DISSERTATION

A MIXED-METHODS INVESTIGATION OF THE COLLEGE-GOING EXPERIENCES OF

FIRST-GENERATION COLLEGE STUDENTS

Submitted by

Chrissy Holliday

School of Education

In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Fall 2020

Doctoral Committee:

     Advisor: Sharon K. Anderson

     Maricela DeMirjyn
     David McKelfresh
     Linda Kuk

ABSTRACT

A MIXED-METHODS INVESTIGATION OF THE COLLEGE-GOING EXPERIENCES OF

FIRST-GENERATION COLLEGE STUDENTS

College-going culture represents the development of college aspiration within
individuals, and also the provision of guidance and support to prepare students for college
application, enrollment, and success (Achinstein, Curry, & Ogawa, 2015; Corwin & Tierney,
2007). First- generation students are of particular research interest because they have lower
college-going rates than their peers whose parents have degrees (Langenkamp & Shifrer, 2018),
a reality that ultimately contributes to disparate educational outcomes with both individual and
societal impacts (Serna & Woulfe, 2017; Trostel & Chase Smith, 2015). This mixed-methods
case study provides greater insight into the college-going experiences of first-generation college
students by answering the research question, "How did first-generation students attending an
Hispanic-serving institution (HSI) experience the phenomenon of college-going culture in their
high schools and communities?" The study also answered four secondary research questions: (a)
"What similarities and differences exist among students graduating from high schools with
different college-going cultures?"; (b) "What factors related to the theoretical frameworks
selected for this study inform college-going culture for those students?"; (c) "How do those
differences and informative factors converge and diverge by case profile?"; and (d) "What do
the combined quantitative and qualitative data reveal about college-going culture that is not
provided by one or the other alone?" Detailed analysis of survey and interview data provided
insight into the student experiences and resulted in six assertions with practical implications for
practitioners and future researchers.

ACKNOWLEDGEMENTS

I have always known my ability to accomplish goals is because of those who stand by my side and have my back. I have been blessed to travel this road to becoming "Doc Holliday" with my husband, Jason, and son, Kellen, by my side. I started the PhD journey when my son was almost 3, and he spent his early life with mom reading stacks of books, doing homework at night and on weekends, and agonizing over the balance of work, life, and school. Often, Jason would take Kellen on a drive, to the store, or out to a park to play, buying precious time for me to plow through an assignment, write a chapter, or transcribe an interview. They have foregone vacations, weekend excursions, and countless other events in support of the tasks I needed to finish. More than anyone else, this dissertation is dedicated to them, for it is the result of their sacrifice as much as my work. But it also is the culmination of a journey supported by many.

Once I discovered higher education as an employer, I had the pleasure of working for Ann Carmichael, who offered me the opportunity to grow into a job in university enrollment management. Without her confidence in my ability to figure it all out while leading a team, I would never have ended up on this path. The PhD effort got underway in earnest at the urging of two former bosses, Paul Orscheln and Lesley DiMare, who saw other opportunities for me in higher education with this degree. My coworkers and amazing boss, Timothy Mottet, supported my participation in the program, rescheduling meetings around class times, understanding when I had to rush from a meeting to log into class, making sure I had access to a quiet space with Wi-Fi on campus if I could not make it home before class, and never giving me grief for the residency weeks I had to spend away from work. My in-laws and second parents, Vivian and Duncan, never failed to celebrate successes with me, even from 1,600 miles away. Other friends and family were there every step of the way, checking in and cheering me on from the sidelines.

It is an honor to be part of the 2016 Higher Education Leadership cohort, and I never imagined when we first met how important they would become to me. I am proud to be part of a group that always cares and supports, while never hesitating to challenge each other. To the 2016 Cohort, thank you for being your wonderful, authentic selves. I am better for knowing each of you. I was also blessed with the best advisor to guide me through this process, Sharon Anderson. She has been a calm, steadying presence that allowed me to push forward even when I did not think it was possible. The other members of my committee as well were a pleasure to work alongside over the past year. The student participants who made the completion of my dissertation a possibility were an inspiration. Their stories reminded me of my own college-going experience so many years ago, and renewed in me the desire to spend my career serving students who need opportunity and college access to make their own way in the world.

Finally, I say a special thanks to my dad and mom, Chris and Deborah, who set me on this path many years ago, when they sacrificed to afford the elementary school they knew would challenge this small child who was so in love with reading. From them I learned the same lessons of hard work and personal agency my students learned from their parents. They gifted me with a great start in life and were determined to see me become a first-generation college graduate. Though they both saw me earn my bachelor's and master's degrees, my mother unexpectedly died a few years before I applied to this program. I know she would be proud, and her memory is with me always. To Addy, who came into my dad's life, and mine, in recent years, thank you for your kind spirit and your interest in this work I do.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF TERMS

Several terms used in this dissertation may require definition to enhance the reader's understanding. Some of the definitions were drawn from relevant literature and are cited when appropriate. Others are functional definitions drawn from my experience or the operations at the institution that served as the research site.

College-going culture: An access-oriented educational concept that considers both the development of individual college aspiration and the provision of necessary resources to prepare students for college application, enrollment, and success (Achinstein, Curry, & Ogawa, 2015; Corwin & Tierney, 2007).

First-generation: For the purpose of this study, the term indicates that neither of a student's parents have a bachelor's degree. This definition matches both the federal definition used on the *Free Application for Federal Student Aid* (NCES, 2018) and the operational definition used at the institution at which this research took place.

Hispanic: A demographic category used in federal reporting to denote a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race (US Census Bureau, n.d.). In this study, the term is used in reference to self-identification provided by students on college applications and surveys, or in interviews. The term may be used interchangeably with *Latino/a/x* if the student self-identifies in that manner during interviews.

Hispanic Serving Institution (HSI): A federal designation received by a college or university that has at least 25% of its enrollment from the Hispanic community (U.S. Dept. of Education, n.d.).

Latino/a/x: A self-reported identity utilized by students during interviews. Often used interchangeably with Hispanic, but only when introduced by the student.

Legacy: In this study, the term is used to describe those students who have one or more parent with a college degree; the opposite of *first-generation* (Langenkamp & Shifrer, 2018).

Quintain: A case-study term that refers to the underlying issue or phenomenon that is the core of what will be or has been studied via the cases (Stake, 1995).

Underrepresented: A demographic term used to describe students, including those designated as low income, first generation, or students of color, whose numbers are often lower than those of other groups represented within institutions of higher education (Green, 2006)

CHAPTER 1: INTRODUCTION

In this chapter, I highlight the increasing focus in educational research on college choice and access and the contribution of those topics to the concept of college-going culture, and the emerging research related to college-going disparities among key student populations. Following that discussion, I explore the problem, significance, and purpose of this dissertation study and the research questions. I also provide assumptions, limitations, and delimitations of the study, along with definitions of key terms.

Background and Introduction

Research about college-going culture as a standalone topic has emerged within the past two decades (Kiyama, 2010; Kiyama, 2011; Rodriguez, 2013); but such research also is an unnamed, yet identifiable, undercurrent in earlier research related to college choice and aspirations (Appadurai, 2004; Lent, Brown, & Hackett, 1994; McDonough, 1997; Stanton-Salazar, 1997; Stanton-Salazar & Dornbusch, 1995). Previous research demonstrated evidence of disparities in college access for students from underrepresented backgrounds and underresourced high schools (Aldana, 2014), followed by vastly different life outcomes for bachelor's-degree graduates (Trostel & Chase Smith, 2015). With these disparate outcomes no longer in question, researchers have sought to more fully explore the importance of developing college-going culture within schools (Aldana, 2014; McDonough, 1997; Robinson & Roksa, 2016).

College-going culture has been described within the literature as not only the development of college aspirations within individuals, but also the complementary provision of guidance and support necessary to prepare students for college application, enrollment, and success (Achinstein et al., 2015; Corwin & Tierney, 2007). Frequent access to counselors to discuss college planning throughout the high-school experience, an ongoing conversation with

school personnel other than counselors about the expectation that students attend college, and access to college preparatory coursework are all indicators of strong college-going culture (Aldana, 2014; Robinson & Roksa, 2016; Weinstein & Savitz-Romer, 2009). The cultural frame can apply to a school, family, or any other bounded system; however, the majority of resources explored in this study framed that culture within a high school.

Much of the literature about attending college is rooted in a belief that a college-going culture is desirable, and focuses on how that culture can be promoted for a specific set of students, or within a single school (Aldana, 2014; McDonough, 1997; Robinson & Roksa, 2016). Studies often use specific contexts, such as family involvement, or the application of social or community capital, to measure the impact of change on that culture within a bounded site. However, little current research ties the creation of a college-going culture back into a larger social framework, such as action related to the enhancement of a community's college-going culture (Carden, 2007; Derden & Miller, 2014; Rochford, O'Neill, Gelb, & Ross, 2011). Derden and Miller (2014) posited that communities as social organisms could transmit college expectations, and identified community characteristics that predicted college-going rates; but the researchers were unable to confirm a proposed model of community expectancy. That avenue of research has significance for this project, given the research site's participation in a community-wide, college-going culture-related effort that seeks to expand that culture beyond a single family or school.

Statement of the Problem, Significance, and Study Purpose

With ever-growing research attention to college access, disparate enrollment outcomes, and the need to both help students aspire to college and adequately prepare them for success, researchers sought to learn how aspiration and success could be measured and encouraged (Aldana, 2014; McDonough, 1997; Robinson & Roksa, 2016). Measurable variations in college-

going culture exist among high schools, with first-generation students often having lower college-going rates and less access to school resources (Aldana, 2014). In an effort to frame the issue and identify disparities, researchers developed a quantitative methodology that allowed the classification of high schools as having low, moderate, or high college-going cultures (Robinson & Roksa, 2016). An additional body of research provides insight into the inputs that promote students attending college; such inputs range from academic rigor or exposure to college coursework (Calaff, 2008; McKillip, Godfrey, & Rawls, 2013) to the frequency of contact with guidance counseling staff (Robinson & Roksa, 2016). Because of this research, educators now have the opportunity to improve the likelihood that students will go to college, while also measuring outputs and setting concrete goals to increase institutions' college-going cultures. However, a review of the literature suggests that no studies have compared culture rankings of high schools utilizing Robinson and Roksa's (2016) methodology with the experiences of their graduates. Research that examines culture rankings of schools based on the college-going reflections of recent graduates could provide insight into whether student experiences align with the classification methodology, and also contribute to significantly improved practice focused on the enhancement of the college-going culture.

Significance: College-Going Culture Does Matter

It would be easy to research college-going culture without stopping to ask why it matters, and why educators should be concerned about a group of students who are not experiencing that culture at a similar level as their peers. The answer centers on the significant financial impacts of college choice and an earned college degree (Trostel & Chase Smith, 2015) that go beyond the individual (Baker, Klasick, & Reardon, 2018; Serna & Woulfe, 2017). Stated simply, a lack of

college-going culture within a school or community can lead to limited college access overall, with impacts at two levels—the individual and society.

Individual Impacts

Individuals' attainment of bachelor's degrees generally translate into higher annual and lifetime incomes, increased health and job stability, expanded opportunity, and better educational and income opportunities for the next generation (Trostel & Chase Smith, 2015). The literature on students attending college consistently demonstrated a stark difference in both overall college-going rates and the selectivity of college choices made by students from underrepresented populations and their majority counterparts (Baker et al., 2018; Chetty, Friedman, Saez, Turner, & Yagan, 2017). These decisions students have made in high school will have significant and ongoing personal costs, both financial and otherwise. Adults with bachelor's degrees have significantly lower unemployment rates than those with less education, make on average 67% more each year than high-school graduates, move up the socioeconomic ladder faster, and stay healthier (College Board, 2016). Annual earnings of bachelor's degree recipients are, on average, $32,000 higher than those without degrees, and at least $625,000 more over the average work lifetime (Trostel & Chase Smith, 2015). Poverty rates are 3.5 times lower for college graduates, and graduates are 74% less likely than their nondegreed counterparts to be out of the workforce (Trostel & Chase Smith, 2015).

Research shows that these individual benefits of a college degree continue to hold true, despite growing public skepticism about the value of a college degree. Studies show no decline in this earnings premium for college graduates in recent years, and college graduates fare significantly better during recent economic downturns than those without degrees (Trostel & Chase Smith, 2015). In fact, a Georgetown University study that focused on new jobs added in

4

the economic recovery period after the 2008 recession found that almost none of the new jobs benefited workers who had only a high school diploma, and 73% of new jobs since the recession have gone to those with a bachelor's degree or higher (Center on Education and the Workforce, 2016). Because of this significant differential in job creation, for the first time in US history, workers with a bachelor's degree or higher now make up a larger percentage of the workforce than those with a high-school diploma alone (Center on Education and the Workforce, 2016). This fact is the culmination of a trend that began in the 1980s, with a shift away from a manufacturing economy and the replacement of many remaining jobs in industry with jobs requiring college degrees. A 32% decline in manufacturing employment since the 1980s coincides with a 70% increase in employment for those with a bachelor's degree in the manufacturing sector; similar trends have been documented in other sectors that historically hired nondegreed workers (Center on Education and the Workforce, 2016).

Although income and job security are the primary individual impacts considered when one discusses the benefit of a degree, the literature reveals significant additional positive life outcomes associated with, though not necessarily directly caused by, a college education. College graduates have lower divorce rates, longer life expectancies, and better overall health (Trostel & Chase Smith, 2015), including a significantly lower incidence of mortality and deaths from despair (Case & Deaton, 2017). These degreed workers reported more secure futures than noncollege graduates, with an almost 50% higher rate of employer-provided health insurance and a 72% higher rate of employer-provided retirement plans (Trostel & Chase Smith, 2015). Nonelderly college graduates also reported significantly fewer instances of disability, inability to live independently, or difficulties with body movement than did their nondegreed counterparts,

which reveals an interesting pattern of improved health for college graduates beyond basic mortality rates (Trostel & Chase Smith, 2015).

Choosing to attend college at all, and also which college to attend, directly impact future personal opportunity. Because the admissions selectivity of the college a student attends can have a demonstrably significant outcome on their future career options, family income, and long-term fiscal stability (Baker et al., 2018), the observable differences between underserved populations and their majority counterparts about whether they attend college, and their choice of school, matter greatly. As one study concluded,

> To reach material success, one must use the cultural means at one's disposal. In the case of America, that path is higher education. …individuals who do not attend college are marginalized in such an effective fashion that their social and cultural capital is easily dismissed. (Serna & Woulfe, 2017, pp. 10–11)

The impacts are lasting and extend well beyond the student's first job. Longitudinal studies showed that US students with parents in the lower-income and lower educational-attainment quartiles seldom moved into higher-income quartiles at any point in life unless they went to college and earned a degree (Chetty et al., 2017). However, students from those lower-income quartiles who attended college demonstrated similar long-term earnings outcomes as their same-college counterparts from higher-income families (Chetty et al., 2017). This is true regardless of the admissions selectivity of the institution in question, which means that all colleges serve to level the economic playing field for individuals. Students from all quartiles graduating from the same institution experience similar improvements in personal income and job opportunities (Chetty et al., 2017). However, the admissions selectivity of the institution determines the magnitude of that improvement for all its graduates, from all income and educational quartiles (Chetty et al., 2017).

The individual benefits of a college degree, ranging from income and job security to health, wellness, and general quality of life, are only one part of the picture regarding the importance of college access. Society as a whole, at the community, state, and national levels, also receives significant benefits from a larger number of college-educated citizens. This impact beyond the individual or family level is one reason the application of college-going culture development within a community (Derden & Miller, 2014) has research significance.

Societal Impacts

Communities and society at large benefit from a more educated workforce, with increased economic-development opportunities, lower crime and public-assistance rates, higher social engagement, and increased tax revenues (Baker et al., 2018; Serna & Woulfe, 2017). The impact of college on individuals provides significant aggregate societal impacts, with every dollar invested in higher education resulting in approximately $5 in societal benefit (Serna & Woulfe, 2017).

Often, state and national efforts to meet workforce needs include postsecondary education goals, with state master plans speaking to workforce development and credential attainment, and to the desire to decrease budget inflation by limiting dependence on public safety nets (CDHE, 2017). The shift in the US job market since the 1980s from a manufacturing economy toward a knowledge economy has individual importance, as previously explored, but also has broader importance, as communities compete for new businesses. The changing job market means only communities that are home to an appropriately college-educated work force can attract the new businesses necessary for continued economic growth (CDHE, 2017).

Given the impact of a college education on individual and family incomes, the societal impacts from increasing levels of education within a community are numerous. Bachelor's-

degree graduates contribute approximately $6,900 more per year in taxes and are significantly less likely to utilize public assistance than their nondegreed neighbors (College Board, 2016). These graduates also have higher voter-participation levels and increased volunteering rates (College Board, 2016). College graduates require about $81,000 less in lifetime government expenditures than high-school-only graduates and contribute approximately 215% more in taxes over their lifetimes (Trostel & Chase Smith, 2015). College graduates are incarcerated at a rate that is 5 times less than that of high-school graduates, which significantly expands the societal benefits of education by limiting government expenditures (Trostel & Chase Smith, 2015).

Research even identified positive outcomes for people connected to the college graduate but not living in the same household—a phenomenon known as *spillover effect* (Trostel & Chase Smith, 2015). When this spillover is taken into account, the societal increases in income and financial outcomes related to college education are larger than if each benefit was calculated individually for the college graduates. Although calculations of this spillover effect have varied widely, the societal financial spillover has been observed to have an impact ranging anywhere from 70% to 300% of the direct personal impact (Trostel & Chase Smith, 2015). These considerations make plain the societal benefits of increased college participation, beginning with increased college-going culture among students from all backgrounds.

Purpose Statement

The purpose of this study was to explore the ways in which first-generation college students experienced college-going culture in their high schools and communities. This exploration, and the comparison of both survey and interview findings with a college-going culture classification of their high schools based on quantitative data, will inform practice and enhance understanding of the complex issue of college-going culture. Few studies have focused

on the college-going experience of students enrolled at an Hispanic Serving Institution (HSI), particularly utilizing a mixed-methods approach within a case-study methodology. This study more fully explored those students' experiences and delved into the variability of those experiences across high schools with differing levels of college-going culture.

Research Questions

This study explored a primary research question, "How did first-generation students attending an HSI experience the phenomenon of college-going culture in their high schools and communities?" The research results also offer answers to the following four, closely interrelated secondary research questions: (a) "What similarities and differences exist among students graduating from high schools with different college-going cultures?" (b) "What factors related to the theoretical frameworks selected for this study inform college-going culture for those students?" (c) "How do those differences and informative factors converge and diverge by case profile?" and (d) "What do the combined quantitative and qualitative data reveal about college-going culture that is not provided by one or the other alone?"

These research questions are mixed-methods questions, with both quantitative and qualitative data contributing to their answers. The similarities, differences, and factor identification are all drawn from analysis of quantitative and qualitative data that have been placed in context and synthesized to develop the ultimate assertions and research results.

Assumptions and Limitations

For the study, it was assumed that participants would be truthful in survey and interview responses, and that publicly available data used for analysis was accurate. Although efforts were made to maintain confidentiality for participants, it is possible that some students were not fully forthcoming while sharing their opinions because of confidentiality concerns. Because participants were students from a specific geographic region and a single institution of higher

education, results of this study are limited in applicability to other populations, though they may provide insight that leads to minor adjustments of practical knowledge. This limitation fits Stake's (1995) admonition that "we do not choose case study designs to optimize production of generalizations. . . but valid modification of generalization can occur" (p. 8). Despite those limitations, demonstrable benefit to a deeper understanding of these student experiences can be gained through a mixed-methods case study.

Delimitations

Delimitations of this study relate directly to participants selected for inclusion and fall into three broad categories: college enrollment, first-generation status, and proximity in time to high-school graduation. Specifically, only students enrolled at a specific HSI who self-reported first-generation status and opted in to completing a survey were eligible for inclusion in this study. In addition, only respondents who graduated from high school within the past 2 years were eligible for inclusion in the qualitative strand. These criteria were established to most directly address the research questions and to enable me as the researcher to form cases that contribute to a deeper understanding of college-going culture within this case-study research project.

Philosophical Perspective of the Researcher

As the researcher, I approach higher-education research from a pragmatic perspective with a strong constructivist grounding. The pragmatic approach drives a desire for any research project to genuinely contribute to higher-education practice and inform both institutional policy and programming (Creswell & Plano Clark, 2018). According to Creswell and Plano Clark (2018), pragmatism focuses "on the consequences of research, on the primary importance of the question asked, rather than the methods, and on the use of multiple methods of data collection to inform the problem under study" (p. 37). Given my role as an institutional leader in higher-

education enrollment management and student affairs, questions of college choice and access are relevant to my daily work and can contribute to broader knowledge creation within higher education in general. In addition, my current institution is involved in community-focused efforts to improve college-going culture; knowledge gathered from this study should allow me to improve that work and provide an example of this work for other institutions.

The constructivist grounding of my personal philosophical stance informs my belief that there is value in creating knowledge alongside key stakeholders, to develop solutions that are likely to address the needs of diverse individuals. My belief that individual perspective shapes each person's experience and resulting reality coincides with the concept of constructivism as a worldview (Creswell & Plano Clark, 2018). In this instance, that belief informs the qualitative investigation of how college students frame their personal college-going experiences, for the purpose of contributing to a deeper understanding of college-going experience overall. This confluence of pragmatism and constructivism as philosophical perspectives guided the development of these research plans using a mixed-methods approach that allows for both quantitative and qualitative research strands that will contribute to a more complete understanding of college-going culture.

Summary

In this chapter, I have established the importance of college-going culture as an area of research with impacts on both individuals and society. I have situated the purpose of the study as providing research findings capable of informing practice for institutions of higher education, and have outlined the primary research question and four closely related secondary research questions. As a mixed-methods research study with in-depth analysis coming from a select group of college students, I have also delineated in this section the delimitations and limitations of the proposed work, and its limited ability to be generalized to other populations. Finally, as the

researcher, I introduced my pragmatic constructivist grounding, and explained its influence on

this study.

CHAPTER 2: REVIEW OF THE LITERATURE

In this literature review, I trace a brief history of college-going culture as a higher-education research concern, then explore the topic in depth, including how college-going culture is identified and cultivated, common barriers to its development, and its presence among first-generation and other underrepresented populations. In the final portion of the review, I explore literature related to the theoretical frameworks that guided this research project.

Critical Review of the Literature About College-Going Culture

College-going culture was an emerging theme in early studies focused on college choice and aspirations (Appadurai, 2004; McDonough, 1997; Stanton-Salazar, 1997) that drew from theories of social capital (Perna, 2006; Perna & Titus, 2005), community cultural wealth (CCW) (Jayakumar, Vue, & Allen, 2013; Yosso, 2005), and social cognitive career theory (SCCT) (Lent et al., 1994). The concept of college-going culture emerged more fully formed as a research interest and labeled explicitly as *college-going culture* in studies that used funds of knowledge as a dominant framework (Kiyama, 2010; Kiyama, 2011; Rodriguez, 2013). One influential study defined college-going culture at high schools as either high, moderate, or low, based on respective college-going rates of graduates to 2-year and 4-year institutions (Robinson & Roksa, 2016). A high school is considered to have a higher college-going culture if more students go to a 4-year institution, and a lower college-going culture if more students go to a 2-year institution. That study found that early access to a college counselor by a high-school student resulted in an ongoing conversation about college throughout high school, and was highly predictive of a student's decision to go to college (Robinson & Roksa, 2016). In addition, students attending a high school with a high college-going culture were almost two and a half times more likely to

apply to a 4-year college than those at a school with a low college-going culture (Robinson & Roksa, 2016).

Because of the historical trend in the literature related to utilizing one or more of these theoretical frameworks, those four theoretical frameworks (social capital, CCW, SCCT, and funds of knowledge) guided this review of the college-going literature. Literature related specifically to the four theoretical frameworks and an exploration of their integration into a synthesized theoretical framework for the research are detailed in this chapter.

Sources and Parameters of the Literature Review

I cast the net widely to identify research relevant to this study. Initial efforts to identify resources for the literature review included searching EBSCO and ERIC electronic databases for peer-reviewed articles using the search terms *college-going*, *college-going AND culture*, and *first-generation AND college*. The search returned approximately 50 journal articles for initial review, and citations within those publications led to the identification of additional sources related to the foundational concepts of CCW, social capital, funds of knowledge, and habitus, all of which appeared frequently in the initial readings. Additional searches within the same databases focused on an exploration of the use of theoretical frameworks within college-going culture and leading to the use of search terms that included *funds of knowledge*, *funds of knowledge AND college-going*, *funds of knowledge AND college access*, *social cognitive career theory AND college-going*, *social capital AND college-going*, and *community cultural wealth AND college-going*. These efforts returned an additional 20 articles for review.

Although a large number of published items related to the foundational concepts of college-going culture, the review was also limited to studies focused on late high-school or early college students and their college-going experiences, as opposed to college retention, persistence,

or success. Additionally, the review process led to the identification of a variety of statistical reports and publications with relevant data such as high-school graduation and dropout rates, college enrollment rates among underrepresented populations, and the individual and societal impacts of a college degree, which helped frame the importance of college-going culture.

I identified McDonough's (1997) exploration of the college-going aspirations and expectations of White female students in California as a seminal work cited by numerous scholars within this area of research, and it became a vital source for this project. Similarly, Kiyama and Rios-Aguilar's (2018) book was a primary contributor to enhance the inclusion of funds of knowledge as a supporting framework for this study. Ultimately, this dissertation includes 84 sources, though I consulted a larger number in order to identify those most pertinent to the topic.

College-Going Culture Among First-Generation Students

Within current research literature and standard enrollment practice, such as federal financial-aid guidelines, first-generation students are generally defined as either (a) having parents who never attended a 4-year institution, or (b) having parents with no bachelor's degree. For the purposes of this study, the definition aligns with federal guidelines and focuses on those students whose parents have no bachelor's degree. Whatever the exact definition, practitioners and researchers alike have learned that coming from a first-generation home presents students with substantial barriers to college entry. Research has established a positive correlation between college-going rates and parental education (Kim & Nuñez, 2013; NCES, 2018), with findings showing that even one parent having a bachelor's degree can significantly increase a student's likelihood of going to college (Kim & Nuñez, 2013), and first-generation students are more likely to attend a 2-year than a 4-year institution (NCES, 2018). In fact, only 72% of first-

generation students enrolled in college within 8 years of high-school graduation, compared with 84% of those whose parents had some college and 93% of those whose parents had bachelor's degrees (NCES, 2018). In addition to being less likely to attend college, first-generation students who do choose college are disproportionately concentrated in less-selective institutions, including nondegree-granting and 2-year schools (Baker et al., 2018; NCES, 2018).

When race and ethnicity are considered in addition to first-generation status, the data tell a story that is starker still. For example, despite extensive national efforts to eliminate the gap in achievement or degree attainment, it remains, with only a slight narrowing of the differences between White students and students of color (Baker et al., 2018). In addition, Hispanic students consistently opt into attendance at 2-year institutions at higher rates than White students, even when one is comparing high-achieving students (Baker et al., 2018). According to Vega (2018), the undermatch between gifted academic performers and less selective colleges is more common among first-generation Hispanic students than other first-generation students.

The data also showed that first-generation students are less likely to have taken the academically rigorous high-school coursework recommended throughout the literature about college-going culture. National data comparisons between first-generation students and those with parents who hold bachelor's degrees demonstrated disparities in the percentage of students taking Advanced Placement (AP) or International Baccalaureate (IB) coursework (18% compared to 44%), calculus (7% compared with 22%) or other high-level math (27% compared with 43%) (NCES, 2018). Given basic admissions requirements for most 4-year colleges across the nation, it is no surprise that students without rigorous coursework on their transcripts would have difficulty navigating admissions and potentially default to open-access institutions. However, the issue is much broader than that simplistic example.

College-Going Culture Differences for First-Generation Students

What we know about the difference in college-going culture development and experiences specific to first-generation students is limited. Although the data are clear as to the underrepresentation of first-generation students in college, research attention to this population has often focused on college experience and performance, not their college-going processes (Gibbons & Borders, 2010). Much of the research related to underrepresented populations in the context of college-going culture is often applicable to first-generation students by their inclusion in other minoritized groups, but limited research related to college-going culture is focused specifically on culture development for first-generation students.

However, the results of those few studies that have focused on first-generation students have shown significant differences in college-going culture as early as seventh grade between first-generation students and their peers with degreed parents (Gibbons & Borders, 2010). Language evolved that conceptualized first-generation students as "pioneer" students striking out toward a new territory, compared to the "legacy" students who are building on the foundation provided to them by parents with college degrees (Langenkamp & Shifrer, 2018). One such study explored the cultural frames of pioneer students in comparison to those of legacy students. The study found that both groups generally came from families with strong college-going expectations; what differed was the families' knowledge of how to make college enrollment a reality (Langenkamp & Shifrer, 2018). First-generation students generally "felt as if they were on their own due to the perceived inability of their parents to help them, often because their parents are not around (many because of work) to supervise their studies and efforts toward college" (Langenkamp & Shifrer, 2018, p. 72). In addition, pioneer students felt a sense of otherness and separation from their families because of their college attendance, which differed

drastically from the legacy students, who saw college as a way to become more like their parents (Langenkamp & Shifrer, 2018).

First-Generation Barriers to College-Going Success

Barriers to college represent a diverse and wide-ranging issue, with personal experiences that can differ greatly even for students from similar backgrounds. Existing research tells us a first-generation student's college transition is complicated by the need to adjust to an experience for which the student has a limited frame of reference, and the need to maintain family relationships while navigating this new sense of separation (Saunders & Serna, 2004). In some cases, a student's college choice, such as the decision to attend an institution close to home, might provide additional positive support because of the maintenance of relationships that provide strength (Kiyama, 2010). However, a family's socioeconomic and educational status have a direct impact on the student's college-going *habitus*, or the type of education the students believes is deserved because of internalized family beliefs (McDonough, 1997). In addition, many first-generation students know people who had negative experiences with college, perhaps as the result of a limited ability to pay, an inability to succeed in coursework, or difficulty balancing competing life and time demands (Kiyama, 2010). These shared stories can serve as a negative aspect of the funds-of-knowledge framework, reinforcing a lack of college-going culture that students can internalize (Kiyama, 2010). Similarly, students who have not had much opportunity to determine their own ability to perform well in a college setting may judge their likelihood of success by the experiences of friends and family, which can lead them to either underestimate or overestimate their chance of success (Lent et al., 1994).

Research focused on the development of college-going culture of first-generation college students of color, such as those often enrolled at Hispanic Serving Institutions (HSIs) and other

minority-serving institutions, is even more limited than that focused on first-generation students, though a few relevant studies have been published (Gibbons & Border, 2010; Ojeda & Flores, 2008; Vega, 2018). That research has found that perceptions of barriers to college success are higher among first-generation students, particularly first-generation students of color, and that those perceptions impact the development of college aspiration (Ojeda & Flores, 2008). In a quantitative study of those perceived barriers to college, prospective first-generation college students were significantly more likely than legacy students to perceive barriers ($M = 92.97$ compared with $M = 75.17$); and first-generation Latina/o students perceived significantly more barriers ($M = 95.51$ compared with $M = 70.91$) than their White counterparts (Gibbons & Border, 2010). Because additional research has identified negative correlations between aspiration development and barrier perception (Appadurai, 2004; McDonough, 1997), these findings are critical in understanding the development of college-going culture among first-generation students of color. Vega (2018) studied a population similar to that intended for the current research, discovering that first-generation Latina/o students at an HSI encountered college-going barriers that included inadequate guidance in high school, financial and familial concerns, and greater comfort with a community college as a starting point to higher education. First-generation Latina/o students in one study also reported perceptions of significantly lower support from school personnel in preparing for college than did their Latina/o counterparts with parents who had attended college (Gibbons & Border, 2010).

General Indicators of and Barriers to a College-Going Culture

Although the literature supported the differential impact of various factors on the likelihood of first-generation college students attending college, it is also important to explore more general concepts of college-going culture for all populations. Studies demonstrated

repeatedly that certain factors are strong indicators of a college-going culture for all populations, while other factors have been shown to serve as barriers to the development of that culture for all populations.

Indicators of a College-Going Culture

Practitioners with an inclination to improve outcomes for their students focused attention on codifying indicators of a college-going culture. Put simply, if we are to encourage a college-going culture in our students and create that culture in our schools or communities, we must know it when we see it. Research showed that high schools with a strong college-going culture tend to promote college for all and provide the support systems students need to be academically successful (Weinstein & Savitz-Romer, 2009). Continuous conversations about college throughout the school, not restricted solely to the guidance office, are strongly associated with development of a college-going culture within a school, as is the belief of teachers, counselors, and administrators in the ability of all students to move into postsecondary work (Aldana, 2014; Stillisano, Brown, Alford, & Waxman, 2013; Vela, Flamez, Sparrow, & Lerma, 2016). In fact, attitudes of school personnel were identified as a primary indicator of the presence or absence of a college-going culture: "Creating this college-going culture begins with the relationships staff develop with students and with the expectation that all students will be prepared to enter post-secondary education after high school graduation" (Bosworth, Convertino, & Hurwitz, 2014, p. 21). This data reinforces the finding that students with earlier and more frequent access to a guidance counselor for college-related conversations tend to have higher college-going rates (Robinson & Roksa, 2016).

Strong academic programming is another indicator of college-going culture, and researchers have found evidence that academic rigor within a high-school curriculum results in

higher college-going rates (Calaff, 2008; Kim & Nuñez, 2013; McKillip et al., 2013; Saunders & Serna, 2004). Those studies defined academic rigor as including the opportunity for college-preparatory courses; at least four math and science classes in high school; or enrollment in concurrent, AP, or IB coursework. It is important to note that academic rigor as a best practice to promote college-going behavior should not be dependent upon the current academic attainment of students; in fact, the research suggested that in a school working to develop a college-going culture, all students should be given access to some component of a rigorous academic program (McKillip et al., 2013). In one Ohio community whose goal was to send 80% of high-school graduates to college, the introduction of extensive dual-enrollment course opportunities led to a significant increase in both initial college-enrollment rates and college persistence (Rochford et al., 2011).

In an effort to utilize past research findings to inform real-world practice, researchers in California developed the *Survey of Recent High School Graduates* to determine how well college access and equity were addressed within the state's secondary schools (Oakes, Mendoza, & Silver, 2004). Although the survey measured a number of variables, college-going culture was included as a primary construct with three components: seeking information/assistance, having high expectations, and steering away from a 4-year college (Oakes et al., 2004). In developing these constructs, Oakes et al. (2004) calculated that steering away from a 4-year college represented an inverse relationship to the other constructs—i.e., it was negatively indicated as an aspect of college-going culture. Questions included those aimed at determining how frequently students had conversations with counselors and teachers about college, and what attitudes they noticed from those staff members. Analysis of repeated administrations of the survey to more than three thousand participants found that the combination of having a rigorous curriculum and

a college-going culture accounted for 40% of the variance reflecting positive college-admissions outcomes among graduates (Oakes et al., 2004).

Researchers in a number of studies have examined specific precollege programs or individual high-school efforts to encourage college attendance among students. Some of these studies identified family inclusion and active participation in a program as key to its success (Bosworth et al., 2014; Kiyama, 2010; Kiyama, 2011; Knight, Norton, Bentley, & Dixon, 2004; Stillisano, Waxman, Brown, & Alford, 2014). However, the results of other studies indicate that a lack of family involvement in a student's academic life and college exploration can be mitigated by special programming or the involvement of other key advocates (Jayakumar et al., 2013; McDonough, 1997; Stanton-Salazar & Dornbusch, 1995). Given these conditions, the research indicated that although family usually has a significant impact on a student's college expectations, and family participation should be encouraged, the absence of a college-going culture at home does not mean a student cannot develop aspirations to attend college. Personal agency also comes into play, which explains why a theoretical framework that recognizes both internal and external factors for the development of a college-going culture is a more complete approach to understanding and addressing the issue.

Barriers to a College-Going Culture

In a previous section, I explored the limited research available related to the barriers first-generation students experience in the development of a college-going culture. However, more extensive research exists regarding those barriers for other populations who may or may not be first generation. Citing frequent confluence among income, race, and first-generation status, many researchers targeted college-going research to an underserved population defined by race or family income, instead of by first-generation status (e.g., Langenkamp & Shifrer, 2018;

22

McClafferty & McDonough, 2000; McClafferty, McDonough, & Nunez, 2002; McDonough, 1997). Very few studies have focused on multiple levels of underserved status, particularly first-generation students of color. Generally, barriers to college are grouped in the literature into three main categories: relational, individual, and systemic (Gonzalez, 2015). Both school and family environments are considered here, each having components that cross into all three of those categories. Overall, the research has demonstrated the importance of support systems to students' college-going intent, and that support generally is present (or lacking) at either the school or family levels (Gibbons & Borders, 2010).

      School Environment and Habitus. As demonstrated by the research-based indicators of college-going culture explored in the previous section, schools play a prominent role in a student's college-going process. At the most basic level, the positivity or negativity of the secondary-school experience helps to frame expectations for how positive an experience college will be (Gibbons & Borders, 2010). Often, underrepresented students are concentrated in schools with a history of poor academic performance and limited resources, and only the most persistent students are likely to access the college-going resources they need (Aldana, 2014). How a school or community impacts individual beliefs about college is linked with the concept of habitus, or how an individual perceives and develops "a sense about educational, economic, and social opportunity structures" (Kim & Nuñez, 2013, p. 86). Habitus is key to understanding the way in which students internalize, and so adopt, their own beliefs about their college-going potential. Kim and Nunez (2013) found that

> A student develops an individual habitus based on access to various economic and social resources, and on exposure to family and broader social contexts. . . .habitus is a useful concept for understanding the interplay between economic and social contexts and the parameters within which individuals make educational decisions. (p. 86)

The research showed that what community members say about secondary schools also wields power over students in those schools (Achinstein et al., 2015; Welton & Williams, 2015). Labeling schools as academically underperforming can lead to a measurable reduction in college-going culture, as teachers and students internalize both the label and its lowered expectations (Welton & Williams, 2015). Similarly, relabeling, in which teachers and counselors actively name as college material those students who traditionally might not be considered college-bound, was shown to increase college-going rates among those students (Achinstein et al., 2015). In an extensive case study of students from four California high schools, McDonough (1997) noted major differences in the services provided by schools and counselors to support college-going efforts. These observations led McDonough (1997) to explore the concept of organizational habitus, which frames the school as an intermediating influence on students' internalization of a college-going culture, with the power to shape the college-going messages students receive from other cultural groups.

Schools are often depicted in the research as places where students from underrepresented populations can access needed resources, increase their social capital, and interact with both adults and peers who impact their ability to get to college (Perna & Titus, 2005; Stanton-Salazar, 1997). Teachers and counselors are often cited as primary influencers of students' college-going beliefs, and in many communities these individuals may be the only people students know who have a college degree (Horng et al., 2013). In many cases, schools serve to provide students from a variety of racial backgrounds and socioeconomic statuses access to middle-class systems (Stanton-Salazar, 1997). Viewed through a critical lens, schools can either break down or reinforce barriers to access. As Stanton-Salazar (1997) said,

> The structural features of middle-class networks are analogous to social freeways that allow people to move about the complex mainstream landscape quickly and efficiently.

In many ways, they function as pathways of privilege and power. . . .a fundamental dimension of social inequality in society is that some are able to use these freeways, while others are not. A major vehicle that allows for use of such freeways is an educational experience that is strategic, empowering, and network enhancing. (p. 4)

Despite the demonstrated importance of school staff to the development of a college-going culture for students, a close reading of available literature identified few studies that dealt with specific, data-driven interventions that can be undertaken by staff to generate that culture, outside of those studies concerned with the evaluation of a specific program (McMahon, Griffith, Mariani, & Zyromski, 2017). Generic recommendations arose from research demonstrating the importance of the school environment to developing positive outcome expectations in students, such as the need for college and career counselors to speak openly with students about the barriers they perceive to college education (Ojeda & Flores, 2008). After their meta-analysis of 10 years of published college-going research, McMahon et al. (2017) called specifically for future studies leading to recommendations for both counseling interventions at high-school guidance offices and access-focused interventions via colleges and universities.

Family Environment. Although schools play a significant role in both erecting and eliminating barriers to college-going culture, it stands to reason that families, who have longer-term influence on individuals than a school, also have a leading role. Some students are able to move beyond a lack of familial support to create their own college-going habitus (Jayakumar et al., 2013; McDonough, 1997; Stanton-Salazar & Dornbusch, 1995), but the majority of the research showed that family influence can present a significant barrier to college. While Gibbons and Borders (2010) found that parents had a significant positive impact on college-going self-efficacy of students, they also found parents to negatively impact students' outcome expectations. These dual findings raise the possibility that many parents send mixed messages, such as the importance of going to college but the likelihood of failure.

The literature showed that families of students from underrepresented populations repeatedly voice concern about paying for college, a fear that they do not have the knowledge they need to help their students, and the belief that their children's secondary schools are not equipped to handle existing student caseloads (Cabrera, Lopez, & Saenz, 2012; Carden, 2007). This data supports the concept of aspiration as not only inner drive, but navigational capacity (Appadurai, 2004) that is dependent upon a student's perceptions of external messages. Unequal distributions of aspiration throughout society raise serious questions about equitable development of college-going culture: "Here is the twist with the capacity to aspire. It is not evenly distributed in any society. It is a sort of metacapacity, and the relatively rich and powerful invariably have a more fully developed capacity to aspire" (Appadurai, 2004, p. 68). In this way, the research strongly linked an individual's aspiration, a core component of individual college-going habitus, with external forces, such as socioeconomic status and social capital. This linking allows an expansion of the concept of habitus from something that is individual and solely internal to a characteristic developed and internalized through ongoing interaction with family, society, and other systems (Kiyama & Rios-Aguilar, 2018).

Gaps in the College-Going Culture Literature

The existing literature provides insight into the importance of college-going culture to the success of individuals from underrepresented populations, including first-generation students. However, a review of that literature revealed a limitation in the number of studies focusing on the college-going culture development of first-generation students, particularly first-generation students who choose to attend an HSI or other minority-serving institution. This research informed by the literature review seeks to provide additional insight into that population, utilizing responsible theoretical constructs which avoided a deficit perspective of students and

their families, while seeking to recognize the reality of disparate power and access to social and economic capital.

In the next section of this literature review, I more fully explore the literature related to theoretical frameworks relevant to college-going culture, including social capital, CCW, funds of knowledge, and SCCT. These frameworks are overlaid to make them more useful to an improved understanding of college-going culture; this combination also supports their application to a research project that focuses on the experiences related to college-going culture of first-generation students.

<div align="center">

Critical Analysis and Synthesis of Key Theoretical Frameworks

</div>

Theoretical frameworks are key underpinnings put in place when one is conducting a research study to guide the flow of work, explain assumptions, and aid in interpretation of results (AERA, 2006). Theoretical frameworks help readers of published findings to appropriately understand the orientation and grounding of both the researcher and the study. In any study, the researcher's philosophical approach or research perspective will interact with the applied theoretical frameworks to guide the development of a study that answers significant questions with appropriate rigor and thoughtfulness (Creswell & Plano Clark, 2018). Given that interplay between personal philosophical perspective and theoretical frameworks, it is important that a researcher identify and explain both when proposing research in a specific topic area.

Exploration of Key Theoretical Frameworks

The theoretical frameworks of social capital and funds of knowledge (FoK) are the most frequently used in research related to college-going partnerships that include schools and families (Yamauchi, Ponte, Ratliff, & Trainor, 2017). However, some studies also apply CCW and SCCT to the topic (Gibbons & Borders, 2010; Jayakumar et al., 2013; Ojeda & Flores, 2008). My exploration of college-going culture was influenced heavily by these four theoretical

frameworks, with each contributing unique perspectives to a deeper understanding of the research topic. I explore and analyze the four theoretical frameworks in turn within this section, then integrate them in a way that provides the basis for a heightened understanding of how multiple factors interact and contribute to students' internalization of college-going culture.

Social Capital

Social capital has an extensive presence in the literature as a theoretical framework for college-going culture. In one of its earliest conceptual forms, social capital was defined as the benefit that can be accrued to an individual based on available social networks (Bourdieu, 1985). Social capital can also be viewed as a systemic concept, applicable to classes of people, entire cultures, or other delimited populations (Bourdieu, 1985).

As the lack of social capital relates to college-going culture, the consequences of that lack are demonstrated in the under-resourcing of schools with large first-generation populations (Aldana, 2014). The consequences continue to be evident through a perceived lack of parental involvement in education and college-going planning among minoritized populations that leads to societal judgments about students' college worthiness (Kiyama & Rios-Aguilar, 2018). This lack of social capital is evident in their limited college-based social contacts that force first-generation students to rely heavily on high-school staff for their college-going social networks (Aldana, 2014; Kim & Nuñez, 2013; Stanton-Salazar & Dornbusch, 1995; Vela et al., 2016). Perna and Titus (2005) extended research related to the implications of social-capital theory for college-going culture to highlight the positive impact that peers with significant social capital can have on students who lack their own extensive social capital. The researchers found that interaction with high-capital peers allowed students without that capital to expand their access to social networks that were beneficial for their development of college-going culture (Perna &

Titus, 2005). This finding makes a strong case for programming that seeks to enhance college-going culture by intentionally bringing together students from different socioeconomic backgrounds and varying levels of access to social capital, to support that sharing of capital (Perna & Titus, 2005).

Garcia and Ramirez (2018) explored another form of sharing capital—specifically, the role of HSI faculty and staff in providing social capital to their students. Although their study was not directly related to college-going culture because of its focus on college educators, this capital-sharing concept can potentially be applied to secondary educators, wherein teachers and counselors can use their own social capital to expand students' opportunities for college access. This intentional choice to support capital transfer is a strategy both to empower underrepresented students to attend college and to support their college success (Garcia & Ramirez, 2018).

Other research grounded in social-capital theory has reimagined the often-cited college pipeline as a lemonade metaphor, with students' "taste" of college depending heavily on the ingredients for inclusion in the lemonade (Pitcher & Shahjahan, 2017). When the mixing in this metaphor takes place, students have inequitable access to the lemons, water, and sugar that represent college-going inputs such as counselors, test preparation, or support structures (Pitcher & Shahjahan, 2017). This metaphor allows researchers to consider both the inputs controlled by a student's social capital and at the same time acknowledge that even constrained resources can result in lemonade—albeit a version that may taste markedly dissimilar to lemonade made with different amounts of ingredients.

Other researchers with studies grounded in social-capital theory focused on the way in which higher education serves to reinforce the social structure, wherein students with access to significant social capital gain entrance to competitive 4-year institutions and the benefits of that

education, such as upward mobility, job placement, and increased personal incomes (Serna &

Woulfe, 2017). High-cost college entrance examinations, for which students from higher social

classes often have greater access to exam preparation services and can afford to pay for multiple

retests, serve as one limiter for low-income and other minoritized populations (Serna & Woulfe,

2017). In this way, power and class structures that are inherent within social-capital theory can

be viewed as having a disproportionately negative impact on students from underrepresented

populations, continuing a repetitive cycle that reinforces systemically unequal access to college.

As one study stated, "what is clear is that the social capital so readily available to those from

dominant groups clearly privileges them when accessing higher education, which further

enhances reproductive mechanisms" (Serna & Woulfe, 2017, p. 6).

Community Cultural Wealth

The CCW framework builds on social- and cultural-capital theories while directly

rejecting deficit framing, and seeks to center on the life and experiences of the family or larger

community that surrounds study participants. Like social-capital theory, the CCW framework

also has its roots in Bourdieu's (1985) theories, which framed cultural capital as integral to

educational development as it simultaneously serves to continue existing inequitable social class

systems. The CCW model recognizes that cultural and social capital are tied to economic capital

and cannot be legitimately separated within a theoretical framework (Kiyama & Rios-Aguilar,

2018).

In an attempt to further the theoretical conversation related to students from

underrepresented populations, Yosso (2005) proposed the CCW model, which is based in

critical-race theory and recognizes six forms of capital available to students of color:

aspirational, familial, social, navigational, resistant, and linguistic. Yosso (2005) envisioned the

CCW framework as a tool for empowerment and change because it provides a lens through which educators may recognize the contributions that students, families, and their communities make to the educational experience. Jayakumar et al. (2013) expanded application of that framework to the college-going experience, finding that high schools could use a CCW model to guide the development of college-going programming for students of color.

In my previous review of the literature, any of the six forms of capital within this theoretical framework were identified as either indicators of a college-going culture or barriers to its development, wherein a student's aspiration to attend college interacted with family dynamics, social networks, and internalized knowledge of how to navigate both familiar and unfamiliar systems (Yosso, 2005). Researchers extensively used CCW to explore college persistence and success (Kouyoumdjian, Guzmán, Garcia, & Talavera-Bustillos, 2017; Luna & Martinez, 2013), but it has seen limited use within the study of college-going culture.

However, some of the lessons from the research on college experience and persistence are applicable to the exploration of this framework; those findings supported the enhancement of college success for students from underrepresented populations through the support of families, including storytelling that sets expectations of success (Kouyoumdjian et al., 2017), or navigation of racially hostile environments (Luna & Martinez, 2013). Despite the important contribution of CCW as a theoretical framework for understanding college-going culture beyond the basic framework of social capital, its use is limited within published studies about college-going culture, often mentioned as an influence but never fully explored.

Funds of Knowledge

A FoK framework focuses research attention on informal knowledge garnered from real-life experiences that students bring to the classroom, ranging from religious or mechanical

knowledge to folk medicine (Moll, Amanti, Neff, & Gonzalez, 1992). The theoretical framework sets the expectation that these funds of knowledge allow an expansion of the learning process beyond that of basic memorization or dominant-culture centricity. Funds of knowledge are more than anecdotes or culturally relevant stories; they represent survival tactics and practical skills that allow people to work around systemically inequitable situations and a lack of capital. And they result in resilience-focused knowledge that becomes ingrained in a family or community (Moll et al., 1992).

Emerging from anthropological studies of Latino households (Kiyama & Rios-Aguilar, 2018), FoK was developed to allow K-through-12 teachers to pedagogically access the ways of knowing most relevant to their students (Kiyama, 2010; Kiyama, 2011). This framework was later applied as a theoretical framework to college-going culture to guide the enhanced connection of college-going programs to families (Kiyama, 2010; Kiyama, 2011). FoK provides a tool for connecting researchers with families who may not match the social status of the researchers without marginalizing study participants (Yamauchi et al., 2017).

Chang (2017) used a FoK framework with first-generation college students to explore the concept of smartness, expanding it beyond traditional definitions that include factors such as grades or test scores, the traditional forms of knowledge that are expected of college-going students. In fact, Chang's (2017) research focused on the agency of students who resisted a traditional smartness label as a form of resistance against majority culture and who chose instead to center smartness within their own personal and familial understanding. Because smartness can be conceptualized and understood differently between cultures, Chang (2017) viewed this approach not only as active agency by the students, but a culturally relevant representation of active funds of knowledge. These students defined smartness as more than grades: "the

participants weave and validate their family's struggles, abilities, and survival mechanisms as foundational, not irrelevant or peripheral, components of smartness" (Chang, 2017, p. 32). In an interesting integration of the social capital and FoK frameworks, Chang's (2017) participants viewed their nontraditional forms of smartness as methods of enhancing their access to capital as they navigated school systems and used education to add to their own personal sources of capital.

Within the FoK approach, the participation of students in their own learning is key, as is the call to educators to set aside preconceptions and support student learning by more deeply knowing their students (Moll et al., 1992). As it relates to the development of a college-going culture, this means setting aside a deficit-based assumption that families of underrepresented students know nothing about college, and finding a way to connect their existing knowledge with new information about college (Kiyama, 2011). That approach can mean helping families realize actions they already take to promote learning or provide access to knowledge networks, and assisting them in translating that awareness to college-going processes. Even negative knowledge can have an impact on a student's higher-education path and can craft an individual's college-going habitus.

Zipin (2009) built curriculum around "dark funds of knowledge" that encouraged students to share what had been traumatic life experiences to encourage classroom learning, and to explore the individual identities that students developed as a result of these experiences, all leading to heightened coping and survival skills. For example, students may have a keen understanding of gang culture, drugs, prison life, or violent death that they have gleaned from life experience; and those experiences could contribute significantly to their academic learning experience. Rodriguez (2013) also explored these "dark funds of knowledge" and how that knowledge could improve students' ability to navigate systems that require a keen understanding

of humanity. This theoretical framework helps to turn research from a sole focus on the school to the more complex interactions of that network with larger family and community networks (Yamauchi et al., 2017). This recognition of the significant family and community role in the development of students' college-going habitus brings all of students' knowledge to bear on their choice of college and the decision-making process (Yamauchi et al., 2017).

FoK is a practical attempt to turn away from the common focus on deficits students bring to the classroom or guidance office, and reframing those qualities and experiences as alternate forms of knowledge (Kiyama & Rios-Aguilar, 2018). For college-going culture, this perspective has immense potential to help practitioners better understand students and families, instead of "perpetuating the idea that under-represented students (and their families and communities) are lacking or deficient simply because they are not doing what 'successful' students do" (Kiyama & Rios-Aguilar, 2018, p. 4). Some research attention has been paid to student persistence as a form of knowledge funds brought to the college-going process (Montiel, 2016). In research of Mexican American families, the concept of "*hacerle la lucha*," or "take on the struggle," has been explored as an expectation of families that both propels students to selective colleges and enables their persistence and ultimate success in college when this type of FoK is converted into social or economic capital (Montiel, 2016).

Social Cognitive Career Theory

Social cognitive career theory (SCCT) was developed to explain the formation of career and academic interests. It takes into account objective and perceived environmental factors and background contextual factors of the individuals involved, while centering the importance of their application to the individuals (Lent et al., 1994; Lent, Brown, & Hackett, 2000). When applying this framework to college-going culture, objective environmental factors could include

high-school experiences, quality of secondary course offerings, or the availability of funds for college (Lent et al., 2000). Although the term *career* is used within the theory name, and many studies that apply it are focused on career pathways, the theorists stated their intent that the theory apply directly to academic pathways as well (Lent et al., 1994). Within this theoretical framework, three factors that are familiar from the earlier exploration of literature about college-going culture have primary significance within the exploration of that academic pathway development: self-efficacy, outcome expectations, and goal representations (Lent et al., 1994; Lent et al., 2000). *Self-efficacy* refers to the individual's belief in her ability to perform well within a certain context, and is understood to be both dynamic and contextual (Lent et al., 1994). Outcome expectations are individual analyses of consequences of actions that can be either positive or negative (Lent et al., 1994). Goals within this theoretical framework are much as they are understood in other contexts: the long-term plan or future state that is the result of the current choices (Lent et al., 1994).

These components of development have a complex interaction, and research has shown that "it may be difficult for robust interests to blossom where self-efficacy is weak or where neutral or negative outcomes are foreseen" (Lent et al., 1994, p. 89). Put simply, and applied to a college-going culture, it is expected that students who do not believe they would perform well in college, or that college would not significantly improve their circumstances in life, would be unlikely to plan for college as part of their future. In this framework, individual agency and determination rise as significant aspects of college-going culture.

In addition, SCCT conceptualizes academic choices as continuously undergoing change, wherein actual outcomes, rewards, and experiences impact the next stage of choice (Lent et al., 1994). For example, a student's decision to attend college and apply to College A could morph

after the student has received standardized test scores into a decision to still attend college, but instead to apply to different institutions. Family influence is also a significant part of the SCCT framework and the concentric model of environmental influences proposed by Lent et al. (2000), wherein those people closest to the student can either filter the student's perception of barriers to college or provide support that instead focuses on how to successfully navigate those barriers. This position has obvious correlations to research that speaks to the influence of families on the development of college-going culture in first-generation students (Langenkamp & Shifrer, 2018; Saunders & Serna, 2004).

SCCT has been used as a theoretical framework for studying minoritized populations, including first-generation college students. Gibbons and Borders (2010) selected this framework for their study of college-going culture among the first-generation population because of its integration of academic and career goals, within the social and cultural context. Using SCCT, the researchers developed a revised diagram of the college pathway for first-generation students that took into account support systems, perceived barriers, self-efficacy, college-going intentions, and both positive and negative outcome expectations to help predict the likelihood of college enrollment (Gibbons & Borders, 2010). Ojeda and Flores (2008) also used SCCT to attempt to predict college-going aspirations among first-generation Mexican American students. The researchers found that, to more accurately predict college attendance than any single factor alone, the use of SCCT allowed consideration of significant contextual factors, such as length of time the family had been in the United States, parental education, and perceived barriers. Gonzalez (2015) proposed the use of a SCCT framework for action-based research related to college access that focused on the development of specific interventions to impact college-going decisions within specific populations.

Integrating the Theoretical Frameworks

The social capital, CCW, FoK, and SCCT theoretical frameworks prevalent in the college-going literature provide ways to more deeply understand how students' circumstances, relationships, life experiences, and personal beliefs contribute to their internalization of college-going culture. However, each theoretical framework on its own does not allow for a complete understanding of college-going culture for underrepresented, first-generation students. This gap within the individual frameworks lends to the approach of synthesizing multiple theoretical frameworks to more fully contextualize the college-going experiences of first-generation students. Integrating multiple frameworks is not an unusual practice within educational research. Berzin (2010) utilized three frameworks found frequently in literature related to educational aspiration development to better explore that topic. Berzin (2010) reflected that, though the selected theories were sometimes viewed as conflicting, "when examined concurrently, they may provide complementary insights that enhance understanding of what drives aspirations" (p. 113).

Literature about college-going culture also includes substantial precedent for combining theoretical frameworks in such a way, often to better explore the research question (Yamauchi et al., 2017) or to focus on the agency of students and to combat deficit framing (Garcia & Ramirez, 2018; Rodriguez, 2013). Researchers of issues in higher education (Gonzalez, 2015; Kiyama & Rios-Aguilar, 2018) have overlaid conceptual and theoretical frameworks in similar ways to expand the understanding of college-going culture within specific underrepresented communities. In fact, this type of theory integration is encouraged for researchers who are attempting to bring concerns related to educational equity and access to the foreground (Kiyama & Rios-Aguilar, 2018). Kiyama and Rios-Aguilar (2018) have called for researchers to

> use these frameworks in complementary and more sophisticated ways to understand the
> educational complexities that continue to plague educational research. . . . the beginnings

37

of . . . a conceptual framework that combines capital (i.e., social, cultural, and economic), habitus, field, and funds of knowledge. (p. 20)

Shared Spaces and Gaps Among the Frameworks

Each of the four key theoretical perspectives—social-capital theory, CCW, FoK, and SCCT—has strengths and weaknesses in its application to research about college-going culture. Shared spaces include applicability of the theoretical constructs to underserved populations of some sort, and also a recognition of disparities in either access or opportunity that likely are not related to a student's ability. In the paragraphs that follow, I explore more fully the gaps in coverage between the respective frameworks that an integrated approach fills, for an enhanced understanding of college-going culture.

Despite what is an excellent fit between social-capital theory and research questions related to college-going culture, social-capital theory has two key gaps that make it insufficient as a pragmatic, standalone, theoretical framework through which to explore college-going culture. Social-capital theory lacks operational detail suitable for use in research about college-going culture, and it relies on a deficit perspective. Although social-capital theory assists one in conceptualizing the inability of students without privileged social networks to gain the necessary access to college, it does not provide a logically correlated solution (Gonzalez, 2015). There is no sustainable method to simply provide every student from an underrepresented population with an increased social network, nor does social-capital theory or other strategy adequately allow for the recognition of personal agency and determination in the presence of adverse circumstances. As any college enrollment officer knows, many students without extensive social capital succeed in enrolling in and graduating from college, and social-capital theory does not provide a sufficient context within which one can explore and understand that phenomenon. In addition, social-capital theory continues deficit framing of underrepresented communities by focusing on

what they do not have, and the social boundaries in which capital is built generally requires a sense of societal belonging that indicates acculturation to the mainstream (Kiyama & Rios-Aguilar, 2018). For students from cultures that are very different from those in which they attend school, the resulting assumption with a singular application of social-capital theory is that they must wholly align themselves with the dominant culture to develop the social capital they need for college. Because of these gaps, additional theoretical frameworks are necessary to supplement social-capital theory in the exploration of college-going culture.

Similarly, very little research on college-going culture is framed entirely from a CCW perspective. A foundational element of this theoretical framework that is a limiting factor in its use as a sole framework for college-going culture research is that CCW was developed and primarily used to investigate research questions related specifically to students of color (Yosso, 2005). Although many students of color are indeed first generation, and the research site has a large population of students of color, the research questions are more broadly oriented to all first-generation students, regardless of race or ethnicity. Despite this gap, CCW is a theoretical bridge between social capital and the FoK framework, which expands on the notion of capital and includes research related to students from various underrepresented populations, not solely those of color.

FoK also centers the knowledge students bring with them as important to the college-going process, considering family involvement and personal involvement in the educational experience as part of the culture development process (Kiyama, 2010; Kiyama, 2011). However, as an asset-focused framework, FoK does not extensively explore the concepts of power, class, and economic barriers that have a known impact on educational attainment and college choice, and that are addressed by both social-capital and CCW theories (Kiyama & Rios-Aguilar, 2018).

The inclusion of FoK in a theoretical framework for studying college-going culture is important, but it can be enhanced by overlaying additional frameworks that speak to other key factors in the college-going process.

SCCT is a final contributing framework that sheds light on the larger context of a student's decision making, including personal agency and incentives. Studies using a SCCT framework have demonstrated the importance of understanding context in the development of interventions geared toward impacting college-going culture (Gibbons & Borders, 2010; Gonzalez, 2015; Ojeda & Flores, 2008). Adding the SCCT framework to the other theoretical frameworks makes it possible to account for the personal choices and individual sense of agency that are an integral part of college-going culture.

Table 1 reflects the demonstrated weaknesses in each theoretical framework as a potential standalone framework for the study of college-going culture among first-generation college students. The reasoning made clear in this standalone-framework analysis sets the stage for framework integration. This integration of theoretical frameworks provides the researcher with an expanded perspective that allows for a more complete understanding of how college-going culture develops within first-generation college students. It is important to explain why I selected an integrated frameworks approach with these four theoretical frameworks instead of another option, such as Perna's (2006) well-known Model of College Choice. First, the literature itself leads here; very few college-going culture studies rely on Perna's (2006) model, but they do speak extensively of the theories outlined in this review. Second, Perna's (2006) model focused on a single piece of the larger college-going-culture concept: the actual college choice.

Given these limitations, while Perna's model has relevance for this research, it is ultimately too narrowly focused on a single aspect of the broader phenomenon to provide the

Table 1

Application of Key Frameworks to First-Generation, College-Going Culture

Framework	Key Concepts	Applicability Gap
Social Capital	Social status/class Access to benefits Capital transfer/capital sharing Social structure reproduction	Deficit framing; no logical solution to provide capital to all; cannot explain agency/how some students obtain access to capital
Community Cultural Wealth (CCW)	Nondeficit framing Experience-centered Role of the family/community Narratives/storytelling Six forms of capital	Developed and validated among persons of color, not necessarily valid for first-generation students from other backgrounds; limited attention to agency
Funds of Knowledge (FoK)	Nondeficit framing Learning participation Informal knowledge Role of the family/community Personal agency Dark funds of knowledge	Lack of attention to power, class, and economic barriers; no contextual frame for decision making
Social Cognitive Career Theory (SCCT)	Self-efficacy/Personal agency Decision making Aspiration Environmental context Career/academic intent	Incomplete in regard to capital, systems, and structures

sole theoretical underpinning. It also is important to note that the model is itself an integration of other key concepts that Perna (2006) found applicable to her research: human-capital-investment theory, habitus, cultural and social capital, and organizational context. The layers conceptualized by Perna (2006) are an approach to college choice that serve as an example of the necessary integration that inspired my thinking about college-going culture; but they still did not fully address all facets of the topic in a way that an integration of social capital, CCW, FoK, and SCCT theories could. This study needed the primacy of contributions of the family and community knowledge that are gained by CCW and FoK, and the placement of student agency in the foreground that occurs with both FoK and SCCT.

An Integrated Tapestry

Social capital, CCW, FoK, and SCCT are valuable lenses through which to view the college-going experiences of first-generation students, and their combination provides a more complete framework for this research project. As one thread, social capital theory highlights the importance of social networks and the value that can be added if institutions leverage students' existing capital while providing opportunities to develop new networks. However, this theory ignores the contributions that students' agency, or their families, communities, and cultural contributions make. It is into this gap that CCW, FoK, and SCCT serve as three additional theoretical frameworks, or tapestry threads.

CCW moves away from a deficit-based model and introduces additional forms of capital that can be brought to bear on the college-going process. CCW names the value of a student's aspirations, community, and language to their college experience (Yosso, 2005). CCW, developed specifically for persons of color, focuses on the injustice of systems; but the focus of this research project is to provide a basis for a fuller understanding of the college-going experiences of first-generation students, who may or may not be people of color.

This gap is where the FoK framework helps to provide a more complete option. FoK has roots in both social-capital and CCW theories, but it expands its sphere of interest beyond social capital to all types of knowledge the students contribute and empowers them to take part in their own education (Kiyama, 2010). As an example, Kiyama (2011) explored how family maintenance jobs in K-through-12 schools could provide a source of knowledge applicable to the college-going experience. Although FoK is linked to underrepresented populations, its relevance is not limited to people of color; and it is appropriately applied to first-generation students of all races/ethnicities.

However, none of the preceding theories allows for an adequate consideration of the personal and contextual components of the college-going process, particularly the role of individual drive and agency. This is the gap SCCT helps to fill, by acknowledging the role of the individual in college choice, without losing sight of the contextual impacts of the surrounding world.

As the researcher, I imagined each of these frameworks as a theoretical strand woven into a tapestry that depicts an integrated theoretical framework that in turn supports enhanced understanding of college-going culture for first-generation students. A tapestry is defined as a "picture woven into cloth. . . with detailed images or designs on it. Some tapestries, like the famous Unicorn Tapestries, tell stories with their pictures" (Vocabulary.com Dictionary, n.d., para. 1). This idea of a picture or story created by multiple threads that bring their own colors and textures to complete the picture, with no single thread contributing more to the outcome than the others, is exactly what I had in mind when I compared these interleaved frameworks with a tapestry. This mental metaphor assisted me in identifying the interplay among the theories and their respective contributions to the research, and I am not presenting it as a new conceptual or theoretical model. Instead, it serves to explain my belief that, although some threads may contribute more to an individual student's experience, or a single part of the overall picture, they all have similar relevance to the complete story the tapestry tells. Each strand repeats differently for each student and case; some appear repeatedly, and others appear perhaps only once in one area but become more visible in a different part of the larger tapestry. Some researchers who have integrated frameworks in their research have done so while proposing and testing a formal model (Berzin, 2010; Perna, 2006). Others have opted for a less formal approach, such as the one

I have taken in this research, in which I have placed the frameworks in dialogue with each other (Rodriguez, 2013; Kiyama & Rios-Aguilar, 2018).

To support a clearer understanding of this integrated tapestry concept, Figure 1 provides a visual representation of how the threads of FoK, SCCT, CCW, and social-capital theory interact within the resulting tapestry to form an integrated theoretical framework that best supports an understanding of college-going culture. Research utilizing this framework would employ concepts from each theory to guide exploration of the college-going experience of first-generation college students, and they would seek to identify key constructs of each theory during the research process.
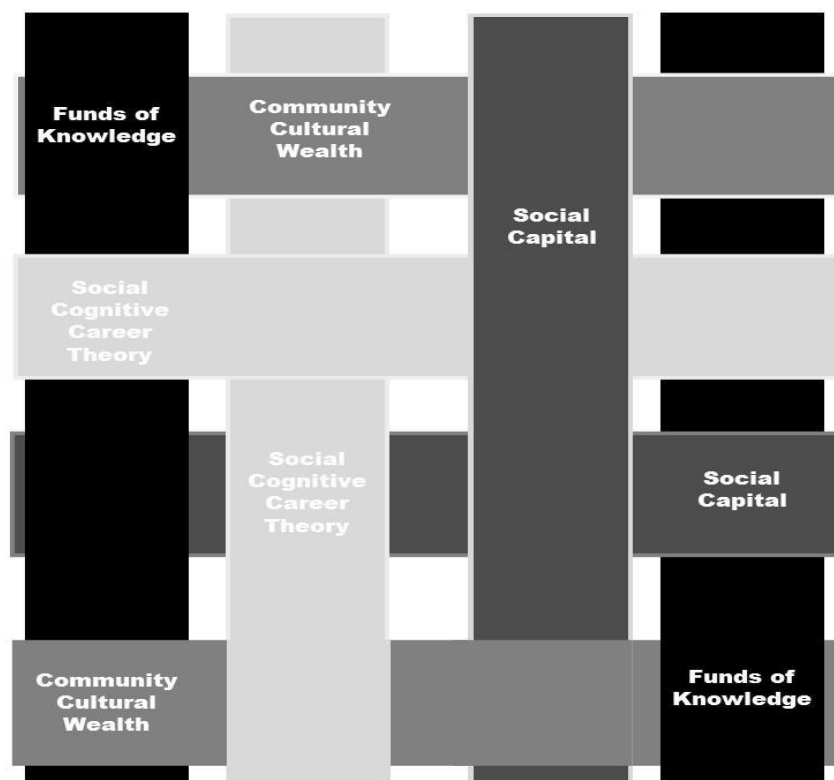
Figure 1
Visual Representation of the Integrated Theoretical Framework Metaphor

Conclusion

In this chapter, I have explored the extensive literature surrounding college-going culture and the four frameworks that provided grounding for this research project. Literature supported the use of social capital, CCW, FoK, and SCCT as integrated theoretical frameworks for the exploration of college-going culture, particularly as that exploration relates to first-generation students from underrepresented populations. The layering of these frameworks enhances the understanding of the issue in a way that the use of a single framework never could. Making use of theoretical frameworks within a research study means their use is infused throughout the study, from the literature review and development of methodology through the analysis and implications of the study (Yamauchi et al., 2017); their use means more than simply referencing the frameworks at key moments.

I have used the integrated framework to provide a better basis for understanding how secondary-school environments, family, friends, and personal agency impacted the college-going experience of first-generation students. This integrated framework supports enhanced knowledge and has led to the practical application of results that match my pragmatic philosophical approach and desire to conduct research that informs my daily work (Creswell & Plano Clark, 2018). In addition, the individual perspectives that are brought to bear with the inclusion of FoK and SCCT in particular are appropriate for the constructivist philosophical perspective that I bring to the study, and my desire to undertake mixed-methods research that made use of both statistical analyses and participant stories to gain a more holistic understanding of the development and experiences of college-going culture for first-generation students at a particular HSI.

CHAPTER 3: METHODOLOGY

This dissertation is a mixed-methods case-study investigation of the college-going experience of first-generation college students at an Hispanic-Serving Institution (HSI) in a western state. The results support a better understanding of the complex topic of college-going culture within the first-generation population, with pragmatic recommendations for institutions of higher education that serve students similar to those in this study.

Research-Question Review

The study is driven by one primary research question and four secondary questions. The primary question is "How did first-generation students attending an HSI experience the phenomenon of college-going culture in their high schools and communities?" The four secondary questions are (a) "What similarities and differences exist among students graduating from high schools with different college-going cultures?" (b) "What factors related to the theoretical frameworks selected for this study inform college-going culture for those students?" (c) "How do those differences and informative factors converge and diverge by case profile?" and (d) "What do the combined quantitative and qualitative data reveal about college-going culture that is not provided by one or the other alone?"

Research Design

I selected a mixed-methods approach for this study because of my desire to fully explore the college-going experiences of students within distinct cases—those from high schools classified as having various types of college-going cultures. Mixed-methods designs allow researchers to approach a question through "multiple ways of seeing" (Creswell & Plano Clark, 2018, p. 4), by which both quantitative and qualitative data are collected and analyzed to contribute to that deeper understanding. In this instance, the research questions take into account

both quantitative indicators, such as the metrics that inform case profiles based on college-going cultures at high schools, and the experiences of those cultures, as described by students in their own words. The pairing of quantitative and qualitative data allows for a more thorough understanding of the college-going experience than either method would alone. When such a complex description is desired, combined with the need to compare different cases, mixed methods is an appropriate research design (Creswell & Plano Clark, 2018).

Multiple-Case-Study Methodology

A case-study approach in particular allows for an in-depth exploration of a specific issue or phenomenon within a bounded system (Bhattacharya, 2017; Stake, 1995). The intent to fully explore that issue in detail leads to the selection of the case-study methodology (Stake, 1995). This research approach is strongly applicable in situations in which the researcher wishes to take a pragmatic approach and has a policy issue for exploration, and also when a researcher seeks to connect with the experiences of future consumers of the research findings (Stake, 1978).

Case studies can utilize single or multiple cases, depending on the issue to be explored. Bhattacharya (2017) explained a multiple case study as one in which "the researcher selects an issue or problem to investigate, defines what the bounded system of a case would look like, and selects several cases to explore the issue" (p. 110). In this study, each type of college-going culture within a high school was intended to form a case—low, moderate, and high college-going cultures—based on the Robinson and Roksa (2016) classifications. This approach aligns with Stake's (1978) assertion that a case can be whatever unit of study is of interest to the research, including a person, institution, or grouping of items that makes sense within the research question. Stake expanded this in later writings to explain that cases can be separate sites that may be useful in exploring a phenomenon but have no direct programmatic link (Stake, 2005). This is

the case with the high schools in this study, which may be found in different towns, counties, and school districts within a broader geographic region; but are all categorized as having the same college-going culture level. In particular, this is an intrinsic case study, one Stake (1995) described as appropriate when the case is a way to study something broader, such as an experience. Each group of students that form the cases in this study were selected because of their ability to contribute to a better understanding of the college-going experience among schools classified as having certain college-going cultures. The research focus is not necessarily on what happened at XYZ school, but instead, on how what happened at XYZ school better helps us understand the experience or phenomenon overall.

According to Stake (2005), the *quintain*, or "something we want to understand more thoroughly," (p. vi) is the driving force in the case study, not the cases themselves. The quintain within this study is the combined college-going experiences of first-generation college students now attending a specific institution of higher education. The selection of case study as the primary methodology allowed me as the researcher to more fully explore that phenomenon guided by cases. In addition, I could more readily see how the experiences of students from high schools with varying college-going culture levels were both aligned and different. According to Stake (2005), "we study what is similar and different about the cases in order to understand the quintain better" (p. 6).

A final reason for the selection of case study in this particular research relates to the researcher's need to gather information on a phenomenon—the experience of college-going culture—that is no longer observable for these students and instead must be gleaned from their interview reflections. Stake (1995, 2005) believed case study is uniquely suited to this method of inquiry, with the researcher indirectly learning about a phenomenon from those who were there,

and then bringing in other data points, such as quantitative data or artifacts, to add depth and

understanding to the case. Stake (1995) set this approach up as a manner of discovering the past

via multiple points of view, saying,

> Much of what we cannot observe for ourselves has been or is being observed by others.
> Two principle uses of case study are to obtain the descriptions and interpretations of
> others. . . . The interview is the main road to multiple realities. (p. 64)

Mixed-Methods, Sequential, Explanatory Case-Study Design

This study uses a mixed-methods, sequential, explanatory case-study design, a complex

mixed-methods design in which the initial quantitative strand informs the development of cases

for further study and exploration within the qualitative strand (Creswell & Plano Clark, 2018).

The sequential explanatory core design has two distinct phases, in which quantitative data are

first collected and analyzed, followed by the collection and analysis of qualitative data, which

further explains the statistical results from the quantitative portion of the process (Creswell &

Plano Clark, 2018). Quantitative and qualitative data are joined at the end and synthesized in a

way that strengthens any final assertions and findings. When the case-study design is introduced

into the core sequential design, it becomes part of the qualitative strand sequence, with

quantitative results informing both the development of multiple cases and the context of data

collection in the qualitative strand. Utilizing both quantitative statistical analyses and the themes

and factors emerging from the rich description within the qualitative strand, descriptive analysis

explains where cases both converge and diverge. This research design is consistent with my

pragmatic constructivist philosophical stance as researcher, as described in Chapter 2. The end

goal of this design is the generation and description of multiple cases, with emphasis placed on

the experience of the participants, and the potential to use the results to inform institutional

practice (Creswell & Plano Clark, 2018). Figure 2 provides a conceptual model of the research

design flow. It is important to note that, as case development began, the three cases, as proposed in alignment with Robinson and Roksa (2016) and reflected in Figure 2, were amended to include a low-moderate category and a high-moderate category, as explained in detail in the "Case Development" section.
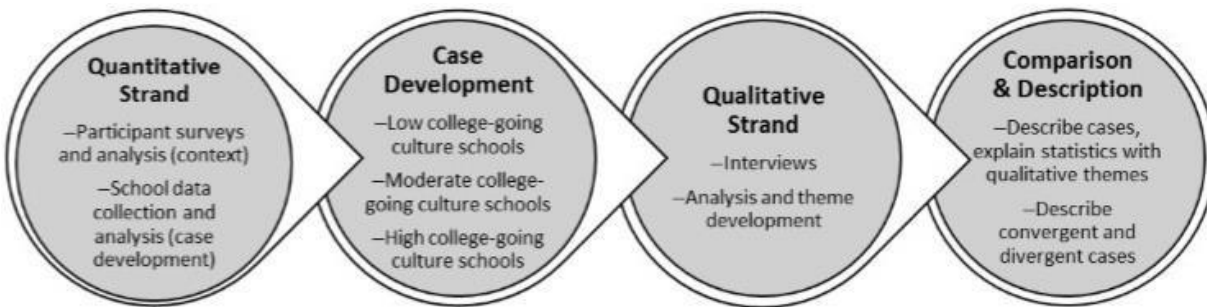
Note: Adapted from Creswell & Plano Clark, 2018.

Figure 2
Conceptual Model of the Research Design for a Sequential, Explanatory Case Study of College-Going Culture

Participants and Site

This section includes a description of the population from which participants were drawn, and also the setting of the research site. I explore in depth the participant selection process for both the quantitative and qualitative strands of the project, and give a brief overview of the participants, as well.

Population

The population for this study includes all first-generation college students at an HSI in a western state. The first-generation student population of the campus is estimated at approximately 1,200 students, and 391 students were within the delimited sample of currently enrolled first-generation students within 2 years of their high-school graduation at the time of data collection. The quantitative strand of the study included demographic and survey data collected from first-generation student respondents to a call for participants, through which

analysis further refined the sample population for the qualitative case-study strand. From 44 quantitative respondents, eight qualitative participants were drawn. The qualitative sample population was narrowed to first-generation students submitting surveys who graduated from a high school in the past 2 years for which available public data allowed the school's college-going culture to be defined as low, low-moderate, moderate, high-moderate, or high, using a modified version of Robinson and Roksa's (2016) classification system.

Setting

The setting for this research study was a 4-year, state HSI in a western state, which had a first-generation student population that was approximately one-third of its total student population. The institution had recently undertaken efforts to impact college-going culture in area high schools, and this study is anticipated to provide insight that can guide and improve those and similar efforts at other institutions. High schools within the geographic region where this research took place had significantly lower college-going rates than the state's and nation's averages, and the communities had higher numbers of nondegreed adults and first-generation homes (CDHE, 2018; NCES, 2019). The local population was significantly less educated than the rest of the state, with only 21% of residents ages 25 and older having a bachelor's degree, compared with 39% of residents statewide (U.S. Census, 2017). In 2017, the most recent year for which local and national data are both publicly available, only 56% of local high school graduates went on to postsecondary education, compared with 67% nationally (CDHE, 2018; NCES, 2019). Nationally, 44% of high school graduates attended a 4-year institution in 2017, compared with 36% locally (CDHE, 2018; NCES, 2019). These statistics are evidence of a problem that politicians and educators alike have recognized and targeted for improvement. Area high schools were beneficiaries of state grant resources in recent years that aimed to increase the

number of guidance counselors within the high schools, to meet or exceed the recommendation of a counselor-to-student ratio of 1:250 (ASCA, n.d.). Currently, area high schools have a combined counselor to student ratio of 1:130 (NCES, n.d.), which is well within best-practice guidelines and aligns with college-going culture recommendations to enhance student access to counseling throughout the high-school years (Robinson & Roksa, 2016).

This local context exists against a backdrop of growing state and national attention to the need for increased postsecondary credential attainment, including a state goal to have more than 66% of adults earn such a credential (CDHE, 2017). In this state, that need is directly related to an educator shortage, and also projected job growth in STEM fields, both of which require bachelor's degrees at a minimum (CDHE, 2017). Living in a largely first-generation community with low college-going culture has impacts beyond the high-school students who are graduating and making college decisions right now (Serna & Woulfe, 2017; Trostel & Chase Smith, 2015).

Participant Selection

Participants were selected in a two-part process, which began with a random sample in the quantitative strand but evolved into a purposive, nested sample in the qualitative strand (Creswell & Plano Clark, 2018). I have access to a university database that provides both personal and school email addresses of first-generation students in their first 2 years of college at the research site, and with permission of the cooperating institution, I used that database to generate the master list from which the quantitative random sample was drawn.

Quantitative Participants

In the first step of quantitative participant outreach, I sent an email with the online survey link, inviting students to take part in the study. The invitation was distributed by email to 100 first-generation students selected randomly using a numbers table from the master list of first-

generation students within their first 2 years of college. The intent was to generate between 30 and 50 survey responses, which meets the guidelines for the necessary quantitative statistical analyses (Gliner, Morgan, & Leech, 2017). Reminder emails were sent twice during the 14-day response timeframe. To generate 30 or more responses from students who graduated from high-school types that allowed for adequate case development, I pulled a second and third random sample from the list, excluding those previously invited, and sent invitations using the same protocols. In total, 300 students received the survey invitation, and 44 students completed the survey, for a 14.6% response rate. Although that response rate does not meet the 30% threshold considered acceptable for much standalone survey research (Gliner et al., 2017), the fact that this project did not seek to generalize findings eliminates some concern about response validity. Recent research has shown that email survey responses tend to trend 10% lower than other forms of survey research (Saleh & Bista, 2017), even when incentives are used. Within academic research in the computer-information-system discipline, published studies have utilized online surveys with response rates as low as 10% (Sivo, Saunders, Chang, & Jiang, 2006), depending on the goals of the research. In this study, the purpose of the survey was to gather quantitative data from responding first-generation students, which then would allow the formation of cases for the qualitative strand of this study. For this reason, although a higher response rate would have been desirable, the lower response rate does not invalidate the study because enough responses were gathered to conduct the intended analyses and form cases for in-depth interviews. The final survey questions allowed students to indicate their willingness to take part in the qualitative strand of the research by volunteering for two interviews and providing additional contact information. The recruitment materials did provide my name and PhD program affiliation, and some students may have recognized me as a vice president at their institution. In

an effort not to pressure students into speaking with me, I distributed the invitation to participate

by email using my student email; I then contacted for interviews only students who expressed

interest in a follow-up and elected to provide preferred contact information. Table 2 offers a

short overview of the demographics related to the survey respondents.

Table 2

Demographic Summary of Survey Respondents (N=44)

Variable	*n*	*%*	Willing to be interviewed (n)
School culture classification			33
Low	1	2	1
Low-moderate	13	30	8
Moderate	5	11	5
High-moderate	18	41	13
High	0	0	0
Unknown	7	16	6
Hispanic/Latino			
Yes	22	50	16
No	22	50	17
Race/ethnicity			
American Indian/Alaska Native	1	2	0
Asian	1	2	1
Black/African American	3	7	2
Other	4	9	3
White	35	80	27
Age			
18	9	20	7
19	17	39	12
20	18	41	14
Pell eligibility			
Yes	32	73	23
No	12	27	10
Working			
Part-time	27	61	20
Full-time	3	7	3
Not working	13	30	9
No response	1	2	1
In-state student			
Yes	38	86	28
No	6	14	5

Qualitative Participants

Participants within the qualitative strand were a nested subsample of the quantitative-strand survey responders, carefully selected from those who expressed interest in the interview phase in this purposive sampling approach (Creswell & Plano Clark, 2018). The initial intent was to utilize volunteer participants to develop three overarching cases for comparison, consisting of three students per case, for a total sample of nine within the qualitative case-study strand. This approach fits the recommendations of Creswell and Plano Clark (2018) and Stake (2005) to utilize a sample size between four and 10 within a case study methodology, particularly a multiple case study. However, as case development began, an issue in the application of the Robinson and Roksa (2016) classification arose that required changes in the case-study categories, as detailed later in this chapter.

The survey administered in the quantitative phase (Appendix B) provides basic demographic data such as student name, age, year in college, Pell eligibility, race/ethnicity, parent educational level, graduating high-school name, and year of high-school graduation. This survey data provided the information necessary to guide the selection of qualitative strand participants that allowed purposeful case formation. The initial sampling decision to limit survey delivery to those who entered college within the past 2 years and the inclusion of high-school graduation year as a demographic indicator allowed me to select students whose high-school memories were likely to be most vivid.

I used maximal-variation sampling to select interview participants (Creswell & Plano Clark, 2018). Because more students volunteered than were needed for the study, I used demographic indicators from the survey, such as high school, race/ethnicity, work history, and Pell eligibility to select participants who could contribute the most to the variety of experiences

within cases. Stake (2005) admonished that, in case-study research, "when we choose, it is often better to pick the cases that most enhance our understanding than to pick the most typical cases. In fact, highly atypical cases sometimes give the best insight into the quintain" (p. vii). During the participant-selection process, I kept in mind Stake's (2005) three primary guidelines for case selection: relevance to the quintain, diversity across contexts, and opportunities to learn about complexity and context. After I took those factors into consideration, I invited students to participate in the order in which they responded, until the maximum number of participants was reached. If potential participants were nonresponsive after multiple contacts, I reached out to new potential participants.

After I completed the quantitative analysis of school-level data and sorted respondents into new case-classification categories as detailed in the case-development section, my desire was to interview 10 participants—one from the low college-going culture school classification, and three each from the low-moderate, moderate, and high-moderate classifications. Only a single survey respondent fit the low college-going-culture classification. He repeatedly scheduled, and then missed interview appointments and was ultimately not included in the study. Eight potential participants from the low-moderate classification indicated their willingness to be interviewed, and two of those I initially selected and invited to participate responded almost immediately. However, attempts to solicit a third participant from the remaining six respondents were ultimately unsuccessful, despite repeated contact by email, phone, and text, using the preferred contacts provided by the students on the survey. This outcome resulted in only two students, instead of the intended three, comprising the low-moderate case, which meant eight students ultimately participated in interviews. Participants who completed the survey and both interviews received a $20 Amazon gift card.

Given the research site's status as an HSI, with more than 34% of its population self-identifying as Hispanic or Latino, I paid special attention to that representation within this study. Hispanic/Latino representation was the primary form of minority representation found within the survey respondents, and of the subsequent interview participants, 50% were Hispanic, matching the rate identified within the survey respondents. None of the Black respondents willing to participate in interviews attended a high school for which data was available to classify their school culture, and another respondent who indicated race as "other" could also not be assigned to a case. No other survey respondents who indicated racially diverse backgrounds and an interest in participating in interviews responded to requests for interviews. Given the challenge in collecting school-level data of out-of-state respondents for use in the classification, only one out-of-state student was contacted for an interview. However, that participant never responded to the request for interviews, and so all interview participants were in-state students. I solicited interview participants for maximum variation in relation to other demographic indicators, such as Pell eligibility, school of graduation, and work experience, allowing the research project to gather rich detail about the experiences of a broad-based set of students. Table 3 provides an overview of the demographics of the interview participants. An individualized description of each participant is included in Chapter 4.

Table 3

Demographic Summary of Interview Participants (N=8)

Variable	*n*	*%*
School culture classification		
Low-moderate	2	25
Moderate	3	38
High-moderate	3	38
Hispanic/Latino		
Yes	4	50
No	4	50

Variable	*n*	*%*
Age		
18	1	13
19	1	13
20	6	75
Pell eligibility		
Yes	4	50
No	4	50
Working		
Part time	4	50
Full time	1	13
Not working	3	38

Data-Collection Techniques

The research process began after I received research protocol approval from the

Institutional Review Board (IRB) of both the primary and coordinating institutions. The process

led off with recruitment, followed by data collection. I collected data in two distinct phases, or

strands—both quantitative and qualitative—within the sequential, explanatory case-study design.

As outlined previously, quantitative strand data collection informed case development and

provided subsequent context for qualitative strand data collection. The qualitative data collected

provides participant-centered insight into the college-going experience, with the potential to

highlight similarities and differences based on student placement within the cases, as defined by

their respective high school's college-going culture using Robinson and Roksa's (2016)

methodology, as amended. I collected the data types separately, but placed them in dialogue with

each other during the subsequent analysis.

Quantitative Data Collection

Quantitative data collection took place in two steps, highlighted in the participant section,

because of the data's contribution to the participant process. The first step was data collection via

the *Survey of Recent High School Graduates* (Oakes et al., 2004) given to a random sample

drawn from the first-generation population at the research site. The second step included publicly available, high school-level demographic and performance data that allowed for case development from survey respondents. Both are explained more thoroughly below.

Survey Instrumentation and Data Collection

I received permission to use an existing survey instrument, the *Survey of Recent High School Graduates*, which was developed and administered by the University of California ACCORD project focused on college equity and access (Oakes et al., 2004). That survey measured a number of variables, but included college-going culture as a primary construct. Oakes et al. (2004) identified strong predictive relationships between principal college-going factors and admission to a California public institution of higher education, with students on the high end of each college-going-factor scale demonstrating admission rates up to four times higher than those in the lower quartiles. The survey grouped college-going-culture survey items into three construct components: seeking information/assistance, having high expectations, and steering away from a 4-year college. Principal component analysis with varimax rotation from that survey administration to 3,000 randomly-selected recent high school graduates revealed strong factor loadings for the college-going indicators, as demonstrated in Table 4. Factor 1 (F1) is the Information/Assistance factor, Factor 2 (F2) is the High Expectations factor, and Factor 3 (F3) is the Steering factor.

Table 4
College-Going-Culture Factor Structure

Survey Item	F1	F2	F3
How many times did you talk to an adult at your school about how to choose the right college?	0.66		
How many times did you talk to an adult at your school about how to get into college?	0.64		
How many times did you use the college-planning center at your high school?	0.58		

Survey Item	F1	F2	F3
Did your school offer counseling regarding courses that would prepare you for a 4-year college?	0.58		
How many times did you talk to an adult at your school about the classes or teachers you should take?	0.56		
Did your school offer assistance with filling out college applications?	0.54		
Did your counselor encourage you to take college prep?	0.45		
Did you learn from a counselor about college?	0.45		
Did a counselor or teacher explain to you the classes required to attend a four-year California public university?	0.44		
Did your high school offer workshops on college admissions test preparation?	0.30		
Did your teacher have high expectations of you?		0.59	
How much did your teacher encourage you to go to college?		0.54	
Which students were encouraged to take the SAT or the ACT?		0.49	
How often would you say you had substitute teachers in your English, science, and math classes?		0.48	
Do classes a student takes influence their chances of getting into college?		0.41	
Did anyone at your high school encourage you to go to a four-year college?		0.34	
Did anyone at your high school encourage you to go to a community college?			0.62
How much did your teacher encourage you to go to a trade or vocational school after high school?			0.59
How much did your teacher encourage you to get a job after high school?			0.55
Did your school offer resources regarding information about community colleges?	0.35		0.45
How many times did you talk to an adult at your school about how to choose the right college?	0.66		
How many times did you talk to an adult at your school about how to get into college?	0.64		
How many times did you use the college-planning center at your high school?	0.58		
Did your school offer counseling regarding courses that would prepare you for a 4-year college?	0.58		

Note. Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in 7 iterations.
F1 = Information/Assistance factor, F2 = High Expectations factor, and F3 = Steering factor.
Survey and factor data used with permission granted by Jeannie Oakes and David Silver.

The survey also found strong predictive ability in the courses that were taken by students, but the college-going culture construct was a significant contributor to predictive ability, with the combination of rigorous curriculum and college-going culture accounting for 40% of the identified variance in admissions outcomes (Oakes et al., 2004). Permission was received from the original survey creators to replicate the survey as part of this research project, with a focus on the college-going structure constructs. For the purposes of this study, the survey instrument was minimally modified to collect the necessary demographic information and eliminate references to California schools, given the intent to conduct this study in a different state. A question regarding which students were encouraged to take the SAT or ACT was eliminated, because all high school students in the research state take an entrance exam as part of their high school curriculum. The total number of survey items was reduced to include only those survey items within the college-going culture construct. Despite these minor changes, the exceedingly diverse nature of students in the initial survey administration both along racial lines and first-generation status indicated the survey would retain significance for the research population in this study (Oakes et al., 2004). This process resulted in a 35-item questionnaire, of which 14 questions are demographic and 19 are related to college-going culture, with two final questions geared toward ascertaining participant interest in continuing to be part of the study through interviews. The questionnaire was built in Qualtrics and received an expert review score of "great," passing reviews for length, use of logic, accessibility, and other best practices. The survey has an estimated completion time of 5 minutes and is included in Appendix B. I thoroughly describe the data analysis from the survey in a later section; however, it is important to note here that analysis paved the way for the second round of quantitative data collection related to specific schools.

School Demographic and Performance Data

Initial data analysis from the survey revealed the high schools from which all 44 respondents graduated, which in turn led to a second round of quantitative data collection. I collected publicly available quantitative data from the state's district and school data reports for all 38 in-state respondents. This data included high school graduation rates, free and reduced lunch rates, the percentage of graduates going on to any postsecondary institution, and the percentage going to both 2-year and 4-year institutions. These data points allowed me to sort high schools using Robinson and Roksa's (2016) methodology regarding college-going cultures to inform case development.

I attempted to collect the same school-level data for the six out-of-state respondents as well, but few states provide the same level of publicly available data regarding graduate progression to 2-year and 4-year institutions. Indeed, only one other state (California) provided this level of detail. I reached out to both districts and schools in an attempt to obtain the necessary information for the five respondents from other states without publicly available data online, but I received no response. Despite their expressed interest in participating in interviews, those students were ultimately excluded from the qualitative participant-selection process because of the inability to gather data on their schools.

Case Development

Quantitative data available from the annual state and district reports of schools represented in the survey responses includes the percentage of each school's graduates attending either 2-year or 4-year institutions. These data allowed the formation of cases for the case-study qualitative strand and are a key component of the mixed-methods design. Although case development is intrinsically a qualitatively focused activity, it is inextricably tied to the

quantitative strand in this research design because of that data usage. Table 5 shows Robinson

and Roksa's (2016) methodology, initially applied in the attempt to develop three distinct cases.

Table 5

Robinson and Roksa's College-Going Culture Classification System

Classification	% of Grads Attending 4-Year Institutions	% of Grads Attending 2-Year Institutions
Low college-going culture		
Option 1	24% or less	—
Option 2	—	75%–100%
Option 3	25%–49%	50%–74%
Moderate college-going culture		
Option 1	50%–74%	—
Option 2	25%–49%	25%–49%
High college-going culture		
Option 1	75%–100%	—

First, it is important to note that no survey respondents graduated from a high school that

could be classified as having a high college-going culture. Subsequent analysis of state-level data

revealed that only nine high schools in the state in which this research took place meet those

classification requirements. In addition, a check of the high schools of graduation for all students

within the total study population at the research site revealed that none had graduated from

any of those high college-going-culture high schools. Because of this lack of representation

within the study population, there is not a high college-going-culture case included within this

study.

The attempted application of respondent school performance data with this Robinson and

Roksa (2016) classification system revealed a gap in that model that went beyond the presence of

school types within the population. Of the 44 respondents, seven attended a school for which no

data was available (either out-of-state or home school), five attended a school that met the

moderate culture classification, one attended a school that met the low culture classification, and 31, or 70% of all respondents, attended a school that did not conform to the Robinson and Roksa (2016) model, as outlined in Table 5.

Specifically, those nonconforming schools tended to have a large number of students who went to no postsecondary school, which made it impossible to meet the percentages required in the Robinson and Roksa (2016) model. The nonconforming schools almost met the requirements for moderate, but were split along high and low lines based on the total percentage of graduates who attended any postsecondary institution, which is where the gap in the Robinson and Roksa (2016) model appears to occur. For example, one school had 26% of graduates attending a 4-year school, but only 24% attending a 2-year school—close to meeting Option 2 for Moderate, but not quite. Another school had 27% attending a 4-year school, but only 16% attending a 2-year school. In both of these examples, like the others in the nonconforming group, the Robinson and Roksa (2016) classification is skewed when applied to this population by the fact that a large percentage went to no postsecondary school.

As the researcher, I made contact with Dr. Robinson about this issue, to seek further guidance and clarification in application of the model in these cases. However, despite initial acknowledgment of the outreach and a promise of follow-up, Dr. Robinson never provided additional feedback. After further committee consultation, I determined the moderate case called for further refinement because a number of schools had too many students attending college to be considered low college-going culture, but they did not fit neatly into the Robinson and Roksa (2016) classification. Of those 31 respondents from nonconforming schools, 13 attended schools with 55% or fewer graduates going to any postsecondary institution, and 18 attended schools with 56% or more going to any postsecondary. By retaining the 25%–49% range of students

attending 2-year and 4-year institutions from the Moderate Option 2 classification, and adding

the percentage of graduates not going to any postsecondary institution as a secondary

consideration, I classified respondents using the model reflected in Table 6, which creates two

additional categories: low-moderate and high-moderate. Using this revised classification model,

of the 37 respondents whose schools had data available for use, none came from schools with

high college-going culture, five came from schools with moderate college-going culture, one

came from a school with low college-going culture, 13 came from schools with low-moderate

college-going culture, and 18 came from schools with high-moderate college-going culture.

Table 6
Modified College-Going-Culture Classification System

Classification	% of Grads Attending 4-Year Institutions	% of Grads Attending 2-Year Institutions	% of Grads Attending Postsecondary Institutions
Low college-going culture			
Option 1	24% or less	—	—
Option 2	—	75%–100%	—
Option 3	25%–49%	50%–74%	—
Low-moderate college-going culture			
Option 1	25%–49%	—	55% or less
Moderate college-going culture			
Option 1	50%–74%	—	—
Option 2	25%–49%	25%–49%	—
High-moderate college-going culture			
Option 1	25%–49%	—	56% or more
High college-going culture			
Option 1	75%–100%	—	—

Quantitative Variables

The survey (Appendix B) contains student demographic variables and more detailed

measures of college-going culture based on student responses that constitute key quantitative

variables for this project. The publicly available high-school data also contain key variables,

some of which are used for the case sorting into college-going-culture type and some of which

provide additional data for analysis. Table 7 summarizes the quantitative variables from the

public data and the survey that were key to the analysis, though other variables were part of the

survey.

Table 7
Key Quantitative Strand Variables

Data Source	Variables
High school demographic data	Graduation rates
	% graduates enrolling in postsecondary education
	% graduates attending a 4-year institution
	% graduates attending a 2-year institution
	% student body receiving free and reduced lunch
Respondent Survey Demographics	Parent education
	Race/ethnicity
	Age
	Employment status
	Employment locations (on campus/off campus)
	Pell eligibility
	High school of graduation
	Year of high school graduation
Respondent Survey Questions	Number of conversations with school personnel about college
	Access to college application assistance
	Access to college entrance test prep
	Availability of college-planning center in school
	School personnel encouragement to attend a 4-year institution
	School personnel encouragement to attend a 2-year institution
	School personnel encouragement to get a job after graduation

Qualitative Data Collection

After concluding the quantitative data collection, initial analysis, and case development, I conducted two interviews with each of the eight participants selected from the larger respondent pool. The recorded interviews were semistructured, with prepared questions and potential probes identified, but I left myself room to explore topics that emerged unexpectedly during the process (Bhattacharya, 2017).

This study is confidential although not anonymous because names and personal information were collected in both the survey and interviews. The principal investigator (PI) and I will keep all research records that identify participants private, to the extent allowed by law. Each research participant selected a pseudonym that I used to discuss and analyze information provided during the interviews. I made every effort to prevent anyone who is not on the research team from knowing that a specific individual provided information, or what that information is. Consent forms are stored separately from the interview data, which is stored on a password-protected computer in password-protected files on the hard drive. Participants were told, however, that there are some circumstances in which I may have to show this information to other people. For example, as the researcher, I may be asked to share the research files with the CSU IRB ethics committee for auditing purposes. The results of this study may be published; however, participant names and other identifying information will be kept private.

Interview Protocol

I used a single interview protocol for in-person interviews of all participants (Appendix D), with 25 primary questions divided between the two interview sessions (13 questions in the first and 12 questions in the second), and an assortment of follow-up prompts meant to elicit personal recollections of participants' college-going experience. Because of the COVID-19

pandemic, I received IRB approval to conduct the interviews via Zoom, instead of in person as initially intended. Each interview was recorded with participant approval. The first interview focused on my getting to know the students, explaining the research project, and beginning to explore their basic recollections of their college-going experience and related family involvement. The second interview delved further into the students' college-going experiences, with a focus on the school-based portion of those experiences, and follow-up on any information needing additional exploration from the first interview. Each interview was to last about 1 hour, resulting in about 2 hours of interview content per participant, or approximately 16 interview hours total. In reality, many of the interviews were less than 1 hour, depending on the participants' response length. The semistructured interviews allowed for discussion of the students' development of college aspirations, their college exploration and selection process, high-school support and resources, and their transition into college. Questions explored personal beliefs related to the students' college journey, and also the attitudes, support, and influence of their families, friends, school officials, and the larger community. Some prompts or questions were dependent on the information gleaned from the survey response I received prior to the interview, which I used to frame the questions specific to each participant. After each interview ended, it was transcribed and provided to participants for review in preparation for analysis.

I gathered consent specific to the interviews using the IRB-approved consent form (Appendix C), following the privacy protocols outlined previously. Signed consent records will be maintained by the PI/co-PI separately from the interview data, and a copy was provided to all individual participants for their personal records.

Data Analysis

This sequential, explanatory case-study design included both quantitative and qualitative data collection and analysis that occurred in separate phases, beginning with the quantitative

strand. For this reason, I analyzed the quantitative survey data first, followed by the collection of additional publicly available quantitative data related to specific schools that allowed the generation of cases based on the college-going culture of high schools. I analyzed that data and used the results to inform the qualitative strand, which included collection and analysis of interview data that provided detailed exploration of the students' college-going experience. As Stake (1995) deemed appropriate for case studies, that analysis includes both direct interpretation from interviews that are included as part of the narrative case descriptions, and the aggregation of key themes or occurrences that allowed me as the researcher to make assertions about the cases overall.

This mixed-methods study was designed in such a manner that both quantitative and qualitative data contribute to the answers for each research question. The final secondary research question (D) asks the researcher to explore the contribution of this joint approach and the value it provided to answering the questions in a manner different from a standalone quantitative or qualitative approach. For this reason, I completed a final synthesis of both quantitative and qualitative data analysis at the conclusion of the qualitative analysis, bringing the research process full circle to jointly answer the main research question and four secondary questions proposed in Chapter 1 and restated in Chapter 3. The process was inductive, meaning data analysis did not begin with a hypothesis to be proven, but instead offered conclusions from the data in an iterative process (Bhattacharya, 2017).

Quantitative Data Analysis

The quantitative data analysis within this research project served two primary roles—the formation of cases for the qualitative strand, followed by standard statistical analyses with results

that enhanced my understanding, as the researcher of the participants and cases. Figure 3 demonstrates the flow of work within the quantitative data analysis process.
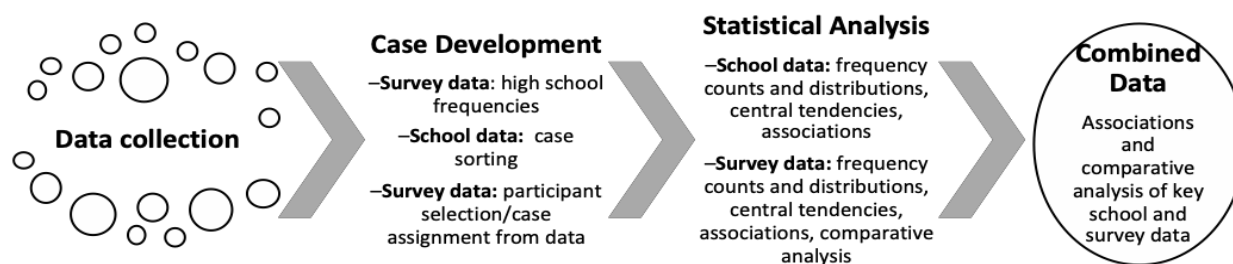
Figure 3
Quantitative Data Analysis Workflow Within This Study

Survey Data Analysis

I analyzed participant survey data to determine high schools of graduation among the respondent pool. That information informed the subsequent collection of demographic and performance data of the schools used in the development of distinct cases for the qualitative strand of inquiry, as described previously in the case-development and high-school data-analysis sections.

However, the analysis of survey data went well beyond that needed for case development. Descriptive analyses of participant survey data provided quantitative data for use in comparative case analyses regarding race/ethnicity, parent education level, socioeconomic status, work patterns, access to a guidance counselor in high school for the purpose of college planning, and high-school personnel expectations and encouragement. Measures of central tendencies identified the average state for each case, and also provided a statistical method for determining outliers. In addition, statistical associations allowed me to determine whether there were significant relationships between survey variables such as race/ethnicity and teacher expectations, or Pell eligibility and employment status.

School Data Analysis

       I analyzed demographic and performance data for the high schools as described in the case-development section, to determine those schools' levels of college-going culture and sort them into high, high-moderate, moderate, low-moderate, and low case groupings. I analyzed other data about the high schools, such as percentage of the student body receiving free and reduced lunch, and total percentage of students going on to any postsecondary education, using descriptive statistics, such as frequency counts and distributions, and also measures of central tendencies (mean and median measures). I performed this secondary analysis of the high-school data to inform the research context and support case comparisons. My final combined analysis undertook the more complex statistical analysis of key data points from the high-school-level data alongside survey data points, to allow for a more complete understanding of the cases at hand.

Combined School and Survey Data Analysis

       I expected the most significant quantitative data findings from the synthesis of high-school data and culture category assignments with the survey data. Comparative analyses, such as ANOVA, helped to determine whether significant differences emerged among the cases related to key survey variables such as teacher expectations, access to a college planning center, or college-entry test preparation. This combined analysis also helped to verify the accuracy of Robinson and Roksa's (2016) model of classification as amended, as I compared student survey responses related to college-going culture with the classification type arising purely from the high-school-level quantitative data. For example, crosstabs helped me determine whether associations did exist between those culture classifications and a student's recollection of access to a counselor or encouragement to attend college. This analysis prepared me as the researcher to

launch the qualitative analysis by helping set a baseline for me to understand the norms and outliers identified within the data. Familiarity with this data also allowed me to better identify interesting points of divergence and convergence from the interviews, which helped explain the quantitative data.

Qualitative Case-Study Data Analysis

Because of the case-study nature of the qualitative strand, qualitative data analysis adhered to accepted case-study analysis procedures. I conducted cross-case analysis according to the multiple case-study analysis methods outlined by Stake (2005), who provided three possible analysis tracks, depending on the research purpose and questions. For this study, I used analysis Track III, which allowed me to develop theme-based assertions from factor clusters developed during the analysis.

Track III served as a bridge between qualitative and quantitative data, which allowed me to align qualitative themes and factors with the results from the quantitative strand (Stake, 2005). This process moved from broad theme development related to the research questions and frameworks to factor cluster development related directly to the qualitative interview data. Part of the Track III analysis process included placing the themes and factor clusters in dialogue with each other, and ranking the areas of alignment and misalignment in preparation for final assertion development. Figure 4 provides a summary of the workflow during the qualitative case study cross-case analysis.
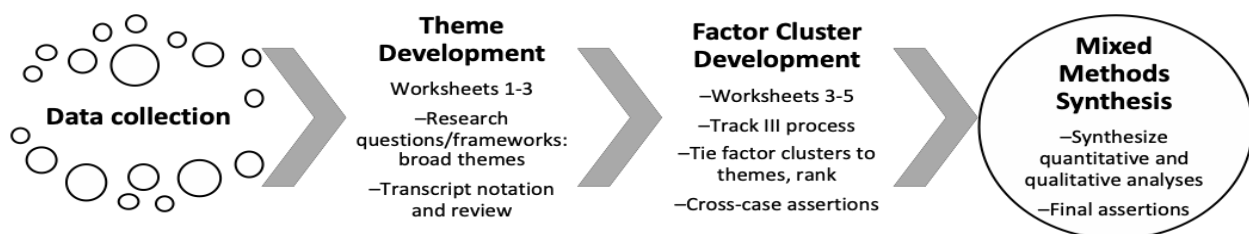
Figure 4
Qualitative Cross-Case Analysis Workflow and Mixed-Methods Synthesis Within This Study

Theme Development

Worksheets reproduced from worksheets originally developed by Stake (2005) and modified to allow electronic completion served as templates for the qualitative analysis process. The first step in this case-study analysis was the completion of Worksheet 1 (Appendix E), which draws what Stake (2005) called the major themes of the project from the research questions and theoretical frameworks. This step served to keep the eventual findings grounded in the work that came before, reminding me of existing literature and the guiding principles of the integrated theoretical framework. In this case, themes were identified from the theoretical frameworks and checked for relevance to the qualitative data. After interview transcription, I read and preanalyzed the transcripts using a basic note-taking process, in which I read the transcripts repeatedly and made notations about key concepts or theme-related notations within the transcript margins. I compiled a case-note summary for each case, including a summary of information related to each participant within that case group, using both demographic data and information drawn from the interviews. I reviewed the case notes and transcript margin notes multiple times, then used them to complete Worksheet 2 (Appendix F), which organized key discoveries related to each case, including discoveries that appeared relevant to the themes previously identified. I completed a version of Worksheet 2 for each case (low-moderate, moderate, and high-moderate college-going culture groups) represented in this study.

At each step of the process, I returned to the research questions and quintain, and examined the information gleaned from each case in light of what it contributed to an enhanced understanding of college-going culture. Worksheet 2 allowed me as the researcher to reflect on the prominence of each theme within each case, which assisted with the cross-case analysis and ultimate findings (Stake, 2005). Stake (2005) developed worksheets to assist with the analysis

process, not for presentation of findings; however, they did assist me in identifying those results that seemed most worthy of exploration in the final report. With Worksheet 3 (Appendix G), I continued analysis using the themes identified in Worksheet 1, and considered each case's individual contribution to a better understanding of that theme.

Factor Cluster Development

I entered ratings of each case's contribution to greater understanding of the theme on Worksheet 3. I then moved into what Stake (2005) referred to as analysis Track III, which allowed the identification of key factors arising from the interviews. According to Stake (2005), a factor is "a widely found, sometimes influential variable of interest well beyond its situation" (p. 64). Although qualitative researchers traditionally may not refer to patterns within their data as factors, the language provides a way to separate the themes that arise from the larger research topic and theoretical frameworks from the key points that emerge from the case data. This introduction of factors as part of the qualitative analysis is particularly relevant for mixed-methods research (Stake, 2005), and the factors tie in the qualitative interview data with themes previously recognized in the theoretical frameworks, literature, and quantitative survey findings. During the analysis, it was important to keep in mind that the factors should arise directly from the cases themselves; although the factors may be related to the themes, they emerge directly from the collected data and not from the research purpose or larger topic (Stake, 2005). In this way, themes arise from content and information external to the qualitative strand, while factors emerge directly from the analysis of the qualitative data specific to this study.

I created notecards with the qualitative factors noted on Worksheet 2, naming the factor and noting the case with which it was associated. I then grouped the factor cards into clusters, determining whether any of the factors that initially seemed different in each case were actually

more broadly related when considered as part of the larger research objective. I named each factor cluster in a way that made obvious its meaning and contribution to a better understanding of the college-going-culture phenomenon (Stake, 2005). I identified nine factors during analysis, in accordance with Stake's (2005) recommendation. On Worksheet 4 (Appendix H), I entered the factor names and then identified which cases were associated with each factor and the number of contributions each case made to it. I connected the factors and cases with the previously identified theory-based themes, and then captured all of that information, together with relevance and ranking, on Worksheet 4. Those rankings gave rise to case-study assertions related to each theme. Stake (1995) believed assertions are a form of generalization that researchers develop based on their observation, larger knowledge, and the study data. This part of analysis was about identifying patterns from the qualitative data that allowed me as the researcher to more fully describe and explain the cases that are part of the study (Stake, 1995).

Stake (2005) considered the assertions that arise at the conclusion of this interpretive process to be the heart of the research report generated in a multiple case study. The analysis to this point had led me through a discovery process that allowed me to consider the "prominence, ordinariness, utility, and importance" (Stake, 2005, p. 72) of various themes, factors, and factor clusters, which would give rise to the assertions. On Worksheet 5 (Appendix I), I entered the assertions related to each theme and factor that emerged from the analysis and seemed to have relevance to gaining an improved understanding of the college-going-culture experience of the first-generation students in this study. The assertions in some instances were based on what Stake called "compelling persuasion" (2005, p. 75) instead of definitive evidence; the cases and larger context should provide a story that supports that persuasive intent. According to Stake (2005) in his metaphorical reference to a picture of the story,

Getting the picture right results from assertions that are rooted in the Case Findings or Factors, even providing evidence of newly understood relationships. The picture is the picture of the Quintain, which was not studied directly, and its Cases, which were. (p. 77)

Themes and factors that emerged in the current study as most relevant for understanding the research questions are displayed in Table 13 in the Results chapter (Chapter 4), and the table includes counts that indicate the number of cases and participants to which they applied. This practice meets Glesne's (2016) admonition that coding within qualitative research is used to "discern themes, patterns and processes; to make comparisons; and to build theoretical explanations" (p. 195). I identified both emergent and divergent themes and factors as part of the cross-case analysis, which allowed for a comparison of the similarities and differences in experiences of not only the individual participants, but also between and among the larger cases. A theme and factor table such as Table 13 allows for the visual display and comparison of those components and summarizes the completed analysis, which I documented fully on the worksheets.

Frameworks Revisited

As detailed in Chapter 2, the integrated theoretical framework guiding this study brings together social capital, community cultural wealth, funds of knowledge, and social-capital career theories that all have relevance to college-going culture. In addition to helping frame the available literature, research problem, and research questions, theoretical frameworks are meant to guide the analysis of data collected during the research, and also the formation of final assertions and results (Yamauchi et al., 2017). As part of the case-study analysis, I sought to identify key constructs related to each theory. Those key concepts, and either correlated or oppositional concepts as explored in-depth in Chapter 2, are shown in Table 8.

Table 8

Key Concepts From Integrated Theoretical Frameworks to Inform Data Analysis

Framework	Key Concepts	Correlated (c) or Oppositional (o) Concepts
Social Capital	Social status/class Access to benefits Capital transfer/capital sharing Social structure reproduction	Deficit framing (c) Power (c)
Community Cultural Wealth	Non-deficit framing Experience-centered Role of the family/community Narratives/storytelling Six forms of capital	Racial focus (c) Traditional capital primacy (o)
Funds of Knowledge	Non-deficit framing Learning participation Informal knowledge Role of the family/community Personal agency Dark funds of knowledge	Traditional capital primacy (o) Narratives/storytelling (c)
Social Cognitive Career Theory	Self-efficacy Personal agency Decision making Aspiration Environmental context Career/academic intent	Choice processes (c)

Because of this study's grounding in the current literature, I anticipated that some of these concepts would emerge as key themes during the cross-case analysis, and perhaps be represented during factor-cluster development, as well. This expectation was met, and the ability to identify significant concepts from these theories within the survey and interview results is an important topic of discussion in the Results section. I identified those concepts with relevance as *etic* issues, which are brought to bear on this study from the outside as part of the design and researcher orientation, as contrasted with *emic* issues, which arise directly from the study participants and may or may not have larger relevance that makes them rise to the level of

assertions (Stake, 1995). This application of the guiding frameworks throughout the entire

research process, including analysis, enabled me to keep the research focused on practical

outcomes that could simultaneously expand existing knowledge and maximize applicability to an

institution of higher education.

Final Combined Analysis

Given the mixed-methods nature of this study, I synthesized quantitative and qualitative

data results via a final analysis step. In the final level of analysis, I sought to determine whether

the survey results helped to expand on themes identified in the cross-case analysis process, and if

so, how those expanded themes related to the key concepts from the theoretical frameworks as

outlined in Table 8.

Worksheet 5 includes space for notes that allowed me to begin incorporating and

synthesizing quantitative and qualitative data in a manner that best addressed the primary

research question and secondary questions proposed at the start of this study. Table 9

summarizes the individual quantitative and qualitative data analyses that I performed as part of

this research project. The table also outlines the contributions those data sources, once analyzed,

provided as I answered the primary research question and four secondary questions.

Table 9

Quantitative and Qualitative Analyses Types and Contributions to Research Question Answers

Data Source	Analysis Types/Tests	Research Questions
High School Demographic Data	Descriptive analysis—Frequency counts/distributions Descriptive analysis—Box and whiskers plots Descriptive analysis—Measures of central tendencies	1, a
Respondent Survey Demographics and Question Responses	Descriptive analysis—Frequency counts/distributions Descriptive analysis—Box and whiskers plots Descriptive analysis—Measures of central tendencies Statistical analysis—Associations 　(crosstab/Phi/Cramer's V) Data validation—Factor analysis/Cronbach's alpha	1, a, b

Data Source	Analysis Types/Tests	Research Questions
Combined Survey and High School Demographic Data	Descriptive analysis—Measures of central tendencies Statistical analysis—Associations (crosstab/Phi/Cramer's V) Statistical analysis—Comparisons (ANOVA/MANOVA) Statistical analysis—Odds ratios	1, a, b, c, d
Case Study Interview Data	Cross-case analysis, Track III	1, a, b, c, d

Note. The research questions are as follows: (1) "How did first-generation students attending an HSI experience the phenomenon of college-going culture in their high schools and communities?" (a) "What similarities and differences exist among students graduating from high schools with different college-going cultures?" (b) "What factors related to the theoretical frameworks selected for this study inform college-going culture for those students?" (c) "How do those differences and informative factors converge and diverge by case profile?" (d) "What do the combined quantitative and qualitative data reveal about college-going culture that is not provided by one or the other alone?"

Data Validation

I was a first-generation college student, and I currently serve as a campus vice president with ultimate, though indirect, responsibility for first-generation programs. I kept this positionality in mind throughout data collection and analysis and employed reflexive approaches throughout the qualitative strand of the research process, examining interview questions, analysis, and conclusions for signs of single-perspective, tunnel vision. Colleagues reviewed the interview protocol and flagged deficit-based or presumptive questions, which were amended before research began.

The majority of the quantitative data was either publicly available data maintained by the state, or data generated by the administration of a survey that was used in previous research studies and had been deemed valid and reliable for use in investigating college-going culture (Oakes et al., 2004). I used both factor analysis and Cronbach's alpha to provide assurance of internal validity and consistency of the concepts being measured in the survey. In addition, I compared the results of the factor analysis against the previously published results to provide additional assurance of the reliability of test results across multiple administrations. I describe in

Chapter 4 the results of that factor analysis, which resulted in associations between questions somewhat different from the previously published results and a reconstituted Factor 1 and Factor 2, but which retained significance for this study and its participants. Specifically, the Cronbach's alpha was calculated as .74 for new Factor 1 and .70 for new Factor 2, both of which meet standards for demonstrating instrument reliability (Morgan, Leech, Gloeckner, & Barrett, 2013).

I also triangulated the data by bringing together the quantitative and qualitative data, in which I checked the findings from the high school performance data indicating the schools as low-moderate, moderate, or high-moderate college-going cultures against the students' qualitative interview responses as a way to verify whether their statements of available resources matched the quantitative case development. Stake (2005) also called for triangulation to check the assertions arising from the analysis against what was previously known about the quintain through current literature and past research. Stake's approach to multiple-case-study analysis called for triangulation throughout the data collection and analysis processes, through formalized processes and check-ins with participants and colleagues (Stake, 2005).

The interview protocol allowed some survey results to spark specific interview questions, which provided a double-check for vital data points, enabling me to make sure survey answers were as respondents intended. After interview transcription was complete, I employed member checking as a form of data validation, wherein I asked participants to review the transcripts of their interviews for anything that seemed unusual or incorrect. During analysis, I triangulated various data sources, ranging from interview notes and transcripts to document reviews, with the fact that all sources pointed to the same conclusions. This process served as an ultimate check of trustworthiness.

Ethical Considerations

Participants signed various forms indicating consent and acknowledgment of their rights and privacy considerations at key points throughout the process, including the administration of both the survey and the interview. Although anonymity was not guaranteed, significant protections, from assignment of pseudonyms to restricted access to research data, are in place to assure participant privacy and confidentiality. These explanations, and also agreement by participants to have interviews recorded and their right to withdraw permission at any time, were included in the consent document and the interview protocol, which were provided to participants in advance of the interviews. I outlined likely benefits and any potential payment for participation for participants' consideration prior to their agreement. The invitation to participate (Appendix A), survey (Appendix B), and consent document (Appendix C) all make clear the intent for participants who completed all phases of study participation, from survey submission through two interviews, to earn a $20 gift card.

Methodological Synopsis

This chapter includes an overview of the mixed-methods methodology for this study, and the key tenets of mixed-methods work and the multiple-case-study approach. In the study, I used quantitative data analysis to develop three cases for in-depth analysis through a subsequent qualitative, multiple case study, which resulted in cross-case analysis and comparison of the college-going experiences of students who attended high schools with low-moderate, moderate, and high-moderate college-going cultures. The interviews provided context and explanation for the data used to develop the cases for study. In this chapter, I also have tied the selected methodology and research design to the research questions, my philosophical stance as the researcher, and the theoretical frameworks selected as a guide for this study.

CHAPTER 4: RESULTS

This study is a mixed-methods, case-study investigation of the college-going experience of first-generation college students at an Hispanic-serving institution (HSI) in a western state. It is one of the first studies of its type to utilize a case-study approach with both quantitative and qualitative data to expand current understanding of the first-generation, college-going experience and how that breaks down among graduates of schools with varying levels of college-going culture.

The study was driven by one primary research question: "How did first-generation students attending an Hispanic-serving institution (HSI) experience the phenomenon of college-going culture in their high schools and communities?" Four secondary questions that guided data collection and analysis were (a) "What similarities and differences exist among students graduating from high schools with different college-going cultures?" (b) "What factors related to the theoretical frameworks selected for this study inform college-going culture for those students?" (c) "How do those differences and informative factors converge and diverge by case profile?" (d) "What do the combined quantitative and qualitative data reveal about college-going culture that is not provided by one or the other alone?" In the following sections, I answer each of these questions as I move through the analysis process and present the ultimate assertions.

I collected survey data from 44 respondents in the quantitative strand of the study, and then interviewed eight of those respondents over the course of two in-depth interviews to learn more about their college-going experiences, in their own words. Detailed information about the entire respondent population is included in the participant section of Chapter 3. All eight of the interview participants were drawn from those survey respondents who indicated a willingness to participate in two interviews. Half were Hispanic, and half were not. A primary consideration in

the invitation to participate further in interviews was the high school the student attended, and

each student and graduating school's potential contribution to the study of a specific college-

going-culture case assignment. Every student brought a completely different high school

experience to the study because none attended the same high school. All graduated from high

schools in the same state as the college they attend, and all but one attended a high school within

a 50-mile radius of the campus. As Table 10 shows, the participants represent a variety of

employment experiences, majors, and socioeconomic status; this variety contributes to the

fullness of our understanding of the first-generation, college-going experience.

Table 10
Qualitative Participant Overview

Pseudonym	Case Assignment	Age	Race/Ethnicity Identification	Major	Pell Eligible	Employment
Sarah	Mod	18	Not Hispanic/ White	Premed	Yes	Not working
Lynn	Mod	20	Not Hispanic/White	Business	Yes	PT; on and off campus
Kay	Mod	20	Not Hispanic/White	Nursing	Yes	PT; on campus
Thomas	High-mod	19	Not Hispanic/White	Cybersecurity	No	PT; on and off campus
Jo	High-mod	20	Hispanic/White	Premed	No	FT; on and off campus
Xman	High-mod	20	Hispanic/White	Engineering	Yes	Not working
Jay	Low-mod	20	Hispanic/White	Social Work	No	Not working
Teresa	Low-mod	20	Hispanic/White	Business	No	PT; off campus

Note: Mod = moderate; Low-mod = low-moderate; High-mod = high-moderate; PT = part time

I begin this chapter with a presentation of the various quantitative analyses that I

conducted, then the discussion moves into the themes, factors, and assertions I developed using

Stake's (2005) process as part of the qualitative cross-case analysis.

Analysis

This mixed-methods study included both quantitative and qualitative analyses. The analyses commenced with a factor component analysis and Cronbach's alpha test related to the administration of the amended version of the *Survey of Recent High School Graduates* (Oakes et al., 2004) used in this study. I then progressed into a deeper quantitative analysis of the survey data, followed by cross-case analysis of the qualitative interview data, and concluding with a synthesis of both strands of data. Although the quantitative analyses did not identify significant differences that were useful in the comparison of the cases, they did form a solid foundation for developing a better understanding of the larger contexts from which the participants came into the interview setting. Completed worksheets using Stake's (2005) Track III analysis are included in Appendix J for additional detail regarding the qualitative analysis process.

Quantitative Factor Component Analysis

As discussed in Chapter 3, the survey in its initial administration (Oakes et al., 2004) had three primary factors related to the college-going-culture constructs: Information/Assistance, High Expectations, and Steering. I repeated that principal factor component analysis for this administration of the survey. Principal component analysis with varimax rotation from this survey administration with responses from 44 first-generation college students revealed slightly different factor breakdowns than in the initial administration by Oakes et al. (2004). The results of this current study also reveal strong factor loadings for the college-going indicators, as demonstrated in Table 11. Factor 1 is the Encouragement/Attitudes factor, and Factor 2 is the Resources factor. Findings indicate that some questions did not significantly contribute to the factors and a larger enhanced understanding for this group of respondents.

Table 11

College-Going-Culture Factor Structure, Revisited

Survey Item	*F1*	*F2*
How much did your teacher encourage you to get a job after high school?	0.68	
How much did your teacher encourage you to go to college?	0.65	
How many times did you talk to an adult at your school about how to choose the right college?	0.60	
How much did your teacher encourage you to go to a trade or vocational school after high school?	0.58	
Did your school offer resources regarding information about community colleges?	0.57	
How many times did you talk to an adult at your school about the classes or teachers you should take?	0.53	
How many times did you talk to an adult at your school about how to get into college?	0.50	
Did your high school offer workshops on college admissions test preparation?		0.72
Did you learn from a counselor about college?		0.70
Did your school offer counseling regarding courses that would prepare you for a 4-year college?		0.59
Did a counselor or teacher explain to you the classes required to attend a 4-year university?		0.42
Did anyone at your high school encourage you to go to a 4-year college?		0.52

Note: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in 6 iterations. *F1* = Encouragement/Attitudes factor; *F2* = Resources factor

These two factors combined accounted for approximately 33% of the variance in survey responses among participants. Although the factors aligned somewhat differently in this study than in the previously published one that led me to propose it for use in this study, the reliability of these factors was established. In fact, the determination that encouragement/attitudes among school personnel and resources available at the school were aligned and of significance also reinforces findings from the qualitative strand of this study.

Quantitative Survey Data Analysis and Findings

I conducted a total of 58 various quantitative analyses within SPSS software to determine whether any survey responses demonstrated statistical significance in relation to case assignment, participant demographics, or other factors drawn from the survey. These analyses

included cross-tabulations, or crosstabs; ANOVAs; odds-ratio calculations; assorted descriptive analyses; and frequency counts. Interesting details emerged that help to paint a picture of the survey respondents, from their family circumstances to the attitudes of school personnel they encountered, and the resources made available to them at their high schools.

For example, more than 61% of respondents had mothers with a high-school diploma or less as their highest form of education; more than 65% of respondents' fathers had this same level of education. Finances were likely to be a real concern in the respondents' college experience, with 73% reporting Pell eligibility, and more than 68% working at the time of their survey response. Of those who reported having a job, one-third were working more than one job to meet their expenses, and about half worked in an on-campus work-study position.

More than half (55%) of respondents indicated a high-school counselor had not explained to them the classes required to attend a 4-year university, and the same percentage indicated either that their school definitely did not provide that type of counseling assistance, or that they were unsure whether it was available. According to the survey results, only half of respondents were encouraged by their guidance counselors to take college preparatory courses, and 52% indicated they had not learned from a counselor about college. A surprising picture of limited college-going interaction emerged; 14% reported never having spoken with any adult at their high school about how to get into college, and 32% said they never spoke with an adult about how to choose the right college. Interestingly, 46% reported speaking to an adult at the school three or more times about how to get into college, and 31% had three or more conversations about choosing the right college. More than 27% indicated they had never used their school's college planning center, and another 27% indicated their school did not have one. Among those who did use such a center, 25% did so three or more times while in high school. Considered as a

whole, the results indicate that students who accessed these resources for help going to college did so repeatedly, while others never took that step at all. The prevalence of the availability of key survey variables as part of the respondent population is summarized in Table 12.

Table 12

Resource Access Summary

Question	Yes	No/Never	Unsure
Classes required for a 4-yr explained?	45.5%	54.5%	N/A
Learned from a counselor about college?	47.7%	52.3%	N/A
Encouraged by counselor to take college prep?	50.0%	50.0%	N/A
Spoke with an adult at school about how to get into college?	86.4%	13.6%	N/A
Spoke with an adult at school about how to choose the right college?	68.2%	31.8%	N/A
Test prep workshops offered?	34.1%	40.9%	25.0%
College app assistance offered?	61.4%	27.3%	11.4%

Despite varying responses related to resources and personnel in the guidance offices, other adults in the high schools were shown to actively participate in the college-going process for these students. Teachers reportedly had a positive impact on the experience, with 89% of respondents believing their teachers had high expectations of them, and 75% saying their teachers had encouraged them either "a lot" or "a great deal" to attend college. More than 84% of respondents indicated they had been encouraged by someone at their high school to attend a 4-year college, and 50% indicated they received encouragement to attend a community college.

However, in spite of conducting numerous analyses, I found no relationship between any of the responses or case assignments by a high school's college-going-culture classification that rose to a level of statistical significance. A single exception was identified through the ANOVAs that demonstrated a difference among the various culture classification groups in the percentage of students receiving free and reduced lunch at schools. An initial descriptive analysis revealed

that 48% of all respondents graduated from a high school at which more than half of students qualified for free or reduced lunch, which means that a large percentage of them came from communities and homes facing financial challenges. Because I had four culture groupings and the percent-free and reduced-lunch variable was a normally distributed scale variable with independent samples, I selected a one-way ANOVA for further analysis of this division among the cases. I tested the assumptions for one-way ANOVA, and Levene's test was not violated. Tables 13 and 14 demonstrate the ANOVA findings related to this statistical analysis. Table 13 shows that the means ranged from a low of 28.43% free- and reduced-lunch recipients at schools with an unknown culture classification to a high of 78% at the single school in the low college-going-culture classification. The null hypothesis was rejected; a statistically significant difference was identified among culture classifications on free- and reduced-lunch prevalence, F (4, 39) = 6.86, p = .00, as demonstrated in Table 14. Although the ANOVA F was significant, a Tukey post hoc test could not be conducted because one of the categories (low college-going culture) had only one case, and SPSS would not perform any post hoc test to further identify where the statistically significant differences in means existed among the groups.

The lack of other strong associations between variables or significant differences by case was a finding with practical application that framed my approach to the next phase of work, as I moved into qualitative analysis of the interview data. It would be a mistake to conclude that a lack of statistically significant difference among the cases means there was no value in the gathered quantitative data. Stake (2005) encouraged researchers to focus on the quintain, or "something we want to understand more thoroughly" (p. vi), and not the cases themselves, as the thrust of the study. In this instance, the quintain is the college-going experience of first-generation college students now attending a specific institution of higher education. Both

Table 13

Means and Standard Deviations Comparing Cases by Culture Type

Cases by Culture Type	% Free and Reduced Lunch		
	n	*M*	*SD*
Low	1	78.00	—
Low-Moderate	13	65.08	4.86
Moderate	5	30.40	8.82
High-Moderate	18	41.06	4.22
Unknown	7	28.43	8.31
Total	44	45.77	3.50

Note: n = number of participants; *M* = mean; *SD* = standard deviation

Table 14

One-Way ANOVA Summary Comparing Cases by Culture Type on % Free and Reduced Lunch

Source	*df*	*SS*	*MS*	*F*	*p*
% free and reduced lunch:					
Between groups	4	9570.95	2392.74	6.86	.00
Within groups	39	13604.78	348.84		
Total	43	23175.73			

Note: df = degrees of freedom; *SS* = sum of squares; *MS* = mean square; *F* = F-statistic; *p* = .05

similarities and differences have a strong place in the study of cases and can lead to a fuller

understanding of the phenomenon (Stake, 2005). I took the knowledge that no significant

difference had been identified in the quantitative data and set out to determine whether the

qualitative data supported that lack of difference in experience by case, or whether first-person

accounts would allow me to identify other differences undetected by the survey. In addition, the

quantitative data allowed me to describe more richly the cases and the experiences of the

participants, and to draw comparisons between them that ultimately speak to the similarity of

experience for these first-generation students.

Qualitative Cross-Case Analysis and Findings

I conducted the qualitative cross-case analysis using Stake's (2005) method as outlined

previously in Chapter 3, with Track III allowing the formation of factors, as appropriate for a

mixed-methods case study. In following Stake's (2005) process, I drew overarching themes from

the theoretical frameworks underpinning this study, while factors arose from the data itself. The themes and factors came together during the latter stages of cross-case analysis to inform final assertions that contribute to an enhanced overall understanding of the quintain—in this case, the college-going-culture experiences of first-generation college students. Figure 5 demonstrates the relationship among the themes, factors, and assertions, which were previously shown as steps within the cross-case-analysis workflow in Figure 4, within Chapter 3.
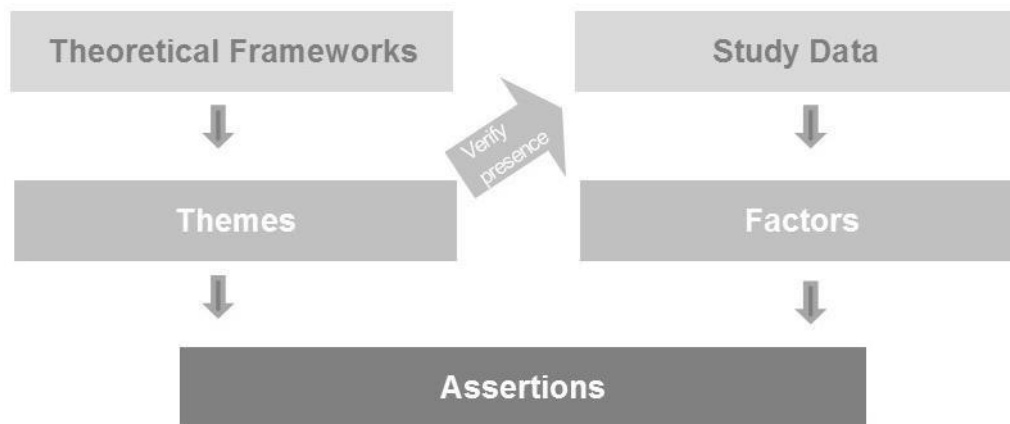
Figure 5
Relationship of Themes, Factors, and Assertions, and Their Flow Within Cross-Case Analysis

Theme Development

The first stage of qualitative analysis in this study led to the development of eight initial themes, drawn from the four theoretical frameworks that guided the study: (a) social capital theory, (b) community cultural wealth (CCW), (c) funds of knowledge (FoK), and (d) social cognitive career theory (SCCT). I developed the themes by reviewing the existing literature and theories in depth, and identifying concepts that should be present and identifiable in the data for a research project appropriately grounded in these theories. I previously presented all the concepts as key concepts within the frameworks in Chapter 3 (see Table 8). Because I grounded this study in that larger context, I expected that, if I had truly selected frameworks appropriate to

this research topic, those themes would be present in varying levels throughout the study data. I successfully identified the themes within both the quantitative and qualitative data, and I explore them below in more detail, with examples of their presence within this study. It is important to recall the themes were drawn from the theoretical frameworks, as expectations given the study's grounding in those theories. The factors, explored later, are drawn directly from the study data.

Theme 1: Access to benefits and resources that impact the college-going culture and college-going process a student experiences. Social capital theory is grounded in the concept that some people have access to resources that allow them to succeed, while others do not (Bourdieu, 1985). In college-going-culture research, that access to capital has tended to focus on two areas—family socioeconomic status and school resourcing concerns (Aldana, 2014). The quantitative data in this study showed that a majority of participants were Pell eligible and were working to make ends meet, often in multiple jobs and full time. Student interview participants in this study also identified finances as a source of concern for their families, and as a limiting factor in their decision of where to attend college. In fact, every student interviewed shared significant details about family finances, ranging from the role of scholarships in making college possible to the recognition that their families could not contribute financially to their education. As an example, despite her parents' attempts to keep their financial difficulties from being part of her college decision, Teresa was aware of the ups and downs of their finances, and of the impacts economic downturns had on their family business. As she said,

> They wanted me to have, like, a lot of options. But again, I knew money was a big issue for us. And so, I didn't want to put us even more in debt, so. . . but they didn't want me to like, know that we didn't have the money.

In relation to school resources, as previously discussed, the survey results revealed that a large number of participants attended high schools that lacked college resource centers, and many also had not held even basic conversations with counseling team members about what

courses in high school would support their college admission, how to get into college, or how to select the right college. This combination of limited resources emerged as an important concept during the interviews as well, with some students sharing frustration with the level of support they received from their counselors, and the pervasive reality that almost all of them said the college exploration and decision-making process was something they had to do alone. Xman in particular talked about his assigned counselor in comparison with other counselors at his school, and his belief that his counselor did not provide him the same level of assistance that others received. As an engaged student who was going through an extensive application process for a service academy at the time, he knew to seek out the resources he needed, but he was frustrated that he had to do so:

> I feel like there could have been some more help on that. . . . I would say that kind of impacted my college-going experience 'cause I had to, you know, talk to other people to see how their experience was going, and kind of do a lot of things myself, which is OK.

Theme 2: Transfer or sharing of capital that impacts college-going culture development and the college-going process for a student. Prior research has demonstrated that, for first-generation students without significant social capital of their own, schools serve as a place where a sharing of that capital can take place, via peers or school personnel (Garcia & Ramirez, 2018; Perna & Titus, 2005). Throughout the interviews, students provided examples of capital sharing by friends, teachers, or extended family. Perhaps the strongest example of this capital transfer was provided by Jo, who spoke extensively about her best friend in high school, whose parents were in the medical profession and provided opportunities to Jo that she never would have had otherwise. These included attending a medical conference where she was able to operate a surgical robot, and also stay in a nice hotel, dine at a fancy restaurant, and experience a side of life she had never seen before. According to Jo,

92

That was a huge role in my deciding factor to go to college to pursue a medical degree. . . . I can still look back and be very thankful for her parents. I mean, they took me to so many conferences . . . I got to work on a robot they have in surgery. I mean, I wouldn't have had that with my parents' opportunities.

Xman also shared an excellent example of capital transfer, with the manner in which one of his athletic coaches was able to grant him access to a college class as part of his exploration of potential majors. The high-school coach and his wife were friends with a computer-science professor at the local university, and they knew Xman was considering computers or math as possible majors. They made arrangements for him to sit in on a college class and have a conversation with the professor. In addition to providing a unique experience, Xman said this opportunity, which was not something his family would have been able to arrange, also saved him time in college by helping him realize that computer science was not for him, but that engineering might be. Although at the time he did not intend to attend that college, Xman remembered that experience when his first option fell through, and he ultimately chose to make this college his college home. The transfer of capital, which started with a coach making an introduction, impacted both a choice of major and, later, a choice of institution.

Theme 3: Role of the family and community in the development of college-going culture and the college-going process for a student. Research using both CCW and FoK frameworks speaks to the influence of families and communities in college-going culture development (Moll et al., 1992; Yosso, 2005). The important role families play in setting the student's expectation of going to college, and ultimately making it there, was a significant part of the individual story for all interview participants. Most of the students came from traditional two-parent families, with strong multigenerational involvement. Xman, for example, spoke at length about the excitement of his family members in Mexico about his college plans, and the pride among his extended

family related to his college accomplishments, many of whom never had the opportunity to progress beyond middle school.

Others, such as Kay, had more complicated family situations. Kay lived with a great aunt because her father was in jail and she was estranged from her mother. Despite that less traditional dynamic, Kay shared the importance of her aunt's support to her college planning, and also her father's belief that because she was smart, she should be doing something "more" than nursing school, saying he liked the idea of a medical program or a DNP program because they "sounded the most impressive."

Jay and Sarah made college selections because of a need to be near family and help working parents care for younger or ill siblings. Lynn shared stories of a family who was highly supportive of her college plans, coupled with a church and neighborhood community that were not—a dichotomy that was not lost on her:

> I grew up in an area that was more living paycheck to paycheck and doing what you had to do to be able to feed the kids and pay for, you know, the bills and stuff like that; so I would say there's probably no encouragement at all for college there. . . . But I am the first in my family to go to a 4-year, and so they were very excited for me, and excited that I was going on this journey and being the first to do it. They didn't really know how to help as much because they didn't go through it themselves; but they were still there, helping in what they could to do this thing that I wanted to do.

Theme 4: The presence of key narratives and storytelling that influence the student's experience of college-going culture. Previous college-going culture research using CCW theory has focused on narrative and storytelling as an integral part of the framework and has extended the recognized influence of family to include storytelling that sets expectations of success (Kouyoumdjian et al., 2017). Two strong storytelling narratives emerged during these interviews that related to the college-going culture in participants' families and communities. Of the eight participants, five held similar narratives related to the traditional college-going experience that

they wanted for themselves. In some cases, these stories had developed from their watching television and movies, but also from their listening to people they knew who had been to college and had experienced the parties, friendships, and fun that are part of that story. For those students, this college-experience narrative was a primary reason they never considered going to a 2-year college as a step in their college process. As Jay shared,

> I wanted that experience. I wanted to go out and make those lifetime friendships, make those lifetime memories. . . . I wanted to be able to say later down the road, if it was not for this university, I wouldn't have this friendship.

A second narrative was darker, and it was shared only by the students in the high-moderate college-going-culture case. These students all had stories from within their own families about failed college experiences that tied back to financial difficulties and the inability of their family members to successfully complete college. For some, these were cousins, uncles, or siblings who squandered their college opportunity by expending their funds too soon, failing classes, and not being able to finish. For others, these were parents who had to make the tough decision to leave college after a semester or two to take care of family responsibilities. "That's kind of sadly been a reoccurring theme," said Xman. "It's just the money aspect that's what's ultimately so hard."

For these study participants who ultimately made it to college, those negative family narratives came with a deeper appreciation for scholarships and earning a path to college that was not dependent on jobs that might end, or a family business that might have a down year. Among students in these cases, the negative storytelling helped to spur their aspirations and an internalized sense of personal responsibility to solve the financial puzzle for their own college attendance.

Theme 5: The use of informal knowledge as part of the college-going process. College-going-culture research using FoK theory centers on the informal types of knowledge that families use to navigate this unfamiliar territory of college. Two students, Jay and Xman, both had vivid college-football-game experiences that stoked their college aspirations and provided them with an understanding of the college experience and a tie to the institutions they both initially wanted to attend. For Jay, the informal knowledge came from an uncle who was an alumnus of a large Division I school and often took her to football games there.

For Xman, it was concrete work his father did at a service academy that allowed him to procure football tickets through his boss and take Xman to a game. In this case, his father's construction labor provided Xman access to an institution, via sports, which he had never previously considered as a viable option. From that point forward, the service academy became the focus of Xman's college intent, an informal introduction to an institution serving to drive his goals.

Kay was exposed informally to quasicollegiate experiences through the high-school precollegiate program she attended. Via multiple visits to college campuses, and a 2-week summer program stay in the residence halls of a Division I school, she gathered basic information she needed to succeed in college when her time came—from outfitting a dorm room to navigating a sprawling college campus.

For Teresa, informal knowledge of the college she decided to attend made it a comfortable choice for her, despite having had no interaction with the academic side of the institution prior to enrollment. Her grandparents took her to football games there; she competed there in a youth cheerleading camp; she took a middle-school field trip to the campus; and she regularly used the running trails—all of which made her feel connected to the university, as if

96

she belonged. "I would run all the time over there," she said. "So I kind of knew the campus a little bit already. . . . I just knew, like, the outskirts of campus, not, like, everything." Informal knowledge also came into play as part of Teresa's selection of a major. She started college as a nursing student because of personal interest; but after struggling for one semester in key courses, she opted to change her major to business, citing knowledge of her family's business and their tradition of entrepreneurialism as a deciding factor:

> I have a family full of business owners, so, you know, I don't really have any nurses in my family. So I think working a little bit smarter, not harder, was like a big thing. I have a lot of people to ask questions to, a lot of people to help me with [business].

Lynn's parents, who left most of the college research and planning to her, were uncertain, she said, of how to best help her achieve her dreams. However, they did have acquaintances with children in college, and she shared examples of her parents reaching out to ask questions about the experiences at those different schools. Her parents then shared that informal feedback with her in hopes of helping her learn more about her options, and how well they might fit her needs.

Theme 6: The presence of personal agency as part of a student's college-going process. Personal agency is a key component within both FoK and SCCT theoretical frameworks (Lent et al., 1994; Rodriguez, 2013) and was identified in both the quantitative and qualitative results from this study. For example, 27% of survey respondents indicated they had spoken six or more times with someone at their high school about getting into college, while 18% reported having six or more conversations about how to choose the right college. Another 7% reported utilizing their high school's college planning center 6 or more times. In these examples, the presence alone of resources was not enough to generate a college-going culture for the students—doing so required their action, or agency, to lead to their desired outcomes. This reality hearkens back to Xman's recognition that he was receiving less help from his assigned counselor than many of his

friends were receiving from theirs. Instead of accepting the situation, he chose to take action and reach out to other counselors not assigned to him, to make sure he had the information he needed. In another scenario, though Thomas had completed high-school graduation requirements via home school, when he learned that enrolling at a local early-college high school could help him take 1.5 years of college coursework for free, he chose to forego his early diploma and do the work required for a paid jumpstart on college. Had he not done so, he would have graduated from high school at the age of 16 but would have had no clear path to college, which he could not afford at that time.

The families of every student I interviewed for this study viewed the students as the primary decision makers in regard to the college search and selection process. For all, this meant doing lots of research into possible colleges, applying for both admission and scholarships, comparing bottom-line costs after aid offers, and deciding which institution was the best fit, given all of their needs. According to Lynn, "There was a lot of days just sitting there planning, seeing what I had to do in order to get where I wanted to go." While some families were present for key search activities, such as campus visits, others were not involved at all. But despite the varying levels of family involvement early on, every student reported being the ultimate decision maker for which college they would attend. The stories the students told of online research, what-if scenarios with existing college credit, and financial-aid comparisons shared as a common thread the student attributes of personal agency and the willingness to undertake the work needed to attain their desired outcomes.

Theme 7: The presence of aspiration in the way a student experiences college-going culture. Because none of these students had parents with a 4-year college degree, all spoke in some way to the concept of aspiration, an intangible drive that led them to want this degree that

would set them apart from their families. For Thomas, the aspiration to attend college struck after he received the results of the ACT he took "on a whim," results that led him and his family to consider that perhaps he should do something beyond the family trade businesses they always assumed he would join. When he coupled that aspiration with personal agency and enrolled in an early-college program, his aspirations grew to include graduate school, and he began to gather the knowledge and experiences he needed to be successful in college.

All but one of the participants spoke to an intent to go beyond their bachelor's degree to earn a master's or doctoral degree. For some, that aspiration was tied strongly to career choice, such as Sarah and Jo's desires to be physicians; for others, such as Lynn, the aspiration rose from an ingrained love of learning that drove her onward. Aspiration also seemed to be what made it acceptable, in these students' minds, for them to be different from others in their families or communities. The inner determination to achieve their personal goals made the sense of otherness an acceptable outcome. Lynn talked about the fact that her church community, the most impactful group for her outside of her family, discouraged college:

> I am probably the one, the only one, in my generation and generation before me that I knew and grew up with [in church] that actually has gone to college. It was almost discouraged in our church to go to college, you know. It was always "Start your life, get married, don't worry about that." . . . I almost did it because I wanted to prove or show them that you can get far with a college degree. . . . Some days it feels like it could be wrong, or, I don't know, like, you know, the one that stands out in the crowd almost, and you can feel wrong for that sometimes. But it's also, I know this is what I've always wanted to do.

Theme 8: The presence of a special environmental context contributing to the experience of college-going culture for a student. SCCT takes into account real and perceived environmental contexts for students as they navigate a path to college (Lent et al., 2000). One type of special environmental context that emerged as relevant for many of the students in this study was related to participation in special programs that helped to develop a college-going habitus for each of

them. Both Xman and Jay talked about JROTC participation as key to their development, from relationships with their instructors to experiences that prepared them for leadership roles. Jay also took part in a special program at her school, TAP, which focused on college preparation and gave her confidence and support during the college exploration and application process, and also during the opportunities to visit college campuses.

Similarly, Kay's experience in a special precollegiate program throughout all 4 years of high school was her vehicle for visiting college campuses, learning about majors, and coming to understand scholarship opportunities. It was also through this program that she gained access to school staff who encouraged her aspirations and guided her along the way.

Likewise, Jo talked extensively about the impact a special academic program at her high school had on her direction and opportunities, one that provided access to dual enrollment, career exploration, job shadowing, and teachers committed to her growth and development. She called two of the teachers in that program her "school mom and dad," and shared examples of their intervention when they felt she was not living up to her potential.

Every student interviewed named at least one key staff member in high school, most through a special program that served as a special environmental context, that played a significant role in that student's college-going process. I explore that personal relationship later as part of the factor analysis, but it is foreshadowed in this theme.

All eight themes were apparent in the qualitative interview data, and many of them were identifiable in the survey data, as well. However, as the cross-case analysis continued, it became obvious that not all themes were as highly relevant as others across the shared experience. Those present, but less-influential themes were also not highly important in describing a single case,

and they did not demonstrate key differences between cases. They simply were less relevant than other themes both within and between cases.

The next step of Stake's (2005) analysis process left me to scour the high-level themes in the interview data for factors that emerged directly from the students' own words, without initial concern for how or whether they tied to the larger theoretical frameworks and themes. Although the themes were developed from the theoretical frameworks, and then checked against the data to determine their degree of relevance for this study, the factors arose directly from the study data itself.

Factor Development

Following Stake's (2005) Track III cross-case analysis procedure, I repeatedly read each interview transcript and made notations throughout the margins, then I developed case-note summaries for each participant and case. As part of those notes, I indicated any items of apparent importance that emerged from the interviews for each participant and the larger case. These were concepts shared by more than one participant that held a level of significance within the personal stories the participants told. Those concepts became conceptual factors on Worksheet 2, which I refined through further analysis into eight factors (access-related financial concerns, dual enrollment as an access benefit, student as college decision maker, personal connection with school staff, hard work, graduate-school aspiration, no community-college consideration, and personal responsibility for financial role in the family) and one special factor (first-generation responsibility to family and community). Following Stake's (2005) process, emergent factors were those concepts arising from the qualitative data that had relevance across the cases. The special factor had relevance to only one case, but I determined that it contributed to a deeper

understanding of the college-going experience within that case. I explore each of the emergent factors and special factor in more detail in the following sections.

Access-Related Financial Concerns

As discussed earlier as part of the "Theme Development" section, the reality of family finances and being able to pay for college were concerns that emerged during every student's interview. The majority of survey respondents, more than 60%, were working at least one job at the time of the survey, and a higher percentage of the students interviewed (5 of the 8) were working than not, with several working multiple jobs. Of survey respondents, 73% reported Pell eligibility, and 50% of interview participants were Pell eligible. However, even those who were not Pell eligible spoke about the impact of recent family job changes on their financial aid, or the fact that a bad year in a family business meant less money was available to help them; but this circumstance was not reflected in their financial aid because of the tax year that was considered. They all had different approaches to addressing their financial concerns, ranging from scholarships to working while in school; but all talked about the cost of college as a significant factor in their college choice and ultimate selection of an institution. As an example, Lynn, who completed an early-college program in high school as part of her plan to reduce the cost of college, always knew cost would be a concern:

> I also had to take into consideration that my parents weren't well off enough to help me pay for it. . . . I have to do everything on my own—pay for it, or earn my scholarships and stuff like that. So [current college] just seemed like the perfect fit when it came down to money, location, and being close to home but still off on my own.

Jay knew that her father's veteran benefits would play a significant role in her ability to afford college, but her family had conversations about things she could do to reduce college costs, such as performing well academically in high school to earn scholarships, commuting from home, or taking dual-enrollment courses to earn credit in high school. She started out at a

more expensive, out-of-state institution, but transferred back home to help take care of an older brother battling cancer.

> They always wanted to make sure if I wanted to go to college, I needed to like put an effort out there, because they were going to find a way for me to afford it. . . . the VA helps pay for my college. . . . I'll admit, like, if it was not for the VA, I probably would be in student debt.

Xman's desire to attend a service academy was related not only to his experience at the service-academy football game, but also practical understanding that, for the promise of his military service, he could receive a free college education. Because he had internalized negative family narratives regarding inability to complete college because of the costs, he focused on doing everything he could to guarantee he could pay for college, initially through military-service intent, and later through scholarships, when the service-academy option did not materialize.

> It was kind of my goal when I was little, trying to try and go to college and pay for myself or find a way that I could do it myself to not have my parents do it, because, I mean, the reality was, I knew they couldn't, so . . .

I have already discussed Teresa's knowledge of family financial challenges as part of the earlier theme exploration, but she spoke more in depth about the impact that knowledge had on her final college selection:

> When I was getting my acceptance letters, I was looking at tuition; and that year my family wasn't doing good financially, and I didn't get any financial aid. So, um, with [current college]'s tuition being, like, so flexible, it was one of the major reasons that I came here and that I'm sitting here.

Though Thomas came to the idea of attending college late in his high-school career, once he took the college entrance exam, he had more options for attending college than he had ever thought possible. He was seriously considering the state flagship institution 3 hours away, but even getting there to take a tour was a financial hardship. Knowing his family could not contribute to his college costs, he set that aside as a viable option because of the expense.

103

It was very much just like, "Hey, this, if you'd like to go, we'll do all we can, but it's going to be hard for us to really swing it." So, that was pretty much it. I wasn't really resentful or anything like that; I understood it. I was just kind of like, well, you know, it isn't going to happen. It can't happen.

Dual Enrollment As an Access Benefit

Every interviewee except Teresa participated in dual enrollment as part of their high-school experience, and they viewed it as something that helped prepare them for college-level work, reduce their time in college, or save on college expenses. Teresa's inability to access this benefit was a sore point for her, and one she did not understand. She shared that, despite having good grades, no staff member at her high school talked to her about how to enroll in dual-enrollment courses until she went to the guidance office to ask about it after talking to her friends about their experiences.

> One of my friends was doing the concurrent enrollment at [local college], so, and I didn't know about that. Like, I had never heard of it. And so, I was like, what? Like, I should have done that. And so, like, I went in my junior year, and they said that I should have went [*sic*] in my sophomore year to do the Accuplacer and everything, and I was like, thinking like, I wish I knew, I wish I would've known about it sooner.

Teresa's school was classified as having a low-moderate college-going culture; but her dual-enrollment disconnect did not seem related to an overall lack of resource availability at the school, since other students did have the opportunity to enroll. When asked to make sense of this limited access on her part, despite her grades, Teresa struggled to explain it and defaulted to saying it must have been something she failed to do, or posters she might not have seen in the hallways. She also lamented missing the opportunity, believing that experience in high school may have helped her more in college:

> I wish I would have done the concurrent enrollment. . . . maybe it would've affected my major. Like, maybe I would have switched, like, sooner. . . . But, with the credits you get, I would have went [*sic*] in with more credits than just like a regular freshman. . . . [reflecting on why her friend knew about the opportunity and she did not] I know she took, like, more honors courses than I did. So maybe they, you know, talked about it

more in those other classes. Umm, yeah, I'm not sure. Maybe I didn't pay attention to the signs.

Thomas knew the opportunity to take college classes in high school was a benefit he wanted, and it is the reason he swapped from a home-school education to attending an early-college high school. He talked about the opportunity to have a year of college paid for by the high school as a benefit he could not pass up, and one that the school counselor made him aware of during the enrollment process. Xman saw the dual-enrollment opportunity the same way—preparation for college courses mixed with practical savings:

> I definitely saved a lot of money in taking them in high school and actually not having to take them at [college], and, even like, yeah, they saved a lot of money, but in the end also they, like, help you prepare for the classes at the university. Like, workload-wise, like, they still weren't as close, but, like, still just a bit closer to see what's expected in a class like that.

For both Kay and Sarah, dual-enrollment coursework allowed them to move early into medical professions, with both earning CNA certifications while in high school. Those licenses allowed them to gain practical knowledge in their intended fields of study while earning money to support their college expenses and help their families, and the courses also provided a solid foundation for their college-going experiences. Kay said she "really loved the clinicals . . . I started figuring out that was kind of something I thought I would like."

While Jay saw the definite potential in dual-enrollment coursework, she also recognized a potential downfall to the opportunity for students who may not do well, particularly if their dual-enrollment classes were offered at the college they wanted to attend, as hers were:

> I was like, "Well, this can impact me going there. Because if I fail at this, and they already know I'm going to struggle" . . . You need to see there's still a possibility, you can overcome this. You can show that, even if you're struggling, you can still come out on top.

Student As College Decision Maker

As I introduced in the thematic discussion of personal agency, all interview participants did extensive research as part of their college-going process. For some, including Jo, families were fully involved with that research. Jo laughingly told stories of she and her mom investigating the unemployment, poverty, and crime rates around colleges she was considering, in addition to looking at available majors and graduation rates. But the families of most participants were supportive without being highly engaged. In all cases, although the students shared with their families the school(s) they thought were their best options, the students made the ultimate decision of where to go. This dynamic was consistent across all cases and all participants without deviation, and Jay's experience was representative of them all: "They were just like, 'Do what you think is best. . . . If you want to be home, then be home. You want to go out and explore, then go out and explore.'"

Lynn's parents shared information they had gleaned about colleges from acquaintances who had children in college, but they left the detailed research and ultimate decision about where to go to her:

> I wouldn't say they had an opinion on where I went. It was more, "Do what you think is best for you, and we will support you and that decision." . . . For the majority of it, it was me doing my own research and figuring out the pros and cons of each school when it came down to money.

Xman's second college choice deviated from this pattern, though his first choice had followed it. His parents left the initial selection of the service academy up to him; but once that fell through, and he had to make late applications to other colleges, they became more involved in helping to decide what made the most sense as a backup plan.

> It was a lot of, you know, me on my own, kind of trying to find places that were what I wanted to do, and then I had all these ideas, boom, boom, boom, but my family served as like a, like a realization point, like, "OK, this one's cool, but it costs too much"; or like, I

came up with the ideas, like here's the colleges, and my family, they were the people that helped me decide realistically the best option. . . . There were a lot of opportunities that seemed really good, but in the end, the financial aid I was going to get wasn't going to cover what it was going to cost. So there were a lot of good opportunities, just not the best actual, like, being able to do it. And they helped me decide, based on, you know, what it was going to mean, like for my siblings, having to live at home, and just taking that into account.

Personal Connection With School Staff

All students interviewed were able to point to a specific person at their high school with whom they had a connection that served them well during their college-going journey. The weakest example was Lynn, who had the most nontraditional high school experience. Although both she and Thomas left homeschooling to enter an early-college high-school program, Thomas attended that high school for a semester before starting college coursework, and he became integrated into the school and aware of its resources. The high school Lynn selected was focused on facilitating her transition to community college as part of the early-college program, and she never attended classes at the high school. She had meetings with a counselor and head of the early-college program, and she considered them, along with her community-college professors, integral to her pursuit of a 4-year college path, but the relationship with these individuals was not as developed as it was for the other seven students who built relationships while they were learning alongside school staff in a physical building.

All of the students reflected on the deep, personal impact those staff members had on them, including their college aspiration, access to resources, work ethic, and growth of personal agency. Some of the impacts were tangible, such as the JROTC instructor who paid for Xman to attend a summer camp at the service academy, furthering his efforts to attend college there. Others served as support systems, informational resources, or sources of inspiration, such as the teachers Jo called her "school mom and dad." And because Thomas came to the idea of attending

107

college late in his high-school career, his counselor played a significant role in figuring out the

logistics of what came next, while other teachers helped him see potential beyond a 2-year or

even 4-year degree. And they still check in with him to see how he is progressing:

> Mrs. [redacted], the math instructor . . . she actively wanted me to pursue something math related 'cause I had really, really high scores in her class. . . . Like, she explicitly told me I should probably go pursue a master's, 'cause everyone . . . thought I was relatively smart.

Jay provided insight into her perspective on the importance of student relationships with

school staff, and the way those relationships enabled students to access resources they may not

have otherwise. In her mind, although staff members could provide support and forms of access,

it was not something they were expected to do for all students—it was very much based on

personal connections that students should consider initiating:

> You can see if they push you harder, they were wanting you to do more, not just like, oh, here's the bare minimum. They wanted you to actually, like, try harder.
> . . . I think it more just comes down to also the student as well, like their effort to make connections with their teachers and, like, have someone that they can go to for support like that.

Jay was not the only one to consider the responsibility students have in building

relationships with teachers or other staff members to gain the support they need. For Sarah,

teachers served to push her to do her best, keep her grades high, and ask questions. Without

recognizing the insight she was providing into the way students with less ability or personal

agency might find their access limited by the same teachers, she noted a difference in how the

teachers reacted to her compared to her classmates, a difference she attributed to their knowing

her:

> I feel like my teachers pushed me pretty hard to do well, like compared to my classmates, because I had a very high GPA. I was very dedicated to my schoolwork, so I feel like they probably pushed me more so than my peers, um, as for showing us, like, if I had questions, they'd answer me right away. Whereas, if my classmates had questions, they would kind of just be like, oh, um, "Go back to this page in the book."

Hard Work

Hard work, particularly on the part of family members, was a strong and reoccurring factor reflected throughout the interviews. The students talked about the work ethic and sacrifice many of their parents demonstrated to give them a certain lifestyle, or help financially with college. For others, years of watching parents suffer through jobs they did not like, economic downturns, or frequent layoffs led to the students' desire to "do better" with the help of a college degree. In this way, the hard-work factor united several of the broader themes, particularly those related to family relationships, aspiration, and personal agency. As an example, Teresa talked about her parents' belief that college was her pathway to a life with less struggle.

> They want it to be easier for me. They want me not to work as hard as they do, like every day, which, I am still a hard worker. They just don't want me to struggle as much as they did when they were my age, and so, my whole life, they've pushed college.

Similarly, Xman said of both his parents that "they've really worked hard all their lives," and he shared memories of his father leaving home every week to travel for a construction paving job, then coming home on the weekends too tired to play baseball with his sons. "He'd always tell me to make sure I do good in school; that way, I wouldn't have to work as hard as he did, and I definitely took that to heart," said Xman.

Jo saw her parents both work hard to build a good life for her and her sisters, to help them afford the horses and other animals they wanted, and all the expense that came with those hobbies. She talked about her father's regret at leaving college for a good job, and her mother's recent inability to progress from an interim director's position at a school to a permanent one because of her lack of a degree, despite the fact that she "worked her butt off." Jo internalized the need for hard work, but she also saw that it came with limitations that education could help address. In framing the combination of education and work with stability, she shared her father's

admonition never to leave college without a degree, no matter how good a job offer she might receive was:

> "I wish I would have finished college," he tells us all the time. He's like, "Don't give up on college, whether you have a good job right now, if you find a good job in the next year, finish college; because later in life you never know if you're going to keep that job. . . . you need to be prepared if something were to happen, especially in times like this."

In a similar manner, Lynn observed both the paycheck-to-paycheck reality in her community and her father's frustration with his sales jobs over the years. She had also recently been unable to work in her on-campus work-study job and her off-campus retail job due to the COVID-19 pandemic, and that had taken a toll on her personal finances. Because of these experiences, she viewed college in her reflections as her pathway to economic stability, one that would let her match the need to make a living with a chance to do work she enjoyed:

> I don't want to be stuck in a job that I'm not happy in. I think I kind of saw that with my dad, you know, switching jobs every once in a while; and I understand circumstances change and all of that, but I would love to be in a job that I'm steady in, and I love to do. And I feel like going to college will help me with that.

Personal Responsibility for Financial Role in Family

I have explored the financial challenges facing these students and their families with the previous discussion of the access theme, and also relative to the financial-access factor. However, a separate but related factor was the way in which many of these students assumed personal responsibility for a financial role in their families. In some cases, this role was related to the new financial burdens they knew their college attendance would cause; but in others, the students shouldered financial responsibility beyond that related to their schooling.

For example, although Jay was not currently working, she had transferred back from an out-of-state college to help provide medical care for her brother. She also provided childcare and home schooling during the pandemic for a younger brother, alleviating some costs for the family.

Similarly, Sarah provided childcare for her younger siblings, with her ability to do that factoring largely into her ultimate decision of where to attend college. Sarah became a working CNA at the age of 15, and she had also worked on campus prior to the pandemic-related closure. She spoke openly about the benefit her paychecks were to her family, allowing her to take her young brother out for a treat or a special shopping trip.

Lynn also had been working from an early age, saying she started both college and a job at the age of 16:

> I was always encouraged to get a job so that I can basically provide all my needs. Growing up, I paid for everything that I needed. Even now, I pay for all my bills, and stuff like that. . . . So at 16, I started college, and I started a job. . . . It was more to have a job because I need to know how to provide for myself and work for what I need, even if it's on top of college.

Jo was the only student I interviewed, and one of only three survey respondents, who worked full time. She was working two jobs at the time of the interviews, both an on-campus research position and an off-campus office job with a local quasigovernmental agency. She too began working in high school, to help pay for the animals and 4-H shows that she loved; and she was continuing to support herself so she could live off-campus.

Graduate-School Aspiration

All but one of the students interviewed aspired to graduate school in some way, ranging from acquiring their MBAs to entering medical school. Xman was the only student who did not talk about graduate school, but he was also the only student currently working as a paid intern in his field, so he was considering moving into the workforce as soon as possible after graduation, since his engineering skills are in demand.

For some participants, such as Jo and Sarah, who aspired to be doctors, or Jay, who wanted to be a lead social worker, an advanced degree was a requirement for their chosen

professions.To Lynn, a graduate degree was a chance to continue learning, which she loved for

its own sake, and to prepare for a possible future as an entrepreneur. Because all but one of the

students spoke to this aspiration, and to the ways that family members and school personnel

served to promote it, I identified this aspiration as an initial factor with relevance across all cases.

However, it was more of an interesting fact or notation by each of the participants that

demonstrated similarity across the cases because it did not lend significantly to any deeper

understanding of their college-going culture experience.

No Community-College Consideration

Thomas and Lynn both had previously attended community colleges because of their

early-college experiences in high school. However, among the other participants, only one, Jo,

ever seriously considered attending a community college after high school. All of the others,

across all cases, envisioned their pathway as leading straight to a 4-year institution, regardless of

degree plan or financial considerations. Xman, in particular, summed up the expectations that led

to automatically discounting a pathway through a 2-year institution:

> There came a lot of weight with the position I was in. I graduated co-salutatorian in my
> class, you know, all these, like, accolades, and it was the expectation within myself, but
> also for my family, to, you know, go far and go to a 4-year university. . . . I thought that
> way as well. You know, might as well go big, and, you know, get it done in 4 years,
> instead of you know, having to transition after that.

I described Jay's belief in the narrative of the traditional college experience within the

exploration of the theme of narrative and storytelling. That desire to attend sporting events and

make lifelong friendships built from those student experiences meant she never considered a

community college:

> I know at community colleges, you don't get as much experience . . . like, you don't have
> the people who are willing to go out there and, like, go to sporting events with you,
> because . . . I do know a few community colleges that, like, do have some sports teams,

but they're not, like, really big, because they're community college. And I guess going to a 4-year university, what kind of inspired me to, was I wanted that experience.

This factor of not having considered community college an option was present across all cases; and with seven of the eight interview participants, it did not lead to any significant insight outside of the expectation students had about what college would look like for them. It also did not have strong ties across multiple themes in the way that I found many of the other factors did. For this reason, like the graduate-school aspiration factor, I determined that whether or not students had considered community college as an option was not one of the final primary factors, as I discuss later in more detail in the "Theme and Factor Refinement" subsection.

First-Generation Responsibility to Family and Community

This was deemed a special factor, per Stake's (2005) process, because it emerged as relevant from the data gathered only from the high-moderate-culture case, but it was strongly present within that case. Omitting it from mention would have been a serious oversight of a factor with strong relevance for at least one case. This is the only special factor that I identified in this study; all other factors emerging from the interview data had significant relevance across all cases. Two of the three interview participants from the high-moderate culture case (Jo and Xman) spoke passionately to this concept of their responsibility to their family and community— the idea that they are doing something more than earning a degree for themselves because of their first-generation status. Both also talked about the importance of the fact that their families were Hispanic as part of this concept of larger responsibility. Xman had previously spoken about knowing that other members of his family would have loved this same opportunity, and that he "carr[ies] them with" him in all that he does. He continued,

> I would say that it gives like a, another level of pride, you know, to be in college. And I, I carry that, like, you know, with my heart, trying to go forward, and, um, it makes me

work harder in classes, 'cause I realize like, you know, what I'm doing, and it's something special, something that hasn't been done.

For Jo, this factor was a matter of providing a good example for her younger sister, and of sharing with her all the things Jo had learned as part of her college-going process, to smooth the way. She also knew that her dream of being a doctor meant more than being the first in her immediate family to earn a bachelor's degree; she would eventually be the only one in her entire extended family to have a doctorate, and that thought made quite an impact on her:

> I'll be the first in my family to get a doctorate. My uncle has his master's, but, like, that just, I mean, the sense of responsibility that comes with that degree, and the work that you put into it, and all of your family standing behind you, you know, because I have a Hispanic family, and they're very proud of their young ones. So … having that behind you, I think that is what I look forward to most one day.

These eight factors and single special factor arose directly from the experiences the interview participants shared. However, Stake's (2005) process calls for further refinement of the themes and factors to identify those that can contribute most significantly to the understanding of the first-generation, college-going-culture experience. Stake's (2005) process concentrated on the qualitative data, but it is important to recall at this important step in the process that I identified two factors during the quantitative analysis, as well. The survey responses broke down along two primary factor lines: Encouragement/Attitudes and Resources. Although the survey focused entirely on the school setting, those factors have obvious relationships to the factors that emerged from the qualitative data. Access-related financial concerns and dual enrollment as an access benefit are linked to school resources, and personal connection with school staff is related to the encouragement/attitudes survey factor. This evidence not only reinforces the importance of the factors, but also serves as evidence of validity between the quantitative and qualitative strands of the study.

Theme and Factor Refinement

In the penultimate step of Stake's (2005) cross-case analysis, the themes and factors were brought into dialogue with each other and rated to determine those that contribute the most to a fuller understanding of the phenomenon at hand. This work is reflected on completed Worksheets 3 and 4, within Appendix J. In this study, the result were five primary themes and six primary factors that most powerfully illuminate the college-going-culture experiences of these participants. The most relevant themes and factors, and their relationships to the cases and participants, are demonstrated in Table 15.

Table 15

Relationships Among Highly Relevant Themes and Factors

Theme	Factors	Case(s)	Participant(s)
The presence of personal agency as part of a student's college-going process	Access-related financial concerns, dual enrollment as access, student as decision maker, personal connection with school staff, hard work, personal responsibility for financial role in family	Low-moderate, moderate, high-moderate	Jay, Teresa Sarah, Lynn, Kay Thomas, Jo, Xman
Access to benefits and resources that impact the college-going culture and process experienced by a student	Access-related financial concerns, dual enrollment as access, hard work, personal responsibility for financial role in family	Low-moderate, moderate, high-moderate	Jay, Teresa Sarah, Lynn, Kay Thomas, Jo, Xman
Role of the family and community in the development of college-going culture and the college-going process for a student	Access-related financial concerns, student as decision maker, hard work, personal responsibility for financial role in family First generation responsibility to family and community (special factor)	Low-moderate, moderate, high-moderate High-moderate	Jay, Teresa Sarah, Lynn, Kay Thomas, Jo, Xman Jo, Xman
The presence of aspiration in the way	Dual enrollment as access, student as decision maker,	Low-moderate, moderate, high-moderate	Jay, Teresa Sarah, Lynn, Kay

Theme	Factors	Case(s)	Participant(s)
a student experiences college-going culture	personal connection with school staff, hard work		Thomas, Jo, Xman
		High-moderate	
	First generation responsibility to family and community (special factor)		Jo, Xman
Transfer or sharing of capital that impacts college-going culture development and the college-going process for a student	Access-related financial concerns, personal connection with school staff, dual enrollment as access, student as decision maker	Low-moderate, moderate, high-moderate	Jay, Teresa Sarah, Kay Jo, Xman

Note: The special factor was not selected as a primary factor at the conclusion of the theme and factor refinement process, but was related to themes that did have cross-case relevance.

Assertions

The final step of the cross-case analysis procedure as set forth by Stake (2005) was the development of assertions that stemmed from a comprehensive review of the collected data placed into dialogue with the framework-based themes. According to Stake, the assertions are drawn not from hard evidence per se, but from a growing understanding during review of the data, that lead to "compelling persuasion" (2005, p. 75) that convinces the researcher of key truths that emerged during the analysis, all serving the final goal of gaining a more complete understanding of the quintain.

Assertion development in this study began on the qualitative side with the completion of Worksheet 5, as included in Appendix J. I not only took the qualitative data into consideration in the development of these assertions, but also brought the quantitative data, including the survey factors, back into play for a complete consideration of the mixed methods deployed in the study. This final analytical synthesis resulted in the development of six assertions about the first-generation, college-going experience, as shared by the participants in this research project

116

through survey and interview responses. It is important to know that the assertions in some ways are interrelated, particularly those related to family, finances, and personal agency. So although they can stand alone in terms of topical consideration or potential policy implementation, it is important to recognize that none of these assertions occur within a sterile environment; and the nature of reality means there is interdependence and relationships among them. I describe each assertion in the following subsections, presented in rank order according to my interpretation of each assertion's potential importance in guiding policy and interventions related to college-going culture.

Assertion 1: A personal relationship with at least one school staff member who took an interest in the student and the student's college-going process was of major importance to college access and aspiration for every student. The survey results demonstrated that a large majority of respondents had positive interaction with school personnel that served to support their college-going experiences. From the qualitative perspective, I fully explored the personal-relationship factor in the previous section, and the students talked at length about the impact their relationships with school staff had on their access to resources, aspiration development, and personal agency. Whether the association was a coach who provided a student with a classroom-based opportunity to explore college, or a teacher who encouraged a student to tackle the next step, these relationships had real value for the students.

I could not escape the realization, however, that these students also in subtle ways acknowledged that not all students in their high schools had similar relationships with staff. Some, such as Sarah and Jay, shifted responsibility to the students for reaching out to develop these relationships to improve their access and support options. Teresa, however, despite her good grades and participation in challenging coursework, inexplicably found herself barred from

117

accessing dual enrollment courses. She chalked this up to not being involved in honors classes in which the topic was discussed, or missing signage in the hallways. But perhaps because of the conversations I was having with the other students, I found myself reflecting on whether Teresa simply did not have a relationship with the right teacher or staff member who could guide her through the process.

This concept of strong relationships with key high-school staff was the single most noteworthy experience, across all cases and for all students, that made a positive impact on the students' college-going experiences. Given that reality, I cannot accept that it should be left to high-school students with varying levels of savviness, comfort with authority figures, and understanding of navigating complicated systems, to develop the relationships they need to be successful. Instead, as I explore more in Chapter 5, it seems reasonable to expect that schools could develop programs that focus on connecting each student with an adult to partner with to develop a pathway for the student's future. As Jo stated about the two teachers who had the most impact on her college-going experience: "If it weren't for their belief in me as well, I don't think I would be anywhere in college." All students should have someone in their corners in that way.

Assertion 2: Dual-enrollment opportunities contribute significantly to the college-going experience, and are an important part of access to college and aspiration development. All students interviewed talked about the contribution to their college-going experience of dual-enrollment coursework in high school. For seven of them, the ability to take these courses helped to hone their aspirations, provide them with knowledge about the inner workings of college classes, enhance belief in their ability to handle college-level work, and reduce their cost and time investment in college after high school. Teresa's exclusion from this opportunity was troubling to me, and to her, and she definitely identified it as an inequity of access that she

believed negatively impacted her college experience. The findings from this study reinforce previous research related to the importance of dual-enrollment offerings for all high-school students, and of high schools and their college partners doing everything within their power to connect students with these opportunities and the related resources necessary to be successful in them. No students should have to wonder, as Teresa did, whether they completely lost an opportunity to get a jumpstart on college, and save time and money, because "maybe I didn't pay attention to the signs."

Assertion 3: Financial concerns are a significant presence within students' first-generation, college-going experiences. This assertion should come as no surprise to anyone with basic exposure to research related to college-going culture and the first-generation student experience. Both survey and interview data in this study lend credence to the importance of finances in the college-going process. Financial concerns were so ingrained in these students' minds that they served to guide both aspiration development, as happened in Xman's desire to attend a service academy and his ultimate college choice, as it did for every single participant. This is such a well understood fact that high schools and colleges spend significant time and energy hosting financial-aid sessions and scholarship-search events, and assisting students with writing scholarship essays. Federal and state governments provide significant grant and loan resources to put college within reach for their residents for the same reason. And yet, as these students shared, they continue to have their aspirations and their choices shaped predominantly not by their academic abilities, but by their ability to pay.

Assertion 4: Family and community members play a significant role in the development of college-going culture and the college-going process of first-generation students. The importance of family to the students' college-going experience cannot be overstated, and the

related importance of other community members, from churches, friends, or neighborhoods, also emerged as having significant relevance for these students. Much of that impact is positive, as I heard from many participants, from instilling a desire to attend college to the work ethic to make it happen. However, some communities, as Lynn shared, could spur a determination to attend college primarily because of their negative attitudes and examples.

The families in all of these cases served as a motivation and support system, a special place for the students to go to build and regain their self-belief. As mentioned in the "Theme and Factor Refinement" subsection, a number of the students interviewed also talked about their families as setting high expectations, modeling a strong work ethic, and making sacrifices to help the students be successful in achieving their dreams. Thomas spoke frequently about his support group, which included his parents and his fiancée, saying they were "the supportive people at my back." Even though his parents recently moved to another state, he still spoke of them as key to his success; and they engaged with his ongoing journey through college. For Teresa, her family served as a support, but also as a motivation for her not only to make it to, but through college: "I'm making history in my family. . . . It definitely pushes me, and I just want to make my family proud."

Sarah described her mother as her best friend. She shared that, although she was used to relying on her mother's help with most things in life, the college-going process was different. She found that difference to be a challenge:

> I feel like it was harder because my mom was the one who helped me a lot, and she didn't know the process. I always had to go to a third party to ask questions, or just go straight to a college representative to ask any questions. I couldn't really ask her 'cause she didn't know.

That difference did not go away once Sarah started college; in fact, it widened a bit more, as she sought to share her daily experiences of college life with her family. She found that they cared about her experiences, but they could not relate in any real way:

> I feel like it is a little more difficult, because I can't just say, "Hey, mom, when you were in college, did you blah, blah, blah?" . . . I feel like that's kind of the hardest thing because, like, my mom is kinda my best friend. So I talk to her about everything, and she's like, you know, "When you talk about your college days, I don't know what you're talking about." So it's a little hard for that.

While reflecting on this assertion, it is important to note that, as a first-generation student, the act of choosing to attend college is choosing to separate in some way from the family. The concepts of "doing more" and "going further" that were at the core of student aspiration in many of these cases also carry an undercurrent of becoming "better," which can lead to separation within the families. Most of the students spoke in eloquent terms about the difficulties their families had in understanding what they were going through in college, and the sense of isolation that created for them once they were in college. This reality hearkens back to the sense of otherness that previous research has identified, when first-generation students who were going to college to become less like their families, instead of more like them as is true for students of parents with a college degree (Langenkamp & Shifrer, 2018). As an example, Xman talked about the sacrifices he had made to take advantage of opportunities he knew would never come his way again, and the divisions his doing so that had caused within his family:

> Divisions in that, like, it's hard to relate to some things for some of my family members. It's hard for them to understand, like, I have homework to do all the time. . . . I have had to miss a lot of family things because of college, I know. [reflects on two out-of-state trips he missed to visit family] . . . I kind of have to be selfish in that, you know, this is an opportunity that I won't get all the time, and it has created some division, but none that's like, you know, caused problems. It's just like being unable to relate to it, I guess.

Jo talked about the fact that her parents could not be the resource for her that the parents of many of her friends, who had college degrees and "good jobs," could be for their children. While she lamented this difference a little, she also talked about it as a motivating factor for her:

> I am proud of my parents, personally, but some people wouldn't consider them to have really good jobs. . . . I think as a first-generation student I feel a little bit more proud [*sic*] of myself because I'm the first person to do it. Like, you know, you can go talk to your parents about what this experience was like, and they can guide you. And the best my parents can do is, you know, refer me to a friend. I think that's one of the biggest things, is like, going home and talking to my parents. And while I know they tried to understand what I'm going through, or try to understand homework. . . They know the importance of it, but I just, I mean, it's a different situation when they have a degree.

I explore further this tension between the important role of family in college-going motivation and support and some of the related challenges as part of Assertion 5, as students' individual agency sometimes comes into conflict with the "otherness" they create in their determination to succeed.

Assertion 5: Personal agency and aspiration play a large role in the student's college-going experience and are most evident in the student role as college decision maker. As I previously discussed in the "Theme and Factor Refinement" subsection, all of the students I interviewed were viewed by their families as the ultimate decision makers when it came to college plans. This deference to the students should not be construed as a lack of interest by the families, however, because many of them were actively engaged in the research process and in processing discussions with their students. The families instead honored the students' individuality and decision-making skills, and trusted them to make the best decision for both themselves and the family in these situations.

As Teresa stated, "They wanted me mostly to choose what I wanted. They didn't want to hold me back on my decision, and they just wanted me to choose the right school for me." Kay's experience while living with her aunt was much the same—the focus was on going to college,

but not so much what the final selection would be. According to Kay, "I wouldn't say my aunt was too heavily, like, opinionated about it. She wanted me to go to college, obviously; but, no, she didn't really show like a preference to anything. Umm, it was kinda just me."

As I explored previously, the one exception was Xman's second college-choice process, after he was unable to enroll in the service academy because of a paperwork technicality. His parents had encouraged that initial selection process, letting him make all the decisions and arrangements, but they stepped in to assist with the final decision when he undertook the second, late, college-search process not long before his first semester was to begin. This cosalutatorian of his class who had been unexpectedly left searching for a college right before the start of school came up with a number of options, but few of them were financially feasible, and certainly not free, as the service academy would have been. Xman openly shared the level of panic he felt and the frantic work he did to identify his options; and then the family, together, made the final decision based on finances and other family impacts.

It is important to place assertions 4 and 5 into dialogue with each other, and to consider how the role of student as decider heralds the coming sense of difference that will evolve within the families as a result of college becoming a factor in their students' lives, as the students see and do things that are foreign to the people with whom they are closest in this world. In a sense, the parents framing their children as adults responsible for this decision, with limited family interference, are acting to denote the first break in the family relationship, from shared knowledge and experience into the growing differences. Jo best explained this tension between the students' intense connection to their families and the desire to become different and experience things they know will forever mark them as different in a moment of startling clarity,

as she reflected on the negative reaction she sometimes had to being labeled as a first-generation student:

> People associate me as a first-gen student and not as a scholar, and that's what I get upset with, you know? . . . I'm a scholar before I'm a first-gen student. That's how I see it. My parents' choices are what made me first gen, but my choices are what made me a scholar, and that's what I'd like to be defined as—my choices, not my parents' choices.

Assertion 6: The first-generation, college-going experience as described by participants in this study is relatively stable, with no significant differences detected among the cases. Using the modified Robinson and Roksa (2016) classification, I identified no significant differences among the cases in this study, or among those students graduating from high schools classified as having low-moderate, moderate, or high-moderate college-going cultures. The quantitative analyses revealed no statistically significant differences related to school resources or personnel attitudes by case. The cross-case analysis of qualitative data likewise did not identify any significant differences, with the only theme or factor difference being related to the high-moderate group talking through a heightened sense of responsibility to their families and communities as a result of their first-generation status. In fact, the shared experiences from the participants were startlingly similar across all cases and individuals, regardless of what school they attended, their Pell eligibility, or their parents' education level. In truth, the first-generation, college-going experience seems to be more similar than not, regardless of external trappings.

Reflecting on this similarity led me to question the usefulness of the classification system recommended by Robinson and Roksa (2016). As I explained in Chapter 3, the existing classification did not adequately address the reality of the school performance data for many of the survey respondents, which resulted in my modifying the categories for case development. I explore more fully in Chapter 5 the question of whether this is a gap in the classification system or a limitation of the sample in this study. However, I believe it is practical to consider whether

these sorts of classification models are applicable within the real world. If the first-generation experience of college-going culture is so similar, regardless of how the students' high schools are classified, does the classification matter? If a relationship with a staff member at a student's school is the most impactful part of the school-based college-going experience, is that a more practical aspect on which to focus?

Answering the Research Questions

The preceding sections all come together to answer the primary research question, "How did first-generation students attending an Hispanic-serving institution (HSI) experience the phenomenon of college-going culture in their high schools and communities?" Each theme, factor, and assertion describes the college-going experience of the participants and illuminates a particular part of that larger experience. The stories and direct quotes from the participants further our understanding of that experience in each of their high schools, communities, and families. The answer to the primary question is that students experience college-going culture as a complex ecosystem formed from the students' interactions with their families, schools, and community environments, which in turn influence the students' internal aspiration and personal agency. Within that ecosystem, factors such as finances, personal relationships with school personnel, and access to dual-enrollment courses all serve as either barriers or gateways to frame the students' overall college access.

Secondary research question A asked, "What similarities and differences exist among students graduating from high schools with different college-going cultures?" This question zeroed in on a comparative analysis of the cases. In the preceding sections I have demonstrated the answer to this as well, culminating with Assertion 6. This assertion concludes, based on both quantitative and qualitative analyses, that there were no significant differences between the cases, which comprised students from various high-school, college-going cultures. The themes,

125

factors, and assertions all speak to the similarities among the cases and the individual students,

ranging from financial concerns and access limitations to the importance of personal

relationships between the students and staff at their high schools, and the important roles of

family, aspiration, and personal agency in the college-going-culture experience. Assertion 6

speaks to the lack of measurable difference among and between the cases; it also speaks to the

massive similarities between the students and calls for us to consider whether the culture

classifications as envisioned are truly beneficial, or are instead a false differentiation based on

assumptions that schools with different outcomes in terms of numbers of students going on to

college require significantly different approaches.

Secondary question B asked, "What factors related to the theoretical frameworks selected

for this study inform college-going culture for those students?" The preceding "Theme and

Factor Refinement" subsection answers this question in detail, providing six primary factors, (a)

access-related financial concerns, (b) dual enrollment as a college-access benefit, (c) student as

college decision maker, (d) personal connection with school staff, (e) hard work, and (f) personal

responsibility for a financial role in the family with relevance across all cases and detailed

examples from the student interviews. Table 15 depicts the factors that further tie in with the

related themes drawn from the theoretical frameworks and identifies which cases and

participants provided insight into those themes and factors.

Table 15 adds further clarification to secondary question C, which asked, "How do those

differences and informative factors converge and diverge by case profile?" Although no

significant differences were found, and no real divergence was identified, the table demonstrates

the strong convergences among the cases, as discussed in all the preceding sections. Those

convergences include the importance of family and community to the process, the significance of

a personal relationship between each student and a school staff member, family finances, and dual enrollment that includes overall college access, and the role of each student's internal aspiration and personal agency in the development of a college-going culture.

Secondary question D asked, "What do the combined quantitative and qualitative data reveal about college-going culture that is not provided by one or the other alone?" Throughout all of the preceding sections, I took care to demonstrate the contributions both sets of data made to the various themes, factors, and assertions. In this study, the quantitative data set the stage for the qualitative process and contributes to a more complete understanding of the participants, both as a group and as individuals. The quantitative analyses allowed me to identify both frequencies of occurrence and commonalities in the student experience, such as access to resources, use of those resources, and perception of high-school staff attitudes and support. I combined this data with the stories interview participants shared to create a picture of the first-generation, college-student experience as viewed through their eyes. Ultimately, it was this combination of data gleaned from both strands that allowed me to answer the primary research question and state that first-generation students experience college-going culture as an ecosystem, with various interrelated and interacting factors.

Without this combined data set, the ability to understand participants' experiences in any depth would have been much less likely. The quantitative data alone provided a description of the participants, but could only demonstrate that there were no significant differences between the groups, without fully exploring the similarities. The qualitative data provided significant examples of the individual experiences, with detailed description, but without the context provided by the quantitative analyses and the capability to verify the seeming lack of difference among cases that could be gleaned from the stories.

Summary of Findings

To summarize, I have provided in this chapter the results of this mixed-methods study by first presenting the insights gleaned from the quantitative data. Once that information began to reflect an outline of the experiences of the responding group, I began the qualitative analysis by initially reviewing eight themes that emerged from the theoretical frameworks selected for use in this study that were present in both the quantitative and qualitative data. I refined those eight themes as part of the analysis process into five themes with the greatest relevance to this study and the participant experiences: (a) the presence of personal agency as part of a student's college-going process; (b) access to benefits and resources that impact the college-going culture and process experienced by a student; (c) role of the family and community in the development of college-going culture and the college-going process for a student; (d) the presence of aspiration in the way a student experiences college-going culture; and (e) transfer or sharing of capital that impacts college-going culture development and the college-going process for a student.

I then closely analyzed the data to determine what concepts or factors emerged from the interview data in particular that related to the two factors present in the survey results: high school staff attitudes/encouragement and school resources. The interviews gave rise to eight factors and one special factor, which I later refined to six factors with strong relevance across the cases. Those factors were (a) access-related financial concerns; (b) dual enrollment as an access benefit; (c) student as college decision maker; (d) personal connection with school staff; (e) hard work; and (f) personal responsibility for financial role in family.

The themes and factors, when considered in concert with each other, gave rise to the six assertions that serve as the formal findings of this research study. In Chapter 5, I explore the importance of these assertions to policy, outreach, and future research.

CHAPTER 5: DISCUSSION

The purpose of this study was to explore the ways in which first-generation college students experienced college-going culture in their high schools and communities. The study was designed to fill a gap within the current literature and knowledge base related to college-going culture. Few studies have focused on the college-going experience of students enrolled at an Hispanic-serving institution (HSI), particularly utilizing a mixed-methods approach within a case-study methodology. The primary research question I sought to answer was "How did first-generation students attending an Hispanic-serving institution (HSI) experience the phenomenon of college-going culture in their high schools and communities?"

The quantitative sample was large enough to allow quantitative analyses of survey responses that guided and supported the qualitative strand. The sample was also broad enough to support the selection of a qualitative sample that facilitated an illuminating exploration of the college-going-culture experience and delved into the variability of experiences across high schools with differing levels of college-going culture. I grounded this research in a comprehensive theoretical framework that provided a solid basis from which to interpret findings. This exploration, including the comparison of both survey and interview findings with the college-going-culture classification of the respondents' respective high schools, informs practice to address the complex issue of college-going culture.

In this chapter, I present an overview of the primary findings of this study and their relationship to the existing college-going-culture literature. I then introduce the practical implications of the research and the manner in which the resulting assertions can guide development of interventions that enhance college-going culture for first-generation students. The chapter concludes with an overview of the delimitations and limitations of the study, and

implications for future research that the study's results and my reflections as the researcher suggest.

The First-Generation, College-Going-Culture Experience

In Chapter 4, I showed the pathway to the results, from theoretical frameworks and study data, through the development of themes and factors in analysis, ultimately moving from those interrelated themes and factors to relevant assertions. The six assertions form the thrust of the findings of this study and can help educational professionals better understand the college-going-culture experience of the first-generation students who took part in the study. The assertions are linked to previous college-going-culture research I explored in Chapter 2, with the findings from this study adding a layer of support and enhanced understanding to those previous studies. The first five assertions deal with concepts focused on student-staff relationships, dual enrollment, financial concerns, the importance of family and community, and personal aspiration and agency. These concepts are included throughout the literature as key elements in the development of college-going culture for first-generation students (e.g., Bosworth et al., 2014; Cabrera et al., 2012; Corwin & Tierney, 2007; Gibbons & Borders, 2010; Horng et al., 2013; McDonough, 1997; McKillip et al., 2013; Rochford et al., 2011). The results of the current study provide a fuller explanation of the impact of these considerations on the lives of the participants, who made it to college.

Relationships and the College-Going-Culture Experience

The importance of student relationships with adults in their high schools is indicated in the findings from this study, which mirror previous research findings (Bosworth et al, 2014; Corwin & Tierney, 2007; Robinson & Roksa, 2016). The findings demonstrate that relationships between high-school staff and students matter greatly, as does the ease with which students can access adults in their school to serve as resources. Without exception, every participant in the

qualitative portion of the study talked about the importance of at least one school staff member in participants being able to make it to college. Participants who struggled with what they perceived as a lack of adequate staff support identified this importance. This finding correlates with previous findings that staff attitudes about students' likelihood of success and ability to go to college were found to be the highest indicator of the presence of a college-going culture in a high school (Bosworth et al., 2014). As Bosworth et al. (2014) said, "Creating this college-going culture begins with the relationships staff develop with students and with the expectation that all students will be prepared to enter post-secondary education after high school graduation" (p. 21). In this way, the presence of a relationship, coupled with high expectations of the student from that staff member, unite to provide practical, college-going access and support for the student. Stanton-Salazar and Dornbusch (1995) focused on students' access to social capital that teachers and other school personnel could provide, saying "...success within the educational system, for working-class and minority youths, is dependent on the formation of genuinely supportive relationships with institutional agents" (pp. 116–117). Those relationships can be made across the institution, but Horng et al. (2013) found that students focused on teachers as a primary influence in their college-going process, regardless of the availability of guidance counselors within a school. This same tendency is evident in the current study, in which 89% of participants felt their teachers had high expectations of them, and 75% reported significant encouragement from a teacher in particular to attend college.

However, high-school employees are not the only ones in a position to impact a student's pathway to college. As I explored in the literature review, colleges have been found to serve an important role in developing pathways for first-generation students (Bloom, 2008; Weinstein & Savitz-Romer, 2009), often in the provision of special outreach programs focused on getting

more students to college. Some of the participants in this study talked about college staff visits to their high school as part of their college-going process, and a few were aware of newly opened college-going centers the local university offered in their high schools. In these centers, college staff are housed at high schools, and students often view them as high school staff. Before centers like this existed at his school, a relationship with a high-school coach allowed Xman to gain access to college professors who also played a role in his aspiration development and ultimate college-selection process. In these instances, student relationships with adults in some way affiliated with K-through-16 education proved important to the development of the students' college-going culture.

Dual Enrollment and the College-Going-Culture Experience

Dual enrollment is a key component of the academic rigor that past researchers have demonstrated has importance in the development of college-going culture (McKillip et al., 2013; Rochford et al., 2011). In a community that wanted to improve its college-going rates to 80% of high-school graduates in any given year, the introduction of extensive dual-enrollment course opportunities led to a significant increase in both initial college-enrollment rates and college persistence (Rochford et al., 2011). Although the survey instrument used in the current study did not probe dual enrollment as a construct, the interviews within the qualitative strand did explore this experience. All interview participants talked about enrollment in college classes during high school as part of their college-going experiences, and all but one had this opportunity. Two participants actually earned an associate's degree as part of their high-school, early-college participation, and five others took a number of courses toward their general education requirements. All who had this opportunity saw it as positively contributing to their experience, kindling aspiration, increasing their belief in their ability to succeed in college, or practically

contributing to their college journey by reducing the time required to acquire their degree. The one student who was not able to take dual-enrollment classes, Teresa, viewed this inability as a negative aspect of her college-going experience, and she believed it served as an unfair barrier to her college success.

Finances and the College-Going-Culture Experience

Past research found that first-generation Latino/a students perceived finances and family financial concerns as a significant barrier to college (Vega, 2018), and that first-generation families were concerned about their ability to pay for college long before they knew what a specific institution would cost (Cabrera et al., 2012; Carden, 2007). The findings from the current study reinforced previous findings, with both survey and interview data lending credence to the importance of finances to the college-going process. As an example, Cabrera et al. (2012), identifying financial affordability as the largest barrier to college for students, found that students often knew people who could get into college but were unable to afford it. My interview participants' experiences definitely supported those previous findings, with the extensive narratives they shared about family members who could not make college work or had to give up their dreams because life and financial responsibilities interfered. This study's results also echo previous findings (Kiyama, 2010), that many first-generation students know people who had negative experiences with college, often related to a limited ability to pay or difficulty balancing competing life and time demands. These shared stories can serve as a negative aspect of the funds-of-knowledge framework, reinforcing a lack of college-going culture that students can internalize (Kiyama, 2010). Xman, for example, called the inability to complete college a "reoccurring theme" within his family's personal history, and he saw his opportunity as a chance that could not be squandered; he viewed himself as lucky in a way others were not.

133

Families, Aspiration, Personal Agency, and the College-Going-Culture Experience

Extensive research has demonstrated the significant impact families can have on the development of a student's college-going-culture habitus, on both the positive and negative ends of the spectrum (Gibbons & Borders, 2010; McDonough, 1997). Positively, lessons of resilience and navigation learned from family can become the extra incentive students need to navigate their path to college, despite challenges (Chang, 2017; Moll et al., 1992; Yamauchi et al., 2017; Yosso, 2005). Students in this study were all strongly connected with their families, and many of them extended that definition to include others within their community they considered family. The influence of family was apparent in their frequent discussion of work ethic and family commitment to seeing them succeed, and also in their awareness of financial realities. For example, Thomas spoke of his family as a support system, while Jo talked about the constant conversation and sharing she had with her mother before and during college.

Because of this potential for family support leading to students' persistence and future success, both researchers and practitioners have looked for ways to strengthen family involvement in the college-going process. Bosworth et al. (2014) recognized the importance of families to the development of college-going culture, and these researchers encouraged programs focused on increasing college-going rates to involve families in activities. These programs include standard fare in both K-through-12 and postsecondary circles, such as FAFSA nights, college fairs, or parent-teacher meetings. Likewise, Perna and Titus (2005) recommended that programs also find ways to fully involve families in the learning and planning processes. Further, Kiyama (2011) said it was important not only to involve families, but also to encourage them to share the nontraditional knowledge they have that might help with their students' navigation to college. Nontraditional knowledge is what led Xman's father to access his construction work at a

service academy to acquire tickets for them to attend a football game, which in turn sparked Xman's aspiration to attend that institution. Similarly, Jay accessed this same type of informal knowledge when she attended football games at a large Division I school with her uncle. For Lynn's parents, acquiring such knowledge meant asking questions of their acquaintances who had children in school. In all of these cases, although the family members contributed in some way to the college-going process, they were not the final decision makers, which also agrees with much of the existing research about first-generation students.

Cabrera et al. (2012) concluded in their study of first-generation students that "ultimately, the students saw themselves as the ones responsible for making the dream of college a reality" (p. 238). This perspective connects strongly with this study's finding that frames these students as the college-choice decision makers in their families and further links the concept of family importance with personal agency and aspiration. It also presents a paradox for first-generation students that is important for practitioners who work with this population and their families to recognize: The very aspiration and agency that make it possible for students to enroll in college, often with significant family support, will also lead to a breach in that family relationship. According to findings from the study of pioneer and legacy students by Langenkamp et al. (2018),

> in order to achieve their educational expectations, they must deliberately choose to be unlike their parents. . . . this is an extraordinary burden given the influence of the family on identity and social ties. . . . dominant cultural frames about college lead pioneers to view their parents as failures, or at least as people living the kinds of lives not worth emulating. (pp. 78–79)

The current study's interview participants talked extensively about this eventual sense of psychological separation from their families, though in different ways. Examples ranged from Sarah's acknowledgment that her mother could not understand much of what she tried to share

about her school days, to Xman's stories of family members not understanding why he missed trips or special events to attend school events or finish homework. Relatedly, Jo spoke about the types of jobs her parents held, whether they were "good" jobs or not, and her reticence to talk about their jobs in her college classes because she believed others would view them as lesser because of those jobs.

A Lack of Difference in the College-Going-Culture Experience

The sixth study assertion, regarding the lack of identified significant difference among the experiences of students from high schools with different college-going cultures, was a bit of a surprise to me as I undertook this research. It is also the one area in which this study's findings diverged from the literature in which the study was grounded. Based on the literature I reviewed in preparing to conduct the study, I anticipated identifying differences in the college-going experience, depending on the type of culture that existed at the students' high schools. Given the demonstrated importance of the beliefs of school staff, the promotion of college for all, and access to guidance counselors to the development of college-going culture (Aldana, 2014; Bosworth et al., 2014; Weinstein & Savitz-Romer, 2009), those seemed likely areas in which differences would be identified by case. I thought perhaps students would report differing levels of teacher expectations, access to college planning centers, or frequency of counselor visits, based on their respective schools' classifications. Because academic rigor, including dual enrollment, has been shown to impact college-going culture (Calaff, 2008; Kim & Nuñez, 2013; McKillip et al., 2013; Saunders & Serna, 2004), who did and did not have access to dual enrollment seemed another likely place to identify differences among the cases. Race/ethnicity, including self-identification as Hispanic, seemed a likely place to discover difference as well, based on past literature. Despite the intentional inclusion of Hispanic-identifying students in this

study, it was not found to have any significance in the quantitative data in relation to the survey responses, nor did it emerge as a factor from the qualitative data. Race/ethnicity only emerged as a topic of conversation in relationship to families, and the close-knit nature of Hispanic families, in some students' minds. Though I was unsure exactly what all the differences would prove to be in this study, practical wisdom seemed to indicate that schools with higher percentages of students going on to college, which is how the classifications were developed, must be doing something differently, than their counterparts. For example, using their classification system and a longitudinal data set, Robinson and Roksa (2016) reported differences among culture types in the timing of college conversation and frequency of counselor interaction, and also significant differences in the type of college to which students applied among the classifications. Specifically, students from a school with a high college-going culture were 2.4 times more likely to apply to a 4-year college than their counterparts from a school with a low college-going culture (Robinson & Roksa, 2016). I sought to expand the application of these researchers' classification system beyond these factors to other indicators of college-going culture.

However, what I found from the 44 survey responses in this study, and what was even clearer after I analyzed the interviews with the eight participants, was that their experiences were very similar across cases, regardless of their school culture or any other demography. Although individual students reported various levels of engagement with counselors and college-going centers, teacher attitudes, and other factors, neither the quantitative nor the qualitative results identified any significant difference among the cases based on the classifications of school culture or identity. It is possible this lack of difference was due to a relatively small quantitative sample. It could also be important to contextualize the results by acknowledging that the participants in both strands of this study were college students, which means that they had

persisted through any barriers to college. It is possible that a sample including first-generation high-school graduates who had not gone on to college would have yielded different results, or would have shown some difference by type of school culture. Robinson and Roksa (2016) studied high-school seniors who intended to enroll in college after high-school graduation, so their sample conceivably included some students who ultimately did not attend college.

In addition, it is important to consider whether the classification system developed by Robinson and Roksa (2016) can be practically applied across all geographic areas. Their system uses the percentage of graduates from each high school going to 4-year and 2-year institutions to determine the level of college-going culture, with higher percentages going to 4-year institutions and resulting in higher culture designations for those institutions. The researchers classified schools as having low, moderate, or high college-going cultures based on those percentages, as displayed in Table 5, Chapter 3. However, in this study, 70% of all respondents could not be categorized as graduating from schools with low, moderate, or high college-going culture using Robinson and Roksa's guidelines, largely because the percentage of graduates from those schools did not go on to postsecondary education at all. Because 86% of all respondents were from a single state, the majority from within 50 miles of the institution, it also is possible that the classification simply did not translate well to schools in this locale. It is possible that state policies focused on college access help to alleviate significant differences. The inability to categorize such a large percentage of the schools was troubling, and it led to the modified case classifications I used in this study, as shown in Table 6, Chapter 3. Another possibility is that the modified classifications used to develop cases in the current study was too nuanced, making any differences among the cases less apparent. This possibility could be true especially when coupled with the lack of respondents from low- and high-culture groups.

I present the practical implications of these study results and assertions in the following sections, grouping them into policy implications and outreach/support implications. I address the research implications within the "Future Research" section.

Practical Implications of This Research

This study was always intended to lead to the development of practical assertions that can guide policy and practice related to the college-going process. Using the study results and implications, I sought not only to answer the primary research question—"How did first-generation students attending an Hispanic-serving institution (HSI) experience the phenomenon of college-going culture in their high schools and communities?"—and the related secondary questions, but also to do so in a way that would suggest practical interventions for improving that college-going experience for other first-generation students.

The methodology used in this study reflects close attention to past research findings and recommendations with strong practical leanings. Both Kiyama (2010) and Weinstein and Savitz-Romer (2009) recommended focusing on the student experience and that unique perspective as a thread of college-going-culture research. Derden and Miller (2014) recommended the use of case studies and the exploration of perceptions of college-going culture within a community. The six assertions resulting from this study and presented in Chapter 4 have practical application, serving to remind practitioners of basic truths that should inform how educational professionals conduct outreach to and provide support for first-generation students. Given the fact that the geographic area surrounding the research site had fewer college-going students than the state and national average (CDHE, 2018; NCES, 2019), this research has practical applicability to that geography. As previously discussed, in the community where the research site was located, only 21% of residents ages 25 and older had a bachelor's degree, compared with 39% of residents statewide (U.S. Census, 2017). In addition, only 36% of local 2017 high-school graduates attended a 4-

year institution, compared with 44% nationally (CDHE, 2018; NCES, 2019). This lack of college education locally, when paired with the demonstrated value of a college education to individuals, families, and communities (Chetty et al., 2017; College Board, 2016; Serna & Woulfe, 2017; Trostel & Chase Smith, 2015), means that the practical implications of efforts to boost the rate of individuals who attain college degrees within the local community can have significant impact.

Policy Implications

At least two findings from the current study suggest the potential benefits of changes in current educational policies. Dual enrollment and staff relationships played an important role in enhancing college-going culture for these students, and these concepts align with areas within K-through-12 and postsecondary education that are ripe for policy-development consideration.

Dual-Enrollment Policies

As previously stated, every qualitative participant spoke strongly about the importance of dual-enrollment opportunities for their college-going experiences, with positive impacts ranging from heightened aspiration and self-confidence to less time in college and increased financial savings. Those participants who had the opportunity to take college courses while in high school viewed that opportunity as one of college access. Past research has shown that making this opportunity available to all students, regardless of academic attainment, is related to increases in college-going rates (McKillip et al., 2013; Rochford et al., 2011). The single interview participant who was unable to take college courses while in high school definitely felt that she missed out on a benefit, one that she believed could have shortened the time it took for her to change majors in college. Given all of this data, the assertion that dual-enrollment opportunities are an important piece of the college-going experience, by providing students with early access to college and developing their aspiration, means that high schools and colleges should do

everything in their power to provide this opportunity to all students, even in regions not currently providing widespread access to dual enrollment. Logistically, a good first step would be to examine current policies within a community's schools related to dual-enrollment coursework, and identify barriers that limit students' equitable access to this opportunity. That examination may be linked to a review of academic-achievement requirements, limits on hours that students can take, or the existence of a tightly controlled referral or nomination process for participants.

A second recommended step would be to reconsider how opportunities are promoted and advertised to students. Teresa's statement that she may have missed a poster in the halls was troubling because it indicates that the promotional process was largely passive. She had a good relationship with several teachers at school, and she was a successful student, both of which should have provided some access to college-going resources. If for some reason she was not targeted for a dual-enrollment opportunity, it seems unlikely that students with less successful academic histories were targeted either.

In addition, postsecondary institutions should coordinate with local high schools to provide enhanced dual-enrollment opportunities to local students—opportunities that offer the option for students to move through general education requirements, but also allow them to explore potential majors and determine sooner rather than later whether their plans are solid ones. For instance, school districts may have competing priorities that serve to limit the students they put forward for dual-enrollment programs, such as success metrics or budgetary constraints. However, colleges can shape such programs by expressing an interest in serving a larger portion of the school population and providing outreach opportunities that drive individual interest in students' freshman and sophomore years of high school. If, as Teresa indicated, districts make decisions about dual-enrollment placement based on special tests students take in their

sophomore year, colleges can partner with their local schools to increase student awareness of

the opportunity and process, and also the future benefits of dual enrollment. But this partnership

requires the development of priorities and policies that allow for that involvement. Weinstein and

Savitz-Romer (2009) recommended that K-through-16 relationships be developed so that

colleges begin to play a more direct role in getting local high-school graduates to college. This

has definite linkage with high schools offering dual-enrollment courses, but K-through-16

partnerships could conceivably expand to include enhanced information about the students

getting to college and developing relationships with college staff to act as another layer of

mentors. I explore this aspect further as part of the outreach/support implications.

Student-Staff Relationship Policies

The findings from this study regarding the importance of student-staff relationships

conform to previous research findings that also established their essential role (Bosworth et al.,

2014; Corwin & Tierney, 2007; Robinson & Roksa, 2016; Stanton-Salazar & Dornbusch, 1995).

This focus on student relationships with staff could justifiably be considered an outreach

implication. However, the development of programs and interventions that serve to provide this

level of connection for all students will likely require significant changes in school policy and

overall direction. For example, development of these interventions would conceivably be driven

by a school's decision to implement a policy that reflects the importance of a college-for-all

mindset, or that establishes expectations for college-going rates. Policy change would be the

leading edge of this relationship-development effort, so I am including it as a policy implication.

If equity in college access matters, and personal relationships are as important to the first-

generation, college-going experience as this and previous studies suggest, then determining the

best way to provide a personal connection for each student with the appropriate staff members

becomes paramount for the educational system. It is not enough to expect all students, as Sarah and Jay suggested, to recognize the importance of these relationships to their own success and so reach out to staff.

Many of the relationship examples in this study were related to special programs in which the students participated—JROTC, a precollegiate-access program, a special college-exploration class, or an academic-excellence program. The policy question becomes whether these special programs in the school can be leveraged to provide opportunities to *all* students, or whether a new program could be developed to address any students not already participating in a specialty program. The key word here is *all*, and how that level of implementation is achieved.

Participants in this study looked to their teachers for help going to college, which reinforces previous findings that place teachers, and not guidance counselors, at the center of college-going culture in the schools (Horng et al., 2013). Not all students in high school interact with a guidance counselor of their own accord, but all students interact with one, and usually multiple, teachers. We know from the literature that contact between a teacher and student is not enough; to internalize high expectations and reap the benefits of college-going support, students must have an established, trusting relationship with the staff member (Weinstein & Savitz-Romer, 2009). In this study, even students who were top academic performers, such as Xman or Jo, reported they had struggled and had needed support from their teachers and counselors to overcome the obstacles on their path to college. It seems unlikely that anyone with an interest in equitable college access can read their stories without reflecting on the existence of classmates who were not top performers, those who likely never had the opportunity for a staff member to recognize their potential in a specific area. That lack of a trusting staff relationship and

individualized support likely makes the difference for any number of students with unrecognized potential in whether they make it to and through college.

McKillip et al. (2013) recommended another type of relationship intervention that could be incorporated into school activities as a step toward achieving college for all, one that recognizes the reality of school staffing limitations. When conversation turns to creating a policy that ensures that every student is assigned in some way to a mentor relationship with a high-school staff member, a fair question becomes how that goal can possibly be accomplished with limited staff and budgets in schools that are often already overloaded. It is here that McKillip et al.'s (2013) concept of paired advising sessions, in which a small student group meets regularly with a staff member to discuss postsecondary plans, has the most relevance. These sessions could alternate between information-sharing sessions led by the professional team member, Q&A sessions with the group, and open sharing among the students about their concerns and experiences.

Outreach and Support Implications

Practical implications of this study go beyond policy considerations to special programs or efforts to provide outreach and support to first-generation students in the development of college-going culture. These implications represent a mass approach that may include multiple community partners and that attempts to impact college-going rates by actively inviting first-generation students and their families into the college discussion. Several of the factors with significant presence in the final assertions, including aspiration, personal agency, family involvement, financial concerns, and staff relationships, have the potential to influence these outreach and support efforts.

Aspiration and Personal Agency

Appadurai (2004) considered aspiration to be more than drive, including also the ability of the student to overcome perceived barriers and work toward success. Aspiration is also influenced by others, an intent that can be sparked and supported, particularly by those in a position to share resources and capital (Appadurai, 2004). In this instance, aspiration, personal agency, family involvement, and staff relationships are all brought into dialogue with each other. Students may aspire to college but see that aspiration grow with encouragement from family or school personnel, or through exposure to opportunities they would never have otherwise—such as Xman's visit to the college classroom or Jo's attendance at a medical robotics conference. Community organizations and institutions of higher education interested in outreach and support of first-generation students should develop programs and experiences that allow students to dream, connect them with adults who can give them a more concrete connection to those dreams, and then support them through efforts to achieve those dreams. The policies developed in response to the recommendations included in the previous section lay the groundwork for these outreach efforts by encouraging practitioners to think differently about how existing systems may address aspiration and personal agency development within first-generation students.

Family Involvement

Families must be a key part of any outreach and support effort related to college-going culture. But practically, what does that look like? Students in this study talked about the extensive hours their families worked, the lack of time they had available to attend college visits, or the sense of not knowing how to help that led their families to lend encouragement but not involvement. Cabrera et al. (2012) talked about the simple fact that many parents set expectations for their students to attend college but are unable practically to help the students get

there. How are those hurdles addressed in the real world? Past research recommendations have encouraged family inclusion in practical events and learning opportunities, such as financial-aid workshops or college fairs (Bosworth et al., 2014; Perna & Titus, 2005), and ways to help families apply their own experiences to the college-going process to support their students (Kiyama, 2011). Supporting the practical value of these personal experiences could include discussions that allow families to see the educational value of activities they are already doing, such as board games, educational family trips, or talking with extended family and friends to learn more about the college process. Existing programs have developed fully formed, college-going courses that families take alongside their students (Kiyama, 2011), but these often require significant hours of commitment at times that may not be compatible with work hours. In that instance, packets that students can take home to discuss with their families, one-off workshops, and virtual resources can all provide significant support that allows families to become more involved and develop their own strategies for assisting their students with getting to college.

As programs are developed to enhance aspiration and engage families, it is important to recognize the tendency identified in this study for the family to defer to the student on the ultimate college decision. Planned programming should educate the entire family without defaulting to an assumption that parents or guardians are the decision makers. Programs that prepare students for that decision-making role could be essential to improving college-going rates among this population as students, and their families, grow even more comfortable with the students' data-collection abilities and decision-making processes, taking the students as deciders from a default position to an intentional one.

Although this study focused on the college-going process during high school, it is important to acknowledge that the choice that first-generation students make to attend college

146

has implications for family dynamics after the students enroll. Study participants knew their families did not understand the demands of their studies, and many expressed sadness over the inability to bridge that separation and truly shoulder this responsibility on their own. This outcome reinforced findings from past research (Langenkamp et al., 2018); but, without exception, this sense of difference from their families was something for which students were unprepared. So although this experience occurs after the college-going process is complete, it is something with the potential to derail students' college success that should be addressed as part of their college-exploration process. For example, mentors with whom they are connected in high school as part of the staff-connection efforts could ask them to think through how they imagine their families will react to the demands of college life. College representatives who are also first generation could share their own experiences with these sorts of situations, all with the goal of preparing students to rely on their own inner determination, the personal agency that put them in the decider role, to weather this tough patch when it arrives. Many colleges have extensive first-generation programming with staff who could contribute to this sort of outreach effort in area schools. Given the prevalence of this facet of the family dynamic within both the literature and this study, any college-going support efforts should address it proactively.

Financial Concerns

Finances appear frequently in both the literature and this study as a factor with significant impact on students' college-going process, from expectations and aspirations to range of choice (Cabrera et al., 2012; Kiyama, 2010; Vega, 2018). During the outreach process, programs should provide real-world, practical information about financial aid and college affordability— everything from clarifying the differences in scholarships, grants, and loans, to not focusing solely on a scholarship total, but calculating what that impact is to the bottom line. Xman, with

147

all his apparent college savvy to that point, found himself realizing late that having solid

scholarship offers did not mean his family could afford to pay the difference in what the

scholarships did not cover. It will be important as part of any outreach effort both to

acknowledge that students and families may know people who were not able to finish college

because of finances, and to lead them to understand how they can write their own successful

story. Recognition of the fear surrounding finances that was part of this and previous studies

should also influence outreach and support efforts—the goal should be to calm irrational fears

and prepare students and families for reality. That means not painting a too-rosy picture, while

helping families see that a path to college does exist, with some work and preparation.

Staff Relationships

Although this study focused largely on the role of high-school staff in supporting students

on the college-going journey, as addressed in the policy implications, the concept of relationship

development and network expansion can apply beyond high-school teachers and guidance

counselors. In the same way that high-school staff serve to support students' college-going

efforts and expand their access to capital, college staff based in the high schools also can

contribute significantly to the development of a college-going culture in the school. This

evidence from the study aligns with previous recommendations in the literature that colleges

center access programs in the community, and, with awareness of social- and cultural-capital

theory, develop outreach efforts that seek to build students' personal agency and networks

(Bloom, 2008; Weinstein & Savitz-Romer, 2009).

In summary, both the policy and outreach/support implications have strong practical

application within education, with the potential for making a difference in students' lives. The

practical implications of this study include the following: a) the potential for powerful

partnerships between secondary and postsecondary institutions that focus on the development of college-going culture within a community; b) the importance of expanded dual-enrollment opportunities for first-generation college students; c) the necessity of creating connections between students and staff members who can support their college-going experience; d) the need to meaningfully involve families in the college-going process in a manner that allows them to leverage their nontraditional knowledge; e) the requirement of honoring the students as deciders during the educational process, and preparing them for that college decision and its future consequences; and f) the urgency to address finances and affordability with both the students and their families as part of the college-going process. Any policy or program developed with these implications intentionally observed should have a meaningful impact on the college-going culture of first-generation students.

Delimitations and Limitations

The delimitations of this study were established by the eligibility determinations and focus of the primary research question. This study included undergraduate college students, ages 18 and older, who identified as first-generation students and who were currently enrolled at the institution where the research took place. The participants were also required to be within 2 years of high-school graduation, so that their recollection of the high-school environment and their college-going process would be relatively fresh. This narrowing of the potential participant pool was necessary to appropriately answer the research questions, but it did increase the potential that some breadth of student experience may have been lost. The delimitations excluded one group who could conceivably contribute to first-generation college-going research: those who did not end up attending college.

The current study also had several limitations worth noting. First, the case-study methodology required an in-depth qualitative examination of the experiences of a small number

of participants selected from the larger, quantitative, survey response pool. The survey response rate was 14.6%, with 44 students completing the survey—a response rate that is less than ideal, but within the boundaries of acceptability (Gliner et al., 2017; Saleh & Bista, 2017; Sivo et al., 2006). However, the potential population did not include any students from a high school classified as having a high college-going culture, and only one survey respondent, unable to participate in interviews, graduated from a school classified as having a low college-going culture. This limited population contributed to a lack of representation across all cases and could be one reason significant differences between and among the cases in relation to any key variables were not identified in the study. Those students who did participate in the qualitative strand of the study all came from high schools with a form of moderate college-going culture—low-moderate, moderate, and high-moderate cases were represented. It is possible that this study, which had to rely on refined culture definitions based on the Robinson and Roksa (2016) model, either a) reflects a need to expand the definition of *moderate* to include those high schools that did not meet the moderate definition but were so close in experience to the moderate and only mildly deviated from the definition; or b) lays the foundation for further research into identifiable experience differences between the cases, with adequate representation from low, moderate, and high cases. Whether such a difference exists should be a subject of future research, as addressed in the next section.

The limiting impact of the COVID-19 pandemic on this study should also be mentioned. The research was designed and all approvals were received before the widespread shift to remote learning and work at US colleges and universities that occurred in March 2020. The first round of invitations to participate in the survey was released before the research site's move to remote learning, but the additional invitations that pushed responses to the totals needed for quantitative

150

analysis were issued after the pandemic began. Although students were asked to focus on their college-going processes and their experiences transitioning from high school, which all occurred well before the spring of 2020, some of the interviews were tinged by the pandemic experience. All interviews were conducted remotely via video conference, instead of in person, which was a late amendment to the protocol approved by the IRB. And although no students indicated issues with receiving emails or connecting to a video call, it is possible that the move to virtual processes caused some students who were initially open to interviews to change their minds. A number of students who volunteered in the survey for the interviews simply never responded to repeated calls, emails, and text messages. I have no way of knowing whether their lack of response was due to a disengagement with campus, lack of technology, or overall frustration with higher education at the time. Regardless of the individual reasons, I am confident that the shift in educational circumstances midsemester impacted both the survey response rate and respondents' follow-through on the interview invitations.

Future Research

The sixth and final assertion in this study is the one with the most implication for additional research: The first-generation, college-going experience as described by participants in this study was relatively stable, with no significant differences detected among the cases. Much of the previous literature has demonstrated the importance of a strong college-going culture at the student's school (Aldana, 2014; McDonough, 1997; Robinson & Roksa, 2016), with a focus on the school successfully developing that culture for students. Robinson and Roksa (2016) developed a methodology for classifying schools as having low, moderate, or high college-going cultures, based on the percentage of graduates attending 2-year and 4-year colleges. That classification, with slight modification because many survey respondents' schools did not neatly fit the classification groupings, formed the basis for the cases in this study. The

151

fact that this study found no significant differences in college-going experience between and among the cases, in either quantitative or qualitative data, provides an important topic for future study.

As previously indicated, it is possible that this lack of identifiable significance was related to a limitation of the study, such as survey sample size or responses from specific school classification types. However, given the large percentage of respondents (70%) whose schools did not fit the Robinson and Roksa (2016) model, it is also possible that the classification system is not valid for certain schools or locales, and needs to be refined to address the gaps identified in this study. Specifically, future research should consider the gaps in the percentage criteria that led to a large number of respondent cases being labeled as belonging to the low-moderate and high-moderate groups. Should the *moderate* category simply be expanded to include these schools and others with similar data points? If so, that could largely explain the identified lack of difference. The model also relies solely on quantitative data, while measuring only one artifact from a school—the percentage of graduates going on to post-secondary work. As this study has shown, other factors are arguably present within college-going culture. Researchers could choose to expand the model to include those factors. Similarly, does the use of the survey alongside qualitative data, as was the case in this study, provide a unique basis for determining whether significant experience differences exist among the low, moderate, and high groups? Future research could replicate this mixed-methods approach with a larger sample size to expand our understanding about significant differences in experience based on school-culture classification.

This study's findings also open discussion about whether the classification of schools by college-going culture is a worthwhile effort, or whether research efforts would be better spent on

interventions such as those recommended in the impact section. Does the classification of a school's culture, basically the assignment of a label, have any practical significance? Future research could further explore this question with a larger sample size, potentially including participants who did not attend college and a wider range of respondents from the various classifications, including low and high college-going cultures. It seems possible that the factors that led students to successfully navigate the path to college might mitigate any differences among their school-culture experiences. Given this, researchers should explore whether differences between and among the classifications emerge with the inclusion of students not currently enrolled in college.

The results of this study suggest that high schools could help first-generation students in their college-going process by increasing dual-enrollment opportunities and connecting them with an engaged staff member to provide one-on-one support. Future research focused on these opportunities, and measuring the success of various implementation strategies, would provide useful, actionable data for practitioners. In addition, research focused on the best way to engage families in the college-going process, and methods by which universities and K-through-12 institutions can partner for the development of college-going culture within a community would have additional practical importance. It is possible that the research most valuable to practitioners could focus, not on what is being done differently at schools, but instead on what each student, regardless of school culture, identified as relevant in the college-going journey. Perhaps the most important lesson of this study is that it is from that similarity of experience that the most impactful interventions can be crafted.

Research Conclusion

In this chapter, I have highlighted the ways in which this study's results agreed with and diverged from the existing literature related to college-going culture. Student-staff relationships,

dual enrollment, financial concerns, the importance of family and community, and personal

aspiration and agency were all found to play an important role in the college-going culture

experiences of these first-generation college students. However, in a finding that was somewhat

divergent from past research findings, the results of this study did not identify significant

differences in that experience among participants from the various high-school-culture

classifications.

Based on these results, I presented practical implications for both policy and

outreach/support efforts. The policy implications focused on enhancing opportunities for both

dual enrollment coursework and intentional relationship development between students and staff

who can provide them with support in getting to college. The outreach/support implications

focused on the development of programs or interventions that address key concepts identified as

important in this study and the existing literature: aspiration, personal agency, family

involvement, financial concerns, and staff relationships. The students in this study shared stories

that pointed to the significant impact personal relationships and dual-enrollment opportunities

had on their college-going journeys, and their awareness that not all students have access to these

benefits. If access to a college education, and how equitable that access is, matters in a

community, then improving the college-going experience of first-generation students should be a

priority. This study suggests that, although there are indeed differences in the college-going rates

of graduates from different high schools, the totality of experiences and practical needs of first-

generation students from those schools may not be all that different. Research and interventions

that focus on those common needs, as identified in the first five assertions of this study, are

likely to have a stronger impact on college-going rates than efforts to define the differences

between the groups that were not found as part of this study.

I explored in detail delimitations and limitations that potentially influenced the results. Finally, I considered directions for future research suggested by the outcomes of this study, including refinement and reconsideration of the school-culture classification system, practical relevance of the classification system, and assessment of specific interventions crafted to address college-going culture development.

Researcher Reflection

My stated commitment to expanding practical knowledge reflects my pragmatic approach to research and my overarching desire to develop interventions based on lived student experiences. I built this study based on recommendations of previous researchers to consider the student perspective and make use of case-study methodology in future college-going-culture research (Derden & Miller, 2014; Kiyama, 2010; Weinstein & Savitz-Romer, 2009). As the researcher, my choice of topic, formation of questions, and selection of method all had a defining impact on the study, guiding it from formation onward. Although I have provided extensive detail about the analysis process, including my analysis worksheets and quotes from participants in support of the six assertions, it is possible that a different researcher may have identified different assertions than those I determined to be most relevant. It is important to reflect on the impact I had throughout the data-collection and data-analysis processes because that influence shapes my results and recommendations. Because this was a mixed-methods study with a strong qualitative strand informed by an initial quantitative strand, that researcher influence was to be expected. I believe this richness of interpretation contributed by researchers supports the need for additional student research into college-going culture by researchers from varied backgrounds, with research orientations ranging from pragmatic to theoretical, and everything in between. In Chapter 3, I reflected on my positionality as both a first-generation college student and a university vice president, and how each might impact the study. As a first-generation student, I

was able to interact with the participants in a way that validated their experiences and allowed us to connect on a more personal level. As a university vice president, I attempted to level the playing field by conducting the interviews remotely from my home, using my personal and student email address, and not leveraging my position to encourage response. Though I strove never to lead the students to an answer, or to influence their experience with mine, it is always possible that my positionality impacted their responses or my later analysis and interpretation. Therefore, the impact of my own perspective on the data analysis should be considered when one is contextualizing the results.

REFERENCES

Achinstein, B., Curry, M. W., & Ogawa, R. T. (2015). (Re)labeling social status: Promises and
tensions in developing a college-going culture for Latina/o youth in an urban high
school. *American Journal of Education, 121,* 311–345.

Aldana, U. S. (2014). Moving beyond the college-preparatory high school model to a college
going culture in urban Catholic high schools. *Catholic Education: A Journal of
Inquiry and Practice, 17*(2), 131–153.

American Educational Research Association (AERA). (2006). Standards for reporting on
empirical social science research in AERA publications. *Educational Researcher, 35*,
33– 40.

American School Counselor Association (ASCA). (n.d.). Student-to-school-
counselor ratio. Retrieved from
https://www.schoolcounselor.org/asca/media/asca/home/Ratios15-
16.pdf

Appadurai, A. (2004). The capacity to aspire: Culture and the terms of recognition. In V. Rao &
M. Walton (Eds.), *Culture and public action* (pp. 59–84). Stanford University Press.

Baker, R., Klasik, D., & Reardon, S. F. (2018). Race and stratification in college enrollment
over time. *AERA Open, 4*(1). Retrieved from https://eric.ed.gov/?id=EJ1194137

Berzin, S. C. (2010). Educational aspirations among low-income youths: Examining
multiple conceptual models. *Children and Schools, 32*(2), 112–124.

Bhattacharya, K. (2017). *Fundamentals of qualitative research.* Routledge. Bloom, J. (2008).

Bloom, J. (2008). The pedagogy of college access programs: A critical analysis.
ASHE/Lumina Policy Briefs and Critical Essays No. 5 (Iowa State University,

Department of Educational Leadership and Policy Studies). Retrieved from

https://eric.ed.gov/?id=ED530572

Bosworth, K., Convertino, C., & Hurwitz, J. T. (2014). Common purpose and different

approaches to support college-going in five Southwestern districts. *American*

Secondary Education, 43(1), 4–24.

Bourdieu, P. (1985). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory*

and research for the sociology of education (pp. 241–258). Greenwood.

Cabrera, N. L., Lopez, P. D., & Saenz, V. B. (2012). Ganas: From the individual to the

community, and the potential for improving college going in the land that Texas forgot.

Journal of Latinos and Education, *11*(4), 232–246.

Calaff, K. P. (2008). Supportive schooling: Practices that support culturally and

linguistically diverse students' preparation for college. *NASSP Bulletin, 92*(2), 95–

110.

Carden, A. (2007). Mobilizing a region in crisis to build a college-going culture. *New*

Directions for Higher Education, 138, 27–33.

Case, A., & Deaton, A. (2017). *Mortality and morbidity in the 21st century: Brookings papers on*

economic activity. Retrieved from https://www.brookings.edu/bpea-articles/mortality

and-morbidity-in-the-21st-century/

Center on Education and the Workforce. (2016). *America's divided recovery: College haves*

and have-nots. Retrieved from https://cew.georgetown.edu/cew-reports/americas-

divided recovery/#full-report

Chang, A. (2017). Resisting the orthodox smart label: High school Latinas and the redefinition of

smartness on the Western frontier. *Journal of Latinos and Education, 16*(1), 30–40.

Chetty, R., Friedman, J.N., Saez, E., Turner, N., & Yagan, D. (2017). *Mobility report cards: The role of colleges in intergenerational mobility.* Retrieved from http://www.equality-of-opportunity.org/papers/coll_mrc_paper.pdf

College Board. (2016). Education pays 2016: The benefits of higher education for students and society. Retrieved from https://trends.collegeboard.org/sites/default/files/education-pays-2016-full-report.pdf

Colorado Department of Higher Education (CDHE). (2017). *Colorado rises: Advancing education and talent development.* Retrieved from https://highered.colorado.gov/publications/CDHE-Master-Plan-2017.pdf

Colorado Department of Higher Education. (2018). *District at a glance* [data file]. Retrieved from https://highered.colorado.gov/data/districthssummary.aspx

Corwin, Z. B., & Tierney, W. G. (2007). *Getting there and beyond: Building a culture of college going in high schools.* Retrieved from https://files.eric.ed.gov/fulltext/ED498731.pdf

Creswell, J. W., & Plano Clark, V. I. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage.

Derden, M. W., & Miller, M. T. (2014). Predicting postsecondary attendance through cultural norming: A test of community expectancy. *Critical Questions in Education*, *5*(2), 112–124.

Garcia, G. A., & Ramirez, J. J. (2018). Institutional agents at a Hispanic serving institution: Using social capital to empower students. *Urban Education, 53*(3), 355–381.

Gibbons, M. M., & Borders, L. D. (2010). Prospective first-generation college students: A social-cognitive perspective. *Career Development Quarterly, 58*(3), 194–208. doi:10.1002/j.2161-0045.2010.tb00186.x

Glesne, C. (2016). *Becoming qualitative researchers: An introduction*. Pearson.

Gliner, J. A., Morgan, G. A., & Leech, N. L. (2017). *Research methods in applied settings: An integrated approach to design and analysis* (3rd ed.). Routledge/Taylor & Francis.

Gonzalez, L. M. (2015). Barriers to college access for Latino/a adolescents: A comparison of theoretical frameworks. *Journal of Latinos and Education*, *14*, 320–335.

Green, D. (2006). Historically underserved students: What we know, what we still need to know. *New Directions for Community Colleges, 135,* 21–28.

Horng, E. L., Evans, B. J., Antonio, A. L., Foster, J. D., Kalamkarian, H. S., Hurd, N. F., & Bettinger, E. P. (2013). Lessons learned from a data-driven college access program: The National College Advising Corps. *New Directions for Youth Development*, *140*, 55–75.

Jayakumar, U. M., Vue, R., & Allen, W. R. (2013). Pathways to college for young black scholars: A community cultural wealth perspective. *Harvard Educational Review, 83*(4), 551–579.

Kim, D., & Nuñez, A. (2013). Diversity, situated social contexts, and college enrollment: Multilevel modeling to examine student, high school, and state influences. *Journal of Diversity in Higher Education, 6*(2), 84–101.

Kiyama, J. M. (2010). College aspirations and limitations: The role of educational ideologies and funds of knowledge in Mexican American families. *American Educational Research Journal, 47*(2), 330–356. doi:10.3102/0002831209357468

Kiyama, J. M. (2011). Family lessons and funds of knowledge: College-going paths in Mexican

American families. *Journal of Latinos and Education, 10*(1), 23–42.

doi:10.1080/15348431.2011.531656

Kiyama, J. J., & Rios-Aguilar, C. (Eds.). (2018). *Funds of knowledge in higher education:*

Honoring students' cultural experiences and resources as strengths.

Routledge/Taylor & Francis.

Knight, M. G., Norton, N. L., Bentley, C. C., & Dixon, I. R. (2004). The power of Black and

Latina/o counterstories: Urban families and college-going processes. *Anthropology &*

Education Quarterly, 35(1), 99–120.

Kouyoumdjian, C., Guzmán, B. L., Garcia, N. M., & Talavera-Bustillos, V. (2017). A

community cultural wealth examination of sources of support and challenges among

Latino first- and second-generation college students at a Hispanic-serving institution.

Journal of Hispanic Higher Education, 16(1), 61–76.

Langenkamp, A. G., & Shifrer, D. (2018). Family legacy or family pioneer? Social class

differences in the way adolescents construct college-going. *Journal of Adolescent*

Research, 33(1), 58–89.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of

career and academic interest, choice, and performance. *Journal of Vocational Behavior,*

45(1), 79–122. doi:10.1006/jvbe.1994.1027

Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career

choice: A social cognitive analysis. *Journal of Counseling Psychology, 47*(1), 36-49.

doi:10.1037//0022-0167.47.1.36

Luna, N. A. & Martinez, M. (2013). *Journal of Praxis in Multicultural Education, 7*(1), article 2. doi:10.9741/2161-2978.1045

McClafferty, K. A., & McDonough, P. M. (2000, November). *Creating a K-16 environment: Reflections on the process of establishing a college culture in secondary schools.* Paper presented at the annual conference of the Association for the Study of Higher Education, Sacramento, CA.

McClafferty, K. A., McDonough, P. M., & Nunez, A. (2002, April). *What is a college culture? Facilitating college preparation through organizational change.* Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

McDonough, P. (1997). *Choosing colleges: How social class and schools structure opportunity.* State University of New York Press.

McKillip, M. M., Godfrey, K. E., & Rawls, A. (2013). Rules of engagement: Building a college going culture in an urban school. *Urban Education, 48*(4), 529–556.

McMahon, G., Griffith, C., Mariani, M., & Zyromski, B. (2017). School counseling intervention research on college readiness, college access, and postsecondary success: A 10-year content analysis of peer-reviewed research. *Journal of College Access, 3*(2), 8–27. Retrieved from https://eric.ed.gov/?id=EJ1167416

Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory into Practice*, *31*(2), 132–141. Retrieved from http://www.jstor.org/stable/1476399

Montiel, G. I. (2016). "Hacerle la lucha": Examining the value of hard work as a source of funds of knowledge of undocumented, Mexican ivy league students. *Harvard Journal of Hispanic Policy*, *28*, 64–79.

Morgan, G. A., Leech, N. L., Gloeckner, G. W., Barrett, K. C. (2013). *IBM SPSS for introductory statistics: Use and interpretation.* Routledge/Taylor & Francis.

National Center for Education Statistics (NCES). (n.d.). *District directory information*. Retrieved from nces.ed.go/ccc/districtsearch

National Center for Education Statistics (NCES). (2018). *First-generation students: College access, persistence, and postbachelor's outcomes.* Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018421

National Center for Education Statistics (NCES). (2019). *Immediate college enrollment rate.* Retrieved from https://nces.ed.gov/programs/coe/indicator_cpa.asp

Oakes, J., Mendoza, J., & Silver, D. (2004). *California opportunity indicators: Informing and monitoring California's progress toward equitable college access.* Retrieved from https://www.researchgate.net/publication/237601480_California_Opportunity_Indicator_ Informing_and_Monitoring_California's_Progress_Toward_Equitable_College_Access

Ojeda, L., & Flores, L. Y. (2008). The influence of gender, generation level, parents' education level, and perceived barriers on the educational aspirations of Mexican American high school students. *Career Development Quarterly, 57*(1), 84–95. doi:10.1002/cdq.2008.57.issue-1

Perna, L. W., & Titus, M. A. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *Journal of Higher Education, 76*(5), 485–518.

Perna, L. W. (2006). Studying college access and choice: A proposed conceptual model. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 21, pp. 99–157). Springer.

Pitcher, E. N., & Shahjahan, R. A. (2017). From pipelines to tasting lemonade: Reconceptualizing college access. *Educational Studies, 53*(3), 216–232.

Robinson, K. J., & Roksa, J. (2016). Counselors, information, and high school college-going culture: Inequalities in the college application process. *Research in Higher Education, 57*(7), 845–868.

Rochford, J. A., O'Neill, A., Gelb, A., & Ross, K. J. (2011). *Reaching for 80%: How post secondary opportunities in high schools are changing the college going culture in Stark County, Ohio.* Retrieved from https://files.eric.ed.gov/fulltext/ED525146.pdf

Rodriguez, G. M. (2013). Power and agency in education: Exploring the pedagogical dimensions of funds of knowledge. *Review of Research in Education*, *37*, 87–120.

Saleh, A. & Bista, K. (2017). Examining factors impacting online survey response rates in educational research: Perceptions of graduate students. *Journal of MultiDisciplinary Evaluation, 13*(29), 63–74.

Saunders, M., & Serna, I. (2004). Making college happen: The college experiences of first generation Latino students. *Journal of Hispanic Higher Education, 3*(2), 146–163.

Serna, G. R. & Woulfe, R. (2017). Social reproduction and college access: Current evidence, context, and potential alternatives. *Critical Questions in Education, 8*(1), 1–16.

Sivo, S. A., Saunders, C., Chang, Q., & Jiang, J. J. (2006). How low should you go? Low response rates and the validity of inference in IS questionnaire research. *Journal of the Association for Information Systems, 7*(6), 351–414.

Stake, R. E. (1978). The case study method in social inquiry. *Educational Researcher, 7*(2), 5–8.

Stake, R. E. (1995). *The art of case study research.* Sage.

Stake, R. E. (2005). *Multiple case study analysis.* Guilford Press.

Stanton-Salazar, R. (1997) A social capital framework for understanding the socialization of racial minority children and youths. *Harvard Educational Review*, *67*(1), 1–41.

Stanton-Salazar, R. D., & Dornbusch, S. M. (1995). Social capital and the reproduction of inequality: Information networks among Mexican-origin high school students. *Sociology of Education*, *68*(2), 116–135.

Stillisano, J. R., Brown, D. B., Alford, B. L., & Waxman, H. C. (2013). The effects of GO centers on creating a college culture in urban high schools in Texas. *High School Journal*, *96*(4), 283–301.

Stillisano, J. R., Waxman, H. C., Brown, D. B., & Alford, B. L. (2014). Using case study methodology to examine practices in exemplary college access centers. *Journal of Ethnographic & Qualitative Research*, *8*(3), 173–189.

Trostel, P., & Chase Smith, M. (2015). It's not just the money: The benefits of college education to individuals and society. *Lumina Foundation Issues*. Retrieved from https://www.luminafoundation.org/resources/its-not-just-the-money

U.S. Census Bureau. (n.d.). About Hispanic origin. Retrieved from https://www.census.gov/topics/population/hispanic-origin/about.html

U.S. Census Bureau. (2017). Educational attainment, 2012–2016 American Community Survey 5-year estimates. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/ product view.xhtml?pid=ACS_16_5YR_S1501&prodType=table

U.S. Department of Education. (n.d.). Hispanic serving institutions (HSIs). White House

    Initiative on Educational Excellence for Hispanics. Retrieved from

    https://sites.ed.gov/hispanic-initiative/hispanic-serving-institutions-hsis/

Vega, D. (2018). Navigating postsecondary pathways: The college choice experiences of first

    generation Latina/o transfer students. *Community College Journal of Research and*

    Practice, 42(12), 848–860. doi:10.1080/10668926.2017.1360219

Vela, J. C., Flamez, B., Sparrow, G. S., & Lerma, E. (2016). Understanding support from school

    counselors as predictors of Mexican American adolescents' college-going beliefs.

    Journal of School Counseling, *14*(7). Available online at

    https://doi.org/10.1177/0739986316682717

Weinstein, L., & Savitz-Romer, M. (2009). Planning for opportunity: Applying organizational

    and social capital theories to promote college-going cultures. *Educational Planning, 18,*

    1–11.

Welton, A., & Williams, M. (2015). Accountability strain, college readiness drain: Sociopolitical

    tensions involved in maintaining a college-going culture in a high "minority," high

    poverty, Texas high school. *High School Journal*, *98*(2), 181–204.

Yamauchi, L. A., Ponte, E., Ratliffe, K. T., & Traynor, K. (2017). Theoretical and conceptual

    frameworks used in research on family-school partnerships. *School Community Journal,*

    27(2), 9–34. Retrieved from http://www.schoolcommunitynetwork.org/SCJ.aspx

Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community

    cultural wealth. *Race Ethnicity and Education, 8*(1), 69–91.

    doi:10.1080/1361332052000341006

Zipin, L. (2009). Dark funds of knowledge, deep funds of pedagogy: Exploring boundaries

    between lifeworlds and schools. *Discourse: Studies in the Cultural Politics of Education,*

    30(3), 317–331. doi:10.1080/01596300903037044

APPENDIX A

Invitation to Participate in Online College-Going-Culture Survey

Dear Participant,

My name is Chrissy Holliday, and I am a graduate-student researcher from Colorado State University in the School of Education. I am conducting a research study on the college-going experiences of first-generation college students, in an effort to better understand the challenges and supports you experienced on your path to college. The title of my project is *A Mixed Methods Investigation of the College-Going Experience of First-Generation College Students.* I am working alongside my PhD advisor, Dr. Sharon Anderson, in the School of Education.

I am inviting you to take part in this important study by completing a **short, 5-minute survey**. This survey will collect demographic data, including name, parent education, employment status and type, and self-reported Pell eligibility, and it also will ask questions related to your experiences in high school that were part of your college-going experience. You will also be asked whether you are willing to take part in two interviews as a second phase of the project. **If you are selected and complete all phases of participation, including the two interviews, you will receive a $20 (USD) Amazon gift card.**

I will keep your data confidential; your name and data will be kept in a password-protected file on a password-protected computer accessible only to the research team. Although there are no direct benefits to you from participation, I hope to gain more knowledge regarding the ways first-generation students experienced college-going culture, in hopes of better assisting other first-generation students on their path to college.

There are no known risks to participation in this survey. It is not possible to identify all potential risks in research procedures, but, as the researcher, I have taken reasonable safeguards to minimize any known and potential (but unknown) risks.

To indicate your willingness to participate in this research as described above and to continue to the survey, click here: <insert link>. I ask that you complete the survey by <insert date>.

If you have any questions about the research, please contact me at cholliday79@gmail.com If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at RICRO_IRB@mail.colostate.edu (970-491-1553).

Chrissy Holliday

PhD Student, Colorado State University

College-Going Culture
Survey

Thank you for your interest in taking part in a research study focused on the **college-going experiences of first-generation college students**. Answers to this survey will be reported in aggregate, and will never be published in association with a particular respondent, unless they provide additional consent as an interview participant. This survey will provide data important to the project and will take **approximately 5 minutes** to complete. This information will also be used to assist the researcher in the selection of students to participate further in this study. If you are selected, you will be contacted by the researcher to determine your continued interest in participation and gain additional informed consent, as well as to schedule a time for two one-hour interviews. If you are selected to participate and go on to complete two interviews, you will receive a $20 (USD) Amazon gift card.

This survey is conducted using Qualtrics, an Internet-based survey service with significant security protocols in place. Qualtrics uses Transport Layer Security encryption for all transmitted data.
However, your confidentiality is only as secure as your equipment. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties. Only the research team will have access to your survey responses, utilizing a password protected log-in to Qualtrics. Data collected from you will be kept confidential; your name and data will be kept in a password-protected file on a password-protected computer accessible only to the research team.
There are no known risks to participation in this survey.

Q1 Do you wish to proceed with this survey?

　　○ Yes, I voluntarily agree to participate in this research (1)

　　○ No, please exit me from the survey

(2) Q2 Please share your name:

　　○ First Name (1) _____

　　○ Last Name (2) _____

　　○ 17 (1)

　　○ 18 (2)

---

[1] The values in parentheses at the end of the response options to the questions reflect the order in which the drop-down or radio-button answers for each question were displayed in Qualtrics.

○ 19 (3)

○ 20 (4)

○ 21 (5)

○ 22 (6)

○ 23 (7)

○ 24 or older (8)

Q4 What year did you graduate from high school?

○ 2020 (1)

○ 2019 (2)

○ 2018 (3)

○ 2017 (4)

○ Other (5)

Q5 Are you Spanish, Hispanic, or Latino or none of these?

○ Yes (1)

○ None of these (2)

Q6 Choose one or more races that you consider yourself to be:

○ White (1)

○ Black or African American (2)

○ American Indian or Alaska Native (3)

○ Asian (4)

○ Native Hawaiian or Pacific Islander (5)

○ Other (6) _____

Q7 Please describe the highest level of education received by your mother.

○ Less than high school

(1) ○ Some high school

(2) ○ High school
diploma (3)

○ Some college/certificate program (4)

○ Bachelor's degree (5)

○ Some post-graduate study

(6) ○ Master's degree (7)

○ PhD/JD/MD or other doctoral degree (8)

Q8 Please describe the highest level of education received by your father.

○ Less than high school

(1) ○ Some high school

(2) ○ High school
diploma (3)

○ Some college/certificate program (4)

○ Bachelor's degree (5)

○ Some post-graduate study

(6) ○ Master's degree (7)

○ PhD/JD/MD or other doctoral degree (8)

Q9 Please consider your current FAFSA or financial aid award. Were you eligible for federal Pell grants?

○ Yes (1)

○ No (2)

○ N/A - did not complete FAFSA (3)

Q10 Which statement best describes your current employment status?

○ Working full time (40+ hours per week)

(1) ○ Working part-time (1-39 hours per

week) (2) ○ Not working (3)

Q11 From how many jobs do you currently receive a paycheck?

○ 1 (1)

○ 2 (2)

○ 3 (3)

○ 4 (4)

○ 5 or more (5)

Q12 What best describes your current place(s) of employment?

○ On-campus work study only

(1) ○ Off-campus work study

only   (2)   ○ Off-campus
employer only (3)

○ A combination of on-campus and off-campus employment

(4) Q13 In what City/State was the high school from which you
graduated?

○ City (1) _____

○ State (2) _____

_____

Q15 Did a high school counselor or teacher explain to you the classes required to attend a four- year university?

○ Yes (1)

○ No (2)

Q16 How many times did you talk to an adult at your high school about the classes or teachers you should take?

○ Never (1)

○ 1-2 times (2)

○ 3-5 times (3)

○ 6 or more times (4)

Q17 How many times did you talk to an adult at your high school about how to get into college?

○ Never (1)

○ 1-2 times (2)

○ 3-5 times (3)

○ 6 or more times (4)

Q18 How many times did you talk to an adult at your high school about how to choose the right college?

○ Never (1)

○ 1-2 times (2)

○ 3-5 times (3)

○ 6 or more times (4)

Q19 Did anyone at your high school encourage you to go to a community college?

○ Yes (1)

○ No (2)

Q20 Did anyone at your high school encourage you to go to a four-year college?

○ Yes (1)

○ No (2)

Q21 Did you learn from a high school counselor about college?

○ Yes (1)

○ No (2)

Q22 Do the classes a student takes influence their chances of getting into college?

○ Definitely yes (1)

○ Probably yes (2)

○ Might or might not (3)

○ Probably not (4)

○ Definitely not (5)

Q23 Did a high school counselor encourage you to take college prep courses?

○ Yes (1)

○ No (2)

Q24 How often would you say you had substitute teachers in your non-elective classes?

○ Most of the time (1)

○ About half the time (2)

○ Rarely (3)

Q25 Did your high school teachers have high expectations of you?

○ Yes (1)

○ No (2)

Q26 How much did your teachers encourage you to get a job after high school?

○ A great deal (1)

○ A lot (2)

○ A moderate amount (3)

○ A little (4)

○ None at all (5)

Q27 How much did your teachers encourage you to go to a trade/vocational school after high school?

○ A great deal (1)

○ A lot (2)

○ A moderate amount (3)

○ A little (4)

○ None at all (5)

Q28 How much did your high school teachers encourage you to go to college?

○ A great deal (1)

○ A lot (2)

○ A moderate amount (3)

○ A little (4)

○ None at all (5)

Q29 Did your high school offer counseling regarding courses that would prepare you for a
four- year college?

○ Yes (1)

○ No (2)

○ Not Sure (3)

Q30 Did your high school offer resources regarding information about community colleges?

○ Yes (1)

○ No (2)

○ Not Sure (3)

Q31 Did your high school offer assistance with filling out college applications?

○ Yes (1)

○ No (2)

○ Not Sure (3)

Q32 How many times did you use the college-planning center at your high school?

○ Never (1)

○ 1-2 times (2)

○ 3-5 times (3)

○ 6 or more times (4)

○ There wasn't one (5)

Q33 Did your high school offer workshops on college admissions test preparation?

○ Yes (1)

○ No (2)

○ Not Sure (3)

Q34 Are you willing to have the researcher contact you for the next phase of the study, which would involve two one-hour interview sessions to further discuss your college-going experience?

○ Yes (1)

○ No (2)

Display This Question If = Yes:
Are you willing to have the researcher contact you for the next phase of the study, which would
involve two one-hour interview sessions to further discuss your college-going experience?

Q35 Please enter your preferred contact information:

○ Phone (1) _____

○ Email (2) _____

Consent to Participate in a Research Study: Colorado State University

TITLE OF STUDY: A Mixed Methods Investigation of the College-Going Experience of First- Generation College Students

PRINCIPAL INVESTIGATOR: Sharon Anderson, PhD, Professor, School of Education, sharon.anderson@coloState.edu (970-491-6861)

CO-PRINCIPAL INVESTIGATOR: Chrissy Holliday, candidate for the degree of PhD in Education and Higher Education Leadership, cholliday79@gmail.com (803-300-7501)

WHY AM I BEING INVITED TO TAKE PART IN THIS RESEARCH? This study is focused on gaining a better understanding of the college-going experiences of first-generation college students in their first or second years at a western public institution. You recently completed an online survey and indicated your interest in continuing to the second phase of the study.

WHO IS DOING THE STUDY? The researcher for this study is Chrissy Holliday, candidate for the degree of PhD at Colorado State University. The principal investigator, Dr. Sharon Anderson, will be available for support in all phases of the study.

WHAT IS THE PURPOSE OF THIS STUDY? The purpose of this study is to inform practice and enhance understanding of the complex issue of college-going culture by exploring the ways in which first-generation college students experienced college-going culture in their high schools and communities.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?
This study will take place in a quiet but public meeting space on campus, such as a library study area or coffee shop. Participants will be asked to submit to an interview lasting approximately 60 minutes and a follow-up interview for another 60 minutes.

WHAT WILL I BE ASKED TO DO? You will be asked to answer interview questions relating to your experiences with going to college. The interviews will be informal, and you are encouraged to speak openly and honestly about your experiences. You will also be invited to review the transcript of the interviews for accuracy. Because it is important to accurately capture your comments, all interviews will be audio recorded.

ARE THERE REASONS I SHOULD NOT TAKE PART IN THIS STUDY? You must be a first- or second-year student at the university where the research is taking place. You must also be a first-generation student, meaning neither of your parents has a four-year degree.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?
There are no known risks to participating in this study. It is not possible to identify all potential risks in research procedures, but the researcher(s) have taken reasonable safeguards to minimize any known and potential, but unknown, risks.

ARE THERE ANY BENEFITS FROM TAKING PART IN THIS STUDY? There may be no
direct benefit to you associated with participation in this research; however, you may benefit from the study from being given the opportunity to express personal beliefs and experiences related to the college-going experience. This study aims to provide a better understanding of this experience and help to guide the university's involvement in college-going efforts in the community. It is hoped that the research will allow education professionals to do a better job of assisting first- generation students on their path to college.

DO I HAVE TO TAKE PART IN THE STUDY? Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.

WHO WILL SEE THE INFORMATION THAT I GIVE? We will keep private all research records that identify you, to the extent allowed by law. This study is not anonymous. We will be obtaining your name or other identifiable data from you; however, you will have the opportunity to select a pseudonym or have one assigned to you in order to prevent persons outside of the research team to identify you. To minimize the risks to confidentiality, we will store all files in a password- protected folder on a password-protected computer, and any notes will be stored within a locked file cabinet. All audio files will be destroyed after transcription and the appropriate double-check process for that transcription accuracy. Access to any original data, such as transcripts, codebooks, or notes, will be limited to myself and any individuals working directly on this project, such as my advisor or institutional review board committee members.

I will transcribe the audio recordings as soon as possible after the interview. Interview records and consent documents will be stored separately from each other. The same measures described above will be taken to protect confidentiality of this study data. I may be asked to share the research files with the Institutional Review Board ethics committee for auditing purposes.

CAN MY TAKING PART IN THE STUDY END EARLY? You may be removed from the study if you fail to show up for scheduled interviews. Every attempt will be made to accommodate your schedule, but repeated absences may require that you to be dropped from the study. While you will have the option to withdraw from the study at any time, your compensation will be provided to you only at the conclusion of the follow up interview.

WILL I RECEIVE ANY COMPENSATION FOR TAKING PART IN THIS STUDY?
Participants will receive a $20 (USD) Amazon gift card at the completion of the follow-up interview.

WHAT IF I HAVE QUESTIONS? Before you decide whether to accept this invitation to

take part in the study, please ask any questions that might come to mind now. Later, if you have questions about the study, you can contact the investigators, Sharon Anderson, at sharon.anderson@colostate.edu, or Chrissy Holliday, at cholliday79@gmail.com If you have any questions about your rights or treatment as a research participant in this study, please contact the Colorado State University Institutional Review Board (IRB) at: 970-491-1381, or e-mail RICRO_IRB@mail.colostate.edu I will give you a copy of this consent form to take with you.

WHAT ELSE DO I NEED TO KNOW? After your two interviews, a follow-up check-in by email will be held so that you can review the transcript of the interview and check for any
errors or omissions. At the completion of the follow-up interview, you will be given a $20 (USD) Amazon gift card.

Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document, containing 3 pages.

_____
Participant's Name (please print)

_____   _____
Participant's Signature   Date

_____
Co-PI Name (please print)

_____   _____
Co-PI Signature   Date

Interview Protocol

Data Collection Tool—Interview 1

Project: First-generation college students' experience of college-going culture
Time of interview:
Date:
Place:
Interviewer: Chrissy Holliday
Interviewee:

The purpose of the study is to explore the ways in which first generation college students experienced college-going culture in their high schools and communities. Specifically, the interviews seek to add depth to the following primary research question: How did first-generation students attending an HSI experience the phenomenon of college-going culture in their high schools and communities? The interview questions arise from the primary research question and basic knowledge I have of the local community and first-generation students at the institution of higher education that serves as the site for this project. I will interview first-generation students who previously responded to the call for participants and have completed a short demographic information and consent form. Each interview will be audio recorded and should take approximately one hour. This will be a semi-structured interview, in which follow-up questions may be asked, depending on the responses.

Student Interviews

[Turn on the audio recorder and test it.]

[Thank you for agreeing to be interviewed for my project. The information I am gathering from these interviews will be used for a PhD research project that seeks to understand more about first-generation students' college-going experience, and may also be used to inform institutional efforts at outreach in the local community. What you share with me today will likely be part of the dissertation work I develop, and any resulting publication. However, your name will not be associated with the results or indicated in reports, and I will use a pseudonym when referring to you in any written document or one submitted for publication. I know I have provided you with the consent form to participate in this project - would you confirm for me that you have signed that?]

Questions

1. First, please state and spell your selected pseudonym for the record.
2. Tell me a little about yourself - whatever you believe will help me know you better as a student.

3.
   a. Be sure to obtain: age, hometown, major, class level
   b. Other possible prompts: jobs, family, club/org involvement

4. I mentioned this project is seeking to learn more about first-generation students and how they came to enroll in college. Can you share with me your understanding of what it means to be a first-generation student?

5. Do you think that being a first-generation student made it harder for you to get to college than someone whose parents had been? Why/why not? Examples?

6. Since family education level has something to do with your participation in this study, please talk to me a little bit about your parents or guardians, and their education levels and jobs.

   a. How did their education/jobs impact your college-going expectations and plans?

7. Did you have other key family members or friends who had been to college who influenced you? Tell me about that.

8. What's the first memory you have that relates to your considering the idea of going to college?

9. Why did you decide a four-year university was for you?

10. Specifically, why did you choose your current college?

11. What other people or groups would you say played a role in your wanting to attend college? How?

12. What role did your family play in your college exploration process?

   a. Prompt: did parents/guardians visit a college with you?
   b. What role did family play in your college decision?

13. Tell me what it was like growing up in [HOMETOWN]. What was the expectation as far as going to college for most people you knew there? What job aspirations did they have?

14. Think back to most of your friends in high school. What are they all doing now, while you're here?

a. How many of your close friends in high school planned to go to college?
b. Ask an appropriate follow-up related to their answer, particularly if their choice was different from the majority of their friends - try to get at whether it was divisive at all.

[END INTERVIEW 1]

[*Thank you for your time and for allowing me to talk to you today. We'll pick up there next time, and talk more about your high school experience, and how they treated the idea of college in particular.*]

Data Collection Tool—Interview 2

Project: First-generation college students' experience of college-going culture
Time of interview:
Date:
Place:
Interviewer: Chrissy Holliday
Interviewee:

This is the second of two interviews with students who elected to participate in this research study; all have previously completed a survey and been part of an initial interview. Each interview should take approximately one hour. This will be a semi-structured interview, in which follow-up questions may be asked, depending on the responses.

Student Interviews

[Turn on the audio recorder and test it.]

[It is good to see you again—I appreciate your meeting with me once more to continue our discussion about your college-going experience. As a reminder, the information I am gathering from these interviews will be used for a PhD research project that seeks to understand more about first-generation students' college-going experience, and may also be used to inform institutional efforts at outreach in the local community. What you share with me today will likely be part of the dissertation work I develop, and any resulting publication. However, your name will not be associated with the results or indicated in reports, and I will use a pseudonym when referring to you in any written document or one submitted for publication. I know I previously provided you with the consent form to participate in this project - would you confirm for me that you have signed that and still wish to continue?]

Questions

15. Tell me a little bit about the high school you went to, and how you would describe your high school experience.

184

16. Talk to me about college information or resources at your high school. What was available? What did you use? What do you remember?

    a. Did you have teachers, counselors or any high-school staff who impacted your college-going process? (Negatively or positively?) Talk a little about that.

17. How would you describe the expectations your teachers had for you after high school? What sorts of things did they say/do that let you know what they expected?

18. Do you remember anyone outside of guidance counselors talking about the importance of college at your high school? Did your school do anything special to help students decide to go to college, do you think?

19. <<IF TRUE FROM SURVEY>> You indicated in your survey that someone at your high school encouraged you to attend a trade/vocational college. Can you tell me more about that?

20. <<IF TRUE FROM SURVEY>> You indicated in your survey that someone at your high school encouraged you to attend a 4-year college. Can you tell me more about that?

21. <<IF TRUE FROM SURVEY>> You indicated in your survey that your teachers encouraged you to get a job after high school. Can you tell me more about that?

22. Did you think in high school that the classes you were taking then could impact your ability to go to college? Why did you (or not) think that?

23. How do you think being a first-generation student has shaped the college-going experience for you?

    a. How do you think being a first-generation student has been a benefit to you?

24. Was there any information you wish you had known before you started applying to colleges?

    a. Before you started class?

24. What advice would you offer another first-generation student, based on your experience?

25. What have we not discussed yet that you think will help me gain a better understanding of college-going experiences for first-generation students?

[*Thank you for your time and for allowing me to talk to you today. If it is acceptable, I may follow up again as I get further into my project and have questions.*]
[*PROVIDE STUDENT WITH $20 GIFT CARD*]

APPENDIX E

WORKSHEET 1. The Themes of the Multicase Study

These themes indicate primary information about the quintain that the researcher seeks.

Theme 1:
Theme 2:
Theme 3:
Theme 4:
Theme 5:
Theme 6:
Theme 7:

Note. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

WORKSHEET 2. Analyst's Notes While Reading a Case Report

Code letters for this case:
Case study report title/transcript title:
Author:
Analyst's Synopsis (possibly identifying the case, site, activity, key information about sources, and context information)**:**
Situational constraints:
Uniqueness among other cases:

Prominence of Theme 1 in this case:
Prominence of Theme 2 in this case:
Prominence of Theme 3 in this case:
Prominence of Theme 4 in this case:
Prominence of Theme 5 in this case:
Prominence of Theme 6 in this case:
Prominence of Theme 7 in this case:

Expected utility of this case for developing Theme 1:
Expected utility of this case for developing Theme 2:
Expected utility of this case for developing Theme 3:
Expected utility of this case for developing Theme 4:
Expected utility of this case for developing Theme 5:
Expected utility of this case for developing Theme 6:
Expected utility of this case for developing Theme 7:

Conceptual factors (for Track III):

Findings:
I.
II.
III.
IV.

Possible excerpts for the multicase report:

Commentary:

Note. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

WORKSHEET 3. Ratings of Expected Utility of Each Case for Each Theme

Utility of Cases	Case A *Low C-G Culture*	Case B *Mod. C-G Culture*	Case C *High C-G Culture*
Original Multicase Themes			
Theme 1			
Theme 2			
Theme 3			
Theme 4			
Theme 5			
Theme 6			
Added Multicase Themes			
Theme 7			
Theme 8			

Note. Ratings: H = high utility; M = middling utility; L = low utility. C–G = College-Going. High utility means that the case appears to be one of the most useful for developing this theme. As indicated, the original themes can be augmented by additional themes even as late as the beginning of the cross-case analysis. Descriptions of each theme can be attached to this worksheet, so that the basis for estimates can be readily examined. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

WORKSHEET 4. A Matrix for Generating Theme-Based Assertions From Important Factor Clusters

Ratings of Importance	From Which Cases?	Themes							
		1	2	3	4	5	6	7	8
Factor Cluster I									
Factor Cluster II									
Factor Cluster III									
Factor Cluster IV									
Factor Cluster V									
Factor Cluster VI									
Factor Cluster VII									
Factor Cluster VIII									
Special Factor IX									
Special Factor X									

Note. Ratings: H = high importance; M = middling importance; L = low importance. A high mark means that, for this theme, the factor cluster is of high importance. Parentheses around an entry means that it should carry extra weight when assertions are being drafted. The notation ATYP after a case means that its situation might warrant caution in drafting an assertion. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

WORKSHEET 5. Multicase Assertions for the Final Report

Designator	Assertions	Related to Which Themes or Factors?	Evidence, Persuasions, Reference in Which Cases?
	Commentary (other important points to make about the quintain, possibly regarding a finding from a single case OR data from the quantitative strand in a mixed methods study)		

Note. Assertions designated with simple numbers are direct (nonrating) entries by the analyst. Assertions designated with *CCA* are from the regular cross-case rating procedure. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

APPENDIX J

Complete Track III Worksheets

WORKSHEET 1. The Themes of the Multicase Study

These Themes indicate primary information about the quintain that the researcher seeks.

Theme 1:   Access to benefits and resources that impact the college-going culture and college-going process experienced by a student
Theme 2:   Transfer or sharing of capital that impacts college-going culture development and the college-going process for a student
Theme 3:   Role of the family and community in the development of college-going culture and the college-going process for a student
Theme 4:   The presence of key narratives and storytelling that influence the student's experience of college-going culture
Theme 5:   The use of informal knowledge as part of the college-going process
Theme 6:   The presence of personal agency as part of a student's college-going process
Theme 7:   The presence of aspiration in the way a student experiences college-going culture
Theme 8:   The presence of a special environmental context contributing to the experience of college-going culture for a student

Note. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

191

WORKSHEET 2. Analyst's Notes While Reading a Case Report
Code letters for this case: L-M
Case study report title/transcript title: Case Report/Case Note Summary for L-M College-going
Culture (Jay, Teresa)
Author: C Holliday
Analyst's Synopsis *(possibly identifying the case, site, activity, key information about sources, and
context information)*: Low-Moderate College-going Culture case. Interviews conducted view Zoom, due
to COVID. Both participants are Hispanic/Latino and White with families where the mom completed HS
and dad had limited college. Neither student's school had a college resource center (only 4 of 13
respondents reported no on this), and neither participant learned about college from a HS counselor
(larger survey group was more diverse with this answer). Both participants had post grad aspirations.

Situational constraints: Only able to generate 2 interview participants in this case for interviews, despite
having 13 respondents assigned to this case, and 8 willing to be interviewed. Repeated attempts at contact
made to generate another interview participant, to no avail.

Uniqueness among other cases:
1) Dual enrollment – 1 participant (Teresa) did not have the opportunity to complete dual enrollment, and
it raised questions of access; every other qualitative interview participant across cases took dual
enrollment courses and saw them as an opportunity for college access; her lack of in this instance was
seen as significant by her, but reasoning unknown

2) Both participants demonstrated narrative/storytelling around this concept of the traditional college
experience (not CC, new friends, fun, sports, lifetime friendships, etc.)

3) Teresa mentions the concept of being first gen as giving her scholarship $ access – neither of the others
in this case do, but 1 participant in each case does so

Prominence of Theme 1 in this case: Access – prominent in the importance of finances, connection with
school staff, dual enrollment
Prominence of Theme 2 in this case: Capital transfer – limited, with slight mention
Prominence of Theme 3 in this case: Role of family/community – significant prominence
Prominence of Theme 4 in this case: Narratives/storytelling – moderate but interesting in the college
experience story that they believed and had put together from various sources
Prominence of Theme 5 in this case: Informal knowledge – moderate but good examples (football
game, family jobs applied to major choice)
Prominence of Theme 6 in this case: Personal agency – significant in relationship to the student as
decider
Prominence of Theme 7 in this case: Aspiration – moderate but tied in with other themes (no desire for
CC ties to narrative/storytelling, football game spark ties to informal knowledge, tied to family influence
in both examples)
Prominence of Theme 8 in this case: Environmental Context – limited; present in only one example,
but that matches examples from other cases

Expected utility of this case for developing Theme 1: Strong
Expected utility of this case for developing Theme 2: Limited
Expected utility of this case for developing Theme 3: Strong
Expected utility of this case for developing Theme 4: Moderate
Expected utility of this case for developing Theme 5: Moderate
Expected utility of this case for developing Theme 6: Strong
Expected utility of this case for developing Theme 7: Moderate

Expected utility of this case for developing Theme 8: Weak

Conceptual factors (for Track III): work/hard work; personal connection with a school staff member; grad school aspiration; financial concerns linked to access; no CC consideration; student as decision maker; dual enrollment as access (given or denied)

Findings:
I. Personal connections with a school staff member were an important piece of the c-g experience – may interconnect agency, access, and aspiration
II. Access goes beyond the school resources to include family financial capability
III. Dual enrollment may be a key resource to which students may or may not have access
IV. Students were viewed by their families as the primary decision maker when it came to college choice (also college research process)
V. Hard work is something that is a core family value, to both be proud of and to limit with more education

Possible excerpts for the multicase report: See quotes in the summaries: a) Jay – family decision quote b) Jay – teacher expectations quote and confluence of personal agency quote c) Teresa – pride and joy quote with family d) Teresa – money and family debt quote e) Teresa hard work and easier life quote

Anecdotes: a) Jay's father's online ed contribution b) Narrative/storytelling agreement on the traditional college experience expectation and its impact on the college-going process

Commentary: The two are more aligned than not on many things – having a 3rd participant in this case would have been helpful for sorting out any major differences or true alignment within the case. Quick comparison with quant data indicates that some obvious alignments on this interview and survey between the two (college resource center, info from counselor, etc.) may be aligned with these two, but were not the same across the larger survey case group

Note. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

WORKSHEET 2. Analyst's Notes While Reading a Case Report
Code letters for this case: Mod
Case study report title/transcript title: Case Report/Case Note Summary for Moderate College-going Culture (Lynn, Kay, Sarah)
Author: C Holliday
Analyst's Synopsis *(possibly identifying the case, site, activity, key information about sources, and context information)*: Moderate College-going Culture case. Interviews conducted view Zoom, due to COVID. No participants are Hispanic/Latino, but all were White. Wide variety in family education levels. Wide variance in school resources reported, with some seeming reliance on special programs to provide college assistance (pre-collegiate, senior seminar, early college). All participants had post grad aspirations.

Situational constraints: This was the smallest response group for which participants were drawn, with 5 *survey respondents falling into this case, making stat analysis on this group in group comparisons less* than optimal. In addition, all 5 moderate survey respondents were white, with only 1 Hispanic respondent, who did not respond to a request for interview.

Uniqueness among other cases:
1) Minor echo - Sarah mentions being broke and "living off Ramen" which is echoed in another case participant in the H-M case (Jo)
2) Sarah mentions the concept of being first gen as giving her scholarship $ access – neither of the others in this case do, but 1 participant in each case does so
3) Lynn shares a poignant story about the impact of her church on her college-going journey and the negative impact; Sarah shares something similar about her "outcast" status in her farming community – nothing of this level of difference was identified in the other cases as setting these folks apart from their communities BECAUSE of their choice to go to college
4) Lynn's move from home school straight to early college is of interest (and similar to but different from Thomas' experience)

Prominence of Theme 1 in this case: Access – prominent in the importance of finances, connection with school staff (slightly limited for Lynn), dual enrollment
Prominence of Theme 2 in this case: Capital transfer – limited, with best mention from Kay (cousin example)
Prominence of Theme 3 in this case: Role of family/community – significant prominence
Prominence of Theme 4 in this case: Narratives/storytelling – moderate but interesting in the college experience story that 2 of the 3 believed and had put together from various sources
Prominence of Theme 5 in this case: Informal knowledge – moderate but good examples from 2 (parents' friends' knowledge, cousin's experience and summer college dorm exposure)
Prominence of Theme 6 in this case: Personal agency – significant in relationship to the student as decider, college process, and linkage to access
Prominence of Theme 7 in this case: Aspiration – significant and tied in with other themes (no desire for CC ties to narrative/storytelling, love of learning ties to acceptance of otherness, tied to experiences and access)
Prominence of Theme 8 in this case: Environmental Context – moderate; present in two examples, early college/CC and pre-collegiate programs

Expected utility of this case for developing Theme 1: Strong
Expected utility of this case for developing Theme 2: Limited
Expected utility of this case for developing Theme 3: Strong
Expected utility of this case for developing Theme 4: Moderate
Expected utility of this case for developing Theme 5: Moderate

Expected utility of this case for developing Theme 6: Strong
Expected utility of this case for developing Theme 7: Strong
Expected utility of this case for developing Theme 8: Moderate

Conceptual factors (for Track III): work/hard work; personal connection with a school staff member; grad school aspiration; financial concerns linked to access; no real CC consideration; student as decision maker; dual enrollment as access (given or denied); personal responsibility for financial role in family

Findings:
I. Personal connections with a school staff member were an important piece of the c-g experience – may interconnect agency, access, and aspiration
II. Access goes beyond the school resources to include family financial capability
  IIA. This case saw students who all took personal responsibility in some way for a financial role in their family and education cost
III. Dual enrollment may be a key resource to which students may or may not have access
IV. Students were viewed by their families as the primary decision maker when it came to college choice (also college research process)
V. Hard work is something that is a core family value, to both be proud of and to limit with more education

Possible excerpts for the multicase report: See quotes in the summaries: a) Lynn – strong quotes about hard work and helping pay for things b) Lynn – strong quote about the community and the paycheck to paycheck mentality AND the church's impact on her c) Kay – expected college experience quote d) Sarah – difference in mom relationship because of college quote e) Sarah "do or die" and "outcast" quotes f) Sarah's example and quote related to difference in teacher expectations and access because of her personal agency

Anecdotes: a) Kay's father's expectations for her b) Narrative/storytelling agreement among two on the traditional college experience expectation and its impact on the college-going process

Commentary: Environmental context is a bit easier to see in this case example, where 2 were strongly involved in special programs, and the one who was not, did not really speak to an environmental type indicator. Some really poignant quotes from some of the interviews.

Note. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

WORKSHEET 2. Analyst's Notes While Reading a Case Report
Code letters for this case: H-M
Case study report title/transcript title: Case Report/Case Note Summary for High-Moderate College-going Culture (Jo, Thomas, Xman)
Author: C Holliday
Analyst's Synopsis *(possibly identifying the case, site, activity, key information about sources, and context information)*: High-Moderate College-going Culture case. Interviews conducted view Zoom, due to COVID. 2 participants are Hispanic/Latino, 1 is not, but all are White. Wide variety in family education levels. Availability of school resources seems to be fairly similar and stable. All participants but 1 participant shared post grad aspirations.

Situational constraints: N/A

Uniqueness among other cases:
1) One participant (Xman) *did not share post grad aspirations, which is unusual and the only interview* participant for which that was true.

2) One participant (Jo) shared a strong affinity and appreciation for the trades, very different from the ideas expressed by others.

Prominence of Theme 1 in this case: Access – prominent in the importance of finances, connection with school staff, dual enrollment
Prominence of Theme 2 in this case: Capital transfer – strong for Jo with best example in the study (best friend's family), solid but limited for Xman (coach to prof connection) but not mentioned at all by Thomas
Prominence of Theme 3 in this case: Role of family/community – significant prominence for all
Prominence of Theme 4 in this case: Narratives/storytelling – significant but different from other cases – only Jo echoed the story about traditional college experience; all 3 had strong narratives related to family failure/financial hardship leading to college failure
Prominence of Theme 5 in this case: Informal knowledge – limited but good examples from 2 (hands-on computer knowledge benefitting class, leadership helping with scholarship attainment, football game to college)
Prominence of Theme 6 in this case: Personal agency – significant in relationship to the student as decider, college process, and linkage to access
Prominence of Theme 7 in this case: Aspiration – significant and tied in with other themes (real-life experiences led to a decision for college or career, unexpected test success led to personal agency opportunities, expectations of others ties back to family/community)
Prominence of Theme 8 in this case: Environmental Context – moderate; present in all 3 examples, early college/CC, athletics/JROTC, SEEBS/4-H)

Expected utility of this case for developing Theme 1: Strong
Expected utility of this case for developing Theme 2: Strong
Expected utility of this case for developing Theme 3: Strong
Expected utility of this case for developing Theme 4: Strong
Expected utility of this case for developing Theme 5: Limited
Expected utility of this case for developing Theme 6: Strong
Expected utility of this case for developing Theme 7: Strong
Expected utility of this case for developing Theme 8: Moderate

Conceptual factors (for Track III): work/hard work; personal connection with a school staff member; financial concerns linked to access; student as decision maker; dual enrollment as access (given or denied); personal responsibility for financial role in family

Findings:
I. Personal connections with a school staff member were an important piece of the c-g experience – may interconnect agency, access, and aspiration
II. Access goes beyond the school resources to include family financial capability
    IIA. This case saw students who all took personal responsibility in some way for a financial role in their family and education cost (seen also in moderate)
III. Dual enrollment may be a key resource to which students may or may not have access
IV. Students were viewed by their families as the primary decision maker when it came to college choice (also college research process)
V. Hard work is something that is a core family value, to both be proud of and to limit with more education
VI. First generation status comes with perceived responsibilities to the family and community – SEEN STRONGLY ONLY IN THIS CASE

Possible excerpts for the multicase report: See quotes in the summaries: a) Jo – strong quotes about capital transfer and opportunities from friend's family b) Jo – strong quotes about difference created with family because of college AND about first gen scholarship c) Thomas –quote about not being able to afford another college d) Thomas – "resigned myself" quote e) Xman fuels dreams quote f) Xman's dad's hard work quote g) Xman's family difference and selfishness quote g) Xman's reoccurring theme quote h) Xman's personal payment quote

Anecdotes: a) Jo's reference to her "school mom and dad" b) Jo's examples of her mom and dad's work experiences and impact of no degree on them c) Thomas' example of access almost by accident (test, CC, to university path after home school) d) Xman's loss of AFA opportunity and devastating impact

Commentary: These interviews had some of the most outstanding examples of family connection and difference created, the impact of those key school staff who took and interest

Note. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

WORKSHEET 3. Ratings of Expected Utility of Each Case for Each Theme

Utility of Cases	Case A *L-m*	Case B *Mod*	Case C *H-m*
Multicase Themes			
Theme 1 Access to benefits	H	H	H
Theme 2 Capital transfer	L	L	H
Theme 3 Role of family & community	H	H	H
Theme 4 Narratives/storytelling	M	M	H
Theme 5 Informal knowledge	M	M	L
Theme 6 Personal agency	H	H	H
Theme 7 Aspiration	M	H	H
Theme 8 Environmental Context	M	M	M

Note. Ratings: H = high utility; M = middling utility; L = low utility. C–G = College-Going. High utility means that the case appears to be one of the most useful for developing this theme. As indicated, the original themes can be augmented by additional themes even as late as the beginning of the cross-case analysis. Descriptions of each theme can be attached to this worksheet, so that the basis for estimates can be readily examined. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

WORKSHEET 4. A Matrix for Generating Theme-based Assertions from Important
                 Factor Clusters

Ratings of Importance	From which Cases?	Themes								
		②	④	③Ⓐ			①	③Ⓑ		*factor scoring* ↓
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Factor Cluster I Access-related financial concerns	Ax2 Bx3 Cx3	(H)	H	(M)	H	M	(H)	M	(M)	㉔
Factor Cluster II Dual enrollment as an access benefit	Ax2 Bx3 Cx3	(H)	(M)	L	L	(M)	(H)	H	(H)	㉓
Factor Cluster III Student as college decision maker	Ax2 Bx3 Cx3	(M)	(M)	(H)	(H)	(M)	(H)	(H)	M	㉗
Factor Cluster IV Personal connection with school staff	Ax2 Bx3 Cx3	(H)	(H)	(M)	L	L	(H)	H	(H)	㉔
Factor Cluster V Hard work	Ax2 Bx3 Cx3	H	(M)	(H)	L	(M)	(H)	H	M	㉓
Factor Cluster VI Grad School aspiration	Ax2 Bx3 Cx2	L	L	L	L	L	H	H	M	13
Factor Cluster VII No community college consideration	Ax2 Bx2 Cx2	L	L	L	(H)	L	M	H	M	15
Factor Cluster VIII Personal responsibility for financial role in family	Ax1 Bx3 Cx3	(H)	(M)	(H)	M	M	(H)	L	L	㉑
Special Factor IX First generation responsibility to family and community	Cx2	(L)	(M)	(H)	L	M	M	H	M	19 Spcl
Special Factor X		㉙	㉔	㉕	18	18	㉛	㉕	22	*Theme Scoring* ←

Note. Ratings: H = high importance; M = middling importance; L = low importance. A high mark means that, for this theme, the factor cluster is of high importance. Parentheses around an entry means that it should carry extra weight when assertions are being drafted. The notation ATYP after a case means that its situation might warrant caution in drafting an assertion. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.

WORKSHEET 5. Multicase Assertions for the Final Report

Designator	Assertions	Related to which Themes or Factors?	Evidence, Persuasions, Reference in which Cases?
CCA6-1 *5)*	Personal agency plays a large role in the student's college-going experience and is most evident in the student role as decider	Theme 6 FC 1, 2, 3, 4, 5, 8	All cases, all participants
CCA 1-1 *3)*	Financial concerns are a significant presence within the first generation college-going experience	Theme 1 FC 1, 2, 5, 8	All cases, all participants
CCA 1-2 *2)*	Dual enrollment opportunities contribute significantly to the college-going experience, and are an important part of access to college and aspiration development	Theme 1 FC 2, 1	All cases, all participants, Teresa's exclusion. Consider experience, time, and cost – special context
CCA 1-3 *1)*	A personal relationship with at least one school staff member who took an interest in the student and their college-going process was of major importance to access and aspiration for every student	Theme 1 (Themes 2, 7, 8)	All cases, all participants
CCA 3-1 *4)*	Family and community members play a significant role in the development of college-going culture and the college-going process of first generation students	Theme 3 (Themes 4,7) FC 1, 3, 5, 8, SF9	All cases, all participants
CCA (all) *6)*	The first generation college-going experience as described by participants in this study is relatively stable, with no significant differences detected among the cases.		All cases, all participants
	Commentary *(other important points to make about the quintain, possibly regarding a finding from a single case OR data from the quantitative strand in a mixed methods study)*		
	Personal agency as a linkage to family financial responsibility and family relationships	Theme 6 FC 1, 8 SF IX	See Xman, Lynn
	Personal agency is strongly related to other key themes and factors, such as access, dual enrollment, and relationships with school staff	Theme 6 (Theme 1) FC 1, 2, 4	Xman's missed opp, Sarah classmate observation, Teresa dual enrollment, Jay teacher relationship reflection
	Hard work as factor		

Handwritten in left margin: # by practical impl. order / possibility   # 6 = Culminating

Note. Assertions designated with simple numbers are direct (nonrating) entries by the analyst. Assertions designated with *CCA* are from the regular cross-case rating procedure. Reprinted with limited permission, Stake (2005). Not for further reprint or adaptation.