prominence of Hispanic students in border states and around the country, what are colleges doing to create a campus environment where its employees more closely resemble its students? Instituting diverse marketing practices for vacant positions, inviting people of color to nominate colleagues within their network, and building diverse search committees can help institutions establish a diverse pool of candidates. While some non-Hispanic faculty members may have a genuine interest in Latinx culture, it

would be advisable to complement these instructors with people that actually share the same culture. Beyond their ability to validate students, Hispanic faculty members and advisors have the ability to model for students' educational goals.

Furthermore, community colleges can and should be looking to increase engagement among students that share similar cultural backgrounds. Are there friendship mechanisms in place that help students find others that help them feel as though they belong at that college? Does programming exist among these organizations and clubs to increase dialogue on difference, educational goals, career aspirations, belief systems, or academic concepts?

Community college administrators should further emphasize a curriculum that promotes a broad education, writing effectively, speaking clearly, thinking critically, and solving numerical problems. These variables combine to form the academic knowledge and skills construct that was the most important construct at predicting intent to transfer. An intentional focus on building these academic skills has been proven to have a significant impact on the lives of community college students.

The research in this study helped inform several implications for practice. Faculty should challenge students academically. Students that reported high levels of engagement in quality academic activities were much more likely to have a goal to transfer. Classroom presentations, preparing multiple drafts of assignments, and integrating multiple ideas and concepts into a paper were not only variables promoting academic goals, but these activities might also serve other goals such as, speaking clearly and thinking critically.

The research supported previous literature on the importance of faculty – student engagement on persistence and academic success (Cejda & Hoover, 2011; Greene et al., 2008;

Tovar, 2015b; Zell, 2010). Faculty relationships were the most important variable in the validation construct, yet there is still opportunity for improvement. Faculty should be encouraged to broaden their relationships with students beyond the borders of the classroom to include conversations on career aspirations and ideas from class readings and assignments.

Recommendations for Future Research

Further quantitative studies should be conducted to study other academic goals and other ethnicities.

This study was limited in scope to one dependent variable, goal to transfer, but there are several other goals that students identify when they enroll in community colleges. Students may have no desire to transfer to a four-year institution, but could see community college as an opportunity to develop job-related skills, achieve a certification, or obtain an Associate's degree. Additionally, this study was limited to students identifying as Hispanic. Further research should be done to analyze how the background and engagement experiences of Hispanic students compares to Black, Asian, and White community college students.

A quantitative analysis of the factors that predict Hispanic students' enrollment in two-year and four-year institutions.

This study analyzed the factors that predict a goal to transfer to a four-year institution, but further research could be done that predicts the factors that influence some students to enroll in a two-year college versus other Hispanic students' decision to enroll directly into a four-year institution. Hispanic students are a complex population where factors, such as first-generation college student status, proximity to culture, and English as a first language can have a strong

influence on the student experience and level of engagement. How do these factors and others influence Hispanic students college going decision making?

Concluding Thoughts

Community colleges are a uniquely American innovation that has, at times, been relegated the social concerns that continuously emerge in our society. They have served as remedial education, workforce preparation, and upward social mobility (Cohen et al., 2013; Shea, 1974). In more recent years, community colleges were tasked with social concerns, such as racial integration, wage inequities, unemployment, and substance abuse (Cohen et al., 2013). The research in this study confirmed that the diversity of student background characteristics distinguishes two-year colleges as a preferable and, even, superior option for many Hispanic students. The Latina/o/x community offers a valuable and rich culture that can positively impact our community colleges.

Hispanic community college students can and do engage in their community, as Rendon's (2002) validation theory states, but it is incumbent upon faculty and counselors to be the ones that initiate contact. First-generation Hispanic college students were more likely to be engaged in both their student services, as well as their relationships on campus. This is likely out of necessity to increase their chances for student success. Community colleges must develop a deeper understanding of the background characteristics of their Hispanic students. Doing so will enable colleges to re-evaluate engagement practices that were originally designed for majority student populations and have now become systemic barriers to the most rapid growing population in the U.S.

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Appendix A. Community College Survey of Student Engagement

The Community College Student Report

Instructions: It is essential that you use a No. 2 pencil to complete this survey. Mark your answers as shown in the following example: ● Correct Mark ⓧ ✕ Ⓞ Incorrect Marks

1. Did you begin college at this college or elsewhere? Started here Started elsewhere

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

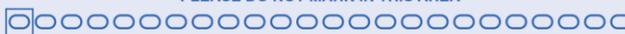
3. Have you taken this survey in another class this term? Yes No

4. In your experiences <u>at this college</u> during the current school year, about how often have you done each of the following?	Very often	Often	Sometimes	Never
a. Asked questions in class or contributed to class discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Made a class presentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Prepared two or more drafts of a paper or assignment before turning it in	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Worked on a paper or project that required integrating ideas or information from various sources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Come to class without completing readings or assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Worked with other students on projects during class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Worked with classmates outside of class to prepare class assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Tutored or taught other students (paid or voluntary)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Participated in a community-based project as a part of a regular course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Used the Internet or instant messaging to work on an assignment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Used e-mail to communicate with an instructor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Discussed grades or assignments with an instructor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Talked about career plans with an instructor or advisor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Discussed ideas from your readings or classes with instructors outside of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Received prompt feedback (written or oral) from instructors on your performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. Worked harder than you thought you could to meet an instructor's standards or expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
q. Worked with instructors on activities other than coursework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
r. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
s. Had serious conversations with students of a different race or ethnicity other than your own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
t. Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
u. Skipped class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. During the current school year, how much has your coursework <u>at this college</u> 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="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Analyzing the basic elements of an idea, experience, or theory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Synthesizing and organizing ideas, information, or experiences in new ways	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Making judgments about the value or soundness of information, arguments, or methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Applying theories or concepts to practical problems or in new situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Using information you have read or heard to perform a new skill	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3/8" PERF

PLEASE DO NOT MARK IN THIS AREA



SERIAL #

6. During the current school year, about how much reading and writing have you done at this college?

	None	1 to 4	5 to 10	11 to 20	More than 20
a. Number of assigned textbooks, manuals, books, or book-length packs of course readings	<input type="radio"/>				
b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment	<input type="radio"/>				
c. Number of written papers or reports of any length	<input type="radio"/>				

7. Mark the response that best represents the extent to which your examinations during the current school year have challenged you to do your best work at this college.

Extremely challenging ⑦ ⑥ ⑤ ④ ③ ② ① Extremely easy

8. Which of the following have you done, are you doing, or do you plan to do while attending this college?

	I have done	I plan to do	I have not done nor plan to do
a. Internship, field experience, co-op experience, or clinical assignment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. English as a second language course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Developmental/remedial reading course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Developmental/remedial writing course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Developmental/remedial math course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Study skills course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Honors course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. College orientation program or course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Organized learning communities (linked courses/study groups led by faculty or counselors)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. How much does this college emphasize each of the following?

	Very much	Quite a bit	Some	Very little
a. Encouraging you to spend significant amounts of time studying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Providing the support you need to help you succeed at this college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Providing the support you need to thrive socially	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Providing the financial support you need to afford your education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Using computers in academic work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

	None	1 – 5	6 - 10	11 - 20	21 - 30	More than 30
a. Preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program)	<input type="radio"/>					
b. Working for pay	<input type="radio"/>					
c. Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)	<input type="radio"/>					
d. Providing care for dependents living with you (parents, children, spouse, etc.)	<input type="radio"/>					
e. Commuting to and from classes	<input type="radio"/>					

11. Mark the number that best represents the quality of your relationships with people at this college.
Your relationship with:

a. Other Students

Friendly,

Unfriendly, unsupportive,

supportive, sense of belonging (7) (6) (5) (4) (3) (2) (1)

sense of alienation **b. Instructors**

Available, helpful, sympathetic (7) (6) (5) (4) (3) (2) (1) Unavailable, unhelpful, unsympathetic

c. Administrative Personnel & Offices

Helpful, considerate, flexible ⑦ ⑥ ⑤ ④ ③ ② ① Unhelpful, inconsiderate, rigid

12. How much has YOUR EXPERIENCE AT THIS COLLEGE 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="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Acquiring job or work-related knowledge and skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Writing clearly and effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Speaking clearly and effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Thinking critically and analytically	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Solving numerical problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Using computing and information technology	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Working effectively with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Learning effectively on your own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Understanding yourself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Understanding people of other racial and ethnic backgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. Developing a personal code of values and ethics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. Contributing to the welfare of your community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. Developing clearer career goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. Gaining information about career opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- None
- 1-14 credits
- 15-29 credits
- 30-44 credits
- 45-60 credits
- Over 60 credits

24. At what other types of institutions are you taking classes this term? *(Please mark all that apply)*

- None
- High school
- Vocational/technical school
- Another community or technical college
- 4-year college/university
- Other
-

25. How many classes are you *presently* taking at OTHER institutions?

- None
- 1 class
- 2 classes
- 3 classes
- 4 classes or more

26. Would you recommend this college to a friend or family member?

- Yes
- No

27. How would you evaluate your entire educational experience at this college?

- Excellent
- Good
- Fair
- Poor

28. Do you have children who live with you?

- Yes
- No

29. Mark your age group.

- Under 18
- 18 to 19
- 20 to 21
- 22 to 24
- 25 to 29
- 30 to 39
- 40 to 49
- 50 to 64
- 65+

30. Your sex:

- Male
- Female

31. Are you married?

Yes No

32. Is English your native (first) language?

Yes No

SAMPLE

SAMPLE

SAMPLE

Appendix B. Community College Survey of Student Engagement Code Book

Item	Variable	Responses
Survey number		
Survey number	SURVEYNO	
Item 1		
1. Did you begin college at this college or elsewhere?	ENTER	1 = Started here 2 = Started elsewhere
Item 2		
2. Thinking about this current academic term, how would you characterize your enrollment at this college?	ENRLMENT	1 = Less than full-time 2 = Full-time
Item 3		
3. Have you taken this survey in another class this term?	SRVAGAIN	1 = Yes 2 = No

Item	Variable	Responses
<p>Item 4: In your experiences at this college during the current school year, about how often have you done each of the following?</p>		
<p>4a. Asked questions in class or contributed to class discussions</p>	<p>CLQUEST</p>	<p>1 = Never 2 = Sometimes 3 = Often 4 = Very often</p>

Item	Variable	Responses
4b. Made a class presentation	CLPRESEN	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4c. Prepared two or more drafts of a paper or assignment before turning it in	REWROPAP	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4d. Worked on a paper or project that required integrating ideas or information from various sources	INTEGRAT	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4e. Came to class without completing readings or assignments	CLUNPREP	1 = Never 2 = Sometimes 3 = Often 4 = Very often

Community College Survey of Student Engagement (CCSSE)

2016 Main Codebook

Item	Variable	Responses
Item 4: In your experiences at this college during the current school year, about how often have you done each of the following?		
4f. Worked with other students on projects during class	CLASSGRP	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4g. Worked with classmates outside of class to prepare class assignments	OCCGRP	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4h. Tutored or taught other students (paid or voluntary)	TUTOR	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4i. Participated in a community-based project as a part of a regular course	COMMPROJ	1 = Never 2 = Sometimes 3 = Often 4 = Very often

Community College Survey of Student Engagement (CCSSE)

2016 Main Codebook

Item	Variable	Responses
4j. Used the Internet or instant messaging to work on an assignment	INTERNET	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4k. Used e-mail to communicate with an instructor	EMAIL	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4l. Discussed grades or assignments with an instructor	FACGRADE	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4m. Talked about career plans with an instructor or advisor	FACPLANS	1 = Never 2 = Sometimes 3 = Often 4 = Very often

Item	Variable	Responses
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Item 4: In your experiences at this college during the current school year, about how often have you done each of the following?

Community College Survey of Student Engagement (CCSSE)

2016 Main Codebook

Item	Variable	Responses
4n. Discussed ideas from your readings or classes with instructors outside of class	FACIDEAS	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4o. Received prompt feedback (written or oral) from instructors on your performance	FACFEED	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4p. Worked harder than you thought you could to meet an instructor's standards or expectations	WORKHARD	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4q. Worked with instructors on activities other than coursework	FACOTH	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4r. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	OOCIDEAS	1 = Never 2 = Sometimes 3 = Often 4 = Very often

Community College Survey of Student Engagement (CCSSE)

2016 Main Codebook

Item	Variable	Responses
4s. Had serious conversations with students of a different race or ethnicity other than your own	DIVRSTUD	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4t. Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values	DIFFSTUD	1 = Never 2 = Sometimes 3 = Often 4 = Very often
4u. Skipped class	SKIPCLAS	1 = Never 2 = Sometimes 3 = Often 4 = Very often
Item	Variable	Responses
Item 5: During the current school year, how much has your coursework at this college emphasized the following mental activities?		
5a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	MEMORIZE	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much

Community College Survey of Student Engagement (CCSSE)

2016 Main Codebook

Item	Variable	Responses
5b. Analyzing the basic elements of an idea, experience, or theory	ANALYZE	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
5c. Synthesizing and organizing ideas, information, or experiences in new ways	SYNTHESZ	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
5d. Making judgments about the value or soundness of information, arguments, or methods	EVALUATE	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
5e. Applying theories or concepts to practical problems or in new situations	APPLYING	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
5f. Using information you have read or heard to perform a new skill	PERFORM	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
Item 6: During the current school year, about how much reading and writing have you done at this college?		

Community College Survey of Student Engagement (CCSSE)

2016 Main Codebook

Item	Variable	Responses
6a. Number of assigned textbooks, manuals, books, or book-length packs of course readings	READASGN	1 = None 2 = 1 to 4 3 = 5 to 10 4 = 11 to 20 5 = More than 20
6b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment	READOWN	1 = None 2 = 1 to 4 3 = 5 to 10 4 = 11 to 20 5 = More than 20

Community College Survey of Student Engagement (CCSSE)

2016 Main Codebook

Item	Variable	Responses
Item 6: During the current school year, about how much reading and writing have you done at this college?		
6c. Number of written papers or reports of any length	WRITEANY	1 = None 2 = 1 to 4 3 = 5 to 10 4 = 11 to 20 5 = More than 20
Item 7		
7. Mark the response that best represents the extent to which your examinations during the current school year have challenged you to do your best work at this college	EXAMS	1 = (1) Extremely easy 2 = (2) 3 = (3) 4 = (4) 5 = (5) 6 = (6) 7 = (7) Extremely challenging
Item 8: Which of the following have you done, are you doing, or do you plan to do while attending this college?		
8a. Internship, field experience, co-op experience, or clinical assignment	INTERN	1 = I have not done nor plan to do 2 = I plan to do 3 = I have done
8b. English as a second language course	ESL	1 = I have not done nor plan to do 2 = I plan to do 3 = I have done

Community College Survey of Student Engagement (CCSSE)

2016 Main Codebook

Item	Variable	Responses
8c. Developmental/remedial reading course	DEVREAD	1 = I have not done nor plan to do 2 = I plan to do 3 = I have done
8d. Developmental/remedial writing course	DEVWRITE	1 = I have not done nor plan to do 2 = I plan to do 3 = I have done
8e. Developmental/remedial math course	DEVMATH	1 = I have not done nor plan to do 2 = I plan to do 3 = I have done
8f. Study skills course	STUDSKIL	1 = I have not done nor plan to do 2 = I plan to do 3 = I have done
8g. Honors course	HONORS	1 = I have not done nor plan to do 2 = I plan to do 3 = I have done

Item	Variable	Responses
Item 8: Which of the following have you done, are you doing, or do you plan to do while attending this college?		
8h. College orientation program or course	ORIEN	1 = I have not done nor plan to do 2 = I plan to do 3 = I have done
8i. Organized learning communities (linked courses/study groups led by faculty or counselors)	LRNCOMM	1 = I have not done nor plan to do 2 = I plan to do 3 = I have done
Item 9: How much does this college emphasize each of the following?		
9a. Encouraging you to spend significant amounts of time studying	ENVSCHOL	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
9b. Providing the support you need to help you succeed at this college	ENVSUPRT	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
9c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	ENVDIVRS	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much

Item	Variable	Responses
9d. Helping you cope with your non-academic responsibilities (work, family, etc.)	ENVNACAD	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
9e. Providing the support you need to thrive socially	ENVSOCAL	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
9f. Providing the financial support you need to afford your education	FINSUPP	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
9g. Using computers in academic work	ENVCOMP	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much

Item	Variable	Responses
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Item 10: About how many hours do you spend in a typical 7-day week doing each of the following?

Item	Variable	Responses
10a. Preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program)	ACADPR01	0 = None 1 = 1-5 hours 2 = 6-10 hours 3 = 11-20 hours 4 = 21-30 hours 5 = More than 30 hours
10b. Working for pay	PAYWORK	0 = None 1 = 1-5 hours 2 = 6-10 hours 3 = 11-20 hours 4 = 21-30 hours 5 = More than 30 hours
10c. Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)	COCURR01	0 = None 1 = 1-5 hours 2 = 6-10 hours 3 = 11-20 hours 4 = 21-30 hours 5 = More than 30 hours

Item	Variable	Responses
10d. Providing care for dependents living with you (parents, children, spouse, etc.)	CAREDE01	0 = None 1 = 1-5 hours 2 = 6-10 hours 3 = 11-20 hours 4 = 21-30 hours 5 = More than 30 hours
10e. Commuting to and from classes	COMMUTE	0 = None 1 = 1-5 hours 2 = 6-10 hours 3 = 11-20 hours 4 = 21-30 hours 5 = More than 30 hours
Item	Variable	Responses
Item 11: Mark the number that best represents the quality of your relationships with people at this college.		
11a. Other students	ENVSTU	1 = (1) Unfriendly, unsupportive, sense of alienation 2 = (2) 3 = (3) 4 = (4) 5 = (5) 6 = (6) 7 = (7) Friendly, supportive, sense of belonging

Item	Variable	Responses
11b. Instructors	ENVFAC	1 = (1) Unavailable, unhelpful, unsympathetic 2 = (2) 3 = (3) 4 = (4) 5 = (5) 6 = (6) 7 = (7) Available, helpful, sympathetic
11c. Administrative personnel and offices	ENVADM	1 = (1) Unhelpful, inconsiderate, rigid 2 = (2) 3 = (3) 4 = (4) 5 = (5) 6 = (6) 7 = (7) Helpful, considerate, flexible
Item 12: How much has your experience at this college contributed to your knowledge, skills, and personal development in the following areas?		
12a. Acquiring a broad general education	NGENLED	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much

Item	Variable	Responses
12b. Acquiring job or work-related knowledge and skills	GNWORK	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
12c. Writing clearly and effectively	GNWRITE	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
Item	Variable	Responses
Item 12: How much has your experience at this college contributed to your knowledge, skills, and personal development in the following areas?		
12d. Speaking clearly and effectively	GNSPEAK	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
12e. Thinking critically and analytically	GNANALY	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much

Item	Variable	Responses
12f. Solving numerical problems	GNSOLVE	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
12g. Using computing and information technology	GNCMPTS	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
12h. Working effectively with others	GNOTHERS	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
12i. Learning effectively on your own	GNINQ	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
12j. Understanding yourself	GNSELF	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much

Item	Variable	Responses
12k. Understanding people of other racial and ethnic backgrounds	GNDIVERS	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
Item 12: How much has your experience at this college contributed to your knowledge, skills, and personal development in the following areas?		
12l. Developing a personal code of values and ethics	GNETHICS	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
12m. Contributing to the welfare of your community	GNCOMMUN	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
12n. Developing clearer career goals	CARGOAL	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much

Item	Variable	Responses
12o. Gaining information about career opportunities	GAINCAR	1 = Very little 2 = Some 3 = Quite a bit 4 = Very much
Item 13.1: How often do you use the following services at this college?		
13.1a. Academic advising/planning	USEACAD	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often
13.1b. Career counseling	USECACOU	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often
13.1c. Job placement assistance	USEJOBPL	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often
13.1d. Peer or other tutoring	USETUTOR	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often

Item	Variable	Responses
Item 13.1: How often do you use the following services at this college?		
13.1e. Skill labs (writing, math, etc.)	USELAB	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often
13.1f. Child care	USECHLD	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often
13.1g. Financial aid advising	USEFAADV	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often
13.1h. Computer lab	USECOMLB	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often

Item	Variable	Responses
13.1i. Student organizations	USESTORG	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often
13.1j. Transfer credit assistance	USETCRD	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often
13.1k. Services to students with disabilities	USEDISAB	0 = Don't know/N.A. 1 = Rarely/Never 2 = Sometimes 3 = Often
Item 13.2: How satisfied are you with the following services at this college?		
13.2a. Academic advising/planning	SATACAD	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very
Item	Variable	Responses
Item 13.2: How satisfied are you with the following services at this college?		

Item	Variable	Responses
13.2b. Career counseling	SATCACOU	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very
13.2c. Job placement assistance	SATJOBPL	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very
13.2d. Peer or other tutoring	SATTUTOR	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very
13.2e. Skill labs (writing, math, etc.)	SATLAB	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very
13.2f. Child care	SATCHLD	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very

Item	Variable	Responses
13.2g. Financial aid advising	SATFAADV	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very
13.2h. Computer lab	SATCOMLB	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very
13.2i. Student organizations	SATSTORG	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very
13.2j. Transfer credit assistance	SATTRCRD	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very

Item	Variable	Responses
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Item 13.2: How satisfied are you with the following services at this college?

Item	Variable	Responses
13.2k. Services to students with disabilities	SATDISAB	0 = N.A. 1 = Not at all 2 = Somewhat 3 = Very
Item 13.3: How important are the following services to you at this college?		
13.3a. Academic advising/planning	IMPACAD	1 = Not at all 2 = Somewhat 3 = Very
13.3b. Career counseling	IMPCACOU	1 = Not at all 2 = Somewhat 3 = Very
13.3c. Job placement assistance	IMPJOBPL	1 = Not at all 2 = Somewhat 3 = Very
13.3d. Peer or other tutoring	IMPTUTOR	1 = Not at all 2 = Somewhat 3 = Very
13.3e. Skill labs (writing, math, etc.)	IMPLAB	1 = Not at all 2 = Somewhat 3 = Very

Item	Variable	Responses
13.3f. Child care	IMPCHLD	1 = Not at all 2 = Somewhat 3 = Very
13.3g. Financial aid advising	IMPFAADV	1 = Not at all 2 = Somewhat 3 = Very
13.3h. Computer lab	IMPCOMLB	1 = Not at all 2 = Somewhat 3 = Very
13.3i. Student organizations	IMPSTORG	1 = Not at all 2 = Somewhat 3 = Very
13.3j. Transfer credit assistance	IMPTRCRD	1 = Not at all 2 = Somewhat 3 = Very

Item	Variable	Responses
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Item 13.3: How important are the following services to you at this college?

13.3k. Services to students with disabilities	IMPDISAB	1 = Not at all 2 = Somewhat 3 = Very
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Item 14: How likely is it that the following issues would cause you to withdraw from class or from this college?

Item	Variable	Responses
14a. Working full-time	WRKFULL	1 = Not likely 2 = Somewhat likely 3 = Likely 4 = Very likely
14b. Caring for dependents	CAREDEP	1 = Not likely 2 = Somewhat likely 3 = Likely 4 = Very likely
14c. Academically unprepared	ACADUNP	1 = Not likely 2 = Somewhat likely 3 = Likely 4 = Very likely
14d. Lack of finances	LACKFIN	1 = Not likely 2 = Somewhat likely 3 = Likely 4 = Very likely
14e. Transfer to a 4-year college or university	TRANSFER	1 = Not likely 2 = Somewhat likely 3 = Likely 4 = Very likely
Item 15		

Item	Variable	Responses
15. How supportive are your friends of your attending this college?	FRNDSUPP	1 = Not very 2 = Somewhat 3 = Quite a bit 4 = Extremely
Item 16		
16. How supportive is your immediate family of your attending this college?	FAMSUPP	1 = Not very 2 = Somewhat 3 = Quite a bit 4 = Extremely
Item	Variable	Responses
Item 17: Indicate which of the following are your reasons/goals for attending this college.		
17a. Complete a certificate program	CERTPRGM	1 = Not a goal 2 = Secondary goal 3 = Primary goal
17b. Obtain an associate degree	ASSOCDEG	1 = Not a goal 2 = Secondary goal 3 = Primary goal
17c. Transfer to a 4-year college or university	TR4YR	1 = Not a goal 2 = Secondary goal 3 = Primary goal

Item	Variable	Responses
17d. Obtain or update job-related skills	OBUPSKIL	1 = Not a goal 2 = Secondary goal 3 = Primary goal
17e. Self-improvement/personal enjoyment	SLFIMP	1 = Not a goal 2 = Secondary goal 3 = Primary goal
17f. Change careers	CARCHNG	1 = Not a goal 2 = Secondary goal 3 = Primary goal
Item 18: Indicate which of the following are sources you use to pay your tuition at this college.		
18a. My own income/savings	OWNINC	1 = Not a source 2 = Minor source 3 = Major source
18b. Parent or spouse/significant other's income/savings	PARSPINC	1 = Not a source 2 = Minor source 3 = Major source
18c. Employer contributions	EMPLOYER	1 = Not a source 2 = Minor source 3 = Major source

Item	Variable	Responses
18d. Grants & scholarships	GRANTS	1 = Not a source 2 = Minor source 3 = Major source
18e. Student loans (bank, etc.)	STULOANS	1 = Not a source 2 = Minor source 3 = Major source

Item	Variable	Responses
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Item 18: Indicate which of the following are sources you use to pay your tuition at this college.

18f. Public assistance	PUBASSIT	1 = Not a source 2 = Minor source 3 = Major source
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Item 19: Since high school, which of the following types of schools have you attended other than the one you are now attending?

19. Proprietary (private) school or training program	PROPSCH	0 = No response 1 = Response
19. Public vocational-technical school	VOCTECH	0 = No response 1 = Response
19. Another community or technical college	COMMCOLL	0 = No response 1 = Response
19. 4-year college or university	FOURYEAR	0 = No response 1 = Response

Item	Variable	Responses
19. None	NONESC	0 = No response 1 = Response
Item 20		
20. When do you plan to take classes at this college again?	TAKAGAIN	1 = I will accomplish my goal(s) during this term and will not be returning 2 = I have no current plan to return 3 = Within the next 12 months 4 = Uncertain
Item 21		
21. At this college, in what range is your overall college grade average?	GPA	1 = Pass/fail classes only 2 = Do not have a GPA at this school 3 = C- or lower 4 = C 5 = B- to C+ 6 = B 7 = A- to B+ 8 = A
Item 22		
22. When do you most frequently take classes at this college?	TIMCLASS	1 = Day classes (morning or afternoon) 2 = Evening classes 3 = Weekend classes

Item	Variable	Responses
Item 23		
23. How many total credit hours have you earned at this college, not counting the courses you are currently taking this term?	TOTCHRS	0 = None 1 = 1-14 credits 2 = 15-29 credits 3 = 30-44 credits 4 = 45-60 credits 5 = Over 60 credits
Item 24: At what other types of institutions are you taking classes this term?		
24. None	OTCLSNON	0 = No response 1 = Response
24. High school	OTCLSHS	0 = No response 1 = Response
24. Vocational/technical school	OTCLSVT	0 = No response 1 = Response
24. Another community or technical college	OTCLSCC	0 = No response 1 = Response
24. 4-year college/university	OTCLS4Y	0 = No response 1 = Response
24. Other	OTCLASS	0 = No response 1 = Response

Item	Variable	Responses
Item 25		
25. How many classes are you presently taking at other institutions?	OTHINST	1 = None 2 = 1 class 3 = 2 classes 4 = 3 classes 5 = 4 classes or more
Item 26		
26. Would you recommend this college to a friend or family member?	RECOMMEN	1 = Yes 2 = No
Item 27		
27. How would you evaluate your entire educational experience at this college?	ENTIREXP	1 = Poor 2 = Fair 3 = Good 4 = Excellent
Item 28		
28. Do you have children who live with you?	HAVKID	1 = Yes 2 = No
Item	Variable	Responses
Item 29		

Item	Variable	Responses
29. Mark your age group	AGENEW	2 = 18 to 19 3 = 20 to 21 4 = 22 to 24 5 = 25 to 29 6 = 30 to 39 7 = 40 to 49 8 = 50 to 64 9 = 65+
Item 30		
30. Your sex:	SEX	1 = Male 2 = Female
Item 31		
31. Are you married?	MARRY	1 = Yes 2 = No
Item 32		
32. Is English your native (first) language?	ENGFIRST	1 = Yes 2 = No
Item 33		
33. Are you an international student or foreign national?	INTERNAT	1 = Yes 2 = No
Item 34		

Item	Variable	Responses
34. What is your racial identification?	RERACE	1 = American Indian or other Native American 2 = Asian, Asian American or Pacific Islander 3 = Native Hawaiian 4 = Black or African American, Non-Hispanic 5 = White, Non-Hispanic 6 = Hispanic, Latino, Spanish 7 = Other
Item 35		
35. What is the highest academic credential you have earned?	HIACCRED	1 = None 2 = High school diploma or GED 3 = Vocational/technical certificate 4 = Associate degree 5 = Bachelor's degree 6 = Master's/doctoral/professional degree
Item	Variable	Responses
Item 36: What is the highest level of education obtained by your:		

Item	Variable	Responses
36. Mother	MOTHED	1 = Not a high school graduate 2 = High school diploma or GED 3 = Some college, did not complete degree 4 = Associate degree 5 = Bachelor's degree 6 = Master's degree/1st professional 7 = Doctorate degree 8 = Unknown
36. Father	FATHED	1 = Not a high school graduate 2 = High school diploma or GED 3 = Some college, did not complete degree 4 = Associate degree 5 = Bachelor's degree 6 = Master's degree/1st professional 7 = Doctorate degree 8 = Unknown
Item 37		
37. Major code	MAJOR	If your college used the Center-provided <i>CCSSE</i> Program Code Sheet, please click here to view program codes.
Item	Variable	Responses
The items below are the five <i>CCSSE</i> special-focus items on part-timeness for 2016.		

Item	Variable	Responses
1. Including this academic term but excluding summers, how many academic terms have you been enrolled at this college?	COLLQ5265	1 = 1 2 = 2 3 = 3 4 = 4 or more
2. Of the academic terms you have been enrolled at this college but excluding summers, how many academic terms have you been enrolled full time?	COLLQ5266	1 = 0 2 = 1 3 = 2 4 = 3 5 = 4 or more
3. What is your number one goal for attending this college? (Mark only one)	COLLQ5267	1 = To earn a certificate 2 = To earn an associate degree 3 = To transfer to a four-year institution 4 = To update job skills (not degree or transfer-seeking) 5 = None of the above
4. From the time you started here, how long do you anticipate it will take you to complete your certificate or degree at this college?	COLLQ5268	1 = Less than a year 2 = 1-2 years 3 = 3-4 years 4 = 5 or more years 5 = I am not seeking a certificate or degree

Item	Variable	Responses
5. Do you know if your instructors this academic term teach full time or part time at this college?	COLLQ5269	1 = I know this about all of my instructors 2 = I know this about some of my instructors 3 = I do not know this about any of my instructors

Item	Variable	Responses
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The items below are course level data from the course master data file.

Campus location	CAMPLOC
Section number	SECNO
Course number	COURSENO
Course full name	COURSENAME
Building	BLDG
Room	ROOM
Class meeting days	MEETDAYS
Instructor name	INSTRNAM
Department	DEPART
Actual enrollment	ACTENROL
Class start time	STIME
Class end time	ETIME
Class start date	SDATE
Class end date	EDATE

Item	Variable	Responses
Administration time group	TIMEGRP	1 = Morning (before noon) 2 = Afternoon (noon to 4:59 PM) 3 = Evening (5:00 PM or later)
The items below are course level data from the Student Report Information Sheet.		
Survey administered by	SRVADMN	1 = Faculty 2 = Survey Administrator
Faculty member's status	FACFTPT	1 = Full-time 2 = Part-time
Number of students in attendance	NUMSTU	
Total administration time (in minutes)	ADMNTIME	
Administration date	ADMNDATE	
How many students in this class have special needs?	SPNEEDS	
Number of credit hours taught this semester by faculty member teaching this class: Semester system hours	SEMHR	
Number of credit hours taught this semester by faculty member teaching this class: Quarter system hours	QRTHRS	
Item	Variable	Responses
The items below are institutional characteristics.		
College location	LOCATION	1 = Urban 2 = Suburban 3 = Rural

Item	Variable	Responses
College size	SIZE	1 = Small 2 = Medium 3 = Large 4 = ExLarge
The items below are derived <i>CCSSE</i> variables.		
Taken or plan to take Developmental coursework / Have not taken and do not plan to take Developmental coursework	DEVELOPMENTAL	1 = Non-Developmental 2 = Developmental
Traditional/Nontraditional-Age students	STUD_AGE_CLASS	1 = Traditional-Age 2 = Nontraditional-Age
First-Generation/Not First-Generation Students	GENERATION	1 = First-Generation 2 = Not First-Generation
Credit hours completed	CREDIT	1 = 0 to 29 Credits 2 = 30+ Credits
Credential/Non-credential seeking	CREDENTIAL	1 = Non-credential Seeking 2 = Credential Seeking
Record in primary sample or oversample	PSAMPLE	0 = Oversample 1 = Primary sample
The items below are the calculated weight and raw benchmarks.		
Institutional weight based on proportions of full-time and less than full-time enrollment in the primary sample	IWEIGHT	
Raw active and collaborative learning benchmark score	ACTCOLL	

Item	Variable	Responses
Raw student effort benchmark score	STUEFF	
Raw academic challenge benchmark score	ACCHALL	
Raw student-faculty interaction benchmark score	STUFAC	
Raw support for learners benchmark score	SUPPORT	
The items below are standardized benchmarks (i.e. standardized across the cohort to have a mean of 50 and standard deviation of 25 at the respondent level).		
Standardized active and collaborative learning benchmark score	ACTCOLL_STD	
Standardized student effort benchmark score	STUEFF_STD	
Standardized academic challenge benchmark score	ACCHALL_STD	
Standardized student-faculty interaction benchmark score	STUFAC_STD	
Standardized support for learners benchmark score	SUPPORT_STD	

2 = Sometimes

		3 = Often
		4 = Very often
4h. Tutored or taught other students (paid or voluntary)	TUTOR	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
4i. Participated in a community-based project as a part of a regular course	COMMPROJ	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
4j. Used the Internet or instant messaging to work on an assignment	INTERNET	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
4k. Used e-mail to communicate with an instructor	EMAIL	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
4l. Discussed grades or assignments with an instructor	FACGRADE	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often

4m. Talked about career plans with an instructor or advisor	FACPLANS	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
4n. Discussed ideas from your readings or classes with instructors outside of class	FACIDEAS	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often

Item	Variable	Responses
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Item 4: In your experiences at this college during the current school year, about how often have you done each of the following?

4o. Received prompt feedback (written or oral) from instructors on your performance	FACFEED	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
4p. Worked harder than you thought you could to meet an instructor's standards or expectations	WORKHARD	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often

4q. Worked with instructors on activities other than coursework	FACOTH	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often

4r. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	OOCIDEAS	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
4s. Had serious conversations with students of a different race or ethnicity other than your own	DIVRSTUD	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
4t. Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values	DIFFSTUD	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
4u. Skipped class	SKIPCLAS	1 = Never
		2 = Sometimes
		3 = Often
		4 = Very often
Item 5: During the current school year, how much has your coursework at this college emphasized the following mental activities?		
5a. Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	MEMORIZE	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
Item	Variable	Responses

Item 5: During the current school year, how much has your coursework at this college emphasized the following mental activities?

5b. Analyzing the basic elements of an idea, experience, or theory	ANALYZE	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
5c. Synthesizing and organizing ideas, information, or experiences in new ways	SYNTHESZ	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
5d. Making judgments about the value or soundness of information, arguments, or methods	EVALUATE	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much

5e. Applying theories or concepts to practical problems or in new situations	APPLYING	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
5f. Using information you have read or heard to perform a new skill	PERFORM	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much

Item 6: During the current school year, about how much reading and writing have you done at this college?

6a. Number of assigned textbooks, manuals, books, or book-length packs of course readings	READASGN	1 = None
		2 = 1 to 4
		3 = 5 to 10
		4 = 11 to 20
		5 = More than 20
6b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment	READOWN	1 = None
		2 = 1 to 4
		3 = 5 to 10
		4 = 11 to 20
		5 = More than 20

Item

Variable

Responses

Item 6: During the current school year, about how much reading and writing have you done at this college?

6c. Number of written papers or reports of any length	WRITEANY	1 = None
		2 = 1 to 4
		3 = 5 to 10
		4 = 11 to 20
		5 = More than 20

Item 7

7. Mark the response that best represents the extent to which your examinations during the current school year have challenged you to do your best work at this college	EXAMS	1 = (1) Extremely easy
		2 = (2)
		3 = (3)
		4 = (4)
		5 = (5)
		6 = (6)
		7 = (7) Extremely challenging

Item 8: Which of the following have you done, are you doing, or do you plan to do while attending this college?

8a. Internship, field experience, co-op experience, or clinical assignment	INTERN	1 = I have not done nor plan to do
		2 = I plan to do

3 = I have done

8c. Developmental/remedial reading course	DEVREAD	1 = I have not done nor plan to do
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2 = I plan to do

3 = I have done

8d. Developmental/remedial writing course	DEVWRITE	1 = I have not done nor plan to do
		2 = I plan to do
		3 = I have done
8e. Developmental/remedial math course	DEVMATH	1 = I have not done nor plan to do
		2 = I plan to do
		3 = I have done
8f. Study skills course	STUDSKIL	1 = I have not done nor plan to do
		2 = I plan to do
		3 = I have done
8g. Honors course	HONORS	1 = I have not done nor plan to do
		2 = I plan to do
		3 = I have done
Item	Variable	Responses
Item 8: Which of the following have you done, are you doing, or do you plan to do while attending this college?		
8h. College orientation program or course	ORIEN	1 = I have not done nor plan to do
		2 = I plan to do
		3 = I have done
8i. Organized learning communities (linked courses/study groups led by faculty or counselors)	LRNCOMM	1 = I have not done nor plan to do
		2 = I plan to do
		3 = I have done
Item 9: How much does this college emphasize each of the following?		
	ENVSCHOL	1 = Very little

9a. Encouraging you to spend significant amounts of time studying		2 = Some
		3 = Quite a bit
		4 = Very much
9b. Providing the support you need to help you succeed at this college	ENVSUPRT	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
9c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	ENVDIVRS	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
9d. Helping you cope with your non-academic responsibilities (work, family, etc.)	ENVNACAD	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
9e. Providing the support you need to thrive socially	ENVSOCAL	1 = Very little
		2 = Some
		3 = Quite a bit

4 = Very much

9f. Providing the financial support you need to afford your education	FINSUPP	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
9g. Using computers in academic work	ENVCOMP	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much

Item	Variable	Responses
Item 10: About how many hours do you spend in a typical 7-day week doing each of the following?		
10a. Preparing for class (studying, reading, writing, rehearsing, doing homework, or other activities related to your program)	ACADPR01	0 = None
		1 = 1-5 hours
		2 = 6-10 hours
		3 = 11-20 hours
		4 = 21-30 hours
		5 = More than 30 hours
10b. Working for pay	PAYWORK	0 = None
		1 = 1-5 hours
		2 = 6-10 hours
		3 = 11-20 hours
		4 = 21-30 hours
		5 = More than 30 hours
10c. Participating in college-sponsored activities (organizations, campus publications, student government, intercollegiate or intramural sports, etc.)	COCURR01	0 = None
		1 = 1-5 hours
		2 = 6-10 hours
		3 = 11-20 hours
		4 = 21-30 hours
		5 = More than 30 hours
10d. Providing care for dependents living with you (parents, children, spouse, etc.)	CAREDE01	0 = None
		1 = 1-5 hours
		2 = 6-10 hours
		3 = 11-20 hours
		4 = 21-30 hours
		5 = More than 30 hours
10e. Commuting to and from classes	COMMUTE	0 = None
		1 = 1-5 hours
		2 = 6-10 hours
		3 = 11-20 hours
		4 = 21-30 hours
		5 = More than 30 hours

Item	Variable	Responses
Item 11: Mark the number that best represents the quality of your relationships with people at this college.		
11a. Other students	ENVSTU	1 = (1) Unfriendly, unsupportive, sense of alienation
		2 = (2)
		3 = (3)
		4 = (4)
		5 = (5)
		6 = (6)
		7 = (7) Friendly, supportive, sense of belonging
11b. Instructors	ENVFAC	1 = (1) Unavailable, unhelpful, unsympathetic
		2 = (2)
		3 = (3)
		4 = (4)
		5 = (5)
		6 = (6)
		7 = (7) Available, helpful, sympathetic
11c. Administrative personnel and offices	ENVADM	1 = (1) Unhelpful, inconsiderate, rigid
		2 = (2)
		3 = (3)
		4 = (4)
		5 = (5)
		6 = (6)
		7 = (7) Helpful, considerate, flexible
Item 12: How much has your experience at this college contributed to your knowledge, skills, and personal development in the following areas?		
12a. Acquiring a broad general education	NGGENLED	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
12b. Acquiring job or work-related knowledge and skills	GNWORK	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
12c. Writing clearly and effectively	GNWRITE	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much

Item	Variable	Responses
Item 12: How much has your experience at this college contributed to your knowledge, skills, and personal development in the following areas?		
12d. Speaking clearly and effectively	GNSPEAK	1 = Very little

2 = Some

		3 = Quite a bit
		4 = Very much
12e. Thinking critically and analytically	GNANALY	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
12f. Solving numerical problems	GNSOLVE	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
12g. Using computing and information technology	GNCMPTS	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
12h. Working effectively with others	GNOTHERS	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
12i. Learning effectively on your own	GNINQ	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much

12j. Understanding yourself	GNSELF	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
12k. Understanding people of other racial and ethnic backgrounds	GNDIVERS	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much

Item	Variable	Responses
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Item 12: How much has your experience at this college contributed to your knowledge, skills, and personal development in the following areas?

12l. Developing a personal code of values and ethics	GNETHICS	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
12m. Contributing to the welfare of your community	GNCOMMUN	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much

12n. Developing clearer career goals	CARGOAL	1 = Very little
		2 = Some
		3 = Quite a bit

		4 = Very much
12o. Gaining information about career opportunities	GAINCAR	1 = Very little
		2 = Some
		3 = Quite a bit
		4 = Very much
Item 13.1: How often do you use the following services at this college?		
13.1a. Academic advising/planning	USEACAD	0 = Don't know/N.A.
		1 = Rarely/Never
		2 = Sometimes
		3 = Often
13.1b. Career counseling	USECACOU	0 = Don't know/N.A.
		1 = Rarely/Never
		2 = Sometimes
		3 = Often
13.1c. Job placement assistance	USEJOBPL	0 = Don't know/N.A.
		1 = Rarely/Never
		2 = Sometimes
		3 = Often
13.1d. Peer or other tutoring	USETUTOR	0 = Don't know/N.A.
		1 = Rarely/Never
		2 = Sometimes
		3 = Often
Item	Variable	Responses

Item 13.1: How often do you use the following services at this college?

13.1e. Skill labs (writing, math, etc.)	USELAB	0 = Don't know/N.A.
		1 = Rarely/Never
		2 = Sometimes
		3 = Often
13.1f. Child care	USECHLD	0 = Don't know/N.A.
		1 = Rarely/Never
		2 = Sometimes
		3 = Often
13.1g. Financial aid advising	USEFAADV	0 = Don't know/N.A.
		1 = Rarely/Never
		2 = Sometimes
		3 = Often
13.1h. Computer lab	USECOMLB	0 = Don't know/N.A.
		1 = Rarely/Never

		2 = Sometimes
		3 = Often
13.1i. Student organizations	USESTORG	0 = Don't know/N.A.
		1 = Rarely/Never
		2 = Sometimes
		3 = Often
13.1j. Transfer credit assistance	USETRCRD	0 = Don't know/N.A.

		1 = Rarely/Never
		2 = Sometimes
		3 = Often
13.1k. Services to students with disabilities	USEDISAB	0 = Don't know/N.A.
		1 = Rarely/Never
		2 = Sometimes
		3 = Often

Item 13.2: How satisfied are you with the following services at this college?

13.2a. Academic advising/planning	SATACAD	0 = N.A.
		1 = Not at all
		2 = Somewhat
		3 = Very

Item

Variable

Responses

Item 13.2: How satisfied are you with the following services at this college?

13.2b. Career counseling	SATCACOU	0 = N.A.
		1 = Not at all
		2 = Somewhat
		3 = Very
13.2c. Job placement assistance	SATJOBPL	0 = N.A.
		1 = Not at all
		2 = Somewhat
		3 = Very
13.2d. Peer or other tutoring	SATTUTOR	0 = N.A.

		1 = Not at all
		2 = Somewhat
		3 = Very
13.2e. Skill labs (writing, math, etc.)	SATLAB	0 = N.A.
		1 = Not at all
		2 = Somewhat
		3 = Very
13.2f. Child care	SATCHLD	0 = N.A.
		1 = Not at all
		2 = Somewhat
		3 = Very

13.2g. Financial aid advising	SATFAADV	0 = N.A.
		1 = Not at all
		2 = Somewhat
		3 = Very
13.2h. Computer lab	SATCOMLB	0 = N.A.
		1 = Not at all
		2 = Somewhat
		3 = Very
13.2i. Student organizations	SATSTORG	0 = N.A.
		1 = Not at all
		2 = Somewhat

		3 = Very
13.2j. Transfer credit assistance	SATTRCRD	0 = N.A.
		1 = Not at all
		2 = Somewhat
		3 = Very
Item	Variable	Responses
Item 13.2: How satisfied are you with the following services at this college?		
13.2k. Services to students with disabilities	SATDISAB	0 = N.A.
		1 = Not at all
		2 = Somewhat
		3 = Very
Item 13.3: How important are the following services to you at this college?		
13.3a. Academic advising/planning	IMPACAD	1 = Not at all
		2 = Somewhat
		3 = Very
13.3b. Career counseling	IMPCACOU	1 = Not at all
		2 = Somewhat
		3 = Very
13.3c. Job placement assistance	IMPJOBPL	1 = Not at all
		2 = Somewhat
		3 = Very
13.3d. Peer or other tutoring	IMPTUTOR	1 = Not at all
		2 = Somewhat

		3 = Very
13.3e. Skill labs (writing, math, etc.)	IMPLAB	1 = Not at all
		2 = Somewhat
		3 = Very
13.3f. Child care	IMPCHLD	1 = Not at all
		2 = Somewhat
		3 = Very

13.3g. Financial aid advising	IMPFAADV	1 = Not at all
		2 = Somewhat
		3 = Very
13.3h. Computer lab	IMPCOMLB	1 = Not at all
		2 = Somewhat
		3 = Very
13.3i. Student organizations	IMPSTORG	1 = Not at all
		2 = Somewhat
		3 = Very
13.3j. Transfer credit assistance	IMPTRCRD	1 = Not at all
		2 = Somewhat
		3 = Very

Item	Variable	Responses
Item 13.3: How important are the following services to you at this college?		
13.3k. Services to students with disabilities	IMPDISAB	1 = Not at all

		2 = Somewhat
		3 = Very
Item 14: How likely is it that the following issues would cause you to withdraw from class or from this college?		
14a. Working full-time	WRKFULL	1 = Not likely
		2 = Somewhat likely
		3 = Likely
		4 = Very likely
14b. Caring for dependents	CAREDEP	1 = Not likely
		2 = Somewhat likely
		3 = Likely
		4 = Very likely
14c. Academically unprepared	ACADUNP	1 = Not likely
		2 = Somewhat likely
		3 = Likely
		4 = Very likely
14d. Lack of finances	LACKFIN	1 = Not likely
		2 = Somewhat likely
		3 = Likely
		4 = Very likely
14e. Transfer to a 4-year college or university	TRANSFER	1 = Not likely
		2 = Somewhat likely
		3 = Likely
		4 = Very likely

Item 15		
15. How supportive are your friends of your attending this college?	FRNDSUPP	1 = Not very
		2 = Somewhat

		3 = Quite a bit
		4 = Extremely

Item 16

16. How supportive is your immediate family of your attending this college?	FAMSUPP	1 = Not very
		2 = Somewhat
		3 = Quite a bit
		4 = Extremely

Item	Variable	Responses
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Item 17: Indicate which of the following are your reasons/goals for attending this college.

17a. Complete a certificate program	CERTPRGM	1 = Not a goal
		2 = Secondary goal
		3 = Primary goal
17b. Obtain an associate degree	ASSOCDEG	1 = Not a goal
		2 = Secondary goal
		3 = Primary goal
17c. Transfer to a 4-year college or university	TR4YR	1 = Not a goal
		2 = Secondary goal
		3 = Primary goal
17d. Obtain or update job-related skills	OBUPSKIL	1 = Not a goal

		2 = Secondary goal
		3 = Primary goal
17e. Self-improvement/personal enjoyment	SLFIMP	1 = Not a goal
		2 = Secondary goal
		3 = Primary goal
17f. Change careers	CARCHNG	1 = Not a goal
		2 = Secondary goal
		3 = Primary goal
Item 18: Indicate which of the following are sources you use to pay your tuition at this college.		
18a. My own income/savings	OWNINC	1 = Not a source
		2 = Minor source
		3 = Major source
18b. Parent or spouse/significant other's income/savings	PARSPINC	1 = Not a source
		2 = Minor source
		3 = Major source
18c. Employer contributions	EMPLOYER	1 = Not a source
		2 = Minor source
		3 = Major source
18d. Grants & scholarships	GRANTS	1 = Not a source
		2 = Minor source
		3 = Major source
18e. Student loans (bank, etc.)	STULOANS	1 = Not a source

2 = Minor source

3 = Major source

Item	Variable	Responses
Item 18: Indicate which of the following are sources you use to pay your tuition at this college.		
18f. Public assistance	PUBASSIT	1 = Not a source
		2 = Minor source
		3 = Major source
Item 19: Since high school, which of the following types of schools have you attended other than the one you are now attending?		
19. Proprietary (private) school or training program	PROPSCH	0 = No response
		1 = Response
19. Public vocational-technical school	VOCTECH	0 = No response
		1 = Response
19. Another community or technical college	COMMCOLL	0 = No response
		1 = Response
19. 4-year college or university	FOURYEAR	0 = No response
		1 = Response
19. None	NONESC	0 = No response
		1 = Response
Item 20		
20. When do you plan to take classes at this college again?	TAKAGAIN	1 = I will accomplish my goal(s) during this term and will not be returning
		2 = I have no current plan to return
		3 = Within the next 12 months
		4 = Uncertain
Item 21		
21. At this college, in what range is your overall college grade average?	GPA	1 = Pass/fail classes only
		2 = Do not have a GPA at this school
		3 = C- or lower
		4 = C
		5 = B- to C+
		6 = B
		7 = A- to B+
		8 = A
Item 22		
22. When do you most frequently take classes at this college?	TIMCLASS	1 = Day classes (morning or afternoon)
		2 = Evening classes
		3 = Weekend classes

Item	Variable	Responses
Item 23		
23. How many total credit hours have you earned at this college, not counting the courses you are	TOTCHRS	0 = None

		4 = 45-60 credits
		5 = Over 60 credits
Item 24: At what other types of institutions are you taking classes this term?		
24. None	OTCLSNON	0 = No response
		1 = Response
24. High school	OTCLSHS	0 = No response
		1 = Response
24. Vocational/technical school	OTCLSVT	0 = No response
		1 = Response
24. Another community or technical college	OTCLSCC	0 = No response
		1 = Response
24. 4-year college/university	OTCLS4Y	0 = No response
		1 = Response
24. Other	OTCLASS	0 = No response
		1 = Response
Item 25		
25. How many classes are you presently taking at other institutions?	OTHINST	1 = None
		2 = 1 class
		3 = 2 classes
		4 = 3 classes
		5 = 4 classes or more
Item 26		
26. Would you recommend this college to a friend or family member?	RECOMMEN	1 = Yes
		2 = No
Item 27		
27. How would you evaluate your entire educational experience at this college?	ENTIREXP	1 = Poor
		2 = Fair
		3 = Good
		4 = Excellent
Item 28		
28. Do you have children who live with you?	HAVKID	1 = Yes
		2 = No

Item	Variable	Responses
Item 29		
29. Mark your age group	AGENEW	2 = 18 to 19
		3 = 20 to 21
		4 = 22 to 24
		5 = 25 to 29

9 = 65+

Item 30		
30. Your sex:	SEX	1 = Male
		2 = Female
Item 31		
31. Are you married?	MARRY	1 = Yes
		2 = No
Item 32		
32. Is English your native (first) language?	ENGFIRST	1 = Yes
		2 = No
Item 33		
33. Are you an international student or foreign national?	INTERNAT	1 = Yes
		2 = No
Item 34		
34. What is your racial identification?	RERACE	1 = American Indian or other Native American
		2 = Asian, Asian American or Pacific Islander
		3 = Native Hawaiian
		4 = Black or African American, Non-Hispanic
		5 = White, Non-Hispanic
		6 = Hispanic, Latino, Spanish
		7 = Other
Item 35		
35. What is the highest academic credential you have earned?	HIACCRED	1 = None
		2 = High school diploma or GED
		3 = Vocational/technical certificate
		4 = Associate degree
		5 = Bachelor's degree
		6 = Master's/doctoral/professional degree

Item	Variable	Responses
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Item 36: What is the highest level of education obtained by your:		
36. Mother	MOTHEd	1 = Not a high school graduate
		2 = High school diploma or GED
		3 = Some college, did not complete degree
		4 = Associate degree
		5 = Bachelor's degree
		6 = Master's degree/1st professional
		7 = Doctorate degree
		8 = Unknown
36. Father	FATHEd	1 = Not a high school graduate

		5 = Bachelor's degree
		6 = Master's degree/1st professional
		7 = Doctorate degree
		8 = Unknown

Item	Variable	Responses
Additional variables		
Urbanicity	LOCATION	1 = Urban-serving 2 = Suburban-serving 3 = Rural-serving
Institution number	CCID	
State number	STATE	

Item	Variable	Responses
The items below are derived <i>CCSSE</i> variables.		
Taken or plan to take Developmental coursework / Have not taken and do not plan to take Developmental coursework	DEVELOPMENTAL	1 = Non-Developmental
		2 = Developmental
Traditional/Nontraditional-Age students	STUD_AGE_CLASS	1 = Traditional-Age
		2 = Nontraditional-Age
First-Generation/Not First-Generation Students	GENERATION	1 = First-Generation
		2 = Not First-Generation
Credit hours completed	CREDIT	1 = 0 to 29 Credits
		2 = 30+ Credits
Credential/Non-credential seeking	CREDENTIAL	1 = Non-credential Seeking
		2 = Credential Seeking

The items below are the calculated weight and raw benchmarks.

Institutional weight based on proportions of full-time and less than full-time enrollment in the primary sample	IWEIGHT	
Raw active and collaborative learning benchmark score	ACTCOLL	
Raw student effort benchmark score	STUEFF	
Raw academic challenge benchmark score	ACCHALL	
Raw student-faculty interaction benchmark score	STUFAC	
Raw support for learners benchmark score	SUPPORT	

The items below are standardized benchmarks (i.e. standardized across the cohort to have a mean of 50 and standard deviation of 25 at the respondent level).

Standardized active and collaborative learning benchmark score	ACTCOLL_STD	
Standardized student effort benchmark score	STUEFF_STD	
Standardized academic challenge benchmark score	ACCHALL_STD	
Standardized student-faculty interaction benchmark score	STUFAC_STD	
Standardized support for learners benchmark score	SUPPORT_STD	

Appendix C. IRB Approval



Office of the Vice President for
Research & Economic Development
Office for Research Compliance

June 29, 2020

Stephen Hirst
Department of ELPTS
College of Education
The University of Alabama
Box 870302

Re: IRB # 20-06-3692 "Study of Community College Student Engagement and Education Aspirations"

Dear Mr. Hirst:

The University of Alabama Institutional Review Board has granted approval for your proposed research. Your protocol has been given exempt approval according to 45 CFR part 46.104(d)(4) as outlined below:

(4) Secondary research for which consent is not required: Secondary research uses of identifiable private information or identifiable biospecimens, if at least one of the following criteria is met: (ii) Information, which may include information about biospecimens, is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects; the investigator does not contact the subjects, and the investigator will not re-identify subjects;

The approval for your application will lapse on June 28, 2021. If your research will continue beyond this date, please submit the annual report to the IRB as required by University policy before the lapse. Please note, any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Good luck with your research.

Sincerely,



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