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Funds of Knowledge and the College Success of First-Generation Students, Low-Income Students, and Students of Color: A Transformative Mixed Methods Study

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Funds of Knowledge and the College Success of First-generation Students, Low-income Students, and Students of Color: A Transformative Mixed Methods Study

A Dissertation
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the Faculty of the Morgridge College of Education
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Doctor of Philosophy

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Advisor: Judy Marquez Kiyama, PhD
Abstract

Increases in college enrollment have led to assessments of college success. These assessments consistently reveal disparities between students from historically underserved communities and students from the majority. Specifically, first-generation to college students, low-income students, and students of color continue to experience unequitable success in college. In response to these concerns, the scholarly community engages in research that expands our understanding of college success of these students and offers solutions to bolster their success. Nonetheless, much of this work engages a deficit oriented approach that centers attention on the resources that historically underrepresented communities do not possess and attributes lower college success of members of these communities to those factors.

Therefore, this research study challenged deficit ideologies utilizing the Funds of Knowledge (fok) theoretical framework to identify and quantify the fok of first-generation students, low-income students, and students of color. Furthermore, it explored the role of fok in empowering students from these groups to successfully navigate the college context. Specifically, a Transformative Mixed Methods design allowed study participants to share their lived experiences with fok in great depth through quantitative and qualitative approaches. A total of 745 participants across seven institutions of higher learning in the state of Colorado responded to the fok survey and 13 of those participants offered in-depth perspectives through focus groups and semi-structured interviews.
Findings from the study outline the fok present within study participants, the origin of fok and an overview of systemic inequity that pushed participants to activate their fok, followed by the utility of fok to successfully navigate the college context. This study is equally significant to scholars and practitioners concerned with equity and college success.
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Chapter 1: Background

The educational success of historically underserved communities including, first-generation college students, low-income students, and students of color, has seen minimal growth over the years compared to that of White students (Musu-Gillette et al., 2016). The disparities found between historically underserved groups and the majority, are of interest to both public policy and institutional practice. Over the years, scholars have made strides attempting to understand the roots of such disparities to inform policies and practices aimed at alleviating inequity by fostering success across K-12 and higher education (e.g. Adelman, 2004; Arana, Castañeda-Sound, Blanchard, & Aguilar, 2011; Campa, 2013; Cejda & Rhodes, 2004; Cokley & Chapman, 2008; Creighton, 2007; Davis & Jordan, 1994; Jackson & Moore 2008; Nunez, 2009). Nevertheless, recommendations that arise from this scholarship are predominantly grounded on deficit perspectives that attribute the lower success rates of underserved communities to cultural values and practices (Bliss & Sandiford, 2010). A clear example of such ideologies in higher education posits that lower success rates of underrepresented students in college can be explained by cultural incongruity (Aguinaga & Gloria, 2015; Gloria & Kurpius, 1996).

1 First-generation students are: a) individuals both of whose parents did not complete a baccalaureate degree; or b) any individual who regularly resided with and received support from only one parent that did not complete a baccalaureate degree (TRiO & Gear Up Program Statute, 2011, p. 10).
Cultural incongruity postulates that students who come from communities with cultures that differ from the normative values and environment of the traditional college campus in the United States are less likely to persist. As this argument permeates literature around educational success, existing research frames students’ familial, community, and cultural contexts negatively and fails to understand that culture, community, and family also represent assets and resources on which first-generation students, low-income students, and students of color rely to successfully navigate college.

Further, the current political climate in the U.S. exacerbates perennial disparities in educational success, as leaders of the country lend their support to misconceptions about historically underserved groups by enacting policies that further restrict educational opportunity. These policies include executive orders that threaten to remove masses of underrepresented communities from the country and orders that intend to ban access to the country to individuals with nationalities from countries that are conceptualized as a threat to national security. For example, executive orders enacted at the beginning of the current U.S. government administration that proposed to ban Muslims from specific countries (Executive Order Protecting The Nation From Foreign Terrorist Entry Into The United States, March, 2016) or the prosecution and removal of large numbers of undocumented immigrants, including those who had secured a pause on deportation proceedings thanks to the 2012 Deferred Action for Childhood Arrivals Act (Executive Order: Border Security and Immigration Enforcement Improvements, January, 2017). Such actions perpetuate deficit ideologies and represent an attempt to disrupt demographic shifts in population composition that over time, have changed the face of the country. These demographic changes are better illustrated by population statistics that
show that the U.S. continues to become a more diverse nation. Five-year estimates from the American Community Survey (ACS) show that as the country becomes more diverse, the White population represents a larger portion of 54-65 year olds while Black/African American and Hispanic/Latino populations continue to expand in the younger 17-34 age group (ACS, 2010-2014). These trends are of interest to the scholarly community as the higher education landscape shifts alongside demographic changes in the U.S. population.

A recent 2016 report by the Institute of Education Sciences (IES) on the status and trends of ethnic groups in education, offers an overview of college participation and completion. According to IES, as of 2013 the college enrollment rates of Black/African American and Hispanic/Latinos between ages 18 and 24 were 34% each. Although disparities between college participation of White students (42%) and that of students of color (Black/African American 34% and Hispanic/Latino 34%, American Indian/Alaskan Native, 32%) remain, this gap has narrowed from 18 percentage points to 8 percentage points over 10 years (2003-2013). Further, enrollment of first-generation students accounted for a third of undergraduate students enrolled in college in 2012, according to the National Postsecondary Student Aid Study (NPSAS). Nevertheless, while improvements in college enrollment of students from underrepresented communities are evident, the same cannot be said about trends in completion. According to IES (2016) the percentage of adults aged 25 and older who held at least a bachelor’s degree was higher for Asian Americans (52%) and Whites (33%) compared with 14% for Hispanic/Latinos, 19% for Black/African Americans, 15% for American Indian/Alaskan Natives, and 16% for Pacific Islanders. Similarly, the Beginning Postsecondary Student Longitudinal Study (BPS, 2004-2009), estimates that about 60% of first-generation students enrolled in
college do not earn a bachelor’s degree within six years. These figures show alarming disparities in degree completion and are of critical importance as the higher education research community continues to engage in efforts to identify ways to strengthen student support for persistence and graduation. Now more than ever, it is essential for scholars in the higher education field to understand these issues and explore innovative ways to challenge longstanding deficit-fueled perspectives on low-income, first-generation students of color in college.

**Further Explication of the Problem**

Research shows that there are personal and financial benefits to attaining a college degree including better health (Baum, Ma, & Payea, 2010; Ma, Pender, & Welch, 2016), prestige (Krymkowski & Mintz, 2011), higher parental involvement in children’s education (Baum, Ma, & Payea, 2010), increases in voter participation (Dee, 2004) higher income and greater job security (Malveaux, 2003), and socioeconomic mobility (Baum, Ma, & Payes, 2010; Ma, Pender, & Welch, 2016; Malveaux, 2003). Nonetheless, most of the literature on college success of historically underserved students has focused on exploring the issue from a deficit approach, primarily investigating the barriers and lack of resources that prevent students from attaining a college degree. Some of these perspectives include but are not limited to low socioeconomic status (Baker & Robnett, 2012; Brock, 2010; Kim & Sherraden, 2011; Walpole, 2003), low social capital (Strayhorn, 2010), enrollment in high-poverty high schools (Borman & Dowling, 2010; Garcia & Bayer, 2005), parents’ educational level (Brock, 2010; Gandara, 2010), family demands (Gilford & Reynolds, 2011; Yeh, 2004), lack of a critical mass of underrepresented students on campus (Creighton, 2007; Flemming, 2002; Hernandez,
academic under-preparedness (Baber, 2014; Barnes & Piland, 2010; Borman & Dowling; Brock, 2010; Charleston et al., 2014; Defrietas & Bravo, 2012; Engle, 2007), generational status (Creighton, 2007; Dumais & Ward, 2010), lack of social adjustment on campus (Kim & Ye, 2002; Museus & Neville, 2012) and what researchers refer to as cultural incongruity, which is at the intersection of many of the issues listed above (Allen, 1992; Arteaga, 2015; Bliss & Sandiford, 2010; Campa, 2013; Gloria & Kurpius, 1996; Greer & Chwalisz, 2007).

To overcome these challenges, researchers have proposed a variety of solutions. Some of the approaches found in the literature to support underrepresented student success in college found in the literature are: recognizing the importance of parental involvement and positive parental influences (Ayala, 2012; Dyce, Alboid, & Long, 2010; Devall, Vail, Resendez, 2005; Fuligni & Fuligni, 2007; Jackson, Smith, & Hill, 2003; Luna & Martinez, 2013; Kiyama, et al., 2015; Museus, 2013) and focusing on student integration on the campus (Brock, 2010). In addition, other strategies suggest to enhance student advising and support services (Brock, 2010; Calcagno, Bailey, Jenkins, Kienzi, & Leinbach, 2008; Garcia, 2013; Oseguera, Locks, & Vega, 2009; Talbert, 2012), promoting the development of relationships with supportive faculty mentors and role models (Baker, 2013; Bordes & Arredondo, 2005; Carter, 2006; Ceballo, 2004; Cole & Espinoza, 2008; Jackson, Smith, & Hill, 2003), and offering continued support as opposed to isolated interventions (Gandara, 2010). Additionally, institutions of higher learning are encouraged to develop a welcoming campus (Bordes & Arredondo, 2005; Luna & Martinez, 2013), value students’ strengths (Luna & Martinez, 2013), develop a strong collaboration between programs and offices to better support students (Museus &
Neville, 2012), and address the issue of the hidden curriculum (Smith, 2004). Vallance (1974) defines the hidden curriculum as implicit values and procedures inherent to the process of schooling. Vallance explains that there are three elements to the definition of the hidden curriculum: (1) hidden curriculum can include all aspects of schooling such as interactions, structure of the classroom, and the larger values of schooling as a social system, (2) values and processes that maintain class structure in education, and (3) different levels of intentionality, hiddenness, and outcomes.

In sum, extant literature on the success of historically underserved students in college has predominately focused on exploring the issue from a deficit perspective, which encourages emerging research to shed light on the assets that students from these groups bring with them to college that can translate into tools to foster their success. Therefore, this Transformative Mixed Methods study explored the assets situated within families, culture, and communities that first-generation students, low-income students, and students of color draw from and bring into their college experience, through the lens of Funds of Knowledge (fok) (Moll, Amanti, Neff, & Gonzalez, 1992; Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992) and to examine the role of fok on the ability of students to successfully navigate the college context. Funds of knowledge are strategies and bodies of knowledge historically accumulated and essential for a household and its members to survive (Moll, Amanti, Neff, & Gonzalez, 1992; Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992). Fok are diverse, ranging from occupation/household origin specific knowledge to knowledge of other matters such as the material and scientific. Fok are also embodied in strategies to cope with uncertainty caused by social, economic, and political disparities (Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992).
Purpose of the Study

The purpose of this Transformative Mixed Methods study was to explore the fok that first-generation students, low-income students, and students of color bring with them to the college context and to investigate the role of fok in students’ ability to successfully navigate college from a quantitative and qualitative standpoint. At the core of fok is the understanding that every person possesses invaluable cultural, familial, and community knowledge that when activated, empowers these communities to mediate uncertainty and overcome adversity (Velez-Ibanez, 1988). The fok framework shifts traditionally deficit-oriented paradigms to an emphasis on the assets that a person possesses as a result of their lived experience. It is through fok that scholarly work in higher education reframes longstanding perceptions of historically underserved communities and offers a strengths-based approach to understanding the educational trajectories of members of these communities.

The rationale for implementing a Transformative Mixed Methods study was grounded in the central premise that transformative research takes a stance on a social justice issue and seeks empowerment of historically marginalized populations engaged in the study (Creswell & Clark, 2011; Mertens, 2009). These designs are rooted in a theoretical transformative framework that informs each stage of the research process and seeks to advance social justice through change-oriented research. Transformative Mixed Methods designs are better suited for research when the following considerations apply: (1) the researcher intends to address social justice issues as a call for change, (2) the researcher sees the needs of underrepresented communities, (3) the researcher possesses strong working knowledge of theories employed in research with underrepresented
populations, and (4) the research can be conducted without further marginalizing the population in the study (Creswell & Clark, 2011, p. 96). Philosophical assumptions offer a footprint for guiding the methodology in transformative research (Clark & Creswell, 2008; Mertens, 2009).

The quantitative strand of my study consisted of a fok survey that identified and quantified fok of first-generation students, low-income students, and students of color. These data allowed me to uncover fok and the frequency with which these fok were engaged in students’ lives on a weekly, monthly, and yearly basis. Analysis of survey data was followed by the development and implementation of a qualitative strand, which gave more context of the fok actively engaged while in college, their origins, and the ways in which students transferred, activated, or converted fok to overcome struggles in college.

Through identifying, quantifying, and understanding the origin and utility of fok in college, this study informed student services providers, college success program developers, campuses as a whole about familial, community, and cultural assets that first-generation students, low-income students, and students of color possess. Additionally, by exploring the role of fok on students’ experiences of successfully transitioning to college and completing a college degree, the study offered stakeholders a different perspective to inform strategies they employ to narrow the gap in college attainment for underrepresented student groups. For this study, college attainment was defined as completion of a bachelor’s degree.

Research Questions
The research questions that guided this Transformative Mixed Methods study encompassed two overarching aims:

(1) Identify and quantify the fok possessed by first-generation students, low-income students, and students of color attending four-year institutions in the state of Colorado.
(2) Explore the role of fok in empowering students to successfully navigate the college context.

To these ends, the overarching research question guiding this study is: **What is the role of fok in empowering first-generation students, low-income students, and students of color to successfully navigate the college context?**

Additionally, the research question for the quantitative strand of the study was:

(1) What fok do first-generation students, low-income students, and students of color bring with them to college?

Furthermore, the qualitative phase of the study included research questions that sought participants’ perspectives on fok, their lived experiences, and experiences in college. These included:

(1) What funds of knowledge are present within first-generation students, low-income students, and students of color?

(2) How do first-generation students, low-income students, and students of color acquire or develop fok?

(3) How do first-generation students, low-income students, and students of color, transfer, operationalize or transform their fok and to achieve success in college?

**Definition of Terms**

**Funds of Knowledge (fok)**
Funds of Knowledge as defined in seminal work by Moll, Amanti, Neff, and Gonzalez, (1992), Velez-Ibanez, (1988), and Velez-Ibanez and Greenberg (1992) are bodies of knowledge and skills historically accumulated in the household. In this study, fok are defined as bodies of knowledge and skills that develop as result of lived experiences and that empower participants to navigate inequity. Fok include knowledge that is formed outside of the household as response to adversity. At the center of this definition remain family, community, and culture, which are characterized by elements including language, labor history, and cultural practices.

College Success Generally

Although the literature on college success is extensive, there are only a few scholarly pieces that offer a definition or explanation of what comprises college success. Literature suggests that college success looks different at each institution based on the mission, size, location, resources and the students they serve (McPherson & Schapiro, 2008). Others argue that college success is an individualized process that varies per student but advocate for academic components (grade averages) to college success as well as extra-curricular involvement and leadership (Willingham, 1985). While there is not a unified way to define college success, a simplistic approach would allow me to define this concept as a collection of elements traditionally associated with success in college. These elements include academic achievement, retention, and persistence. 

Academic achievement encompasses student performance with regard to academic indicators including grades, grade point averages, and academic standing. A student is considered to achieve academically when they perform at the top of the grading scale. Grades then translate into higher grade point averages, which ultimately define the
academic standing of students (e.g. Arana, Castañeda-Sound, Blanchard, & Aguilar, 2011; Cokley & Chapman, 2008). In contrast, retention represents the ability of students to remain enrolled at the institution where they began their college career as they pursue a college degree (e.g. Glenn, 2003; Oseguera, Locks, & Vega, 2009), which places responsibility on students to remain enrolled at the institution where they began college. This term while similar, is not to be confused with persistence, which captures students’ ability to remain enrolled in college, regardless of the institution they attend. That is, students might transfer between institutions of higher education throughout their tenure as college students, as long as students remain enrolled in college, they are accounted for in measures of persistence (e.g. Bordes, Arredondo, Kurpius, & Rund, 2011).

**College Success in this Study**

The elements presented above are limited in their ability to expand our understanding of what constitutes student success in college. That is, notions of academic achievement, retention, and persistence are linked to dominant ideas of what success in college should look like. But this does not mean that success in college looks the same for all students, in particular, for first-generation students, low-income students, and students of color. Therefore, for the purpose of this study, college success was redefined as *one’s ability to navigate the college context and to overcome social, political and economic disparity that work in tandem to limit opportunity in higher education for low-income students, first-generation students, and students of color.*

For this study, low-income students are students who submitted the Federal Application for Financial Aid (FAFSA) and/or receive financial aid including Pell grants, state aid, and institutional aid to support their college career. Federal TRiO programs define first-
generation students as: (a) individuals both of whose parents did not complete a baccalaureate degree; or (b) individuals who regularly resided with and received support from only one parent that did not complete a baccalaureate degree (TRiO & Gear Up Program Statute, 2011, p. 10). This definition will be adopted in this dissertation. Furthermore, students of color include students who identify with any of these ethnic umbrella groups: Hispanic/Latino, Black/African American, Asian American, Native American, Asian Pacific Islander, and Southeast Asian.

**Delimitations**

This Transformative Mixed Methods study was delimited to institutions of higher learning in Colorado, which can limit the ability of others to replicate the study in other settings (Creswell, 2003). Additionally, the factors identified and quantified in the study are only inclusive of participants’ experiences within their household, community, and as they interacted with formal institutions and engaged in cultural practices. Lastly, conclusions drawn from this study are limited to participants, first-generation students, low-income students, and students of color, and will exclude perspectives of other stakeholders in college success including family, community, and university personnel.

**Limitations**

Study findings were limited to students who met one or more criteria related to the population of interest, first-generation students, low-income students, and students of color. Additionally, the fok survey contained 75 items, making it a lengthy instrument to complete. This posed a threat to response rate as well as a risk for non-response bias, which was reflected in missing data across survey items. Furthermore, the fok survey did not collect student success indicators in alignment with the college success definition of
the study and research sites declined sharing information on student outcomes for this study, which combined with the low presence and activation of fok as measured by the survey, impacted my ability to carry out inferential analyses, further limiting survey results to descriptive analysis.

**Significance of the Study**

As one of the emerging studies engaging the Funds of Knowledge framework to expand our understanding of college success from an asset-based approach, this Transformative Mixed Methods study fostered an understanding of the fok of first-generation students, low income students, and students of color including the origin, presence, and utility of fok in the college context. Beyond increasing our understanding of the role of fok in the college success of historically underserved students, this study allows faculty, student affairs practitioners, and entire universities to consider ways in which they can leverage fok to support student success and to ultimately narrow the gap in college attainment among these populations. Preliminary findings also support the expansion of the fok conceptual framework as an innovative approach for conceptualizing, theorizing, and incorporating fok in the college experience of first-generation students, low-income students, and students of color.

**Overview of Chapters**

In Chapter two, I offer a comprehensive review of literature on college success of historically marginalized students. This review of literature outlines historical conceptualizations of college success, college success for students from various underrepresented communities including first-generation students, low-income students, and students of color with emphasis on Hispanic/Latino and African American/Black
students, and a review of theories and frameworks to study success in college. Chapter two also includes a historical overview of research that engaged the fok framework and a timeline of major milestones within fok research. In Chapter three, I describe extensively the methodological approaches implemented in this study. I begin by reviewing Mixed Methods approaches and major characteristics of Transformative Mixed Methods research including philosophical underpinnings. Then, I describe methods for participant recruitment, data collection, and analysis and conclude by addressing my positionality as researcher and discussing limitations of the study. In Chapter four, I present findings that emerged from the quantitative phase study which summarize responses to the fok survey. I also interpret and discuss these findings within the context of the study and extant fok research. In Chapter five, I describe qualitative findings and interpret them within the context of the study and the larger body of fok literature. Findings include, fok present within study participants, origin of participants’ fok, and fok as elements of college success. Lastly, in Chapter six, I answer the study research questions through the integration of quantitative and qualitative findings. I also outline the contributions of the study to research, theory and practice and describe implications and offer recommendations for research, theory, and practice.

**Conclusion**

This chapter offered a high-level overview of this research study including the research questions, methodology, significance of this inquiry, and a preview of dissertation chapters. The study focused on uncovering the Funds of Knowledge present within college students in their senior year of college engaging Transformative Mixed Methods research. To these ends, the study measured fok proposed in foundational work
on the topic using a survey and expanded upon this understanding by soliciting participants’ perspectives through focus groups and individual interviews. The findings of this study are of significance to direct student service providers, campuses as a whole, and those in college success program development.
Chapter 2: Literature Review

As presented in the introductory chapter, alarming disparities in college completion rates exist across student groups. These gaps are widest and most alarming between students from historically underserved communities and those from the majority. To better understand the factors that influence different student trajectories in college differently, we must familiarize ourselves with extant research literature on college success, inclusive of the experience of students from marginalized communities. This chapter is outlined as follows: a historical exploration and general overview of the concept of college success will be offered, followed by literature with an emphasis on first generation students and post-traditional students then by extant research that analyzes the experiences of Hispanic/Latinos and Black/African Americans. The focus on Hispanic/Latinos and Black/African Americans is informed first by current demographic trends in the U.S. population, which show rapid growth of these two groups within the college age group (17-34), which contains the traditionally defined 18-24-year-old college-going population and second by the large disparities in college completion between these groups and other groups including Asian Americans (broadly defined) and Whites. Furthermore, characteristics of the experiences of low-income students are embedded throughout this chapter within literature that addresses, first-generation students and students of color. Lastly, this chapter concludes with a section on conceptual
frameworks employed to explore the college experiences of historically underserved students and an overview of the theoretical framework informing this dissertation study.

Definitions and Measures of College Success

A Historic Overview of College Success

College success is a term commonly used among higher education scholars, practitioners, and policy makers. However, there is disagreement when there is need to agree on what college success means or what measures constitute college success (Guess, 2008), primarily because success in college is a highly-individualized experience that manifests in different ways (Willingham, 1985). The term college success first emerged in the 20th century between 1930 and 1960 when the federal government became initially concerned about student attrition or “student mortality” as it was referred to back then (Berger & Lyon, 2005; Demetriou & Schmitz-Sciborski, 2011; Venit, 2016). These ideas imply that historically college success was equated with the terms college completion or college attainment.

By the mid 70’s, the conversation on college success quickly evolved to one that focused on efforts that would counter the issue of student attrition. Influential models proposed student integration as a possible solution, arguing that students who integrate into the college community are more likely to persist and graduate (Tinto, 1975). This work initially informed student engagement and programming efforts and continues to drive national dialogue on college success (Bean, 1980; Demetriou & Schmitz-Sciborski, 2011; Venit, 2016).

As notions of college success continued to advance, so did institutional practices to collect data on students. During the 1980s, higher education institutions began to
collect more data on students they enroll, including demographics and graduation rates (Hossler, 1984; Venit, 2016). This practice of collecting more data shifted the general conversation on student attrition to one concerned with the differing completion rates among college students from certain demographics (Venit, 2016). These concerns gave birth to college efforts that targeted specific groups of students, including those historically underserved. The conversations around college success during these five decades (1930-1980) highlight two college success indicators that continue to prevail today: student retention, and student completion (e.g. Glenn, 2003; Oseguera, Locks, & Vega, 2009).

During the 1990s and 2000s college success focused on the first-year experience, theorizing that students who successfully transitioned from high school to college were more likely to graduate (Swail, 1995). To these ends, programming efforts and collaboration across different campus services were at the forefront (Demetriou & Schmitz-Sciborski, 2011; Thayer, 2000). These strategies defined a successful first-year transition as another college success indicator, especially for populations who showed lower completion rates.

Ubiquitous conversations on college success during the mid to late 20th century, emphasized macro factors leading to student completion including retention, and first-year transition (Venit, 2016). However, these conceptualizations rarely expanded our understanding of college success beyond general theories for completion. That is, granular elements of college success were not explicitly addressed in some of these discussions. The following section will offer an overview of scholarship that sheds light on components of college success from the institutional and student perspective.
College Success for Institutions

When defining college success for institutions of higher learning globally, measures associated include institutional performance on: retention, persistence, educational attainment, academic achievement (academic success), and student advancement (Cuseo, 2012). Retention refers to students’ consistent enrollment, through degree completion, in the institution where they began college (Terenzini, 1987; Walleri, 1981) while student persistence encompasses students’ enrollment in any college until they graduate (Crawford, 1999). Similarly, educational attainment refers to graduation or the rates of students who completed a degree or in other words, persistence to completion (Cuseo, 2012). Likewise, academic achievement (academic success) and student advancement are outcomes that go hand in hand. These two outcomes inform each other as academic achievement or students’ academic success in earning satisfactory passing grades, allows students to advance to degree completion and beyond (Cuseo, 2012). As the higher education landscape continues to shift, policy makers have moved to incorporate many of these measures in accountability and strategic planning mechanisms to encourage institutions of higher learning to raise completion rates, or as mentioned earlier, to increase college success rates (Bensimon, Dowd, Longanecker, & Witham, 2012).

How do Institutions of Higher Learning Define a Successful College Student?

Research suggests that college success constitutes more than just attaining a degree (Turner, 2008). Therefore, institutions of higher learning are encouraged to expand their definition of a successful college student to include degree completion and non-traditional indicators such as involvement and leadership (Turner, 2008). Ideally,
college success would capture the breadth and depth of the (four-year traditional) student experience. This argument aligns with studies conducted in the late 1970s that assessed how a group of nine higher education institutions perceived a successful student (Willingham, 1985). These elements embodied by successful students encapsulated the four years students spent in college pursuing an undergraduate degree. The rationale for capturing success over the four-year experience included the following principles: (1) elements of success do not manifest at the same time for all students in college and (2) success looks differently for students at different levels (freshman, sophomore, etc.).

Characteristics of successful college students are comprised of: students accumulated record of achievement over the four years including yearly grade averages (GPA), and 10 marks under the following three measures: college and departmental honors, leadership (elected offices and appointments), and significant accomplishments (scientific, artistic, communication, physical, organizing, internships and other independent achievements) (Demetriou & Schmitz-Sciborski, 2011; Willingham, 1985). Taken together, the elements manifested in a successful college student range from purely academic outcomes to achievement that incorporated involvement outcomes and other extra-curricular accomplishments.

How do Students Define a Successful College Student?

In contrast with institutional definitions of a successful college student, student views support the premise that success in college is a highly-individualized experience and that success is often a subjective concept (Willingham, 1985). College success from the student perspective includes: Educational Development or the acquisition of specialized skills including learning a new language, becoming aware of how the world
works and societal dynamics that would serve students well upon graduation, critical thinking and analytical abilities; *Personal Development* such as the ability to work with others; *Receiving Public Recognition* through academic achievement such as making the dean’s list or earning straight As; and *Goal Attainment*: including degree completion (Willingham, 1985; Cuseo, 2012). Reviewing elements of college success that emerged from seminal work sheds light on similarities and differences between the ways in which institutions and students view a successful college student. Similarities include academic success, achieving high grades, honors and recognition, inclusion in departmental achievement lists, leadership, and other accomplishments. On the other hand, differences relate to the more individualized perspectives of students including skill development and the symbolism of degree attainment in college success.

**Considerations in Defining and Measuring College Success**

It is worthy to note that early conceptualizations of college success emerged from defining the college experience as that of those pursuing degrees at four-year institutions, and to some extent, students attending highly selective institutions on the East Coast, this proposition is exclusionary and does not account for the diversity in college paths that began to develop as early as 1901, when the first community college was founded (Phillippe & Patton, 2000). Additionally, while there is overlap in perceptions of what accounts for college success from the institutional and student views, it is important to consider that college success goes beyond grades and grade averages, though these measures are solid indicators of graduation outcomes (Gershenfeld, Ward Hood, & Zhan, 2016). *College success* then becomes one’s collection of obstacles defeated and benefits gained throughout one’s college experience. Furthermore, context matters when
measuring institutional performance on college success indicators. Especially the variation in institutional size, mission, location, funding, and populations enrolled (McPherson & Shapiro, 2008; Turner, 2008). In order to further explore college success, the section below offers an overview of first-generation students in higher education.

First-Generation Students in Higher Education

First generation students are traditionally defined as students whose parents did not complete a baccalaureate degree (Billson & Terry, 1982; Choy, 2001). Literature on first-generation students emphasizes characteristics of this population, primarily focusing on demographics including income, race/ethnicity, and language spoken (Choy, 2001; Fischer, 2007; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). Additionally, research speaks to students’ experiences accessing higher education and on their persistence in college, emphasizing barriers that impact first-generation students’ ability to remain enrolled (Billson & Terry, 1982; Bui, 2002; Lopez, 2001; Warburton, Bugarin, & Nuñez, 2001). The section below offers more detail on what the literature says about characteristics of first-generation students and their experience in college.

First-Generation Students and College Access

Research shows that first-generation students come from low-income families and speak a language other than English at home (Choy, 2001; Fischer, 2007; Terenzini, et al., 1996). Additionally, large proportions of first-generation students are non-white (Fischer, 2007), that is, students identify with communities of color including Hispanic/Latino and Black/African American. Literature on this student population stresses the intersectionality of identities embodied by first-generation students. This theory on intersectionality is strengthened by research that encourages scholars to remain
cognizant that first-generation students possess multiple identities and that race, class, and gender, cannot be independently considered when exploring their experiences in higher education (Walpole, 2007).

Discussions of the college experience of first-generation students begin with explorations of academic aspirations or what motivates students to enroll in college. Reasons include first-generation students’ decision to attend college to help their families (Bui, 2002), a narrative that is also prevalent among first-generation students of color who perceive higher education as the means through which they honor their families (Lopez, 2001). Beyond framing family as a motivator for first-generation students to further their education, research also argues that higher education empowers first-generation students to achieve social and economic upward mobility (Billson & Terry 1982).

Although the literature presented above agrees that family is a major driver for academic aspirations of first-generation students, there exist contradicting conclusions. Some of this work explains that the low-educational attainment of parents of first-generation students translates into limited knowledge of college related processes (Atherton, 2014). However, deficit perspectives on the impact of low parental educational attainment on college access go further. Especially, it is perceived that limited knowledge of college leads to lower or lack of expectations for college (Atherton, 2014; Terenzini Pascarella, & Blimling, 1999). These conceptions of low-parental educational attainment paint college as an unlikely experience for first-generation students but fail to recognize that parents and families with limited college knowledge can capitalize on their life
experiences, to empower their children to advance their education (Arana et al., 2011; Campa, 2010).

Notions of parental educational attainment of first-generation students are often coupled with traditional definitions of social capital or the number of networks and connections that allow access to institutional resources otherwise inaccessible (Bourdieu, 1986). Work that embraces these perspectives concludes that first-generation students’ low-social capital represents a roadblock in their academic preparation for college (Atherton, 2014) and that their parent’s values toward education are not in alignment with their children’s college aspirations (Billson & Terry, 1982). Taken together, researchers such as Billson and Terry defined first-generation status as a “legacy of hidden barriers” (p.2) that maintained students from this group at disadvantage in college (Engle & Tinto, 2008). More research to explore the role of families in the college experience of first-generation students is needed, as extant literature largely portrays family characteristics as a threat to first-generation students access and success in college.

First Generation Students Enrollment in College

A report by the Pell Institute (2008) states that there were 4.5 million low-income, first generation students enrolled in college between 2003 and 2004. This figure represented around 24% of the total undergraduate student population that year (U.S. Department of Education’s 2003-2004 National Postsecondary Student Aid Study. Although the study did not specify the type of institution at which first-generation students enrolled (two-year, four-year, vocational), earlier research found that most first-generation students begin their college careers at two-year institutions (Bui, 2002). This trend is said to occur for the following reasons: (1) first-generation students often lack
access to high quality academic preparation for college level coursework, (2) first-generation students are not able to pay the cost of higher education at four-year institutions, and (3) they need more flexibility in class schedules to be able to meet other commitments related to work and family (Bui, 2002). Thus, first-generation students are twice as likely to enroll in a two-year college compared to their non-first-generation counterparts (Choy, 2001). This trend is important to keep in mind as two-year institutions (often community colleges) possess less resources to support student success compared to four-year institutions (Breneman & Nelson, 2010). Implications for college completion and student outcomes are directly linked to this concern.

Even when first-generation students do enroll in college, they face challenges. One challenge relates to the higher level of difficulty that characterizes college level academics. Research has found that first-generation students struggle academically in college due to inadequate preparation for college level academic work (Adelman, 2004; Choy, 2001; Warburton, Bugarin, & Nunez, 2001). Inadequate preparation along with other challenges translate into first-generation students’ lower likelihood to complete a college degree. Using data from the National Center for Education Statistics’ Beginning Postsecondary Study (BPS:96/01), research estimated that low-income, first-generation students were almost four times more likely (27%) than non-first-generation students (7%) to leave college during their first year (Tinto & Engle, 2008). Additionally, graduation predictions estimated that six years after enrolling in college, about 43% of first-generation students had stopped out without completing a degree. These alarming trends have been explained by research that suggests first-generation students earn low GPAs in college, tend to delay college enrollment after high school, and work more than
35 hours per week (Choy, 2001). Furthermore, a prominent section of extant literature on first-generation students suggests that this student group has limited access to rigorous coursework in high school (Adelman, 2004; Warburton, Bugarin, & Nunez, 2001). Although access to a more academically rigorous high school curriculum could help first-generation students do better in college, access to these courses can mitigate some of the disadvantages first-generation students face but does not fully close the access and persistence gaps (Choy, 2001). Moreover, research does not go further to explore factors that inform disparities in access to rigorous high school classes by first-generation students. Elements that shape this access differently, must be uncovered to begin to address inequities in access to high quality education. However, research does suggest some ways to improve college preparation of first-generation students. These include the development of school-parent partnerships and increasing involvement of family and school personnel in supporting student preparation (Fann, McClafferty Jarsky, & McDonough, 2009; Martinez & Klopott, 2005; Trusty & Niles, 2004; Wimberly & Noeth, 2005).

First-Generation Students Experience in College

Scholars describe the college experience of first-generation students as a function of their unique characteristics, especially regarding student’s ability to remain in college. Influential work on this topic asserted that first-generation students experience problems remaining engaged in college because they are less likely to live on campus and because they receive less support from parents, work more, and do not have as many role models (Billson & Terry, 1982). All these arguments seem to blame first-generation student challenges to aspects that might be beyond their control and ignore the role of higher
education institutions in fostering student success. It is also important to note that the elements listed in seminal work all seem to be associated with family and community factors, which are ultimately defined as threats to college success of first-generation students. However, more recent work has begun to shift this deficit paradigm arguing that parent and family support in college is key for first generation students to achieve higher in traditionally defined academic outcomes including grades and to adjust to college better (Dennis, Phinney, & Chauteco, 2005).

Scholars have also studied the ways in which institutions can support first-generation students to succeed in college. On the pre-collegiate context, first-generation students seem to be more receptive to college preparation materials when they have close relationships with school personnel (Engle, Bermeo, & O’Brien, 2006) This argument amplifies the importance of school personnel involvement in college preparation referenced above (Fann, McClafferty Jarsky, & McDonough, 2009; Martinez & Klopott, 2005; Trusty & Niles ,2004; Wimberly & Noeth ,2005). In college, support expands to more active involvement of parents, family, and peers in fostering the academic success of first-generation students (Dennis, Phinney, & Chuateco, 2005). In sum, general literature on first-generation students places this student group at a disadvantage when it comes to success in college, primarily as influenced by student upbringing. It is worthy to remember that the college experience and success in college is not the sole responsibility of students and that institutions are also responsible for fostering an environment conducive to student success. To continue this conversation on student success, this general overview of first-generation students in college is followed by an in-depth
analysis of research literature on the college experience of students of color with an emphasis on Hispanic/Latinos and Black/African Americans.

**Post-traditional Students in Higher Education**

Post-traditional learners (Soares, 2013) formerly defined as non-traditional college students (Bean & Metzner, 1985) are students who do not follow a post-secondary path perceived as traditional, these students are characterized as being older than the traditional (18-24) undergraduate population, they work part-time or full-time while attending college, are caregivers, and some are single parents (Bean & Metzner, 1985; Soares, 2013). Data from the Center for Postsecondary and Economic Success (2015) reveal that about 40% of the total undergraduate population are post-traditional students. Furthermore, data from the National Center for Education Statistics suggest that 1 in 3 post-traditional students leave college without a credential compared to 1 in 5 traditional students (Choy, 2002). Although these data were last published in 2002 and have likely changed, post-traditional students make postsecondary decisions based on their multiple responsibilities and roles, thus their needs and struggles in college differ from those of the traditional undergraduate student body (Soares, Gagliardi, & Nellum, 2017).

Literature outlines challenges that post-traditional students encounter in college including: isolation, lack of class availability to align with their busy schedules, and financial difficulties (Goncalves & Trunk, 2014). That is, post-traditional students struggle to establish meaningful connections with their peers who are traditional students and feel isolated in college campuses that do not offer spaces or affinity groups for them to meet with students from similar backgrounds. Post-traditional students also encounter
limited class availability which represents a threat to remain enrolled and attain a degree within a reasonable timeframe. Lastly, post-traditional students struggle financing their education and accessing resources for financial support (Benseman, Coxon, Anderson, & Anae, 2006; Schuetze & Slowey, 2002).

Researchers have proposed solutions to strengthen support for post-traditional students in college including: improve organization of studies and curricula offerings to align with the lives of post-traditional students (Dill & Henley, 1998; Schuetze & Slowey, 2002), creating environments that encourage post-traditional students to engage in social relationships (Gilardi & Guglielmetti, 2011), and create programs and structures specifically to support post-traditional students (Benseman et al, 2006; Soares, Gagliardi, & Nellum, 2017). Combined, these supports can foster more inclusive and supportive environments that empower post-traditional students to attain a college degree.

**Hispanic/Latinos in Higher Education**

Many first-generation students also have membership with student of color groups, one of them being Hispanic/Latinos. For this dissertation, the term Hispanic/Latino is used to refer to the umbrella group that represents students who are affiliated with Hispanic/Latino culture and groups from Hispanic/Latino ancestry. Although the Hispanic/Latino community is composed of multiple ethnic and racial subgroups, this section contains literature that explored the experiences of Hispanic/Latino students in the context of the larger umbrella group.

Literature on Hispanics/Latinos and college success produced a plethora of research primarily concerned with identifying the factors that are negatively associated with their ability to succeed in college (e.g. Aguinaga & Gloria, 2015; Arteaga, 2015;
Baker, 2013; Castellanos & Gloria, 2007; Castillo, Conoley, & Brossart, 2004; Castillo et al., 2006; Gloria & Kurpius, 1996; Kuh et al., 2008). A large section of this literature addressed Hispanic/Latino culture in an attempt to deconstruct and establish a connection between cultural values and Hispanic/Latino college success including college transition, adaptation and alignment with normative college values, academic achievement, persistence, and completion (Aguinaga & Gloria, 2015; Gloria & Kurpius, 1996). Scholars that study the experiences of Hispanics/Latinos in college explain that while literature on Hispanics/Latinos is extensive, its focus is narrow in that their culture is consistently viewed under a deficit lens (Rendon, Jalomo, & Nora, 2000). This deficit lens fuels the argument that Hispanic/Latino students who embrace their culture are less likely to find common ground between their own cultural values and those present in college campuses in the United States. Scholars refer to this phenomenon as cultural incongruity (Gloria & Kurpius, 1996; Gloria & Pope-Davis, 1997). In the work of Gloria and Kurpius (1996), cultural incongruity exists when racial/ethnic minority students, Hispanic/Latino students in this case, try to choose between their own cultural values and the norms of White culture on a college campus. Gloria and Kurpius (1996) argue that students are then caught in the middle as they struggle to retain the culture and values with which they were raised while seeking a sense of belonging within the student body and culture of White campuses. Specific feelings associated with cultural incongruity include but are not limited to, feeling overwhelmed, helpless, powerless, inferior, and alone (Arteaga, 2015).

Scholars suggest these feelings are informed by culture, circumstances, and contexts shaped by elements such as low socioeconomic status and lower-levels of
familial education (Arteaga, 2015). Research has found that Hispanic/Latino students who come from lower socioeconomic backgrounds and who have experienced hardships throughout their lives, shared collective experiences of inequitable treatment in educational settings as they struggled to overcome systemic barriers in their educational journeys because college personnel (instructors and student services providers) used their knowledge about them to frame them as deficient or failures (Campa, 2013). The existence of inequitable treatment for students of color on college campuses, while unacceptable, is not surprising. It is reasonable to believe that this phenomenon is informed largely by demographics of college campuses. Current statistics show an imbalanced distribution of student demographics where students of color represent only a third of college students (Musu-Gillette, Robinson, McFarland, Kewal Ramani, Zhang, & Wilkinson-Flicker, 2016); therefore, their experiences will be heavily influenced by those who dominate the college landscape, that is White students and staff who perpetuate deficit thinking around Hispanic/Latino and other marginalized groups (Harbour, Middleton, Lewis, & Anderson, 2003).

Work on cultural incongruity (Aguinaga & Gloria, 2015; Castellanos & Gloria, 2007; Castillo, Conoley, & Brossart, 2004; Castillo et al., 2006) seeks to explore the phenomenon from various angles to demonstrate this dissonance. Specifically, studies around persistence have found that Hispanic/Latino students with higher orientations toward their own culture experience lower adoption rates of university values (Castillo, Conoley, & Brossart, 2004; Castellanos & Gloria, 2007; Castillo et al., 2006). This idea alone centers Hispanic/Latino student narratives around dominant ideologies and norms of traditional college campuses, deeming historical inequitable practices and expectations
as the mold in which Hispanic/Latino students must fit to succeed. That is, students who remain close to family and community when in college are perceived as less inclined to integrate into the campus community and this preference is then linked to a lower persistence rates in college.

Dominant deficit conceptions of Hispanic/Latino culture are supplemented by messaging that portrays Hispanic/Latino students as underprepared for college and therefore less likely to succeed (Barnes & Piland, 2010). One of the ways this claim is substantiated is by statistics that show that Hispanic/Latinos are overrepresented in developmental education courses (Adelman, 2004). Adelman estimates that over 60% of Hispanic/Latinos enroll in developmental coursework once in college, compared to only one third of Whites and Asians. Warburton, Bugarin, and Nunez (2001) explained that Hispanic/Latino first-generation students were less likely to take more rigorous coursework in high school, therefore reducing the possibility of being adequately prepared for the college-level curriculum. Scholars have expanded notions of underpreparedness by adding that Hispanic/Latino students do not possess the study skills necessary to persist in college as these are not common elements in their culture (Bliss & Sandiford, 2010). Similar sentiments are expressed by scholars who assert that Hispanic/Latino students inherit social and cultural capital that is not valued in the college setting thus placing them at a disadvantage (Strayhorn, 2008). There have also been discussions about the ways in which academic preparedness for college is generally measured (Hurtado, Carter, & Spuler, 1996). Boden (2011) reminds us that research on academic achievement is rooted in students’ performance on placement tests. She adds that Hispanic/Latino students tend to score lower on these assessments, which portray
them as less prepared for the academic challenges of college (Cabrera et al., 2006). The combination of statistics and deficit-based understandings of the Hispanic/Latino culture and academic preparation, contribute to conceptualizations of college mismatch (Harper, 2010). This concept of college mismatch posits that students of color gain access to elite institutions via affirmative action practices but are not able to succeed academically because they are not prepared to compete with their more academically advanced peers. Additional research states that because Hispanic/Latino students often do not receive necessary counseling to enroll in college, they come to college with a higher need for mentoring (Defrietas & Bravo, 2012). That is, first-generation Hispanic/Latino students often lack the knowledge that other students have about the best way to successfully navigate the academic and social demands of postsecondary education, generally entering college unprepared in many ways (Engle, 2007). These arguments seem to place a larger responsibility for student success on the students themselves and less on the institutions they attend.

Although the K-12 academic preparation of Hispanic/Latinos and other students varies as a function of the schools they attend (Orfield & Lee, 2005), assuming they arrive in college unprepared because of culture fails to address the systemic forces that heavily influence their access to high quality education. These systemic elements include the association between low-resourced schools found in more economically disadvantaged areas and the largely racialized society in which we live (Fernandez, 2002; Orfield & Lee, 2005). This argument also dismisses the fact that Hispanic/Latinos and Black/African American students are traditionally underserved when it comes to
preparation for standardized college admissions tests and other college preparation activities (Walpole, et al., 2005).

While master narratives around Hispanic/Latinos and college success place a heavy emphasis on the direct association between low-parental educational attainment and low academic achievement (Lee & Bowen, 2006; Ogbu, 1995), scholars are challenging these messages by asserting that first-generation Hispanic/Latino students perceive low parental educational attainment as a major source of encouragement to persist and succeed in college (Arana et al., 2011; Nunez, 2009). Other scholars have conceptualized *consejos* (advice giving narratives) as key factors for first-generation Hispanic/Latinos to develop what they refer to as pedagogies of survival (Campa, 2013). Campa defines pedagogies of survival as

> culturally and historically situated ideologies or ways of knowing that promote resilience. These life’s teachings stem from lessons learned from the participants’ experiences and those of their parents, grandparents, and ancestors as raced, classed, and gendered selves (p. 438).

Pedagogies of survival then serve as support for Hispanic/Latinos in college to overcome socioeconomic, cultural, and personal barriers they encounter as they transition to college (Campa, 2013).

In Hispanic/Latino communities, *consejos* play an important role in the ability of families to convey messaging around education and its value. It is often the case that Hispanic/Latino parents are not able to attain a high level of education and they use this experience to encourage their children to pursue schooling beyond their own attainment (Alfaro, O’Riely-Diaz, & Lopez, 2014; Auerbach, 2006; Delgado-Gaitan, 1994). *Consejos* are advice and narratives that encourage Hispanic/Latino students to defeat
obstacles by offering hope and purpose and infuse values such as commitment to
education, hard work, and dedication to do their best into the student’s pursuit for
education (Delgado-Gaitan, 1994). Ideally, students are then able to carry these values
into the transition to college and transform them into capital to sustain their success.
(Araujo, 2012). Although consejos are primarily thought to originate from parents’
advice (Auerbach, 2006) to their children, literature (Arana et al., 2011) has identified
other ways that families support educational aspirations of their children. For example,
Arana et al. (2011) found that first generation Hispanic/Latino students gained motivation
to succeed in college as they saw their parents were invested in their success. While the
parents may not be financially invested, their support manifested through their hard work
and dedication to sustain their families. In this work, educational aspiration support was
not conveyed through consejos but students gathered motivation to succeed from seeing
their parents and their efforts to support their families as pillars to their success.

Some scholars establish a connection between consejos, pedagogies of survival,
and low familial educational attainment by highlighting that Hispanic/Latino students
develop self-confidence to succeed academically and with that a strong academic identity
from these sources of capital (Defrietas & Rinn, 2013; Gloria et al., 2005; Campa 2010).
These factors are then associated with academic performance (Defrietas & Rinn, 2013).
This argument is supported by the work that explored college persistence using factors
such as academic predictors, self-beliefs, and academic and non-academic mentoring
(Bordes et al., 2011). Authors found that students who graduated had stronger self-beliefs
in achieving success in college. These beliefs were directly associated with persistence
decisions, with more positive persistence decisions related to greater self-efficacy (Crisp
et al., 2015). Another conceptualization of self-efficacy and self-confidence is found in the work of Easley et al., (2012) where these factors were defined as ganas. Ganas are the motivation for Hispanic/Latino students to succeed despite the challenges and barriers they encounter in college (Easley et al., 2012). Having ganas created determination for participants of their study to reach academic success.

Notions of academic aspirations among Hispanic/Latino students presented in this section, are in direct opposition with literature presented earlier, which frames their culture and families as detriments rather than assets for college success. Literature in this section offers an example that sheds light on the limited scope of research that explores the experiences of Hispanic/Latinos from a deficit lens. This work represents some of the elements that are often excluded as scholars attempt to explain the challenges of Hispanic/Latinos in the college setting and a call for continued emphasis on asset-based perspectives to student success.

**Hispanic/Latino Students and Support for Success in College**

A large portion of literature that describes strategies to support retention and college success of Hispanic/Latino students, suggests the development, adoption, and implementation of programming that is culturally relevant and fosters student sense of belonging (e.g., Gonzales, Brammer, & Sawilowsky, 2015; Hurtado & Carter, 1997; Oseguera, Locks, & Vega, 2009). Aguinaga and Gloria (2015) propose the development of programming that honors student experiences via the creation of workshops and other programs that give students the opportunity to engage in self-exploration and self-development as influenced by the context of the institutions they attend. Such propositions might be more achievable at institutions with missions to specifically serve
members of underrepresented communities, including Minority Serving Institutions also known as MSIs. MSIs are a group of colleges and universities that encompasses Black Colleges and Universities (HBCUs), Hispanic- Serving Institutions (HSIs), and Tribal Colleges and Universities (TCUs) (Gasman, Baez, & Turner, 2008). Programming that honors student experiences at MSIs might receive more support as commitment to the success of students from underrepresented minorities is often at the core of the institutional mission. A similar argument can be made for students who enroll at regional and open access institutions whose missions center around student access, affordability, and the needs of their region (Henderson, 2007). This approach, however, might not prove as fruitful for students who attend predominantly White institutions and who experience daily encounters with people and places that are not welcoming of members of their communities.

Other research suggests a slightly different approach where reflection and exploration take place at the institutional level (Chang et al., 2014). This work posits that to support the retention of Hispanic/Latinos in college, institutions must engage in self-exploration to determine ways in which they can better foster student success. This self-examination, as researchers call it, is a call for institutions to become more familiar with the students they enroll (Chang et al., 2014). The ultimate goal of such approach is to develop more culturally inclusive campus environments (Hurtado & Carter, 1997; Museus, 2014) to support Hispanic/Latinos and other underrepresented students. The suggested approach of Chang and colleagues also mirrors recommendations made by others who encourage institutions to assess ways in which they prepare to welcome
students enrolling, particularly as student demographics continue to shift (Brown McNair, Albertine, Cooper, McDonald, & Major, 2016).

Similar suggestions for student support have been posed by scholars who encourage colleges to validate Hispanic/Latino students’ cultural backgrounds. Findings from this work suggest that students who participated in events that were catered to their cultural group had a positive transition from home to the college setting and strengthened students’ engagement on campus and ultimately their retention and persistence (Arana et al., 2011). Their suggestion to support Hispanic/Latino student success via programming is strengthened by narratives from participants in Delgado-Guerrero, and Gloria’s work (2013). Participant narratives in their study alluded to the importance of feeling comfortable, welcomed, and wanted on a college campus for Hispanic/Latina undergraduate students. A way students reported having this experience was through the existence of Hispanic/Latina sororities on campus. Along the same lines, Chang et al., (2014) suggest that institutions can serve underrepresented students better by offering more extracurricular engagement opportunities including participation in student organizations that allow students to engage with their peers as they navigate the academic environment. Once again, though not explicitly stated in the literature presented here, suggestions made by scholars highlight the unwelcoming traits of college campuses and assert the importance of diversifying not only the student body and faculty/personnel but also the practices in place to serve students.

A similar approach found in research encourages colleges and universities to hire or develop culturally competent personnel (Cantu, 2012). For instance, researchers proposed a set of guidelines to inform the process of engaging in culturally competent
counseling at the community college level, suggestions include: (a) guidelines for applying cultura (culture) to community college counseling that can assist relationship building between students and counselors; (b) questions that can be included in students’ evaluation of counselors; (c) counselor interview questions that may elicit behavioral response and assess cultural competence (Arteaga, 2015, p.719-722). Arteaga also proposed the engagement of peer support networks. That is, the creation of counseling groups that initiate dialogue about the needs of Hispanic/Latinos transitioning to college, help seeking behaviors, and career concerns. The purpose of these groups is to support Hispanic/Latino students’ overall wellness and academic performance. In the same vein, Barnes and Piland (2010) proposed the creation of learning communities in specific courses, such as developmental English. They argue that having peer support available to strengthen academic performance and success in class has the potential to translate into increased retention and persistence. More recent scholarship encourages colleges and universities to create more inclusive campus environments to support Hispanic/Latino student success (Kiyama, Museus, & Vega, 2015). Kiyama, Museus, and Vega (2015) propose the use of the Culturally Engaging Campus Environments (CECE) Model (Museus, 2014) as a guiding framework to support Hispanic/Latino students attending predominantly White institutions (PWIs). Authors encourage institutions to dedicate physical space for Hispanic/Latinos to engage in culturally relevant interactions stemming from familism and suggest the addition of curricular pieces that are culturally relevant, and to provide space for opportunities that allow students to give back to their community and feel culturally validated. Tangible applications of these recommendations include, office space dedicated to Hispanic/Latinos, courses addressing the study of
Hispanic/Latino culture, service learning opportunities that address the unique needs of this community, and an expanded understanding of heterogeneity found within Hispanic/Latino culture (Kiyama, Museus, & Vega, 2015).

Furthermore, literature suggests that role modeling is another key aspect in supporting Hispanic/Latino student retention and persistence. Research has found that Hispanic/Latinos in Engineering can see success within reach if connected with leaders in the field who share similar backgrounds (Camacho & Lord, 2011). This approach portrays Engineering as a viable discipline to prospective students as they can see that other members of their community thrived in such White dominated field (Gloria, 1999; Gloria & Castellanos, 2012; Saunders & Serna, 2004). These efforts can also lead to professionalization of fields that can then help Hispanic/Latinos move up the hierarchical ladder in their respective industries (Camacho & Lord, 2011) and disturb dominant negative perceptions that define members of underrepresented communities as less capable of becoming productive members of society (Camacho & Lord, 2011).

Slightly different recommendations suggest the development of learning environments that engage students actively in the co-construction of knowledge (Anaya & Cole, 2001; Gonzales, Brammer, & Sawilowsky, 2015). Arana et al. (2011) assert that these spaces function well when faculty are motivated and invested in student success. In the words of one of their study participants, “When you have professors, specifically like Dr. (name) and Dr. (name). . . when they talk about the material that they focused in, they have such a passion for it and that makes me want to work harder in their classes” (p. 7). Faculty can become actively involved in the academic and overall success of Hispanic/Latinos in college by serving as role models, developing close trusting
relationships with students, and offering students advice on day to day concerns (Cejda & Rhodes, 2004).

More career oriented involvement of faculty includes serving as guides to the field and supporting Hispanic/Latino students to expand their networks and opportunities for employment (Cejda & Rhodes, 2004). The positive impact of faculty involvement and student support is described in the work of Baker (2013) and Cole and Espinoza (2008) who explain that Hispanic/Latinos perform academically better when they have support from faculty. Baker explains, faculty support is more impactful on academic success than the support of peers, including those from their ethnic group. The work of Cole and Espinoza show that faculty support, positively impacted Hispanic/Latino students’ grade point averages. Although this work emphasizes the critical role faculty can play in the academic success of Hispanic/Latinos in college, it does not explain whether faculty in their studies shared students’ background and experiences. Something to consider are variation in outcomes based on how faculty identify.

Additionally, because family and familial connections are an important element of Hispanic/Latino culture, research literature (Devall, Vail, & Resendez, 2005; Gloria & Castellanos, 2012; Gloria, et al., 2005) recommends the creation of family focused programs. This involvement can take part in a variety of ways including attendance of parents and other family members to advising sessions (Devall, Vail, & Resendez, 2005) and active outreach from student support services personnel to make family members part of the college experience. The latter may involve family members who have attended college whose experience and knowledge can be leveraged to support recruitment and retention efforts of Hispanic/Latinos in college (Gloria, et al., 2005). This work aligns
with research that frames parents and families as valued partners in college success (Kiyama, et al., 2015).

**Black/African Americans in Higher Education**

In this dissertation, Black/African American refers to the umbrella group that includes college students who identify with racial and ethnic subgroups of Black or African ancestry. As with Hispanic/Latinos in the college environment, literature that explores academic achievement of Black/African Americans explains lower outcomes as a function of the racial/ethnic composition of college campuses, primarily predominantly White institutions [PWIs] (Allen, 1992; Greer & Chwalisz, 2007). Lower diversity of PWIs further translates into lower quality of relationships between students, their peers, and faculty, which also correlate to lower academic performance (Allen, 1992). Also related to relationships, Bentley, Edwards, and Chapman Hillard (2015) found that prior interactions with White peers, which involved racism related stress, impacted the decision of Black/African Americans on college campuses to engage with their White peers. The authors added that students may choose to increase their interactions with other Black/African Americans on campus as a way to protect themselves from racism related stress and to find validation in the environment of PWIs (Bentley, Edwards, & Chapman Hillard, 2015). Earlier in this paper a similar argument was made about Hispanic/Latinos on college campuses. Seeing this phenomenon also emerge for Black/African Americans confirms that unwelcoming campus environments are a function not only of the traditional culture of college but also of the bodies who occupy those spaces, often those of members of the majority who are not culturally competent to engage successfully with students whose background differs from their own.
As it was also argued earlier in this review of literature that students who do not belong to the majority group in college, find themselves at a disadvantage as they strive for college success (Castillo et al., 2006), issues or isolation and alienation are at the forefront of these concerns. More explicitly linked to Black/African Americans experiencing cultural incongruity on the college campus, Carson (2009) posits that the conflict experienced by Black/African American students who embrace a collectivistic culture can be mitigated by seeking support from other members of their community attending the same institution. Students in Carson’s study found self-confidence to excel academically from within their community and not through engaging with those who did not share their background. This argument is challenged by Cokley and Moore (2007) who suggest that Black/African Americans who retain a strong cultural identity with their community are less likely to succeed academically unless they choose to perform better academically at the risk of being accused of acting White (Fordham & Ogbu, 1986) by their peers. Such assertions convey and perpetuate messages that frame Black/African American groups as incongruent with academic achievement. That is, if a college student chooses to remain connected to their community and values, they are automatically perceived as less likely to reach academic achievement. The burden of cultural incongruity is then placed on the student and the student’s culture as notions such that of “acting White” are used as justification that Black/African American students prefer to not succeed in college because academic success is seen as synonymous with acting White (Cokley & Moore, 2007). Acting White as defined in seminal work by Fordham and Ogbu (1986) refers to “a fear of excelling in academic arenas which traditionally have been defined as the prerogative of White Americans” (p. 2). Other researchers assert
that Black/African American students can succeed in college if they choose to focus their energies on academics rather than on other aspects of the traditional college setting including hostile campus climates and related concerns (Fleming, 2002). Such sentiments assume colorblind and race-neutral ideologies (Yosso, Parker, Solorzano, & Lynn, 2004) that dismiss inequitable components and environments inherent to the traditional college campus, and position Black/African Americans as possessing anti-White perspectives and as students who do not value academic success and consequently are not likely to excel in academia (Cokley & Chapman, 2008; Fordham, 1988). These perceptions are likely fueled by earlier studies on academic achievement of Black/African Americans that asserted that in order for students to excel academically, they had to distance themselves from their community (Fordham, 1988; Fordham & Ogbu, 1986) as academic success was not perceived as a component of the Black/African American identity. A specific example of this phenomenon is in the work of Guiffrida (2004) who concluded that participants of his study made one of their goals to integrate themselves into the culture of their PWIs. Students accomplished this goal, by adopting White norms of the college environment so that they could be more congruent with their White peers. More specifically, these students intended to learn how to relate to their White peers at the unfortunate expense of separating from the cultural norms and values with which they were raised (Guiffrida, 2004; 2005).

In addition to work that suggests Black/African Americans inclination is integration to achieve success, there are perspectives that attribute Black/African American lower achievement in college, to the lack of role models within their community (Cokley & Moore, 2007; Constantine & Greer, 2003; Hendricks, 1994).
Along the same lines, deficit views on the Black/African American community also define connections with families and responsibilities students maintain after enrolling in college as pull-factors, which contribute to lower student persistence in college. Students who experience pulling from family (Crisp & Nora, 2010; Gilford & Reynolds, 2011; Guiffrida, 2005) retain roles as caretakers and remain engaged in family crises and conflicts, which give rise to decisions to remain on or to leave the college campus. Scholars have also concluded that students who are in these situations are more vulnerable in unwelcoming campus climates, which also directly impact persistence decisions (Banks, 2010; Castellanos & Gloria, 2007; Guiffrida, 2005).

Black/African American students are also portrayed in college success literature as less capable of excelling in college. Harper (2009) explains that these conceptions are fueled by ideologies widely accepted in the K-12 educational system. Harper states that the typical experience for a Black/African American child in the K-12 system includes being almost exclusively taught by White teachers who have low expectations for them ranging from “intellectual stupidity to dispassion for learning” (p. 697). He adds that low expectations culminate with dropping out of high school. Harper’s argument is supported by the work of scholars (e.g. Davis 2003; Davis & Jordan, 1994; Jackson and Moore 2008; Toldson 2008) who also studied the experiences of these students in the K-12 system and reached similar conclusions that shed light on the lower expectations of Black/African Americans regarding academic achievement.

Other literature describes instances in which Black/African American students were actively denied from the opportunity to succeed because of these prevailing perceptions. For instance, Baber (2014) found that Black/African American students were
well aware of negative portrayals of their ethnicity and gender, which fueled institutional practices that denied them opportunity. For example, a participant of the study shared that teachers and staff vocalized concerns about their academic achievement, comments such as “we don’t think you’re going to pass” (Baber, 2014, p.1105) were directed at the student. These opinions also made students to be more heavily under surveillance so that if they made a mistake they would immediately be expelled and relocated to alternative schools where they would not have access to opportunities to prepare them well to excel in college. Similarly, Davis and Jordan (1994) found that college counselors were more likely to discourage Black/African Americans from enrolling in college than their White counterparts. However, questioning academic abilities of Black/African Americans does not only happen among faculty and staff but also among peers. A participant in Charleston’s et al., (2014) study indicated that one time she was paired with a White student to complete an in-class assignment and that the White student openly questioned her ability to make a contribution to team efforts. This is only one example in which we can clearly appreciate the pervasiveness of negative ideologies around underrepresented communities of color, which shape institutional practices that limit access to opportunities to succeed in their educational endeavors.

To offer more clarity on the impact of stereotypes and negative portrayals of one’s community, Steele and Aronson (1995) studied the impact of stereotype threat on the intellectual test performance of Black/African Americans. Steele and Aronson operationalized stereotype threat as follows, “the existence of a stereotype means that anything one does or any of one’s features that conform to it make the stereotype more plausible as a self-characterization in the eyes of others, and perhaps even in one's own
eyes” (p.797). To illustrate the influence of stereotype threat, researchers conducted four studies that manipulated the alignment of test performance with ability, tied to stereotypes of Black/African American intellectual ability. That is, whether, test performance was a predictor of participant ability to successfully complete study tasks. Steele and Aronson (1995) concluded that the presence of stereotypes was influential enough to disrupt Black/African American student test performance. They added that even the fact of reminding participants of the stereotype translated into lower test performance. Race for Black/African Americans in these studies was at the forefront of how they were treated. Expectations of their academic competence and abilities to make meaningful contributions were made evident as soon as they encountered members of the dominant group. It is in interactions like the ones presented in the literature that one can quickly see how deeply ingrained negative perceptions around underrepresented groups are in our education system.

Similar to literature around Hispanic/Latino college success and college aspirations, scholars shed light on the importance of family in shaping the college trajectory of Black/African American students (Baber, 2004). Baber describes that Black/African Americans attributed encouragement to succeed academically to parents, grandparents, and older friends. In the case of parents, first-generation students, in particular those from single parent households, used the awareness that their parent was not able to attain a college degree to shape their motivation to excel in college. Often single parents engaged in consistent motivational messaging, which translated into stronger academic aspirations for their children (Baber, 2004; Davis-Kean, 2005). Similarly, Griffin (2006) found that Black/African American students acknowledged the
influence of their families on their motivation to achieve success in college. Comparable to Hispanic/Latino students who developed self-determination to succeed in college from seeing their parents and families struggle, Black/African American students did so as well and in combination with encouragement received from family members. Black/African American students were able to draw upon both internal and external sources to fuel their academic motivation (Ellington & Frederick, 2010). Student motivation and determination to succeed have been linked to academic achievement and persistence in college (Allen, 1992; Cokley & Chapman, 2008). For example, Allen (1992) found that academic achievement for undergraduate Black/African Americans was higher when students possessed higher academic aspirations, although academic achievement varied as institutional context differed between students attending HBCUs and PWIs.

Black/African Americans and Support for Success in College

Literature that describes efforts to support the success of Black/African Americans in college, particularly at Predominantly White Institutions (PWIs), stresses the importance of tailored support programs (Baker, 2013; DeFreitas & Bravo, 2012; Grier-Reed, Na'im & Buckley, 2008). These programs can target Black/African American students specifically as well as offer opportunities for faculty and other university personnel to become culturally competent. Additional strategies include, increases in compositional diversity that reflect demographics of students from underserved communities and opportunities for students to take an active role in informing the development of programs for their community (Creighton, 2007).
More targeted efforts involve the creation of inclusive mentoring programs for Black/African American students. According to Apprey et al. (2014), these programs must include, peer advising and mentoring, faculty participation, initiatives and efforts that are culturally sensitive, and engagement of parents and families to strengthen student support efforts. Aside from these recommendations, Apprey urges institutions to support initiatives that offer spaces for students to feel less isolated and more supported by peers. These include programs such as the Black Male Initiative (BMI), Black Student Associations (BSAs), and Black Greek organizations (Greyerbiehl & Mitchell, 2014). Apprey’s assertions are supported by Hurtado (2002) and Patton (2006), who establish that the success of Black/African American students in college is largely based on the institution’s ability to provide environments that are culturally sensitive and that support students’ development holistically including, academic, personal, and social support.

Other recommendations to support the success of Black/African American students in college include scholarship programs and intensive academic support efforts (Gill & Farrington, 2014). Intensive academic support efforts might include tutoring and advising (Benson, 2000), and counseling services (Gill & Farrington). Gill and Farrington (2014) found that results of a dependent samples T test showed statistically significant differences in Black/African American athlete students’ Grade Point Average (GPA). That is, participants of the intensive academic support program performed better academically, their GPAs were more than one tenth of a point higher than the GPA of students who did not participate. Participants of the intensive academic support program received tutoring and support in the development of academic skills in addition to counseling. Though this program was dedicated to student athletes, authors assert that
this evidence demonstrates the importance of similar efforts in supporting retention of Black/African American students at PWIs.

As with Hispanic/Latinos, research frames interactions with faculty as positive for the retention and academic success of Black/African Americans in college (Wood & Turner, 2010). Students who receive personal attention from faculty, experience stronger engagement in class as demonstrated by greater attentiveness during class and participation in faculty office hours (Wood & Turner, 2010). Other models of faculty support for Black/African American students include faculty participation in the development of student networks with elements that facilitate student success and support. These can include: (a) a safe space, (b) connectedness, (c) validation, (d) resilience, (e) intellectual stimulation, (f) empowerment, and (g) a home base (Grier-Reed, Madyun, & Buckley, 2008). Programs like these allow for intersectional support of students, viewing students holistically and providing close interactions with faculty, who have been framed as important assets to student success in the literature (Baker, 2013; Defrietas & Bravo, 2012), particularly for Black/African American and Hispanic/Latino students. Faculty who intentionally engage with students, particularly at institutions that place importance in hiring faculty of color, is shown to contribute to both academic achievement and sense of belonging of students (Baker, 2013; Museus, 2014).

Aside from faculty support and mentoring programs staffed by university personnel, research also highlights the importance of peer support for Black/African American student success in college. For example, the work of Flowers (2004a) describes student support available at their residence hall. In this context, students who were engaged in supporting their peers, either academically through tutoring sessions or
emotionally and socially offering advice and support with errands, reported higher positive gains in personal development. Additional research by Flowers (2004b) also posits that programming geared toward strengthening academic skills of Black/African American students can be another vehicle to support academic success. These programs might include library experiences and course learning activities (Flowers, 2004b).

The literature also highlights more isolated strategies to support the college success of Black/African American students. One of these strategies calls for the creation of admission committees (Glenn, 2003) dedicated not only to access efforts but also to tracking of students throughout their college experience. These committees are to meet with every student who earns lower grades before re-enrollment in the following term. The group then designs personalized support to each student in need.

College counselors are another group who can help address student concerns more actively. College counselors need to become actively engaged in challenging institutional discrimination and practices that contribute to inequity on campus (Constantine & Watt, 2002; Young & Rogers, 1991). Inequitable practices include but are not limited to biased class curricula and policies that might place Black/African American and other underrepresented students at a disadvantage. This was one of the few pieces of literature that encouraged university personnel to become more involved and call out inequitable practices on campus. What this research did not offer were strategies for college personnel to actively engage in student advocacy in a way that would not jeopardize their job on campus. It also did not specify whether this was a call for all counselors, including those who do not identify as people of color, or just for those who had something at stake in supporting members of their community. Research explains
that college and university personnel of color bear additional burden as they are expected to engage in additional work including advising larger numbers of students and addressing diversity related issues on their campuses (Joseph & Hirshfield, 2011; Padilla, 1994).

Additional efforts that call for external support include the involvement of parents and families in the college experience. For example, Barnett (2004) found that study participants expressed the importance of support they received from parents and families. This support took the form of frequent phone calls, visits, and other interactions that fostered a parent/family student partnership that strengthened students’ college experience. Other research advocates for the creation of scholarship programs with comprehensive services including: mentoring opportunities, study groups and faculty and peer support (Ellington & Frederick, 2010). Ellington and Frederick (2010) investigated how high achieving Black students perceived their success in college including the factors that influenced their ability to achieve in mathematics. All participants of their study were involved in scholarship programs offered by their respective institutions, these programs included financial assistance as well as faculty and in some cases, peer support. Authors concluded that family and community played important roles in student success as they received much support from them before and during college. Ellington and Frederick (2010) determined that their participants also benefited greatly from their participation in scholarship programs that offered them financial support and access to faculty and a network of peers that mentored and advised them.

Conceptual Frameworks to Explore College Success of Historically Underserved Students

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A thorough review of the literature on college success on historically underserved students including first-generation students, low-income students, and students of color, revealed a set of frameworks and theoretical lenses utilized to expand our understanding of their experiences in college. Researchers that integrated a theoretical lens into their work, relied on a plethora of theoretical underpinnings ranging from student development theory (Anaya & Cole, 2001; Baker, 2013) to combination frameworks (Aguinaga & Gloria, 2015; Griffin, 2006; Ojeda, Flores, Navarro, 2011), and theories related to culture and community characteristics and resources (Araujo, 2011, Araujo, 2012; Arroyo & Gasman, 2014; Baker 2013; Campa, 2010; Campa, 2013; Carson, 2009; Cejda, 2010; Griffin; 2006; Nunez, 2009; Ojeda, Castillo, Rosales Meza & Pina Watson, 2014; Ojeda, Flores, Navarro, 2011). This section offers a brief overview of these theories.

Student Development Theory

Frameworks that involved principles of student development theory (Anaya & Cole, 2001; Baker, 2013) relied on postulates developed by Astin (1977) and Tinto (1988) which focused on students’ involvement patterns on campus and on factors impacting student departure. Research that utilized such frameworks focused their exploration of student involvement in relation to interactions with faculty and to address the influence of campus characteristics on the student experience.

Seminal work (e.g. Tinto, 1988,) in student development theory has been criticized for years as being irrelevant to the experiences of underrepresented students who were not part of the creation of such premises. It is not only that these theories were developed a long time ago, but also that they are not relatable to constant changes in the

Today, however, students are increasingly diverse in terms of age, gender, and ethnicity. To the extent that such students have different life histories than the students in the original samples, the generalizability of the resulting theories may be compromised and must be reassessed (p. 30).

Other scholars have also offered critiques and proposed extensions to these theories. For instance, Guiffrida (2006) suggested a cultural extension to Tinto’s (1988, 1992) work that acknowledges that students from underserved groups retain connections to their families and communities while in college. Traditionally, Tinto’s work encourages students to break ties with external stakeholders and fully integrate into the campus community (Rendon, Jalomo & Nora, 2000) to persist in college. Rendon, Jalomo and Nora (2000) also contend that Tinto’s work resembles assimilation ideologies prevalent in the 1960s when members of the minority were encouraged to abandon their culture to become fully integrated into the dominant White society in order to thrive. That said, student development theory models as traditionally conceived, might not be the best frame to understand the experiences of students who do not belong to the majority.

**Combination Frameworks**

Other researchers opted for combining theoretical bases to expand our understanding of students of color including, Hispanic/Latinos and Black/African Americans in college. These framework pairings included psychological and cultural components of students’ behaviors (Aguinaga & Gloria, 2015) as well as social and cognitive characteristics (Griffin, 2006; Ojeda, Flores, & Navarro, 2011). Their application involved looking at students’ persistence decisions, attrition as explained by
individual attributes, sources of motivation, and issues of academic satisfaction among students attending minority serving institutions (MSIs). A rather unique example of the application of these frameworks was found in the work of Arana et al., (2011), which relied on Bronfenbrenner’s theory of ecological systems to explore interactions between students’ roles and the role of the university context and their impact on students’ decision to persist. Bronfenbrenner’s (1979) theory of ecological systems was developed to understand children’s development as a function of interactions within their context. This context included family and school environments, interactions between family and school, larger social systems such as their parents’ workplace, and values, traditions, and costums. Arana et al., (2011) employed three dimensions: (a) student context, (b) university context, and (c) interaction between student and university context to understand Hispanic persistence in college. Authors learned that within the student context dimension, first-generation to college students, acquired motivation to persist from their personal experiences and struggles being the first in their family to attend college. Additionally, faculty and university support services, emerged as two major elements critical for student persistence, reaffirming the importance of university climate to support the success of underserved students.

**Frameworks Related to Culture and Community Characteristics**

Theoretical frameworks that shed light on the culture and community attributes of Hispanic/Latinos and Black/African Americans in college, ranged from seminal work on community cultural wealth (Alfaro, O’Riely-Diaz & Lopez, 2014; Araujo, 2011, 2012) and other community attributes (Carson, 2009; Ojeda, Castillo, Rosales Mesa & Pina
Watson, 2014) to notions of intercultural capital (Nunez, 2009), social capital (Cejda, 2010; Ojeda, Flores, Navarro, 2011), and familial capital (Campa, 2010, 2013).

Broadly, perceptions around Community Cultural Wealth were explored within the context of the College Assistance Migrant Program (CAMP) to expand understanding of knowledge students acquired from working in agricultural fields alongside relatives, and how students used community cultural wealth to transition from high school to college (Araujo, 2011, 2012). The Community Cultural Wealth model developed by Yosso (2005) highlights six types of capital including: aspirational capital, familial capital, social capital, navigational capital, resistance capital, and linguistic capital. Yosso’s model intends to serve as the lens through which college and university professionals interact with students, particularly students of color. The model recognizes and honors the talents, assets, and strengths that students of color bring with them to college. Further, her model is inclusive of capital that emerges from a variety of sources including family and community (Yosso, 2005). Additional application of Community Cultural Wealth concepts involved exploration of cultural practices such as consejos and their influence on the college success of students (Alfaro, O’Riely-Diaz & Lopez, 2014; Campa 2010).

An interesting application of collectivism, as an attribute of Black/African American culture (Carson, 2009) was in the exploration of students’ conceptualization of the purpose of higher education. Carson’s understanding of collectivism was informed by the contributions of Taylor and Moghadan (1994) and Triandis et al. (1988) who defined collectivism as the sense of connection and responsibility for one’s group. Further, Carson explained that for the Black/African American community, collectivism involves
an abstract yet tangible boundary that separates members of the community from outsiders. This boundary comprises safety and security for members of their community (2009). Her study also included students’ role and perceptions around academic success with an emphasis on the potential disconnect existent between students’ background and ideologies and the culture and context of the university environment (Ojeda, Castillo, Rosales Mesa & Pina Watson, 2014).

Additional work (Nunez, 2009) used the concept of intercultural capital (Tanaka, 2003) to suggest the creation of intercultural campus climates that allow for a mesh of student cultures and where no one culture dominates. Tanaka’s argument was shaped by an 8-year long study of race and ethnicity on college campuses. He advocates for “a framework for diversity that builds on the strengths of multiculturalism and promotes learning and sharing across differences” (p. 3). His argument is further supported by ideologies that position diversity as beneficial for White students on college campuses (Tanaka, 2003). This concept relates to generic notions of diversity where the intentionality resides within the goal of embracing cultural differences as they are thought to enrich the White student experience (Otten, 2003).

More targeted notions of capital in the student experience involve a closer look at social capital (Cejda, 2010; Ojeda, Flores, & Navarro, 2011) and the networks that contributed to degree completion. Interestingly, the work of Cejda focused not on the social capital students acquired prior to enrolling in college but rather on the capital they developed while in college. In terms of familial capital, Campa (2010 & 2013) employed familial practices and oral histories to understand the resilience of students at community colleges and their skills and motivation to survive and thrive. Campa also emphasized
Funds of Knowledge (Moll, Amanti, Neff, & González, 2005; Velez-Ibanez & Greenberg, 1992) and asserted that Mexican American students paired their funds of knowledge with perceptions and notions of power, in the college context and at home, to successfully navigate and negotiate interactions between family and university settings. Funds of Knowledge are the strategies and knowledge accrued in a household over time that allow the household to function (Velez-Ibanez & Greenberg, 1992; Moll, Amanti, Neff, & Gonzales, 1992). Further, Funds of Knowledge are grounded in the networking that allows communities to benefit the most from this knowledge (Velez-Ibanez & Greenberg, 1992). In Campa’s (2013) piece, the emphasis was placed on the concept of pedagogies of survival, which emerged from the combination of multiple forms of capital and familial assets such as orgullo (pride) and sabiduria (wisdom) to support student resilience amidst inequitable characteristics and practices inherent to traditional college settings.

Overall, theories employed to understand the college experience of historically underserved students ranged in nature and scope. Some relied on older tenets that were developed for a specific group of students, while others borrowed from notions in psychology and sociology, or placed a larger emphasis on the contexts from which students originated. Traditional frameworks of student development theory are not inclusive, and they tend to place a larger emphasis on the individual and ascribe negative definitions to external stakeholders in the student experience. The large focus on the individual as responsible for their own success excludes institutional and external factors that shape the stories of students differently.
Similarly, frameworks that rely on psychological foundations also miss out on the collective nature of student of color cultures, by only focusing on the student as an individual member of the college setting. These two types of frameworks and theories place a large responsibility on students and less on the college to develop or identify efforts to empower them to succeed. Emerging scholarship attempts to shift this frame by placing the responsibility on colleges and universities to become student ready as opposed to expecting students to be college ready (Brown McNair, et al., 2016).

On the other hand, cultural frameworks expand this narrow focus to include family and community elements and interactions that influence the student experience. Some of these frameworks are beginning to place a larger value on the importance of familial support and interactions during the college experience. Others focus on the acquisition of these forms of capital but on the campus setting rather than externally. Only those studies that included Hispanic/Latinos and students of Mexican descent began to see the value of students’ knowledge and experiences gained in the household and through interactions with family and community members (see Campa, 2010, 2013).

One might wonder what the various frameworks presented in this section have in common? Generally, they share a focus on attempting to identify ways that students can be supported toward degree completion. It is difficult to identify a pattern in the choice of theory to inform the design or development of studies, specifically those involving Hispanic/Latinos and Black/African Americans, aside from a larger emphasis on Hispanic/Latino student families and on other components of their culture and experience. It appears the theories are slowly moving toward more inclusive ways of understanding the student experience but some remain focused solely on the individual.
This emerging trend on more inclusive frameworks guides my dissertation’s theoretical underpinnings, which emphasized the assets that students from underserved communities infuse into their college experience. The sections below describe in more detail the theoretical lens that drove this Transformative Mixed Methods study.

**Theoretical Framework: Funds of Knowledge**

Philosophical foundations of research studies are not often made explicit in published manuscripts. Nevertheless, it is important to understand their role in guiding research inquiry. Crotty (1998) offers a framework for thinking how philosophical underpinnings guide the design of mixed methods research. This framework includes: (1) paradigm worldviews and philosophical assumptions, which inform (2) theoretical lens used in the study, which shaped (3) the methodological approach that includes (4) processes to collect, analyze, and interpret data. As noted in Crotty’s framework, the second element encompasses theory that guides the study. This lens or standpoint influences the methodological approaches to collect, analyze, and interpret data (Creswell & Clark, 2011). In my Transformative Mixed Methods study, I drew upon both the Transformative paradigm and the Funds of Knowledge (fok) conceptual framework. The section below presents a review of the use of the fok framework from its emergence to current times.

**Origins of the Funds of Knowledge Conceptual Framework**

While this compilation of Funds of Knowledge literature is not exhaustive, it represents, major and foundational pieces that have shaped research on the topic. Among the first appearances of fok in literature is Wolf’s (1966) *Peasants*, expressed in what he termed surpluses and funds present and exchanged within rural populations. Wolf
referenced several funds that rural communities must manage to ensure survival. These included caloric surpluses, funds of rent, ceremonial funds, and social funds. Caloric funds were described in physiological terms as the minimum amount of calories a person needs to balance energy spent on daily labor activities. In this regard, cultivators were expected to produce crop to meet minimum caloric needs and to produce additional seed to feed their livestock and for the next year’s crop. Similar to caloric surplus, funds of rent consisted of the production necessary for the payment of dues for tenancy of the land to cultivate crops. These dues were to be paid to a landlord who had ownership over the land. Funds of rent could consist of produce, labor, or money. In contrast, social funds were closely tied to ceremonial funds as they involved the development of social relations among members of the community, such as helping each other securing food, marrying outside of the household, etc. In order for social relations to exist, ceremonial funds must be in place. Thus, ceremonial funds, were defined as funds to help maintain the social structure of rural societies. In other words, ceremonial funds are funds against which expenditures of social relations are charged such as marriages and the ceremonial involved with such social exchange. Wolf added that ceremonial expenditures involve cultural tradition and thus the size of ceremonial funds vary across societies. Although Wolf’s work shed light on the many ways rural communities manage to survive, he did not explicitly underscore the importance and value of the knowledge and skills these communities embodied, especially with respect to their relationships with those in power.

However, twenty two years later, Velez-Ibanez (1988) published a piece on mediating responses at the local level among Mexicans in Mexico and Mexicans in the U.S. through what he defined as networks of exchange. At the core of his work was to
challenge “ethnocentric cliches” (Velez-Ibanez, 1988, p. 28) about the Mexican population living on the Mexico and U.S. side of the border. These perspectives framed these communities as non historical, apolitical, maladaptive, and passive (Vaca, 1971). Velez-Ibanez hoped for his work to spotlight active agency of Mexicans in Mexico and the U.S. and to demonstrate that networks of exchange are a “history and culture making process” (p. 28) which empower communities to mediate “political, economic, and social disadvantage” (p.28).

Networks of exchange included the many social relations in which members of these communities existed, both consanguineal relations and fictive affinity connections. Velez-Ibanez studied networks of exchange as mechanisms through which these communities of Mexicans in Mexico and in the U.S. developed social platforms to defend their political interests, promoted economic cooperation, created households clustered in dense social relationships and influenced by all these factors, acquired cultural identity and affinity. He argued that social networks mediated uncertainty caused by economic disparity, political inequality and differential access to institutional resources. Four contexts were at the center of his inquiry, (1) political action groups in Mexico, (2) tandas or credit associations in California, (3) clustered households with dense relationships in Tucson, and (4) childhood communication patterns in dense social relations.

Among the issues that communities addressed through networks of exchange included environmental problems, conflicts around land tenure, poor urban infrastructure, and a multitude of other problems including poor educational opportunities, uncontrolled political corruption, and poor health and nutrition, etc. In most cases, communities achieved success through negotiations with leaders, dense and reciprocal relations and
through social relations carried into these activities from other contexts such as kinship, friendship, economic exchange, etc. For instance, *comadres* (Godmothers) were tied together by shared political, economic, and physical conditions. That is women used networks as protective shields from eviction by effectively using these networks to communicate asking children relay information, these activities strengthened relationships among women and men and developed a cohort identity in residentially based networks. Velez-Ibanez concluded that confianza and heavy reliance on multiple clustered networks do serve to mediate uncertainty of disruptive events and differential access to institutions but do not solve problems (1983; 1988).

It was in this piece that Velez-Ibanez also introduced fok, particularly in relation to clustered households in Tucson, AZ. He asserted that fok “include a wide array of familial, household, neighborhood, and institutional contexts” (Velez-Ibanez, 1988, p.38). And added that

fok include information and formulas containing the mathematics, architecture, chemistry, physics, biology, and engineering for the construction and repair of homes and mechanical devices as well as methods for planting, gardening, cooking, butchering, and of making things (p. 38).

Additional components of fok include information about access to institutional assistance, school programming, legal assistance, and transportation as well as information about most economical places to access services and goods. Velez-Ibanez theorized that fok existent within clustered households made these homes more self-sufficient. He also explained that even when knowledge and skills are not readily available, members of clustered households mobilize social relations to address their
needs. All in all, fok are developed, sustained, and exchanged by strong social relationships grounded in trust and expectations for reciprocity.

Research by Velez-Ibanez (1988) was followed by a co-authored manuscript with James Greenberg, which explored the formation and transformation of fok among U.S. Mexican households (Velez-Ibanez & Greenberg, 1992). At the center of this work was an attempt to disrupt the deficit model through which public schools designed teaching for students from historically marginalized communities or otherwise for students considered culturally different from the majority. Their motivation to pursue this work was fueled by their belief that schools ignored fok, which they defined as “strategic and cultural resources” (p. 313) present within U.S. Mexican households. Velez-Ibanez and Greenberg asserted that fok offered an opportunity for schools to understand the cultural identity of students, which in turn would strengthen relationships between teachers, students, and their parents and ultimately could improve educational quality and equity. Thus they set out to explore and present processes through which U.S. Mexican households developed their cultural identity from a historical perspective. Velez-Ibanez and Greenberg concluded that generations faced different struggles, nonetheless, they overcame such challenges with human creativity and great capability to mobilize their social networks. Like in the work of Velez-Ibanez (1988), once again, social networks facilitated transmission (Velez-Ibanez & Greenberg, 1992) of necessary knowledge and skills to fulfill needs and navigate inequity forces.

From a historical standpoint, Velez-Ibanez and Greenberg (1992) explain that the development of the U.S.-Mexican identity was greatly influenced by the rise of capitalism in Southwestern U.S., which was accomplished by industrialization and
immigration policies that sparked the creation of binational households continuously struggling with changing economic and political forces. These forces in turn informed changes in the fok including cultural and behavioral practices among U.S.-Mexican households. Velez-Ibanez and Greenberg argue that constant changes along the border region also reframed ethnic identity from culture to legal citizenship, which separated and differentiated documented from undocumented persons. These changes in immigration policy also gave rise to cross-border relations where the binational households referenced above prevailed. The authors explained that Mexican households existed nested within extensive social networks that facilitated engagement with relatives on both sides of the Mexico-U.S. border.

In terms of fok formation processes, Velez-Ibanez and Greenberg (1992) asserted that the constant shift of economic and political forces along the border impacted the ability of local populations to maintain control over the means of production. They added that most of these households had relatives who were farmers, ranchers or relatives engaged in craft activities. Traditionally and until industrialization came to the border region, these households worked to produce much of what they needed for survival. This context encouraged them to develop and possess a wide range of knowledge and abilities to fulfill the multiple needs of their households and communities. This setting, the authors assert, gave rise to fok as a combination of adaptive strategies that encompassed “largely rural skills, experience, technical knowledge of habitat and survival” (p. 318). They added that fok are “bodies of knowledge of strategic importance” (p. 314) for households to maintain their well-being. Their definition resonated with early conceptualizations of fok in the work of Wolf (1966), which alluded to the larger set of
activities and knowledge necessary for agrarian rural communities to engage in efforts for survival and sustenance. Moreover, fok are not only present within households they also exist within clusters of households and represent “currency of exchange” (p. 318) across generations and function as “cultural glue” (p. 318) of exchange relations (Velez-Ibanez & Greenberg, 1992).

To offer some examples regarding the transmission of fok, Velez-Ibanez and Greenberg (1992) shared the story of the Serrano’s family. The Serranos consist of a clustered household including grandparents, their children, and their grandchildren. The Serranos engaged in a variety of activities with the grandchildren where they teach them the skills at which they excel in their occupations and lives. The grandmother teaches her grandchildren computational mathematics while the grandfather teaches them and allows them to experiment building and repairing household items. The serranos are also very engaged with their religious community and strongly believe that the devotion to Catholicism within their family has supported their children “turning out right” (p. 320).

While fok were originally located within the home, technological changes and the expansion of capitalism relocated them to work activities where workers were required to become specialized rather than generalists. This shift meant that not all fok that households needed to maintain their well-being were found at home. Therefore, households had to adapt and turn to formal institutions for assistance including schools, government offices, and labor unions (Velez-Ibanez & Greenberg, 1992). Also due to this shift in the form and location of fok and because of expanded participation in the labor market, which facilitates movements within the social class hierarchy, it is unlikely for fok in succeeding generations to endure or to be transmitted unless future generations
remain within the same class or if the fok are translated into new knowledge (Velez-Ibanez & Greenberg, 1992).

Additional fok work published around the same time (Moll, Amanti, Neff, & González, 1992) encompassed findings from *The fok for teaching project*, which engaged households, researchers, and teachers in Tucson, AZ. *The fok for teaching project* studied household dynamics within a sociohistorical context, classroom practices, and included after school study groups with teachers and researchers to analyze classroom instruction. The purpose of this pilot study was to innovate classroom instruction by drawing on the fok, knowledge and skills, present within local working class Mexican communities. Members of the project theorized that by capitalizing on household and community resources they could develop classroom instruction of higher quality compared to current offerings. Their study included 100 households. Among the factors they took into account as they identified the fok of these households included understanding the history of the border region, which sparked a multitude of changes for communities residing in the area and analyzing the social history of the household including their labor history. The research team believed that household labor history would reveal bodies of knowledge. They concluded that fok found among the 100 households participating in their study included bodies of knowledge in areas such as, agriculture and mining, material and science knowledge, economics, medicine, household management, and religion. In this work (Moll et al., 1992) also asserted the importance of social networks in facilitating the development and exchange of resources through knowledge, skills, and labor, as households efficiently mobilized these social relationships when in need. Additionally, they explained the role of children in these
contexts as active members of their households both contributing to their functioning and being exposed to learning a variety of knowledge and skills from adults they trust. Their findings counter perceptions of working class families that describe them as “socially disorganized and intellectually deficient” (p.134). In applying their learning from fok found in households, some teachers decided to create modules and units that engaged these topics, specifically, one teacher developed a unit on candy after learning that one of her students made candy for sale.

The fok pilot project was followed by a second phase, in which teachers took on the role of researchers in the project. That is, during the first phase of the study, researchers provided their insight from the work to teachers, who then reshaped their teaching practices in accordance with relevant researcher recommendations, during the second phase of the study, however, teachers developed their own insights from the research and relied on these to directly impact their classroom approaches and teaching behaviors (González et al., 1995). Once again, at the core of this inquiry was to challenge views of students from working class families as being intellectually deficient and lacking social resources. Their premise was to emphasize knowledge that students possess and use this as foundations for learning in the classroom. Researchers extracted household fok from studying the household labor history (González et al., 1995). Among the fok uncovered in this study are, farming, animal husbandry, knowledge about construction, trade, business, and finances. Additional bodies of knowledge included caring for children, household chores, and making tortillas for eating and selling (González et al., 1995). Two major transformations were experienced by teacher researchers in regards to their perceptions of culture and families of the students in their
classrooms (1) “culture is a dynamic concept and not a grab bag of tamales, quinceaneras, and cinco de mayo celebrations” (p.456). That is, culture emerges from lived context and practices. And (2) teachers’ experience debunked “the idea of households as lacking worthwhile knowledge and experiences” (p. 457).

Initial Application of Funds of Knowledge

Continuing with the development of fok research, Norma González, Luis Moll, and Cathy Amanti (2005) edited a text titled Funds of knowledge: Theorizing practices in households, communities, and classrooms. Their volume offered a compilation of foundational fok research in the U.S. as well as ways in which other scholars adopted the fok concept in their work. Some of these pieces included a study of the social impact of the oil industry in a Southern state (Brenden, 2005), which involved teachers as fieldworkers in their communities and an inquiry that engaged teachers in the study of literacy practices among Puerto Rican families in New York city (Mercado, 2005), which revealed a wide array of fok developed through lived experiences which families accessed through friends, relatives, and social institutions. Mercado (2005) also asserted the heterogeneity of households as impacted by external social and structural forces. Additional work included a study to challenge pre-service teachers’ perceptions of inner-city urban populations through understanding the impact of social forces and the resources found within communities that mediate these impacts (Buck & Sylvester, 2005) and a study that explored the mathematical knowledge of households and how daily tasks that involved mathematical knowledge could be “mathematized” in the classroom (González, Andrade, Civil, and Moll, 2005). Researchers found that it was difficult to pinpoint mathematical principles in daily household activities such as sewing and
construction by simply asking their participants to identify these concepts grounded in daily activities. They concluded that in order for fok to acquire practical meaning, they must be systematically transferred and socially mediated. To illustrate this practice they offered an example where senora Maria gave a sewing lesson to a group of other women. As senora Maria systematically guided the other women through the process of sewing a dress, she uncovered a variety of mathematical geometry concepts (González et al., 2005), which were meaningful for the women at the meeting.

Prior to 2010 there was additional work that engaged the fok concept within the prek-12 educational landscape including Riojas-Cortez (2001) piece on fok displayed by preschoolers in socio dramatic play. Her work intended to challenge traditional notions of Mexican American culture, especially culture being reduced to artifacts including papel picado (pecked paper), flags, and pinatas. Her argument was that hers and her students’ heritage consisted of fok that enabled people to complete daily tasks and tasks in the classroom. In her study, she relied on sociodramatic play as a mediation tool for students to learn and for teachers to learn more about their students (Riojas-Cortez, 2001). There were two components to her study: children sociodramatic play in the classroom and interviews with parents of students. Fok that emerged from sociodramatic play included: childcare, household care, family values and traditions (Christmas, living together, talking on the phone with grandma), family entertainment (going to a party, going to a circus, etc), friendship, travel/geography, popular TV/culture (power rangers), education, economics, scientific knowledge (a tornado is coming), ranching and farming (branding animals), and construction. Among the fok that emerged from interviews with parents are, language in regard to parents wanting their children to become bilingual in English
and Spanish, values and beliefs including proper behavior for children, household care, and the value of education, which parents asserted as one of the most important values of their family during interviews (Riojas-Cortez, 2001). This work was followed by a co-authored manuscript (Riojas-Cortez & Bustos Flores, 2009), which presented findings from a study which identified socioemotional values present in Mexican immigrant and Mexican American families of preschoolers in South Texas. Riojas-Cortez and Bustos Flores found the following fok present among the 65 families that took part in their study, family values such as open communication with children and listening, other values included, manners, love, family unity, and religion (Riojas-Cortez & Bustos Flores, 2009). Additional fok included, friendship, sharing, respect, and literacy as family value (Riojas-Cortez & Bustos Flores, 2009).

Another piece (Moje et al., 2004) exploring the fok from which secondary students draw to produce oral and written texts identified the fok accessible through family, community, peer groups, and popular culture. Family fok included parents’ occupations inside and outside the home, travel across countries, and environment and health funds. Community fok consisted of strong ethnic identity, a commitment to social activism, and a commitment to empower youth to succeed. Peer group fok included peers helping students with “how to” do school and how to write academic texts. Lastly, fok from popular culture included music in Spanish, print magazines about music and artists, news media that addressed issues impacting their communities, and television and movies, which informed academic aspirations of youth. For example engineers or mechanics who did amazing things in action movies (Moje, et al, 2004). Furthermore, Rios-Aguilar (2010) studied the relationship between fok and the academic and non-
academic outcomes of Hispanic/Latinos in K-12. Her findings revealed that there is a statistically significant association between Fok and student academic and non-academic achievements. Rios-Aguilar encouraged institutions to focus less on stereotypes and deficiency views of Hispanic/Latino families and students and more on capitalizing on Fok to foster academic and non-academic success. Using high school as setting, Garcia (2017) offers an approach to engaging fok including popular cultural games youth play to spark creative resistance and support the development of critical social consciousness among high school students.

**Funds of Knowledge in the International Arena**

International Funds of Knowledge research includes Lew Zipin’s work on disadvantaged communities in Australia. Zipin’s work, like the work of fok scholars in the U.S., asserts the importance of understanding and drawing from fok and elevating fok to possess the same value as what is traditionally considered classroom knowledge (Zipin, 2009). Zipin also critiques U.S. fok approaches and suggests an alternative approach to studying fok by bringing into the secondary classroom what he terms “dark fok” or knowledge from negative experiences in the lives of students such as living in places plagued with crime and drugs. The “dark fok” term has recently been reframed to fok “existing within dark spaces” by Giraldo, Huerta, and Solorzano (2017, p.50). Zipin’s argument was grounded on the idea that only considering positive or “light” fok masked the larger structural systems that perpetuate inequity among these communities. The same idea was introduced earlier by Lubienski (2003) as she argued how focusing only on positive views of diversity obscured societal power structures of dominance. Zipin also argued that incorporating the rich lifeworlds of students in the curriculum including dark
fok is vital in the development of social-educational justice curriculum (Zipin, 2009). Further, Zipin and colleagues recognized that the difficult conditions with which some communities have to deal, precludes such communities to activate and mobilize their fok (Zipin, Sellar, & Hattam, 2012). While not explicitly expressing ideas from a deficit paradigm, Zipin and colleagues posed that in some communities where poverty reigns, the formation of cohesive social networks is not possible. Zipin, Sellar, and Hattam (2012) arrived at this conclusion after attempting to and being unable to catalog community fok among members of a economically disadvantaged community in Australia.

Additional international fok research includes the work of Moises Esteban-Guitart and colleagues on fok among families and students in Spain. Of special relevance is a piece that presents the fok of knowledge of a Moroccan family living in Spain and strategies for teachers to identify fok (Esteban-Guitart, Oller, and Vila, 2012). Using the fok definition proposed by Moll, Tapia, and Whitmore in 2001, which includes the social networks that connect households with other households to share and exchange resources including knowledge, skills, and labor essential for households to function (p.186), Esteban-Guitart and colleagues concluded the following. Fok identified in this Moroccan family included, language (the family spoke Arabic, French, Catalan, and Spanish), construction fok (related to the father’s occupation), cooking fok, and religion (specifically Islam). Among their recommendations for teachers to uncover students’ fok included, to start classroom activities eliciting knowledge that students bring from home, become familiar with local and cultural norms, and engaging students in activities based
on their community, including knowledge of their community (Esteban-Guitart, Oller, and Vila, 2012).

Another international fok article was published by Andrews and Yee (2006) where authors explored the fok of minority ethnic communities in the UK through two case studies of children out of school play. Authors concluded that Nadia and Saqib, the two children focus of the study engaged in different fok activities that involved money and supported the functioning of their family. Andrews and Yee believed that Nadia and Saqib’s experiences at home could be brought into the classroom to support the academic achievement (Andrews & Yee, 2006). Additional international work that proposed to complement the fok concept includes, Zipin and colleagues sociological framework to study educational aspirations among marginalized communities (Zipin, Sellar, Brennan, & Gale, 2015) that engages notions of capital and fok and Esteban-Guitart and Saubich (2013) piece on fok and funds of identity. Authors pose that as other researchers (Rios-Aguilar, Kiyama, Gravitt, & Moll, 2011) have asserted, the fok framework is limited in a few ways (1) most fok work engages qualitative inquiry and falls short from exploring the relationship of fok with student outcomes and (2) fok work has explored fok within the family and activities and practices of family members but has failed to incorporate the perspectives of children themselves. To these ends, authors propose the concept of funds of identity to complement fok based on critiques of the fok approach (Esteban-Guitart & Saubich, 2013; Esteban-Guitart & Moll, 2014). Funds of identity are defined as “resources, technology, or artifacts, historically accumulated, culturally developed, and socially distributed and transmitted, essential for self-definition, self-expression, and self-
awareness” (p. 201). Therefore, fok are considered sources for the development of funds of identity.

**Funds of Knowledge and the Transition to College**

Despite the fact that studies have utilized Funds of Knowledge to explore issues in the PreK-12 system, additional work employing this conceptual framework in higher education is limited. There are only a few studies that have used Fok during the high school-college transition. Three of them have studied the role of fok in the development of college aspirations, the college going paths of Mexican American families, and the transition to college of Latino students (Kiyama, 2010, 2011; Rios-Aguilar & Kiyama, 2012). Kiyama studied the formation of educational ideologies of Mexican-American families in an outreach university program (2010). Engaging the fok concept along with notions of social and cultural capital, Kiyama (2010) learned that social networks and academic cultural symbols influenced the development of educational ideologies among Mexican-American families. On the other hand, she identified financial concerns and families’ overreliance on a resource book provided by the program as potential barriers to college aspirations. Kiyama (2011) identified similar fok among Mexican American families in her piece about college-going paths. In this manuscript, Kiyama points out to important fok present within these families including life lessons information transferred through consejos, household repair and reciprocity in services, and engagement in family business that prompted learning about finances (2011). Similar work has been carried out more recently by (Mwangi, 2017) in exploring the familial, community based knowledge and skills that sub-Saharan African immigrants in the U.S. engage to prepare for college. Mwangi identified fok among this community including college aspirations as a family
endeavor in the quest for social and economic mobility, the important role of family members and community members in shaping college aspirations, and the role of community in supporting families with various needs including child rearing (2017). With an emphasis on Latino students, Rios-Aguilar and Kiyama (2012) found that college fok present within Latino families in their study helped demystify and make college access look closer within reach for these families and that families develop career aspirations for their children informed by family college fok. In addition to their work with fok in college access Rios-Aguilar and Kiyama in collaboration with colleagues Gravitt and Moll (2011) proposed an approach to fok that included notions of social and cultural capital. Their approach encouraged fok scholars to move beyond the focus on uncovering fok to emphasize transmission, conversion, and activation/mobilization of fok from a capital approach but cautioned scholars about using notions of capital from a perspective that privileges the dominant class and culture.

Funds of Knowledge in Higher Education

The incorporation of fok in Higher Education includes studies that shed light on the fok of previously incarcerated, formerly gang involved students as they transition to the community college classroom (Giraldo, Huerta, & Solorzano, 2017). This study in particular encourages faculty, staff, and students to become aware of institutional structures, policies and practices that pose barriers to student access and success (Giraldo, Huerta, & Solorzano, 2017). This calling resonates with Bensimon’s (2006) presidential address to the Association for the Study of Higher Education community, where she asserted the importance to uncovering and developing practitioner fok for equity (Bensimon, 2007). Furthermore, fok research in higher education has also increased our
understanding of the experience of undocumented students attending elite institutions (Montiel, 2016). Montiel employed the concept of hacerle la lucha (taking on the struggle) (Garcia, 2004) as a mechanism from which students drew fok and found that study participants engaged notions of hard work, determination to succeed, and resourcefulness as components of “putting in the work” (p. 133) to reach their goals. Among the fok that participants developed in their efforts to take on the struggle were developing cooking, child care, and cleaning skills (Montiel, 2016). Montiel also offers insight on how these students converted their fok into financial capital to support themselves through college, before and after DACA was established (2016). This application of fok filled an important need asserted by Rios-Aguilar, Kiyama, Gravitt, and Moll (2011) as part of their fok approach that incorporated fok and notions of capital. In the pedagogical realm Mora and Rios-Aguilar (2017) offered recommendations to develop a fok pedagogy to community college teaching. At the center of their proposal is to encourage community college faculty to first learn about themselves including what informs their teaching philosophies and classroom practices and to have other faculty observe their teaching. Rios-Aguilar and Mora argue that if/or when faculty realize they are teaching from a deficit paradigm, they are more likely to reflect and consider more inclusive pedagogy (2017). Furthermore, Neri (2017) studied how fok informed students career aspirations in a concurrent enrollment Police career technical education program. Among the fok Neri (2017) identified from participants stories include, immigration history, language, employment, community knowledge, sports, knowledge present in dark spaces (Giraldo, Huerta, & Solorzano, 2017), and religion. What follows in Figure 1 is a timeline of the use of the fok framework from its inception to current times.
Figure 1. Implementation of the funds of knowledge framework across time and geographic boundaries.
Kiyama
- Fok in college going paths
- Lessons transferred through consejos
- Hy repair
- Reciprocity in services
- Exposure to fam. business prompts learning

Kiyama et al.
- Critiques to fok framework
- Qualitative inquiry
- Scarcity of work exploring outcomes
- Households as unit of analysis
- Fok & social & cultural capital

Esteban-Guitart & Moll
- Funds of identity derived from fok

Kiyama & Rios-Aguilar
- Second fok volume

Rios-Aguilar & Kiyama
- Family college fok

Esteban-Guitart, Oller & Villa (Spain)
- Fok found in dark spaces such as crime, gangs
- Liquid modernity & fractured social networks

Ziglin et al.
- Sociological framework to study educational aspirations among marginalized communities, critique to fok framework
Funds of Knowledge in this Research Study

Borrowing from the body of literature presented above and for the purpose of this study, Funds of Knowledge are defined as the collection of knowledge and skills that college students acquired through their socially constructed lived experiences and that ensured their persistence and success in college, and their sustenance in life. Thus fok mediate power structures and systems that produce uncertainty and perpetuate inequity, as students creatively transform and recontextualize their fok into tools that empower them to successfully navigate the college context.

The following tenets of fok shape the way in which the conceptual framework informed my dissertation study:

1. Fok help communities challenge power and dominance structures as they mediate uncertainty caused by economic disparity, political inequality, and differential access to institutional resources (Velez-Ibanez, 1988). Fok are strategic resources.

2. Fok include a variety of contexts including familial, household, neighborhood, and institutional contexts (Velez-Ibanez, 1983; 1988; Velez-Ibanez & Greenberg, 1992).

3. When not present fok are accessed and developed through the mobilization of social networks, which challenge notions of historically underserved communities as socially unorganized (Velez-Ibanez, 1988). When fok cannot be found within social networks and communities, individuals turn to formal institutions for assistance (Velez-Ibanez & Greenberg, 1992).
4. Fok include dynamic cultural and behavioral practices and are not simply “a grab bag of tamales, quinceaneras, and cinco de mayo celebrations” (González et al., 1995, p. 456). Thus fok are grounded in lived contexts and practices (González et al., 1995).

5. Fok are transmitted through social networks that activate labor services, and access to information and resources (Moll, Amanti, Neff, & González, 1992; Velez-Ibanez & Greenberg, 1992).

6. Fok can represent the fabric for academic concepts but must be transformed and transmitted through a connection to systematic concepts and in social world settings available through social relationships (González et al., 2005). Human beings and their social worlds are inseparable, therefore notions of human thinking as an endeavor residing solely within individual traits are refuted (González et al., 2005).

7. At the core of fok is a great sense of confianza (trust in mutual trust) and reciprocity as a response to uncertainty of context and scarcity of resources (Velez-Ibanez, 1983; 1988).

8. Fok are formed from the need for survival and are mobilized as a response to constant economic and political uncertainty (Velez-Ibanez & Greenberg, 1992).

The principles of fok outlined above also strengthen the rationale that made the conceptual framework suitable to guide my dissertation inquiry. First, the framework without a doubt takes into account the multitude of societal systems and power forces that shape the experiences and lived realities of communities differently. Second, in addition
to adding context into the critical analysis of lived realities, fok reframes deficit fueled narratives of historically underserved communities, by helping me uncover and understand how these communities overcome structural challenges through the transmission and transformation of fok. Lastly, fok offered a comprehensive lens to expand our understanding of student success in college, which aided in the identification of key college agents that support student success as well as ways in which students successfully navigated normative, exclusionary college settings (Gonzalez, Moll, Tenery, Rivera, Rendon, Gonzales, & Amanti, 1995; Gonzales, Moll, & Amanti, 2005; Kiyama, 2010, 2011; Moll, Amanti, Neff, & Gonzalez, 1992; Rios-Aguilar, 2010; Rios-Aguilar, Kiyama, Gravitt, & Moll, 2011; Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992).

The role of Funds of Knowledge in my dissertation inquiry was broad. Fok was the guiding lens for the development of the instrument I employed during the quantitative phase of my study. It was also the overarching theory, which in combination with the transformative paradigm, centered the focus of my inquiry on first-generation students, low-income students, and students of color to challenge dominant perceptions of these communities in the college context. More details about the influence of fok on my entire research process are discussed in Chapter 3.

**Conclusion**

This chapter summarized extant literature on notions of college success. It also explored the experiences of first-generation students, Hispanic/Latino students, and Black/African American students within the college context, along with the frameworks employed to study their college experiences. Notions of college success do not seem to
always align. The term is usually associated with college completion and defined in the context of institutions and students. In the end, defining college success is a subjective approach that engages lived experiences, available resources, benefits accrued, and goals met.

Literature posits that first-generation students come from low-income backgrounds and are affiliated with student of color groups. Generally, first-generation students are presumed to possess low levels of college knowledge and to receive less support in college from parents and families. On the other hand, first-generation students develop strong academic aspirations for college that allow them to strive for success, which then serves to honor their families and communities. Additionally, first-generation students encounter challenges in their transition to college related to less opportunities to access high quality academic preparation for college available to them. Trends in college enrollment and success for first-generation students show that most students enroll at two-year institutions and that they are twice as likely to leave college after the first year than non-first-generation students.

Literature also asserts that a large proportion of college students are post-traditional students or learners that did not follow a traditional path going to and through college as the traditionally aged college student body. Researchers have determined that the needs and struggles post-traditional students face are highly influenced by the multitude of responsibilities they bear and the various roles they play. Thus challenges that they encounter entering and persisting in college include: isolation, difficulty accessing courses, and financial struggles.
Shifting our focus to Hispanic/Latino students, notions of cultural incongruity of these students on college campuses persist in research literature. The focus is largely placed on student culture with an emphasis on family and familial connections rather than on the characteristics of the campus environment, which do not align with shifts in student demographics. Families and other external connections of Hispanic/Latino students are seen as threats to student success and factors that influence student departure. As a whole, Hispanic/Latino culture in the literature is narrowly defined as inclusive of only familial and traditional values, which are then identified as barriers to student success.

On the other hand, notions of academic aspirations among Hispanic/Latino students presented in this chapter, are in direct opposition with literature presented earlier, which frames their culture and families as detriments rather than assets for college success. Literature on this topic offers an example that sheds light on the limited scope of research that explores the experiences of Hispanic/Latinos from a deficit lens. Work that explores the influence of family and community on the Hispanic/Latino student experience, represents an element that is often excluded from research that explores the challenges of these students in the college setting and a call for continued emphasis on asset-based perspectives to student success.

Literature that emphasizes the experiences of Black/African Americans in college, specifically regarding academic aspirations, presents similar narratives to those of Hispanic/Latinos. That is, their motivation to succeed in college stems both from verbal encouragement received from family and from observing the struggles of family and other loved ones with lower educational levels. Both narratives seem to align with
Campa’s (2013) concept of pedagogies of survival, where students develop resilience from life teachings and ways of knowing. An extension of this understanding could include the exploration of how these experiences translate into assets that directly impact learning and academic achievement.

It appears that literature on support strategies for college success for Black/African Americans and Hispanic/Latinos students require the participation of students, university personnel, and external stakeholders and frames student support as a collaborative effort rather than an endeavor only pertaining to students themselves. Research is slowly moving away from depositing the responsibility for student success solely on student individual efforts and development. This holistic approach to student support corresponds with early and emerging models that offer guidance on the development of more inclusive campus environments. Nonetheless, approaches presented in this chapter all seem to focus on practices. That is, little is said about the policies and other institutional regulations that continue to create inequitable conditions for students from underrepresented groups on college campuses. Additional work could explore how policies in conjunction with practices for student support, shape differences in experiences of underrepresented and White students.

Furthermore, frameworks and theories employed to inform the exploration of experiences of Hispanic/Latino and Black/African American college students are diverse. Some are largely informed by early conceptualizations of individualistic student success in college while others engage personality traits and attitudes. Though, frameworks presented in more recent research have begun to highlight the importance of family and community in the college experience of historically underserved college students. This
chapter concludes with a review of the application of the fok conceptual framework across time.
Chapter 3: Methods

Statistics presented in Chapter one show that demographics have dramatically shifted over time in the United States. However, the demographics of the college student body or those of college graduates do not parallel these changes. As a reminder, figures in college completion reveal wide gaps between students from the majority and students with membership in historically underserved communities (Musu-Gillette et al., 2016). Although research on factors that shape college success for first-generation students, low-income students, and students of color is extensive, such inquiries have focused on exploring the issue from a deficit approach, primarily focusing on the barriers and lack of resources that prevent underrepresented students from succeeding in college. Utilizing a deficit approach ignores the unique assets that first-generation students, low-income students, and students of color bring with them to college, which means that policies and programs designed to close the college attainment gap are operating with incomplete information.

This Transformative Mixed Methods study quantitatively identified the funds of knowledge of first-generation students, low-income students, and students of color through the lens of the Funds of Knowledge framework, hereinafter referred to as (fok). As explained in Chapter one, fok are bodies of knowledge and skills accumulated in a household, often developed in response to economic, social, and political disparities.
(Moll, Amanti, Neff, & Gonzalez, 1992; Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992). Although seminal work categorized fok as, occupation/household origin specific, fok can also be developed through exposure to and engagement in interactions involving extended social networks (Moll, Amanti, Neff, & Gonzalez, 2005; Velez & Ibanez, 1988; Velez-Ibanez & Greenberg, 1992).

The overarching research question guiding this study is:

1. What is the role of fok in empowering first-generation students, low-income students, and students of color to successfully navigate the college context?

Research questions specific to each phase of the study are below:

Phase I The funds of knowledge survey

2. What fok do first-generation students, low-income students, and students of color bring with them to college?

Phase II Funds of knowledge focus groups and individual semi-structured interviews:

3. What funds of knowledge are present within first-generation students, low-income students, and students of color?

4. How do first-generation students, low-income students, and students of color acquire or develop fok?

5. How do first-generation students, low-income students, and students of color transfer, operationalize or transform their fok to achieve success in college?

Overview of Mixed Methods Research

The increasing utilization of mixed methods research has earned it the name of “third methodological movement” (Tashakkori & Teddlie, 2003, p.5) because it follows the development of quantitative and qualitative methodological approaches.
Accordingly, scholars refer to mixed methods as the “third research paradigm” (Johnson & Onwuegbuzie, 2004, p.15). Over the years, several definitions for mixed methods research have emerged. These definitions are inclusive of characteristics of the research design, methods, and philosophical paradigms (Creswell & Clark, 2011). Early definitions of mixed methods emerged in the late 1980s and defined mixed methods designs as:

Those that include at least one quantitative method (designed to collect numbers) and one qualitative method (designed to collect words), where neither type of method is inherently linked to any inquiry paradigm (Greene, Caracelli, & Graham, 1998, p. 256)

This foundational definition of mixed methods gave rise to others. For example, in the late 1990s, Tashakkori and Teddlie (1998) proposed the mixing of methods at all phases of the research process. Their definition of mixed methods suggested combining “qualitative and quantitative approaches in the methodology of a study” (p. ix). This definition encouraged researchers to mix beyond data collection approaches, and to implement mixing of philosophical worldviews, positionality, interpretation of results, and inferences made within the cycle of research (Creswell & Clark, 2011). These ideologies positioned mixed methods as a separate orientation that possess its own “worldview, vocabulary, and techniques” (Tashakkori Teddlie, 2003, p. x). Subsequent definitions of mixed methods conceptualized this research approach as including multiple ways of making sense of the world through seeing and hearing (Greene, 2007) and research with the purpose of providing breadth and depth in evidence (Johnson, Onwuegbuzie, & Turner, 2007). Also in the late 2000s, a more comprehensive definition of mixed methods arose:
Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analyses and the mixture of quantitative and qualitative approaches in many phases of the research process. As a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or a series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone (Creswell & Clark, 2007, p.5).

In his fourth edition of *Research Design*, Creswell (2014) highlights three major mixed methods designs: convergent parallel mixed methods, explanatory sequential mixed methods, and exploratory sequential mixed methods. Additionally, Creswell describes a design that goes beyond primary mixed methods designs, the Transformative Mixed Methods design. This design engages a theoretical framework embedded within foundational premises of mixed methods research in an attempt to elevate the voices and improve the needs of historically marginalized communities (Creswell, 2014; Mertens, 2007; 2009). Given that my dissertation research was guided by a Transformative Mixed Methods design, I offer more details on this design in subsequent sections.

**Rationale for Employing Mixed Methods in this Inquiry**

An important consideration in conducting mixed methods research is whether this research approach is suitable to answer the research questions (Greene, 2007; Ridenour & Newman, 2008; Tashakkori & Teddlie, 2010). Scholars argue that mixed methods research questions are those that call directly for the combination of quantitative and qualitative approaches. Therefore, in my Transformative Mixed Methods study, my research questions dictated (Tashakkori & Teddlie, 1998) the need for a design and methods that work to pursue my inquiry. It is clear from the research question in Phase I of my study that the methods to address my inquiry needed to be more quantitative in
nature, as I attempted to identify and quantify fok. In contrast, research questions in Phase II of my study called for participants’ perspectives on fok and their influence on their college success, which are better captured through the implementation of qualitative approaches.

**Major Characteristics of Transformative Mixed Methods Designs**

Transformative mixed methods designs involve scholars employing research to take a stance on a social justice issue and seek empowerment of historically marginalized populations engaged in the study (Creswell & Clark, 2011; Mertens, 2009). These designs are rooted in a theoretical transformative framework that informs each stage of the research process and seeks to advance social justice through change oriented research. Transformative mixed methods designs are better suited for research when the following considerations apply: (1) the researcher intends to address social justice issues as a call for change, (2) the researcher sees the needs of underrepresented communities, (3) the researcher possesses strong working knowledge of theories employed in research with underrepresented populations, and (4) the research can be conducted without further marginalizing the population in the study (Creswell & Clark, 2011, p. 96). Philosophical assumptions offer a footprint for guiding the methodology in transformative research (Clark & Creswell, 2008). The section below offers a brief overview of the philosophical assumptions that inform transformative research.

**Philosophical Assumptions of the Transformative Paradigm**

According to Mertens (2007), the transformative paradigm is grounded in political action, empowerment, and change-oriented research. To these ends, the philosophical assumptions informing this paradigm encompass notions of power and
privilege, closely assess the relationship between participants and the researcher within their own cultural contexts, and underscore the importance of conducting research that empowers historically marginalized groups. The ontological, epistemological, and axiological assumptions of the transformative paradigm are presented below.

**Ontology**

Ontology refers to the nature of reality. In the transformative paradigm, realities are socially constructed, however, the social construction of realities is influenced by social, political, economic, cultural, racial, and ethnic factors that define them differently. The transformative paradigm demands that researchers understand that not all realities are constructed equally and the extent to which society privileges some realities more than others, excluding certain groups from participating in research for social change. In the transformative paradigm, gender, race, ethnicity, and other factors are framed as bases of diversity from a social, cultural perspective and conceptualized as dimensions of human difference, not deficits (Mertens, 2003). Two key questions are posed as part of the ontological assumption of the transformative paradigm: (1) Whose reality is given privilege? and (2) what are the social justice implications of accepting reality that has not been critically analyzed on the basis of power differentials? (Mertens, 2007, p. 216). In my study, the reality privileged is that of first-generation students, low-income students, and students of color on the basis of fok, an area underexplored within the context of higher education. The ontological assumption of the transformative paradigm illustrates that privilege is given to the stories and perspectives of communities historically underrepresented in higher education and recognizes that these realities have been constructed differently for each study participant.
Epistemology

Epistemology centers the nature of knowledge and the relationship between researchers and participants. In the transformative paradigm, the epistemological assumption highlights the importance of understanding culture and establishing a relationship with study participants that allows the researcher to draw knowledge culturally situated. Key to developing relationships between the researcher and participants is an understanding of power relations and culture (Mertens, 2007). Through this dissertation study, the engagement of the transformative paradigm allowed me to gain a deep understanding of participants’ realities through research that elicited information about their upbringing and interactions with family and community. My study privileged knowledge culturally situated knowledge that is heavily informed by the differential social construction of the realities of study participants.

Axiology

The axiological assumption within the transformative paradigm emphasizes the basic principles of ethics in research including, respect, beneficence, and justice (Mertens, 2007). These three elements are represented within the transformative paradigm through research that promotes cultural sensitivity and elevates the voices of those otherwise underrepresented in scholarly inquiry. Thus, transformative research empowers participants to contribute their perspectives to actively inform social change. In my study, participants’ perspectives served as foundation to develop approaches to engage them in fostering college success. The emphasis on knowledge not traditionally privileged offers an anti-deficit perspective to understand how first-generation students, low-income students, and students of color succeed in college.
Strengths of Transformative Mixed Methods Designs

Generally, mixed methods research possesses several advantages including: (1) mixed methods designs compensate deficiencies associated with employing a single quantitative or qualitative method. In more detail, quantitative approaches have long been criticized for not allowing participants’ perspectives to be directly heard. Similarly, qualitative research is criticized for the subjective nature of data and the bias introduced by researchers during the interpretation of findings. By employing both quantitative and qualitative approaches these gaps are filled. (2) The implementation of quantitative and qualitative approaches offers more evidence to understand the issue/topic/phenomenon of interest as researchers can employ multiple tools to collect and analyze data. Furthermore, (3) more research questions can be answered. Utilizing a single approach restricts the number of research questions that can be addressed. (Creswell & Clark, 2011; Greene & Caracelli, 1997). In addition to the advantages present within mixed methods research, transformative mixed methods designs possess the following strengths: (1) the study is positioned within a transformative framework or an emancipatory worldview. (2) Research outcomes support empowerment of individuals and bring about change through social justice. Lastly, (3) the collection of methods employed in the research produces results and findings that are useful to the community of interest as well as to those working with them.

Challenges Associated with Transformative Mixed Methods Research

On the contrary, conducting mixed methods research also presents challenges including: (1) researchers who do not possess proper training in quantitative and qualitative approaches might struggle carrying out mixed methods research, as
knowledge of and experience with quantitative and qualitative methods of data collection and analysis are at the core of these research designs. And (2) The extensive time and resources needed to carry out mixed methods research can also become a challenge for researchers. Scholars suggest considering the following questions in determining if carrying out a mixed methods study is feasible: (a) is there sufficient time to collect and analyze two different types of data? (b) Are there sufficient resources from which to collect and analyze both quantitative and qualitative data? And (c) are skills and personnel available to carry out the study? (Creswell, 2014; Creswell & Clark, 2011, p. 14; Tashakkori & Teddlie, 2010). Furthermore, transformative designs pose a few additional challenges, (1) guidance on implementing transformative designs remains scarce, (2) researchers might need to offer justification for using the transformative approach, given the philosophical bases for these approaches are not as common in research, and (3) the researcher needs to develop trust with study participants to engage in culturally responsive research and elicit knowledge culturally situated (Clark & Creswell, 2008; Mertens, 2003).

**Transformative Design Variants and Procedures**

Seminal work by Mertens (2003) set the foundation for transformative mixed methods research. Mertens offered a framework for assessing the inclusion of critical theories in mixed methods studies and suggested that a researcher’s worldview and implicit assumptions are at the core of the transformative paradigm. Thus, these assumptions represent knowledge that is not neutral, knowledge that reflects power, and knowledge that is used to improve society (Sweetman, Badiee, & Creswell, 2010). Transformative research then adopts an explicit goal of contributing to the development
of a more socially just society, this explicit inclination permeates the research process entirely and from beginning to end (Mertens, 2003). Creswell and Clark (2011) add that depending on the specific context of the research, the researcher might employ procedures consistent with major mixed methods designs. However, a unique element of transformative mixed methods designs is the theoretical lens, which in conjunction with the transformative paradigm shapes the research process. Taking these notions into consideration, my transformative mixed methods study engages procedures of sequential explanatory mixed methods research, which along with the funds of knowledge framework, helped me identify funds of knowledge essential for college success of first generation, low-income, students of color and to better understand how fok support the college success of students from historically marginalized communities.

**Brief Overview of Sequential Explanatory Mixed Methods Designs**

Generally, a sequential explanatory mixed methods design is a two-phase design that allows the researcher to collect quantitative data during the first phase. The explanatory nature of this design then allows the researcher to use results from the initial quantitative phase to inform the second phase of the study which consists of qualitative data collection and analysis (Creswell, 2014). That is, results from the quantitative phase inform the participants selected for the qualitative phase and the types of questions to ask. A common procedure for these designs involves the administration of a survey during the first phase of the study followed by interviews during the qualitative phase of the study (Creswell, 2014).

Embedding the transformative paradigm along with the funds of knowledge framework in this Transformative Mixed Methods study, the following procedures were
employed: the initial quantitative phase of the design involved the administration of a survey of fok. This was an interactive design where findings from the survey were used to inform the development and implementation of the qualitative strand. Furthermore, methodological assumptions of Transformative Mixed Methods studies logically emerged from the philosophical components (ontology, epistemology, and axiology) described in earlier sections. That is, axiological assumptions encouraged me to develop research components in accordance with community input. This input was solicited and implemented during the piloting of the fok survey, which engaged a group of college students who identified as first-generation, low-income, or students of color. Similarly, the ontological assumption led me to create approaches to include different realities as influenced by power and privilege, these realities were more evident in the qualitative phase of the study where participants shared extensive details about their lived experiences. Lastly, epistemological considerations called for greater attention to engaging in research that is inclusive and culturally responsive. This component was more prominent during the development of the survey instrument. More details on the influence of the transformative paradigm embedded within the funds of knowledge framework are provided below.

A Funds of Knowledge Transformative Mixed Methods Design

Phase 1 The Funds of Knowledge Survey

A major component of transformative research is to engage methods best suited for advancing advocacy and social justice goals (Greene, 2007). Given part of the emphasis of this transformative mixed methods study was to identify and quantify the Funds of Knowledge present within first-generation, low-income, and students of color
in college, a survey instrument (previously developed in collaboration with Dr. Cecilia Rios-Aguilar) was used to accomplish this goal, specifically to address the research question “What fok do first-generation students, low-income students, and students of color bring with them to college? The fok survey asked participants to share information about themselves, their families, and about their participation in activities with their families and members of their community. As discussed in Chapter 2, the Funds of Knowledge framework offers an asset perspective for understanding success in college by uncovering invaluable cultural and familial assets that propel first-generation, low-income, and students of color toward success. That is, the fok framework gives substantial value to assets acquired from participants’ realities and through lived experiences, that are not traditionally valued as crucial knowledge (Moll & Gonzales, 1997; Zipin, 2009). With the fok perspective in mind, the fok survey consisted of items that inquired about (1) resources present within students, (2) students’ interaction with these resources, and (3) resource exchange with their families and other members of their community (Kiyama, Rios-Aguilar, & Sarubbi, 2017).

The survey was divided in eight sections including: demographic information about participants and their family, family labor history, family social interactions, family educational experiences, participants’ and family language use, family frequent activities within and outside of household, family social and economic circumstances, and traditional academic achievement information including cumulative GPA. The questions under each section represented a variety of formats including 5 and 6 point Likert scales, dichotomous, multiple choice questions, and a few open-ended questions. The areas of interest measured in this survey were derived from the work of foundational fok scholars.
in the US (Gonzalez, et al., 1995; Gonzalez, Moll, & Amanti, 2005; Kiyama, 2010, 2011; Moll, et al., 1992; Rios-Aguilar, 2010; Rios-Aguilar, Kiyama, Gravitt, & Moll, 2011; Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992) and from surveys that measure household characteristics and interactions including the Panel Study of Income Dynamics (PSID). In total, the fok survey for students at four-year institutions consisted of 75 items.

**Piloting the fok survey.** In accordance with the transformative paradigm (Mertens, 2003) and with the fok framework focus on historically marginalized communities, first generation students, low-income students, and students of color were asked to offer feedback on the survey instrument. I administered the survey in paper in a classroom setting. I read every item out loud and recorded the time participants took to answer each question. On average, participants spent between 40-60 seconds selecting and answer to multiple choice questions. On the other hand, questions that required participants to offer information on activities they engaged with their families and members of their community took between 1-2 minutes. Overall, participants of the pilot study took 37 minutes on average to respond to all survey items. At the end of the focus group, I engaged with participants in a general discussion regarding survey items. Participants offered insight into item content and clarity and made additional recommendations for survey improvement. These recommendations included explaining some questions in more detail, allowing respondents to skip parental related items if they were not in contact with parents, and numbering the questions from 1-70 instead of restarting item numeration with every section of the survey. See Appendix A for survey instrument. In addition to engaging members of the populations of interest in reviewing
the fok survey, feedback and recommendations from field experts were requested and implemented.

Specifically, in alignment with the fok framework and the transformative paradigm, survey items were designed to be culturally inclusive on various dimensions of human diversity keeping in mind the differing socially constructed realities of study participants (Mertens, 2009). Examples of this approach include items on social identities (race, ethnicity, gender, etc.) that were inclusive of more than the traditional categories. For questions related to ethnicity, participants were offered the option to specify ethnic affiliation with additional groups. For instance, Latino/Hispanic could indicate their affiliation with additional ethnic groups including, Mexican, Puerto Rican, and Cuban. The same alternative was offered for participants who identified as Asian American. In terms of gender, participants could indicate gender non-conforming. Additionally, items that inquired about participants family, allowed participants to offer insights that were inclusive of extended family members, as the concept of family presented in previous fok work encapsulated more than just nuclear family members (Velez-Ibanez & Greenberg, 1992).

Survey Participants

Mertens (2015) states that for researchers working within the postpositivist paradigm, probability sampling strategies seem ideal, as they have a particular interest in acquiring a sample that is representative of the population. In contrast, researchers operating within a constructivist paradigm prefer to engage purposive approaches to sampling, specifically identifying places and individuals where the phenomenon of interest is more likely to take place. On the other hand, researchers operating within the
transformative paradigm opt for sampling strategies that ensure the representation of those historically underrepresented and usually, do not seek to generalize study conclusions to the larger population. These approaches can include probability sampling or purposive theoretical sampling (Mertens, 2015). Additionally, Mertens suggests that to determine the appropriate sampling strategy, researchers must determine the dimensions of diversity critical to the study.

Applying Mertens’ (2015) considerations for sampling strategies within the transformative paradigm and keeping in mind the study’s focus on students from historically marginalized communities. I set out to sample the seven institutions of my study as follows. First, I determined that my target population would include first-generation students, low-income students, and students of color. This decision was made in alignment with the perspective of the transformative paradigm and the fok framework inclusion of historically marginalized communities and strengthened by my goal to uncover important assets that challenge traditional notions of knowledge important for college success, specifically fok existing within students from underrepresented communities. Additional criteria for participation in my study included senior status of participants. That is, eligibility to participate in my study called for students currently enrolled who had earned 90 credits or more. The rationale for choosing seniors to participate in my study was informed by (1) the focus of my study on college success defined as college attainment and (2) the overarching research question of my study “What is the role of fok in empowering first-generation students, low-income students, and students of color to successfully navigate the college context? which sought to understand the influence of fok on college attainment. It is my understanding that college
seniors in my target population have college attainment within closer reach than students in other classes, in particular freshmen students who have high attrition rates between the first and second year of college (Ishitani, 2003).

Once I defined all criteria for inclusion in my study, I began to identify participants to take the fok survey. The overarching approach for sampling involved purposive sampling (Collins, 2003). Collins (2003 asserts that purposive sampling in mixed methods allows the researcher to strategically identify key informants with unique perspectives. In my study, key informants included senior students who identified as first-generation students, low-income students, or students of color.

In agreement with the philosophies of fok and the transformative paradigm, I developed a strategy that would ensure outreach of first-generation students, low-income students, and students of color. My approach consisted of contacting Institutional Research offices asking for a list of email addresses of all seniors, students who have earned 90 credits or more, currently enrolled at their institution during fall 2017. The goal with this approach was to ensure that as many students who identified as first-generation, low income, or student of color would have the opportunity to participate in the study. Thus, initially, my sampling frame (Groves, et al, 2009; Kish, 1965) would consist of lists of all seniors currently enrolled at my research sites. While this strategy was well received by three of my seven research sites selected across the state of Colorado, the remaining four sites offered alternative ways to outreaching study participants. More details about sampling are provided in the data collection section.

Research Sites
Participant institutions of the study included private and public four-year schools in the state of Colorado: Land-grant University, Urban University, Regional University, Local University, Remote University, Regional PWI University, and Private University. Including institutions that reflect diverse characteristics of the students they serve allowed me to identify study participants that offered a wide array of perspectives as informed by their differing social realities. Sites listed above include private, public, open access, regional comprehensive, and minority serving institutions. More information about research sites is below.

**Remote university.** Remote University is a comprehensive, regional, public, four-year university located in Colorado. On-campus enrollment averages 2,500 while enrollment in extended studies accounts for 10,000. The institution also holds Hispanic Serving Institution (HSI) designation, meaning it enrolls at least 25% Hispanic students, in 2015 Remote University enrolled 35% Hispanic students. Colorado Department of Higher Education data show that Remote University undergraduate underrepresented minority student enrollment in fall 2015 totaled 887 students 74.3% (n=659) of which were also Pell eligible. In terms of senior enrollment by race/ethnicity for fall 2017 figures show that the school enrolled a total of 502 seniors of whom 2.9% are American Indian/Alaska Native, 4.4% African American/Black, 30.5% Latino/Hispanic, less than 1% Asian American and less than 1% Asian Pacific Islander, and 48.6% White.

**Land-grant university.** Land-grant University is a land-grant, public research university located in Colorado. This flagship university has a total enrollment exceeding 30,000 students. The university has eight colleges and 55 academic departments. Colorado Department of Higher Education data show that Land-grant University
undergraduate underrepresented minority student enrollment in fall 2015 totaled 3,630 students 56.1% (n=1,845) of which were also Pell eligible. Senior enrollment for fall 2017 by race/ethnicity suggests that the school enrolled a total of 6,802 seniors from which less than 1% are American Indian/Alaska Native, 1.9% are African American/Black, 11% are Latino/Hispanic, 2.5% are Asian American, less than 1% are Asian Pacific Islander and 73% are White.

**Regional university.** Regional University is a regional, comprehensive public university located in Colorado. Enrollment at Regional University averages 4,500 students. This institution offers 38 undergraduate degrees, 10 graduate degrees, and 13 pre-professional degrees and holds Hispanic Serving Institution designation. Colorado Department of Higher Education data show that Regional University undergraduate underrepresented minority student enrollment in fall 2015 totaled 1,829 students 66% (n=1,139) of which were also Pell eligible. Senior enrollment for fall 2017 accounted for 949 students from which less than 1% are American Indian/Alaska Native and less than 1% are Asian Pacific Islander, 4.6% are African American/Black, 32% are Latino/Hispanic, 1.6% are Asian American and 52% are White.

**Urban university.** Urban University is an open access, public university located in Colorado. It is also the four-year institution in the state of Colorado enrolling the largest number of students of color, student of color enrollment, exceeded 7,000 in fall 2016. The university started offering Masters degrees in 2010. Colorado Department of Higher Education data show that Urban University undergraduate underrepresented minority student enrollment in fall 2015 totaled 6,538 students 67.6% (n=4,359) of which were also Pell eligible. Senior enrollment for fall 2017 accounted for 6,306 from which
less than 1% are American Indian/Alaska Native, less than 1% are Asian Pacific Islander, 5.7% are African American, 19% are Latino/Hispanic, 3.9% are Asian American, and 63% are White.

**Regional PWI university.** The Regional PWI University is a public, regional university located in Colorado. On campus enrollment in fall 2016 included 12,000 undergraduate and 1,808 graduate students. Colorado Department of Higher Education data show that undergraduate underrepresented minority student enrollment in fall 2015 totaled 4,200 students, 56.7% (n=1,406) of which were also Pell eligible. Senior enrollment for fall 2017 totaled 3,096 students of which less than 1% are American Indian/Alaska Native, less than 1% are Asian Pacific Islander, 3.1% are African American/Black, 16% are Latino/Hispanic, 3.4% are Asian American, and 67% are White.

**Local university.** Local University is a public research university located in Colorado. Total enrollment in fall 2016 exceeded 18,000 students. The university offers bachelor’s, master’s, doctoral, and professional degrees in 13 schools and colleges. Colorado Department of Higher Education data show that Local University undergraduate underrepresented minority student enrollment in fall 2015 totaled 3,084 students 60% (n=1,878) of which were also Pell eligible. During fall 2017, this institution enrolled a total of 3,544 seniors from which 2% are American Indian/Alaska Native, 6% are African American/Black, 16.5% are Latino/Hispanic, 12% are Asian American, less than 1% are Asian Pacific Islander, and 63% are White.

**Private university.** Private University is the oldest independent private university in the state of Colorado. Total graduate and undergraduate enrollment averages 11,000
students (Colorado Department of Higher Education data on minority/Pell student enrollment not available for Private University). Private University is classified as a research university with high research activity by the Carnegie Foundation. During fall 2017, Private University enrolled 1,407 seniors from which less than 1% are American Indian/Alaska Native, 0% are Asian Pacific Islander, 1.6% are African American/Black, 9.8% are Latino/Hispanic, 4.4% are Asian American, and 68% are White.

**Population Size**

The total number of seniors enrolled across all seven sites during Fall 2017 accounted for 22,606 students. Nonetheless, estimates of the population of seniors identified as first-generation or low-income were not available; therefore, figures for senior student of color enrollment were employed to gain a sense of the study’s population size. In total, there were 5,781 seniors enrolled in Fall 2017 across all seven research sites who were affiliated with one student of color group (American Indian/Alaska Native, African American/Black, Asian American, Asian Pacific Islander, Hispanic/Latino). Two principles guided my decision to use total enrollment of seniors who were also students of color to estimate the population size (1) philosophically my study is concerned with bringing to light the fok existent within students from historically marginalized communities, many of which are people of color, and (2) earlier work with fok engaged primarily communities of color (Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992).

**Data Collection**

**Survey Participant Recruitment**
An integral part of the transformative paradigm is the employment of approaches and methods that allow the researcher to reach the voices of those historically underrepresented to pursue the emancipatory goals of the study (Greene, 2007). This notion suggests that the theoretical and philosophical underpinnings of transformative research supersede traditional, positivist ways, of approaching the research process. As mentioned earlier in this chapter, I developed a strategy that would ensure outreach of first-generation students, low-income students, and students of color. As a reminder, this approach consisted of contacting Institutional Research offices at each of my seven sites asking for a list of email addresses of all seniors, students who had earned 90 credits or more, enrolled at their institution during fall 2017. This strategy was utilized to maximize my ability to make contact with first-generation students, low-income students, and students of color who might be interested in offering their perspective for the study but perhaps would not learn about the study otherwise. My goal was to invite everyone on the list provided by the institution, via email, but in accordance with purposive sampling, specifying the criteria for the study: seniors who identify as first-generation, low-income, or a student of color.

This approach was approved by three of my seven research sites (Regional PWI University, Local University, and Regional University). In total, these sites provided the school email addresses of 6,773 seniors enrolled fall 2017, which included all seniors. The remaining four sites, could not share student email addresses due to student privacy laws, but offered alternative ways to recruit study participants. These alternative recruitment approaches are summarized in Table 1.
### Table 1

**Recruitment Approaches Proposed by Research Sites**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Recruitment Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land-grant University</td>
<td>IR offered to send out recruitment messages. One initial message and one reminder message were sent to all seniors enrolled fa 2017. I also partnered with student success programs to recruit students. This office sent two messages in total.</td>
</tr>
<tr>
<td>Urban University</td>
<td>IR suggested partnership with campus offices who work with students of interest for the study. Partnership with TRiO Programs, three messages were sent to all senior students served by these programs.</td>
</tr>
<tr>
<td>Private University</td>
<td>IR suggested to recruit students through offices that serve them. At least one recruitment message was sent through affinity groups listservs by the office of affinity groups.</td>
</tr>
<tr>
<td>Remote University</td>
<td>IR agreed to provide list of all emails of seniors enrolled fa 2017 to a key contact at the university. Contact sent all emails on the list the recruitment message two times.</td>
</tr>
</tbody>
</table>

To recap, recruitment of survey participants took place via email.

Communications were either sent by me or by key contacts at the four sites that did not release school email addresses for the study. In total, an estimated 10,573 seniors enrolled in fall 2017 across all seven research sites received at least one recruitment message, 6,773 messages were sent directly by me and an estimated 3,800 recruitment messages were sent by key contacts. A maximum of three messages were sent to all seniors on the lists provided by Regional PWI University, Regional University, and Local University.
and 2-3 email messages were sent by key contacts at institutions that suggested alternative ways to recruit study participants. The recruitment period lasted between August 2017 and mid October 2017, which is when the fok survey officially closed. Although recruitment approaches were not consistent across all seven sites, adjustments made ensured that as many first-generation students, low-income students, and students of color received information about participating in the study and kept my research consistent with the philosophies of the transformative paradigm and the fok framework.

**Survey Administration**

The fok survey was administered online via Qualtrics. Participants who took the survey were automatically entered into a gift card drawing as compensation for their participation. The survey Qualtrics link was included on recruitment messages (please see Appendix E for recruitment message). The survey also asked participants about their interest in participating in a follow-up focus group.

**Survey informed consent process.** Qualtrics. Participants who were sent the recruitment message were contacted by email and presented with the opportunity to participate in the study by offering them a link to take the fok survey. At this time participants, could opt to take the survey. Those who chose to respond and clicked on the Qualtrics survey link were presented with an informed consent form. The informed consent form included in the survey offered information about the study, myself as the researcher and the sponsoring institution, purpose of the study, benefits of participating in the study, expectations for participant involvement, potential risks of engaging in the study, a note on confidentiality and how the researcher planned to maintain participant information securely stored and private, and contact information should participants have
questions or concerns about the study. The form also included a forced response question asking participants if they wished to participate in the study. Participants who answered “Yes” were directed to the first survey question, participants who answered “No” were taken to the end of the survey. Additionally, participants could print a copy of the consent form for their records. See Appendix C for informed consent form.

**Response rate and nonresponse error.** Survey methodologists caution that it is rare for surveys administered to people to achieve a 100% response rate (Groves, et al, 2009). This phenomenon leads to non-response error. Non-response error occurs when statistics obtained only from respondent data differ from or misrepresent those of the entire sample (Groves, et al, 2009). For example, if some respondents of the fok survey refuse to take the survey and only a smaller set of the sample completes the questionnaire, data from those who respond might overestimate or underestimate sample statistics. Discrepancies in sample statistics are exacerbated when nonresponse error is high. Groves, et al. (2009) identified three main causes for element/participant nonresponse: (1) failure to deliver the survey (email bounce backs, returned mail, failure to locate participant, etc.), (2) participant refusal to complete survey, and (3) inability to participate due to barriers (language of questionnaire cannot be understood, participant experiences access issues, etc.).

To diminish risk for nonresponse, my campus partners and I made several sequential attempts to deliver the survey request (Goyder, 1985) to participants. Research also recommends not rushing the data collection period. Therefore, I allocated 2.5 months from early August 2017 to mid-October 2017 for survey administration. Additionally, to
address the issue of participant refusal, I included an incentive for survey participation (Singer, 2002), which consisted of a gift card drawing.

**Response bias in common method biases.** Validity in survey responses refers to the correlation (0-1) between the response and the true value and is a property of individual answers to survey items (Groves, et al., 2009). Method biases are another significant source of measurement error in survey research. These biases, like nonresponse bias, threaten the validity of inferences made from survey data, particularly of sample means (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). Furthermore, method biases are concerning because they introduce systematic deviation in responses away from the true value. These biases relate to the content of survey items, type of scale, format of response, and the general context (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). Research lists sources of method biases that include halo effects shaped by social desirability, acquiescence, and leniency (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). In more detail, all these sources of method bias relate to respondents’ perceptions of people, events, objects, and circumstances that influence their thoughts, attitudes, and feelings toward them. Ultimately, these phenomena shape the way participants choose to respond to survey items.

Although I am aware that some items on the fok survey represented a risk of method bias, keeping in line with the philosophical principles of the transformative paradigm regarding the inclusion of differing socially constructed realities in research, and the asset based theoretical grounding of the fok framework, it was not within the scope of this study to question the validity of the responses provided by survey participants. Therefore, while scholars have offered suggestions to approaching issues of
validity in survey responses (Cannell, Marquis, & Laurent, 1977; Kallick-Kaufman, 1979; Sudman & Bradburn, 1982), no action was taken to assess survey response validity within this inquiry.

**Survey Data Analysis**

Upon closing the fok survey in mid October 2017, data were downloaded from Qualtrics in SPSS format. The data file contained 748 survey responses, 3 of which were deleted as they were completely blank, leaving a total of 745 responses for analysis. Before engaging in analysis that would help answer the research question pertaining to the quantitative phase of the study, the data were scanned, using SPSS, to gain a general sense of survey respondents. Results of descriptive analyses are presented in Chapter four including results that aid in addressing the research question “What fok do first-generation students, low-income students, and students of color bring with them to college?” The following section offers an overview of variables analyzed during this phase of the study.

**Variables of Interest for Analysis**

**Demographic overview of sample.** Descriptive analyses were conducted to offer an overview of survey respondents and to assess the presence of responses from participants that identified as first-generation students, low-income students, and students of color, during the first phase of survey data analysis. All analyses of survey data were carried out in SPSS using the frequencies descriptive statistics function, which calculated proportions of respondents based on the attributes of interest. Variables included in this phase of analysis are presented in Table 2.
<table>
<thead>
<tr>
<th>Variable (s)</th>
<th>Item number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/ethnicity</td>
<td>Q7 What is your race/ethnicity?</td>
</tr>
<tr>
<td>Additional ethnic group affiliation</td>
<td>Q75 &amp; Q76 What is your race/ethnicity? Check one</td>
</tr>
<tr>
<td>Gender</td>
<td>Q5 What is your gender?</td>
</tr>
<tr>
<td>Language</td>
<td>Q51 Do you speak a second language?</td>
</tr>
<tr>
<td>Additional language spoken</td>
<td>Q55 What is your second language?</td>
</tr>
<tr>
<td>First-generation indicator</td>
<td>Q23 What is the highest level of education your mother completed?</td>
</tr>
<tr>
<td>Low-income indicator</td>
<td>Q28 What is the highest level of education your father completed?</td>
</tr>
<tr>
<td>Student of color indicator</td>
<td>Q16 What type of financial aid did you receive in college?</td>
</tr>
<tr>
<td>Institution enrolled</td>
<td>Q74 What school do you attend?</td>
</tr>
<tr>
<td>Marital status</td>
<td>Q10 What is your marital status?</td>
</tr>
<tr>
<td>Demographic variable coding.</td>
<td>The categorical race/ethnicity variable included seven categories, African American/Black, American Indian/Alaska Native, Asian American, Asian Pacific Islander, Latino/Hispanic, A Different race/ethnicity, and White. In agreement with the ontological perspective of the transformative paradigm, two larger umbrella ethnic groups, Asian American and Latino/Hispanic were offered the option to indicate additional ethnic affiliations. Additional ethnic groups for Asian Americans included, Chinese, Filipino, Korean, Vietnamese, Native Hawaiian, and A different group, for Latino/Hispanic, these groups included, Mexican American/Chicano, Puerto Rican, Cuban, and A different group (other). The variable for gender was a categorical variable that contained six categories, Male, Female, Transgender, Gender non-conforming, A different gender identity (other),</td>
</tr>
</tbody>
</table>
and the option to not respond. Likewise, the variable for second language was
dichotomous asking the participants to respond yes/no. This variable was followed by
second language spoken, which offered the options English, Spanish, and other, which
gave room for participants to specify.

The indicators for first-generation status, low-income status, and student of color,
were developed as follows. To identify students as first-generation I used data from
ordinal items 23 and 28, referenced in the table above. In alignment with TRiO’s
definition for first-generation students, to be considered a first-generation student, survey
respondents’ mother and father or mother or father’s highest level of education had to be
lower than a bachelor’s degree. These two items were coded originally ordinally 1-7 with
1 assigned to less than elementary school and 7 to having attained a graduate degree.
These variables were recoded into different variables to include parents that met the
educational level specification for their children to be considered first-generation to
college. Utilizing this new variable, the first-generation indicator was created. The first-
generation indicator consisted of a dichotomous variable (coded 0-1).

The low-income indicator was created using Q16 and assigned to students who
received a Pell grant at any time during their college career. Similarly, to create the
student of color criterion, students who indicated affiliation with a student of color group
were identified as students of color. All three indicators, first-generation, low-income,
and student of color consisted of dichotomous variables (yes/no).

The variables institution enrolled (Q74) and marital status (Q10) were categorical
asking respondents to choose one option. As mentioned above, the variables for parental
highest level of education were ordinally coded with lower value labels suggesting lower
levels of education attainment and higher levels more education attained (coded 1-7). These variables were unaltered when describing parental level of education. In contrast, the variable for transfer student was coded dichotomously (0-1) and the variable for college major offered respondents seven options to choose from including Accounting, Business, Education, Engineering, Mathematics, Psychology, Sociology, and the option to indicate a different major. Furthermore, the language variables included questions 51, which was a dichotomous item asking respondents if they spoke a second language and 55, which asked respondents to indicate second language spoken. The categories included English, Spanish, and the option to indicate another language.

Questions number 11 and 12 pertained to participants’ current living arrangements. Participants were offered several options to indicate who lives with them. These categories included, living alone, with a partner, with mother and father, living with spouse, mother or father, their children, siblings, grandparents and other relatives and non-relatives. In order to present a concise overview of living arrangements, these categories were collapsed into new variables. The new living arrangement variables were created with the fok framework in mind, especially earlier work (Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992) that explored the formation and transformation of fok taking place within immediate and extended family. Additionally, the transformative paradigm shaped the creation of new variables by encouraging me to create variables that documented as many realities of survey respondents as possible. New variables are as follows. For married survey respondents, new variables included (1) living with their spouse and children, (2) living with their spouse or children, and (3) living with extended family, which included living with parents, siblings, grandparents and other relatives in
addition to their spouse and/or children. For unmarried respondents, new living arrangement variables included (1) living with a partner, (2) living with immediate/nuclear family which can include one or two parents, and/or siblings, (3) living with extended family including grandparents and other relatives, and (4) living with immediate and extended family including parents, siblings, grandparents and other relatives and/or a partner.

Funds of knowledge variables. The second phase of descriptive analyses of survey data focused on addressing the research question “What fok do first-generation students, low-income students, and students of color bring with them to college?” In order to gain a sense of respondents’ fok, the items presented in Table 3, served as the base for these analyses. These items were specifically selected for this phase of analyses due to their alignment with the fok framework. A quick glance at items in Table 3 reveals critical components of the fok framework. These elements included providing and receiving support from other families and households with whom respondents interact, sources and providers of college fok, and fok engaged weekly, monthly, and yearly that highlight activities and knowledge areas inspired by seminal fok work (Moll, Amanti, Neff, & Gonzalez, 1992; Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992).

Table 3
Funds of Knowledge Variables

<table>
<thead>
<tr>
<th>Variable (s)</th>
<th>Item number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide/receive support (reciprocity)</td>
<td>Q38 In the last month, how frequently did your household receive the following help/support from families/other households with whom you interact regularly</td>
</tr>
<tr>
<td>Fok variable coding. Two items on the fok survey (Q38 and Q39) asked respondents to provide information on the monthly frequency with which they received or provided support to other families with whom they interact. Each of these two items was on a five-point Likert scale, that included never, at least once, every other week, every week, and almost daily. Participants could also respond that they did not engage in this activity by choosing the not applicable option. Values were coded as follows when calculating descriptive statistics, which included means and standard deviations, (0) never/not applicable, (1) at least once a month, (2) every other week, (3) every week, and (4) almost daily. To identify key sources of college fok, respondents were asked who they or their parents reach out to when seeking college related information. Question 44 gave</td>
<td></td>
</tr>
</tbody>
</table>

| Q39 In the last month, how frequently did your household provide the following help/support from families/other households with whom you interact regularly |
| Q44 When you or your parents need to ask questions related to college, who do you/they ask? |
| Q45 In the last week, how frequently did you engage in the following? |
| Q51 In the last month, how frequently did you engage in the following? |
| Q55 In the last year, how frequently were you exposed to activities that fostered learning in the following topics. |
respondents several categories to choose from including, school personnel, members of their family, friends, community members, and other. Each category in this question was recoded as a binary variable (0-1) with 1 indicating that respondent or their parent reached out to that specific source. The category “other” did not offer respondents space to provide specifics about who they refer to as “other,” a limitation that will be addressed later in this chapter. The means of each item were calculated to describe the proportion of respondents who reached out to each source of fok.

The last three items that referenced fok, assessed the weekly, monthly, and yearly frequency with which respondents engaged, participated in or were exposed to various activities and topics. Activities included were limited and were inspired by original fok research with households. Question 5 asked “In the last week, how frequently did you engage in the following?” Here respondents were presented with a series of activities, each of which was on a 3 point likert scale with the option to respond that the activity was not applicable. Activities included, household related work, car care, pet care, household paperwork, caring for children, shopping, other financial transactions, medical services, providing company to family members receiving services, and offering financial support to household. Each activity was coded (0) never/not applicable, (1) once a week, (2) every other day, and (3) more than once a day. In a similar way, Question 51 asked respondents to indicate the monthly frequency with which they participated in several activities. These activities alluded to religion and spirituality and included, praying at night, participating in choir at church, attending family funerals, attending nonfamily member funerals, visiting family and nonfamily graves, meditating, praying at mealtime, attending religious services, engaging in indigenous rituals/ceremonies, and participating
in youth religious groups. Like in the previous question, each activity was on a four-point Likert scale with the option to respond that the activity was not applicable. Each activity was coded (0) never/not applicable, (1) at least once, (2) every other week, (3) every week, and (4) almost daily. Lastly, Q55 presented respondents with a list of activities that exposed them to a collection of fok related topics such as rental of housing goods and services, loans, credit, taxes, accounting, budgets, purchasing of goods and services, cooking and process to access social services. Respondents were asked to indicate how frequently they participated in these activities annually. Each activity was placed on a 5 point likert scale, respondents also had the not applicable option. Each activity was coded (0) for not applicable, (1) once a month, (2) every other week, (3) every week, (4) every day, and (5) more than once a day. As mentioned earlier, means and standard deviations were calculated to determine the frequency (on average) with which survey respondents engaged fok weekly, monthly, and annually.

**Decision to Limit this Round of Analyses to Descriptive Statistics**

When I first envisioned this study, I sought to explore the relationship between Funds of Knowledge and college success. However, the fok survey did not measure college success in the way college success was redefined for this study. That is, college success was redefined as *one’s ability to navigate the college context and to overcome social, political, and economic disparity that work in tandem to limit opportunity in higher education for low-income students, first-generation students, and students of color* (See Chapter 1). The closest data point collected by the fok survey was cumulative GPA. Additionally, logistically, this variable was missing 15% data and could not be matched to institutional student data because research sites declined sharing student outcome data.
for this study. While there are indeed limitations in data collected by the fok survey, the decision of research sites not to share student outcome data limits researchers’ ability to conduct equity focused research to improve the college success of historically marginalized communities, which represents a larger issue that goes beyond accurate measurement of student outcomes. That is, institutions as data gatekeepers, set limitations that impact researchers’ ability to explore college success from asset-based approaches and in benefit of communities most impacted by educational inequity including first-generation students, low-income students, and students of color.

**Procedures of analysis.** Descriptive statistics are useful in generating summaries of key data points. Descriptive statistics include measures of central tendency (mean, median, and mode), measures of dispersion or variability (standard deviation, variance, minimum and maximum values as well as estimates for kurtosis and skewness), and frequencies. Frequencies help calculate counts and percentages or the number of times a characteristic/variable occur while measures of central tendency help us calculate estimates representative of all responses recorded on a single variable. This understanding of descriptive statistics served as the foundation for my analysis of survey data. Given that my work with data from the fok survey involved both developing an understanding of survey participants and exploring engagement of participants with fok activities on an annual, monthly, and weekly basis, descriptive statistics were sufficient to fulfil analytical needs. Therefore, using the SPSS descriptive statistics function, I calculated descriptive statistics for all variables of interest. For demographic variables, frequencies were calculated to create a description of survey respondents that included counts and percentages while means and standard deviations were calculated for fok
variables on likert scales. Means and standard deviations allowed me to show how frequently, on average, survey respondents engaged in fok-related activities and how much levels of engagement varied. Results of descriptive analyses are presented in Chapter 4.

**Phase 2 The fok Focus Groups and Individual Semi-Structured Interviews**

**Following-up on Survey Results**

The Funds of Knowledge survey revealed the most prevalent fok in the lives of first-generation students, low-income students, and students of color, based on U.S. seminal research on this topic (Moll et al., 1992; Velez-Ibanez & Greenberg, 1992). Nonetheless, the survey did not allow me to understand if there were additional fok not captured in the fok survey or how participants acquired or developed these fok and how participants transferred, transformed, or operationalized fok to successfully navigate the college context. These three research questions (1) What funds of knowledge are present within first-generation students, low-income students, and students of color acquire or develop fok? And (3) How do first-generation students, low-income students, and students of color transfer, operationalize or transform their fok and to achieve success in college? emerged as I completed my analysis of survey data and were the emphasis of the processes and procedures that took place in the qualitative phase of the study.

According to mixed methods research, the process described above represents the mixing of quantitative and qualitative strands, where results from the quantitative strand influence the design of the qualitative strand (Creswell, Fetters, & Ivankoka, 2004; Igo, Riccomini, Bruning, & Pope, 2006). Traditionally, researchers would choose to follow-
up on significant results from statistical analyses, extreme cases, and/or significance in
groups differences. In my study, however, survey results encouraged for a deeper
understanding of Funds of Knowledge, especially as the population of my study was
much different from participants of seminal fok studies that included children, youth, and
clustered households (See Gonzalez, et al, 1995; Gonzalez, Moll, & Amanti, 2005;
Mercado, 2005; Moje et al., 2004; Moll et al., 1992; Riojas-Cortez, 2001; Velez-Ibanez,
propositions of the transformative paradigm (Mertens, 2003) call for an in-depth
understanding of the multiple socially constructed realities of study participants,
specifically how these diverse realities gave rise to fok. Furthermore, in alignment with
fok scholarship that also encourages the exploration of diverse lived experiences, the
qualitative phase of my dissertation study evolved as follows.

Participants. Using the student of color criterion for participation in my study,
respondents who indicated interest in participating in a focus group, were prioritized for
participation in the qualitative phase. The decision for using the student of color criterion
as priority for inclusion in the qualitative phase of the study, was informed by the
intentionality of the transformative paradigm in elevating the voices of those historically
marginalized and with the fok philosophy of uncovering invaluable assets situated
culturally and within the familial environment (Velez-Ibanez, 1988; Velez-Ibanez &
Greenberg, 1992; Moll et al., 1992) especially among communities of color. With these
philosophical inclinations in mind, I set out to identify participants for this phase of my
study.
**Sampling Procedure.** In agreement with transformative paradigm philosophical principles, I was also intentional about the sites from which I wanted to include participants’ voices for the qualitative phase. To these ends, I selected three of the seven research sites in my study. My selection of three of the seven sites was purposive (Collins, 2003) and informed by the demographics of the student body at the site or the access mission of the institution. Out of the seven sites in my study, three institutions were either minority serving or were known to have an access mission with an emphasis on educating communities historically underserved, specifically communities of color. The three sites I purposively selected to recruit participants for the qualitative strand included, Remote University (MSI), Regional University (MSI), and Local University (Access Mission). The characteristics of the sites selected alluded to the priority placed on including the voices of those historically underrepresented in higher education transformative paradigm, including communities of color, and gave me the opportunity to outreach participants more likely to meet at least one study criterion, being a student of color. Thus, I deployed recruitment efforts at these three sites, sending a focus group invite email to all participants at these sites who identified as a student of color and who indicated interest in participating in a focus group on the fok survey. A total of 90 invitation emails were sent.

The collectivistic nature of focus groups offered participants a communal setting to share their perspectives on fok and perceptions of the influence of fok on their college success (Wibeck, Dahlgren, & Oberg, 2007). The communal aspect at the heart of focus group research empowered participants to share, construct, and redefine their perspectives as influenced by the interactions and discussions taking place in the group.
setting (Wilkinson, 1998). Focus groups facilitated participants’ sharing of their experiences among peers and fostered a collective sense making experience (Wilkinson, 1998). Furthermore, this approach is well aligned with the philosophies of fok and its emphasis on familial and community situated, exchanged, and co-created knowledge.

Although I had planned to collect all my qualitative data in focus groups, this was not possible as scheduling conflicts emerged with some participants. Logistics are explained in more detail in the data collection section below. However, to ensure inclusion of perspectives of all participants who volunteered to participate in the qualitative phase of the study, I met those who could not attend a focus group individually and conducted one-on-one semi-structured interviews. As Kvale (1996) asserts “interviews attempt to understand the world from the participants’ point of view to unfold the meaning of their experiences and to uncover their lived world” (p.1). Interviews are active processes where the interviewer and the interviewee collaborate in the production of knowledge through conversation (Kvale & Brinkmann, 2009). Through engaging participants in interviews, I was able to elicit rich descriptions of their lived experiences (Kvale, 1996), specifically as they relate to fok.

**Data Collection.** From the 90 emails sent to survey respondents who wanted to participate in a focus group and were students of color, 16 confirmed interest in participating. From these 16 participants, four were not available at the times that worked for the majority of focus group participants, therefore, individual semi-structured interviews were scheduled with these four participants and three did not attend their scheduled focus group. These logistical challenges culminated in nine participants in focus groups and four in individual interviews for a total of 13 participants for the
qualitative phase. As with procedures for recruiting survey respondents were not consistent across all sites, a similar dynamic occurred scheduling focus groups. While such practices might be discouraged by normative traditional research approaches, engaging a diversity of methods to collect data to ensure inclusion of more voices into the qualitative strand of the study aligned closely with the transformative paradigm, especially the principle that explains that theoretical and philosophical underpinnings of transformative research supersede traditional, positivist ways, of approaching the research process (Greene, 2007). For a total of 13 participants, three focus groups and four individual semi-structured interviews were conducted. Each lasted around 1.5 hours and were audio recorded. All focus groups and interviews were held on-campus. The location was first reserved through campus contacts and then shared with study participants. Locations were centrally located and within offices that support study participants including cultural centers, TRiO offices, and libraries. Focus groups and interviews took place in the mornings and evenings, based on participant availability.

While qualitative scholars recommend that sample sizes for focus groups range from 5-8 participants (Carlsen & Glenton, 2011), achieving such figures was not possible for my study as participants had multiple commitments including more than one job, and family members to take care of, which impacted their ability to attend a focus group. While qualitative inquiry proposes ideal sizes for focus groups, Krueger & Casey (2000) assert that smaller focus or as they refer to “mini focus groups” are becoming more popular because they offer participants a more comfortable space for them to share in-depth perspectives on their lived experience. As referenced above, some participants were only able to fit in an individual interview, which ensured their perspective was
included in the study. While they were not able to engage in the collectivistic sense making of focus groups, semi-structured interviews offered space to look even deeper within their lived experiences and discuss their insight on fok (Kvale, 1996). See Table 4 for focus group and interview schedule. While the sample for the qualitative phase of the study is small (n=13). This does not present a limitation within the scope of the Transformative paradigm and the fok framework, which called attention to developing equitable spaces that allowed these 13 participants to share great depth on the topic.

Table 4
Focus Groups and Interview Schedule

<table>
<thead>
<tr>
<th>Institution</th>
<th>Number of participants</th>
<th>Race/Ethnicity</th>
<th>Date</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local University</td>
<td>3</td>
<td>Asian</td>
<td>10/23/2017</td>
<td>Focus group</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asian</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Latino</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local University</td>
<td>1</td>
<td>Latino</td>
<td>10/23/2017</td>
<td>Interview</td>
</tr>
<tr>
<td>Regional University</td>
<td>2</td>
<td>Latina</td>
<td>11/3/2017</td>
<td>Focus group</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mixed:Latina/White</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional University</td>
<td>1</td>
<td>African</td>
<td>11/3/2017</td>
<td>Interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td>American</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote University</td>
<td>1</td>
<td>Latina</td>
<td>11/13/2017</td>
<td>Interview (part 1)</td>
</tr>
<tr>
<td>Remote University</td>
<td>4</td>
<td>Latina</td>
<td>11/13/2017</td>
<td>Focus group</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Native American</td>
<td></td>
<td></td>
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<td></td>
<td>Latina</td>
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<td>African</td>
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<td>American</td>
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<tr>
<td>Remote University</td>
<td>1</td>
<td>Asian Pacific Islander</td>
<td>11/13/2017</td>
<td>Interview</td>
</tr>
</tbody>
</table>
Total number of participants 13

The focus groups and interview protocol. As referenced in the introductory portion of the qualitative section of the study, focus groups and semi-structured interviews allowed me to gain an in-depth understanding of how participants acquired or developed fok and how participants perceived fok empowered them to succeed in college. Therefore, the questions included in the protocol elicited information about participants’ lives that revealed a multitude of socially constructed realities. The focus group and interview protocol helped me accomplish three goals: (1) uncovered the diversity of fok present in participants beyond the limited scope of the fok survey, (2) gave me a sense of how participants fok formed within their lived experience, and (3) I was able to determine the role fok played in participants’ ability to succeed in college, as participants narrated how they transferred, operationalized and/or transformed their fok in college. Some questions on the interview protocol include, (1) Please share a little bit about yourself and your family (how many siblings you have, living arrangements, etc.), (2) What kind of experiences did you have growing up that shaped you as a person? (2a) What did you learn? (2b) How did you get exposed to these experiences? (2c) How did you use what you learned to succeed in life? (2d) Who helped you learn from these experiences? See Appendix B for full protocol.

Focus groups and interview informed consent process. Before focus groups and semi-structured interviews began, participants were presented with an informed consent form. The informed consent form offered information about the study, myself and the sponsoring institution, purpose of the study, benefits of participating in the study,
expectations for participant involvement, potential risks of engaging in the study, a note on confidentiality and how I planned to securely store participant information, and contact information for the researcher should participants have questions or concerns about the study. The form also asked participants if they wished to participate in the study and if they agreed to be audio recorded. Participants were given a copy of the form for their records. See Appendix D for informed consent forms.

**Data analysis.** The analysis of focus group data was heavily influenced by philosophies of the fok framework and strengthened by philosophical principles of the transformative paradigm. Specifically, philosophically fok are thought to form through relationships and interactions in which participants are nestled within their homes and communities. Additionally, fok form as families and communities are forced to adapt to changing environmental, economic, and political contexts, demanding the acquisition and development of generalist knowledge and a wide array of skills to ensure subsistence and survival (Velez-Ibanez & Greenberg, 1992). Thus, gaining a greater understanding of participants lived realities and how these have been shaped by environmental, economic, social, and political struggles, offers a window to better distinguish their fok. This philosophy closely aligns with principles of the transformative paradigm, which assert the importance of including and embracing the diversity present within socially constructed realities and lived experiences (Mertens, 2003). Keeping these philosophies in mind, the analysis of focus group data began with great emphasis on identifying additional fok not captured by the fok survey, grasping how participants lived realities and experiences gave rise to fok and how fok empowered participants to succeed in the college context. The process evolved as follows.
First, focus group and interview recordings were transcribed. The transcripts were initially read three times using an a priori list of categories or areas of emphasis created using the interview protocol. Saldaña (2009) asserts that it is advisable that a list of codes be created beforehand to correspond with the study’s theoretical lens and paradigm. This approach is also helpful in directly answering research questions (Saldaña, 2009). The first read was to develop a general sense of which categories were more predominant across transcripts, based on the priori list of categories referenced above. The second read was to read specifically with attention to the unique lived realities and experiences of participants, this read yielded initial sub-categories to be placed under each larger area of emphasis. The third read was intended to seek commonality in sub-codes across transcripts, which refined my list of sub-categories. The third stage culminated with the development of my coding scheme which was then imported into Nvivo. This concluded the initial manual coding phase. For example, consider the category *challenges in college*, which emerged from protocol question “what challenges did you encounter when you first started college.” Sub-categories that emerged under this category included, *financial aid/financial aid processes, inaccessible instruction staff, transition and inadequate advising*. Under *transition* two additional sub-categories surfaced, *transition from community college* and *transition from high school*. Coded under *financial aid/financial aid processes* was the following quote from a participant,

> A couple of challenges that come to mind when I first was a freshman was being a first generation college student, I really did not know how to go about the financial aid aspect or filling out FASFA. Because that was a little more difficult for me, especially for my parents they didn't really know the terminology of what
was going to be on the FASFA application, so that was hard and I wish that the university would provide like a tutorial or seminar, something, a workshop, for students who need help filling out FASFA.

The second phase in analysis of focus group and interview data consisted of uploading transcripts into Nvivo, collapsing initial categories and creating nodes. Original categories were retained as they aligned well with research questions and the emphases on the diverse lived realities and experiences of participants both in college, growing up and looking into the future. After developing nodes in Nvivo, transcripts were coded once more. The final hierarchical coding scheme included 7 seven parent nodes, which were: challenges in college, addressing challenges in college, experiences that shaped them, fok activities, meaningful successes, redefining success, and things learned growing up. Parent nodes encompassed 44 first-level child nodes, 3 second-level child nodes, and 4 third-level child nodes. Once data analyses for the qualitative strand concluded, quantitative and qualitative findings were merged to provide answers to research questions presented in Chapter 6.

**Researcher Positionality**

I identify as a first-generation student, Mexican woman of color who comes from a low-income family and is the first in her family to attend college. I recognize that my identities play a large role in shaping how I engage in research and how I relate to my participants. Like many members of communities that have been historically marginalized and deprived of social, economic, and educational opportunity in the United States, I have passion for challenging the status quo and empowering members of my community to disrupt and overcome barriers that intend to maintain oppression. To these
ends, I engage in the research process holistically and in projects that address issues experienced directly by my community. Many times, I see members of my family reflected in the participants of my work and I am aware that these occurrences along with my background, knowledge and experience I have acquired throughout my time in academia, influence my scholarly endeavors.

As I described in this chapter, I engaged in dissertation research that focuses on the experiences of first-generation students, low-income students, and students of color. This means that I could see much of my experience reflected in the narratives of participants of my study but instead of seeing this as a bias I define it as an opportunity for me to strengthen my research and, as a factor that will foster a more inclusive and supportive experience for participants of the study. I believe this element goes hand in hand with my focus on participating in research that engages students of color from an asset perspective rather than one that frames them as deficient. My background, experience, and knowledge were my asset to carry out my dissertation research successfully just as they represent the tools with which I challenge inequity.

I also recognize that no one experience is the same and while I believed I could relate to the participants of my study in a few ways, this did not mean that they would automatically also relate to me. While my intent was not to impose my role and experience on my study participants, I shared some of my experience with them as I conducted data collection activities for the study. I did this in an attempt to be transparent with my participants so they knew they would not be sharing their story with someone who was not familiar with their community. In the end, this strategy empowered
participants to share about their fok more openly, specifically during the qualitative strand.

Power dynamics is another aspect to remain cognizant of during research. I am aware that being a doctoral candidate and the researcher had the potential to create indifference between my participants and myself, especially when my research engaged undergraduate students. However, rather than framing my role as researcher and doctoral candidate as sources of power over my participants, I defined these roles as a member of the community who has been able to thrive despite challenges that push our communities away from opportunity.

**Ethical Considerations**

To ensure that all aspects of the study were carried out within the required ethical research standards, Institutional Review Board (IRB) approval was secured. As part of this process, informed consent forms were distributed during the data collection stages. These forms included information about myself and the sponsoring institution, purpose of the study, benefits of participating in the study, expectations for participant involvement, potential risks of engaging in the study, a note on confidentiality and how I planned to securely store participant information, and contact information for the researcher in case participants had questions or concerns about the study (Creswell, 2014). Regarding maintaining anonymity of participants, during the quantitative phase no personally identifiable information was collected and during the qualitative phase pseudonyms were assigned to participants to protect their identity. All data collected in the study were securely stored in a password protected computer. Additional ethical considerations, particularly relevant to the transformative paradigm, include acknowledging power
balances existent between the participants and myself and bias emerging from the overlap and expected relatability between researcher identities and experiences and identities and experiences of study participants. These aspects were addressed in the section about researcher positionality.

**Limitations**

Although my study did not intend to generalize results and findings, the perspectives provided through quantitative and qualitative data are reflective only of participants who met one or more study criteria. Furthermore, descriptive analyses of survey data limit our understanding of the role of fok in college success from a quantitative perspective as no inferential analyses were carried out. These analyses would have been possible with the availability of institutional data on student outcomes, which was not a possibility to this study per research site institutional policy. The fok survey can also be improved in several ways outlined in Chapter 6 to better measure fok and indicators of college success. Additionally, the fok survey contained 75 items, which made it a lengthy instrument to complete and inevitably posed a threat to my response rate, yielding only a few hundred responses and incomplete responses throughout variables of interest. Goyder (1985) found that each additional page of a self-administered questionnaire decreased response rates by 0.4 percentage points. An additional limitation for conducting mixed methods research involved the large amount of time and resources necessary to carry out the study. This limitation was evident in the amount of time dedicated to collecting quantitative and qualitative data and the large number of strategies in place to ensure I outreached members of my population of interest. All of these efforts took place as I managed a multitude of commitments
including work and family responsibilities. Finally, carrying out the study solely by myself and with no financial support, could have potentially restricted my ability to include more participants in the study, specifically my ability to incentivize more study participants.

Conclusion

This chapter offered a thorough overview of the procedures employed in carrying out my dissertation research. The study consisted of a Transformative Mixed Methods design. The population of interest included first-generation students, low-income students, and students of color in their senior year of college attending four-year higher education institutions in the state of Colorado. The quantitative phase employed a focus survey administered to participants who were in their senior year of college and met at least one study criterion. Upon analysis of data collected in the quantitative phase, the qualitative strand followed. The qualitative strand engaged data collection via focus groups and individual interviews with selected participants of the quantitative phase. Sampling techniques included purposive sampling during both phases of the study. Other elements discussed in this chapter include: major characteristics of Transformative Mixed Methods research including philosophical foundations that speak to the social justice focus of this design through the combination of quantitative and qualitative approaches to research. Additionally, the chapter addressed researcher positionality in the research process and important ethical considerations of the study. Taken together, this chapter represents the map to carry out research that explores Funds of Knowledge of first-generation students, low-income students, and students of color in their senior year of college enrolled at four year institutions in the state of Colorado.

135
Chapter 4: Funds of Knowledge Survey Results

The purpose of this Transformative Mixed Methods design was to identify the Funds of Knowledge (fok) present within first-generation students, low-income students, and students of color enrolled in their senior year of college and to explore the role of fok in the ability of students to navigate the college context successfully. The research question central to the quantitative strand of this inquiry was, (a) What fok do first-generation students, low-income students, and students of color bring with them to college? For the Qualitative strand the research questions were (a) What funds of knowledge are present within first-generation students, low-income students, and students of color? (b) How do first-generation students, low-income students, and students of color acquire or develop fok? (c) How do first-generation students, low-income students, and students of color transfer, operationalize or transform their Funds of Knowledge and to achieve success in college? I present the findings from the quantitative strand of my study in this chapter. I first offer an overview of participant demographics, followed by a descriptive overview of participants’ fok and their participation in fok related activities for two groups of participants (1) participants who met one or two study criteria and (2) participants who met all three study criteria. I complement each results section with interpretation and discussion of results within the context of this study and informed by fok literature (when relevant).
Demographic Overview of Survey Respondents

The sample for this study was drawn from seniors, students who earned 90 credits or more by Fall 2017, enrolled in seven institutions of higher learning in the state of Colorado. In total, there were 22,606 seniors enrolled at these seven institutions during Fall 2017, nonetheless, estimates for the population of seniors who identified as first-generation or low-income were not available, therefore figures for senior student of color enrollment were employed to gain a sense of the study’s population size. In total, senior students of color enrolled across the seven sites in Fall 2017 accounted for 5,781. Respondents of the survey accounted for 745, roughly, 3.53% of the larger senior student population and 330 of those students identified as students of color, roughly 5.7% of the total population of senior students of color enrolled in fall 2017. See Table 5 for the race/ethnicity of survey respondents and the senior population and Figure 2 and Figure 3 for charts of sample and population demographics by race/ethnicity.

Table 5
Race/Ethnicity of Survey Respondents

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
<th>Percentage from total population of seniors</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American/Black</td>
<td>5.6%</td>
<td>3.9%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>2.1%</td>
<td>.76%</td>
</tr>
<tr>
<td>Asian American</td>
<td>11%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Asian Pacific Islander</td>
<td>.40%</td>
<td>.30%</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>25.2%</td>
<td>16%</td>
</tr>
<tr>
<td>A Different Race/Ethnicity</td>
<td>4.6%</td>
<td>10%</td>
</tr>
</tbody>
</table>
As shown in Table 5, students of color represented 44.3% of survey respondents. Although participant institutions did not provide disaggregated enrollment figures for
racial/ethnic groups, in alignment with the transformative paradigm, the survey gave participants the option to specify their affiliation with additional ethnic groups. Of the Asian Americans who responded to the survey, 1.7% identify as Chinese, 1.3% as Filipino, 1.3% as Korean, and .01% as Vietnamese. Fewer participants identify as Afghan, Bengali, Burmese/Karen, Hmong, Japanese, Laotian, Nepali, Middle Eastern, Pakistani, Punjabi, Singaporean, and Indian. Similarly, for participants who identified as Hispanic/Latino, 16.38% also identified as Mexican American/Chicano, .67% as Puerto Rican, .01% as Cuban, and fewer as Argentinian, Bolivian, Chilean, Colombian, Salvadoran, Guatemalan, Nicaraguan, Mexican, Peruvian, Portuguese, Venezuelan, Salvadoran/Honduran, Spanish/Native American.

The majority of survey respondents, 74%, identified as female while 25.2% identified as male and .3% as transgender and gender non-conforming, respectively. In terms of marital status, 71.9% of respondents reported being single compared to 19.6% who are married, .9% separated, and 6% divorced. From those who are married, 32.6% live only with their spouse or only with their children, 27.3% live only with their spouse and children, while 38.4% live with extended family, which includes spouse or children and other relatives such as one parent or two parents, grandparents, siblings, and other relatives. A much smaller percentage, 1.6% are married respondents who live with one parent, two parents, or alone. In contrast, from respondents who reported being single unmarried, 19.2% live only with a partner, 60.3% live only with their immediate nuclear family including one parent, two parents, and/or siblings, 3.4% live only with extended family including grandparents and other relatives while 17% live with members of their immediate and extended family including parents, siblings, grandparents, and other
relatives, and/or a partner. Less than .01% single respondents live alone. From all 745 survey respondents, 57.3% identified as transfer students.

Language Use and History

When asked about their language use and history, 39.6% participants indicated they speak a second language. From respondents who speak a second language, 48.1% reported English as their second language, 28.8% Spanish, and 23% reported a different language. Additional second languages reported include: American sign language, Arabic, Batak, Chinese, Mandarin, Diola, Hindi, Hmong, Japanese, Laotian, Navajo, Portuguese, Turkish, and Vietnamese among others. The following section offers an overview of demographics for survey respondents who identified as first-generation students, low-income students, and students of color, as they are the emphasis of this study.

First generation Students, Low-income Students, and Students of Color

In this study, a participant is considered a first-generation college student if neither parent completed a bachelor’s degree. Using this criterion from the 745 survey respondents, 328 (44%) indicated that neither parent completed a bachelor’s degree. In addition, low-income students are identified as those who received a Pell grant at any time during their college career. For students to be eligible to receive federal financial aid such as a Pell grant, they must demonstrate financial need as stated by Federal Student Aid (U.S. Department of Education, 2018). Furthermore, TRiO programs’ eligibility for low-income program participants requires family income not to exceed 150% of the poverty level amount as established by the Bureau of the Census (U.S. Department of Education, 2015). From the 745 survey respondents, 446 (60%) reported having received
a Pell grant as part of their college financial aid. Lastly, survey respondents who are students of color indicated affiliation with one of the following racial/ethnic groups: African American/Black, American Indian/Alaska Native, Asian American, Asian Pacific Islander, & Latino/Hispanic. Although there is a total of 745 survey respondents, students of color account for 330 or 44.3% of the sample. Out of these 330 students of color, 5.6% are African American/Black, 2% American Indian/Alaska Native, 11% Asian American, .4% Asian Pacific Islander, and 25.2% Latino/Hispanic. The sections that follow offer demographic information on survey respondents in two ways, respondents who met one or two study criteria but not all three, and respondents who met all three study criteria. That is, survey respondents have been placed in one of two groups: (1) those who identify as one or two of the three study criteria (first-generation, low-income, a student of color), (n=494) and (2) those who identity as first-generation, low-income, and a student of color (n=127).

Respondents Who Meet One or Two Study Criteria

From the 745 survey respondents, 494 (66%) met one or two of the study criteria but not all three. This means that a respondent in this group can be a first-generation student, or a low-income student, or a student of color or a combination of any two criteria. In terms of race/ethnicity, 7.3% are African American/Black, 2% American Indian/Alaska Native, 10.5% Asian American, .04% Asian Pacific Islander, 21% Latino/Hispanic, 5% a different race/ethnicity, and 54% White/European American.

Regarding gender, 73% are female, 26% male, and .02% transgender. When looking at marital status descriptive analyses suggest that 69% are single, 21% married, 7.5% divorced/widowed, and 1.2% separated. Further, about a third (33.5%) of those who
are married live only with their spouse or only with their children, 32% live only with their spouse and children, and 34% with extended family, which might include spouse or children and other relatives such as one parent or two parents, grandparents, siblings, and other relatives. In contrast, descriptive analyses of living arrangements of those who are single or unmarried indicate that 21% live only with a partner, 61% live with only their immediate family, which might include parents and siblings, 3% live only with members of their extended family such as grandparents and other relatives, while 15% live with a combination of immediate and extended family. Moreover, over half (60%) of respondents who meet one or two study criteria are transfer students.

In examining the institutions that enroll respondents who meet one or two study criteria, descriptive analyses show that 38% come from Local University, 33% from Regional PWI University, 20% from Regional University, 4% from Land-grant University, 3% from Remote University, 1% from Urban University, and .04% from Private University. In terms of majors, 9.5% study Psychology, 8.3% Biology, 8% Education, 7% Business, 6% Engineering, 4.5% Nursing, 4% Accounting, 3.5% Sociology, and 2.4% English. Other majors listed (in no particular order) include: Chemistry, Mathematics, Communication, Social work, Political Science, Pre-med, Public Health, History, Law, Film among others.

Another aspect the fok survey explored includes the level of education of the parents of survey respondents. For those who meet one or two study criteria, descriptive analysis show that 8.7% of respondents’ mothers attained less than high school, while 27.7% completed high school, 25.3% some college, 19% a bachelor’s degree, and around 10% a graduate degree. For respondents’ fathers, descriptive analysis reveals that 4.6%
completed less than high school, 27% high school, 21% some college, 15% a bachelor’s
degree, and around 10% a graduate degree.

Respondents Who Meet all Three Study Criteria

Descriptive analyses inclusive of all criteria for participation in the study revealed
that from the 745 survey respondents, 127 respondents or 17% are first-generation, low-
income, and students of color. That is, neither parent completed a bachelor’s degree and
respondents received a Pell Grant at any time during their college career. Lastly, they are
affiliated with a student of color group including African American/Black, American
Indian/Alaska Native, Asian American, Asian Pacific Islander, and Latino/Hispanic.

Race and ethnicity analysis indicate that 4.7% are African American/Black, 3.9%
American Indian/Alaska Native, 23.6% Asian American, .8% Asian Pacific Islander, and
66.9% Latino/Hispanic. Looking at gender, 78% are female and 22% male. Descriptive
analyses of marital status suggest that 81.1% are single, 15.7% married, and 3%
divorced/widowed. Considering living arrangements for those respondents who indicated
being married, 18.2% live only with their spouse or only with their children, 21% live
with their spouse and children only, 58% live with their extended families, which might
include spouse or children and other relatives such as one parent or two parents,
grandparents, siblings, and other relatives, and a much smaller percentage (3%) live alone
or just with their parents. In comparison, from those who indicated being single or
unmarried, 11.1% live with a partner only, 60% live only with their immediate family
including parents and/or siblings, 2.5% live only with members of their extended family
such as grandparents and other relatives, and 26% live with a combination of immediate
and extended family members. Furthermore, 46% of respondents who meet all three study criteria are transfer students.

Descriptive analyses of the institutions at which respondents who meet all three study criteria are enrolled show that 43% attend Local University, 19% Regional University, 19% Regional PWI University, 8.6% Remote University, 7% Land-grant University, 1.6% Urban University and 1.6% Private University. Additionally, their majors include: Biology (10.2%), Psychology (9%), Business (8.2%), Engineering (7.4%), Nursing (6.3%), Sociology (5.8%), Public Health (4.7%), Education (4.1%), Human Development and Family Studies (3.1%), and Accounting (2.5%). Additional majors listed (in no particular order) are: Mathematics, Fine Arts, English, Anthropology, Economics, Criminal Justice, Geography, Graphic Design, Social Work, and Journalism, among others. Regarding parental level of education for respondents who met all three study criteria, 39% of respondents’ mothers completed less than high school, 39% high school, and 22% some college. On the other hand, 39% of respondents’ fathers completed less than high school, 43% high school, and 18% some college.

The emphasis on including communities historically marginalized was at the core of my dissertation study and is reflective of the purposive inclusion of first-generation students, low-income students, and students of color, who are members of communities also historically marginalized on the bases of race, educational access, and socioeconomic status. This emphasis is grounded in the foundational studies that developed and engaged the did so primarily from their work with communities of color and communities marginalized socially, politically, and economically (Moll et al., 1992; Velez-Ibanez, 1983; 1988; Velez-Ibanez & Greenberg, 1992; Wolf, 1966). Wolf first
spoke of fok in terms of funds and surpluses needed for survival among agrarian communities, specifically as these communities negotiated sustenance through their work and relationships with those in power. Similarly, Velez-Ibanez (1983; 1988) and Velez-Ibanez and Greenberg (1992), engaged Mexican and Mexican-American communities on both sides of the Mexico-U.S. border in furthering our understanding of how fok are exchanged socially and how they interplay with identity development.

Results from sample demographics revealed that most students of color in the study both among those who met one or two study criteria and those who met all three criteria identify as Latino/Hispanic, which represents the larger ethnic umbrella group that includes Mexican Americans and Mexicans, communities which have historically been at the center of much of Funds of Knowledge work (Gonzalez et al., 1995; Kiyama, 2010; Moje et al., 2004; Moll et al., 1992; Riojas-Cortez, 2001; Riojas-Cortez & Bustos Flores, 2009; Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992). Another key aspect of foundational fok work was that investigations privileged households as the unit of analysis, particularly clustered households (Velez-Ibanez, 1988). In my dissertation study, the conception of clustered households does not include multiple home/familial and neighborhood contexts or households living nearby or in the same neighborhood or city or across political boundaries (Velez-Ibanez, 1988) but living arrangements inclusive of a mix of both immediate/nuclear and extended family living together. This aspect seemed to be an important characteristic of survey respondents as proportions of living arrangements that reflected clustered households ranged from 15% to 58% among married and unmarried participants included in both groups emphasized in survey data analysis.
In terms of educational attainment, and because my study called for the perspectives of first-generation students, survey results revealed that a large proportion of the parents of survey respondents did not complete a bachelor’s degree. These results were also true in fok work carried out by Kiyama (2010) where she asserted that most of the families in her study had not “completed a 2 or 4-year degree” (p. 29) and Kiyama and Rios Aguilar’s (2012) study where over half of adults did not complete a bachelor’s degree. Although scholars did not explicitly seek to include first-generation to college families in their studies, the demographics of their samples reveal the presence of fok among first-generation to college families.

Furthermore, collectively, fok scholarship has documented the experiences of communities with diverse language use and histories, specifically bilingual communities (Kiyama, 2010; Riojas-Cortez, 2001; Riojas-Cortez & Bustos Flores, 2009; Velez-Ibanez, 1988). As shown in my description of sample demographics, it is evident that at least a third of survey respondents speak a second language and that English and Spanish are the leading second languages spoken among survey respondents. Again, this result positions language as an important Fund of Knowledge.

Additional interpretation cannot be made from survey data in relation to fok scholarship as most work did not explicitly describe study participants beyond race/ethnicity, class, language, first-generation status, and immigrant status (Gonzalez et al., 1995; Moje et al., 2004; Moll et al., 1992; Riojas-Cortez, 2001; Riojas-Cortez & Bustos Flores, 2009; Velez-Ibanez, 1988; Velez-Ibanez& Greenberg, 1992; Zipin, 2009). Furthermore, my study is among the first to capture the perspectives of college seniors while other fok work has engaged the perspectives of undocumented college students.
(Montiel, 2016) and previously incarcerated students and former gang members (Giraldo, Huerta, & Solorzano, 2017).

**Funds of Knowledge Variables**

There are several items in the survey that allude to specific funds of knowledge and the frequency with which survey respondents engage with them. These items include

(1) in the last month, how frequently did your household receive the following help/support from families/other households with whom you interact regularly (child care, transportation, car repair services, house maintenance, help to find a job, help with translation, organize social activities, help access services such as schools and hospitals, help with paperwork to access social services, offered financial support), (2) in the last month, how frequently did your household provide the following help/support from families/other households with whom you interact regularly (child care, transportation, car repair services, house maintenance, help to find a job, help with translation, organize social activities, help access services such as schools and hospitals, help with paperwork to access social services, offered financial support), (3) when you or your parents need to ask questions related to college, who do you/they ask? (school personnel, school personnel who speak your parents’ language, members of the family who have gone to college, members of a religious congregation, friends of family who have gone to college, community members who have children who went to college, other), (4) in the last week, how frequently did you engage in the following? (household related work, car care, pet care, household paperwork, caring for children, shopping, other financial transactions [banking, purchasing money orders, paying bills], medical services, accompanying family members to receive professional services, offering financial support to household),
(5) in the last month, how frequently did you engage in the following? (prayed at night, participated in choir at church, attended family funerals, attended non family members’ funerals, visited family graves, visited non family members’ graves, meditated, prayed at meal time, attended religious services, participated in youth religious groups, engaged in indigenous rituals/ceremonies), and (6) in the last year, how frequently were you exposed to activities that fostered learning in the following topics (rental of housing, goods, and services, loans, credit, income tax, accounting, household budgets, purchasing of goods and services, cooking, processes to access social services [SNAP, social security benefits, Medicaid, Medicare].

Descriptive analyses of each of these items are presented for the two groups emphasized in the study, (a) survey respondents who meet one or two of the three study criteria (first-generation, low-income, a student of color), and (b) respondents who meet all three study criteria. Results from analyses are presented in sections informed by components of the fok framework including: reciprocity (items #1 & 2), college fok sources (item #3), and fok most frequently engaged weekly, monthly, and annually (items #4, 5, & 6).

Reciprocity

To explore the level at which households engaged in receiving and providing support to one another monthly, a series of activities were presented to them including: childcare, transportation, help finding a job, car repair services, house maintenance, help with translation, support organizing social activities, help accessing services such as schools and hospitals, support with documentation to access social services such as Medicare, Medicaid, social security, and offering financial support. Each activity was
placed on a five-point Likert scale ranging from never to almost daily, with values 0-4, and was comprised of the items (1) in the last month, how frequently did your household receive the following help/support from families/other households with whom you interact regularly, and (2) in the last month, how frequently did your household provide the following help/support from families/other households with whom you interact regularly.

For item (1) in the last month, how frequently did your household receive the following help/support from families/other households with whom you interact regularly, among respondents who met one or two study criteria, descriptive analyses suggest that on average, households in this group received any form of support listed less than once a month. For these items, the mean indicates the level in frequency of receipt of these supports, means for all supports under this item are less than 1. Similar results were observed among respondents who met all three study criteria. Descriptive analyses suggest that on average, households in this group receive any form of support listed less than once a month. See table 2 for means and standard deviations for each form of support received.

For item (2) in the last month, how frequently did your household provide the following help/support from families/other households with whom you interact regularly? Descriptive analyses revealed similar results, on average, households in this group provided any form of support listed less than once a month. Also for these sub-items, the mean indicates the level in frequency of provision of these supports, means for all supports under this item are less than 1. Similar results were observed among respondents who met all three study criteria. That is, on average, households in this group provide any
form of support listed less than once per month. See Table 6 for means and standard deviations for each form of support provided and Figure 4 and Figure 5 for a graphic representation of means.

Table 6

*Frequency of Monthly Support Received and Provided*

<table>
<thead>
<tr>
<th>Form of Support</th>
<th>RECEIVED</th>
<th></th>
<th>PROVIDED</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Respondent meets one or two study criteria</td>
<td></td>
<td></td>
<td>Respondent meets one or two study criteria</td>
<td></td>
</tr>
<tr>
<td>Childcare</td>
<td>.23</td>
<td>.77</td>
<td>.29</td>
<td>.91</td>
</tr>
<tr>
<td>Transportation</td>
<td>.31</td>
<td>.71</td>
<td>.40</td>
<td>.88</td>
</tr>
<tr>
<td>Help find a job</td>
<td>.17</td>
<td>.52</td>
<td>.19</td>
<td>.60</td>
</tr>
<tr>
<td>Car repair services</td>
<td>.23</td>
<td>.50</td>
<td>.33</td>
<td>.60</td>
</tr>
<tr>
<td>House maintenance</td>
<td>.20</td>
<td>.53</td>
<td>.25</td>
<td>.78</td>
</tr>
<tr>
<td>Help with translation</td>
<td>.08</td>
<td>.43</td>
<td>.34</td>
<td>.87</td>
</tr>
<tr>
<td>Help organize social activities</td>
<td>.27</td>
<td>.67</td>
<td>.25</td>
<td>.63</td>
</tr>
<tr>
<td>Help access services</td>
<td>.19</td>
<td>.56</td>
<td>.30</td>
<td>.67</td>
</tr>
<tr>
<td>Help access social services</td>
<td>.13</td>
<td>.45</td>
<td>.30</td>
<td>.66</td>
</tr>
<tr>
<td>Financial support</td>
<td>.25</td>
<td>.59</td>
<td>.24</td>
<td>.56</td>
</tr>
</tbody>
</table>
Figure 4. Means for monthly support received.
Fok scholars introduced notions of cultural “glue” or affinity and asserted that cultural glue maintains exchange relations between and across households (Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992). This sense of connection across social networks promoted the distribution and activation of fok in times of uncertainty, as households participated in reciprocal exchange of knowledge, goods, services, and access to information and institutional support. From survey results, while this reciprocity exists among survey respondents, it does not seem to be present with regard to the specific set of activities generated from original fok work including childcare, transportation, etc., as support received and support provided occurred, on average, less than once a month. It is possible that these fok measured by the fok survey are not needed for the community of

Figure 5. Means for monthly support provided.
college seniors to survive, which points to the different needs college seniors have compared with families who participated in seminal fok research. Nonetheless, the types of support exchanged among households of participants varied between households of participants who met one or two study criteria and those who met all three study criteria. For instance, for households of participants who met one or two study criteria means were slightly higher for help organizing social activities, financial support, and car repair and child care under support received. In contrast, for households of participants who met all three criteria, means of activities including transportation, help with translation, and car repair were slightly higher under support received. This pattern makes sense when placed in the context of the study and fok scholarship. That is, the needs of households of participants and support received differ based on the intersectionality of their identities and the contexts where they exist. While households of participants who meet one or two study criteria receive most support planning social activities, households of participants who are first-generation, low-income, and a student of color are more linguistically diverse and have higher needs related to accessing reliable transportation.

Similar results are observed when looking at the means of support provided. The top three areas of support provided by households of participants who meet one or two study criteria include transportation, childcare, and help organizing social activities. These activities tell us that households of participants in this group have access to means of transportation and care givers that they share with other households. In the same vein, households of participants who meet all three study criteria also provide support with transportation, child care, and help with translation to other households with whom they interact regularly. Once again, language seems to be both an area of support received and
provided among households of participants who meet all study criteria. The section below describes key sources of college funds of knowledge among survey respondents.

**College Funds of Knowledge Sources**

To identify key people from which survey respondents acquired college funds of knowledge, respondents were asked “when you or your parents need to ask questions related to college, who do you/they ask?” and were offered a list of people to choose from including school personnel, school personnel who speak parent’s language, members of the family who have gone to college, members of a religious congregation, friends of the family who have gone to college, and community members with children who have gone to college. Respondents were also given the option to identify other sources of college funds. Each person offered as an option was coded as a binary variable (values 0-1) with 1 indicating respondent reached out to that person for college funds. Means of these variables represent the proportion of respondents that reached out to each person listed.

Descriptive analyses revealed that among those respondents that meet one or more study criteria, 65% reach out to school personnel, 22% ask questions to friends of family who have gone to college, and 18% ask family members who have gone to college. Additionally, smaller proportions to respondents turn to personnel who speaks parents’ language (2.2%), community members with children who went to college (5.9%), and members of a religious congregation (1.6%). Ten percent of respondents who meet one or two study criteria indicated they ask questions about college to other people. This question did not ask respondents to specify who they meant by “other.” Likewise, respondents who met all three study criteria identified school personnel as a top source of
college fok (56%), while 24% turn equally to family members who have gone to college or friends of family who have gone to college and 12.6% reach out to community members with children who went to college. 7% rely on personnel who speak parents’ language, 5.5% ask questions to members of a religious congregation, and 8.6% turn to other individuals for college fok.

Survey results in this section allude to the centrality of social networks of participants when seeking access to information about college, specifically as participants reach out primarily to family members who have attended college and friends of family who have gone to college. This is an example of how fok serve to mediate access to educational information, like social networks empowered communities to mediate disadvantage in the wok of Velez-Ibanez (1988). Furthermore, key members of social networks reflected as sources of college fok are also represented in earlier fok literature. For example, the work of Moje et al., (2004) and the work of Moll, Tapia, and Whitmore (2001) center family and community as vital sources of fok for participants in their studies. This was also true for Kiyama (2010) who asserted that social networks and academic cultural symbols played a critical role in the development of academic aspirations among Mexican-American families, and Rios-Aguilar and Kiyama (2012) who determined that college fok in Latino families supported the development of academic aspirations by demystifying college and making it look closer within reach. Moreover, Mwangi (2017) strengthened the latter argument by asserting that in her study, families considered academic aspirations for college a family endeavor.

These survey results also bring another point to mind, specifically related to the argument by Velez-Ibanez and Greenberg (1992) that the location of fok changes across
time. Velez-Ibanez and Greenberg (1992) believed that due to external forces, fok were likely to no longer be solely found at home. Their rationale was that the need for specialization both in the labor market and other contexts demanded for fok to grow beyond generalist knowledge. Their claim is reflected in the fok survey results that point to the location of sources of specialized college fok beyond the home, specifically found within friends of family.

**Funds of Knowledge Most Frequently Engaged Weekly**

To understand respondents’ fok engaged weekly, they were asked to share the weekly frequency with which they participated in a set of activities related to their household and household members. These activities included household related work, car care, pet care, household paperwork, caring for children, shopping, engagement in other financial transactions (banking, purchasing money orders, paying bills), medical services (for self or others), accompanying family members to receive professional services, and offering financial support to household. Each activity was placed on a four-point Likert scale ranging from not applicable/never to more than once a day (values range 0-3) and comprised the item “in the last week, how frequently did you engage in the following?” Similar to reciprocity activities above, the means produced by descriptively analyzing each of these items indicate the frequency level at which respondents, on average, engage with each activity.

Descriptive results for respondents who meet one or two study criteria indicate that the mean for engaging in household related work is 2.1 (SD=.84). This means that on average, respondents engage in household related work every other day. The mean for pet care is 1.7 (SD=.1.3), which means that respondents engage in pet care more than once a
week but less than every other day. Similarly, the mean for participating in other financial transactions (banking, purchasing money orders, paying bills) is 1.3 (SD=.82), meaning that on average, respondents engage in this activity once a week but less than every other day. The mean for shopping is 1.3 (SD=.64), which also suggests, on average, respondents participate in shopping activities more than once a week but less than every other day. See Table 7 for means and standard deviations for all weekly activities.

Means of top weekly activities for respondents who meet all three study criteria are as follows, household related work has a mean of 2.2 (SD=.90), meaning that on average, respondents engage in household related work every other day. The mean for other financial transactions (banking, purchasing money orders, paying bills) is 1.4 (SD=.87), this means that on average, respondents participate in these transactions at least once a week but less than every other day. The mean for shopping is 1.3 (SD=.80), which suggests that on average, respondents shop more than once per week but less than every other day. See Table 7 for means and standard deviations and Figure 6 for means of all weekly activities for respondents who meet one or two study criteria and those who meet all three.

Table 7

<table>
<thead>
<tr>
<th>Activity</th>
<th>Respondent meets one or two study criteria</th>
<th>Respondent meets all three study criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>Mean</td>
<td>SD</td>
</tr>
</tbody>
</table>

157
<table>
<thead>
<tr>
<th>Activity</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household related work</td>
<td>2.17</td>
<td>.84</td>
<td>2.17</td>
<td>.91</td>
</tr>
<tr>
<td>Car Care</td>
<td>.92</td>
<td>.68</td>
<td>.83</td>
<td>.75</td>
</tr>
<tr>
<td>Pet Care</td>
<td>1.69</td>
<td>1.33</td>
<td>1.23</td>
<td>1.33</td>
</tr>
<tr>
<td>Household paperwork</td>
<td>1.08</td>
<td>1.0</td>
<td>1.05</td>
<td>1.02</td>
</tr>
<tr>
<td>Caring for children</td>
<td>.81</td>
<td>1.24</td>
<td>.92</td>
<td>1.27</td>
</tr>
<tr>
<td>Shopping</td>
<td>1.27</td>
<td>.64</td>
<td>1.28</td>
<td>.80</td>
</tr>
<tr>
<td>Other financial transactions</td>
<td>1.35</td>
<td>.82</td>
<td>1.41</td>
<td>.87</td>
</tr>
<tr>
<td>Medical Services</td>
<td>.65</td>
<td>.86</td>
<td>.83</td>
<td>.96</td>
</tr>
<tr>
<td>Accompany family member</td>
<td>.34</td>
<td>.68</td>
<td>.72</td>
<td>.93</td>
</tr>
<tr>
<td>Offer financial support</td>
<td>.75</td>
<td>1.02</td>
<td>.91</td>
<td>1.00</td>
</tr>
</tbody>
</table>
Figure 6. Means for weekly activities.

From a funds of knowledge perspective, the weekly engagement of study participants with different fok reveals a variety of skills regularly activated in their households. It is clear from responses of participants in both groups that knowledge of mathematics is displayed in activities such as shopping and other financial transactions. Similarly, the engagement of activities such as household related work and household related paperwork hint at the existence of methods and knowledge to repair and manage a household (Gonzalez, et al., 2005; Moll et al., 1992). Although the frequency of these activities varied between each group, both groups seemed to engage with those four activities weekly. These results are of interest as participants of prior fok studies including families, children, and youth also displayed similar funds of knowledge (Gonzales, et al., 2005; Moje et al., 2004; Moll et al., 1992; Riojas-Cortez, 2001).
Though survey data do not substantiate my theory, I contend that fok that are present in households from an early age likely remain relevant even through the college years.

An interesting result from data on weekly engaged fok was that accompanying family members to receive professional services was the fok activity least present per week. This could be because there are no family members needing that kind of support in these households or perhaps study participants are not asked to offer this kind of support from their family members because they are busy attending college. The latter rationale brings to mind the assertion by Velez-Ibanez and Greenberg (1992) that when families are unable to enter “employment within primary labor markets, then they are willing to make extreme investments in education in the hope that their children will gain such an entrée” (p. 322). These values can translate into families not asking for much support from college going children as they want them to focus on completing college. That is, familial academic aspirations manifest in support of the children to remain in and graduate from college (Kiyama, 2010; Moje et al., 2004; Mwangi, 2018; Rios-Aguilar & Kiyama, 2012; Riojas-Cortez, 2001; Velez-Ibanez & Greenberg, 1992).

**Funds of Knowledge Most Frequently Engaged Monthly**

To understand respondents’ funds of knowledge engaged monthly, they were asked to share the monthly frequency with which they participated in a set of activities by themselves and with family and community members. These activities emphasized religion and spirituality and included, praying at night, attending family funerals, attending non family funerals, visiting family graves, visiting non family members’ graves, meditating, praying at mealtime, attending religious services, participating in youth religious groups, and engaging in indigenous rituals/ceremonies. Each activity was
placed on a five-point Likert scale ranging from not applicable/never to almost daily (values range 0-4) and comprised the item in the last month, how frequently did you engage in the following? Similar to reciprocity activities above, the means produced by descriptively analyzing each of these items, indicate the frequency level at which respondents, on average, engage with each activity.

Descriptive results for respondents who meet one or two study criteria indicate that the top three religion/spirituality factors engaged monthly are: prayed at night, which has a mean of 1.3 (SD=1.65), followed by meditated whose mean was .98 (SD=1.42), and prayed at meal time with a mean of .85 (SD=1.47). These means indicate that respondents who meet one or two study criteria pray at night, on average, more than once a month but less than every other week. Additionally, they meditate or pray at meal time, on average, less frequently than once a month. See Table 8 for means and standard deviations for all monthly activities.

Means for monthly religious/spiritual activities for respondents who meet all three study criteria suggest the top three factors engaged monthly include, praying at night with a mean of 1.5 (SD=1.75), praying at meal time with a mean of .96 (SD=1.58), followed by meditated with a mean of .86 (SD=1.32). These means indicate that respondents, on average, pray at night more than once a month but less than every other week. Additionally, respondents, on average, pray at meal time or meditate less than once a month. See Table 8 for means and standard deviations for and Figure 7 for means of all monthly activities.
### Table 8

**Means and Standard Deviations for All Monthly Activities**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Respondent meets one or two study criteria</th>
<th>Respondent meets all three study criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Prayed at night</td>
<td>1.29</td>
<td>1.65</td>
</tr>
<tr>
<td>Participated at choir at church</td>
<td>.14</td>
<td>.59</td>
</tr>
<tr>
<td>Attended family funerals</td>
<td>.09</td>
<td>.33</td>
</tr>
<tr>
<td>Attended non family members’ funerals</td>
<td>.11</td>
<td>.43</td>
</tr>
<tr>
<td>Visited family graves</td>
<td>.10</td>
<td>.39</td>
</tr>
<tr>
<td>Visited non family members’ graves</td>
<td>.07</td>
<td>.41</td>
</tr>
<tr>
<td>Meditated</td>
<td>.98</td>
<td>1.42</td>
</tr>
<tr>
<td>Prayed at mealtime</td>
<td>.85</td>
<td>1.47</td>
</tr>
<tr>
<td>Attended religious services</td>
<td>.72</td>
<td>1.20</td>
</tr>
</tbody>
</table>
Table 1: Means for Monthly Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean for Respondents who Met One or Two Criteria</th>
<th>Mean for Respondents who Met All Three Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participated in youth religious groups</td>
<td>.23</td>
<td>.82</td>
</tr>
<tr>
<td>Engaged in indigenous rituals/ceremonies</td>
<td>.11</td>
<td>.63</td>
</tr>
</tbody>
</table>

The activities included in the monthly items were related to religion and spirituality based on prior scholarship that highlighted religion as a consistently present within households (Esteban-Guitart et al., 2012; Moll et al., 1992; Riojas-Cortez, 2001; Velez-Ibanez & Greenberg, 1992). While religion indeed remains an important component of the daily lives of study participants, upon quantifying it, results show that
religion is actively engaged through prayer, on average, more than once a month but less than every other week, primarily through night prayer. These results were similar across participants who meet one or two study criteria and participants who meet all criteria. Additionally, other religious activities seemed to happen less frequently, mostly less than once a month. In terms of spirituality and rituals, these activities also seemed less commonly engaged and often less than once per month. While there is no quantitative point of comparison with previous fok scholarship in active engagement with religion and/or spirituality, prior fok scholars found that some households “credit ‘kids turning out right’ to the importance of religion within the household and the reverence for the ritual activities within the church” (Velez-Ibanez & Greenberg, 1992, p.320). Other fok scholars found that religious holidays and celebrations were important dynamic elements of the culture of children (Esteban-Guitart, Oller, & Vila, 2012; Riojas-Cortez, 2001; Riojas-Cortez & Bustos Flores, 2009). Most recently, Neri (2017) also identified religion as a fok that helped inform her participants’ vocational aspirations. Given that the current study sought the perspectives of seniors in college, their exposure to different convictions and experiences in higher education can be a factor impacting the present low engagement of religion related activities in their lives (Lee, 2002).

**Funds of Knowledge Most Frequently Engaged Annually**

To understand respondents’ funds of knowledge engaged annually, they were asked to share the yearly frequency with which they participated in a set of activities that generate knowledge in specific areas. These areas include, rental of housing, goods, or services, loans, credit, income tax, accounting, household budgets, purchasing of goods and services, cooking, and processes to access social services (food stamps, SNAP, social
security benefits, Medicaid, Medicare, etc). Each activity was placed on a six-point Likert scale ranging from not applicable to more than once a day (values range 0-5) and comprised the item “in the last year, how frequently were you exposed to activities that fostered learning in the following topics?” Similar to reciprocity activities above, the means produced by descriptively analyzing each of these items, indicate the frequency level at which respondents, on average, engage with each activity.

Descriptive results for respondents who meet one or two study criteria indicate that the top three annual fok engaged include, cooking with a mean of 2.40 (SD=1.76), purchasing of goods and services with a mean of 1.72 (SD=1.35), and household budgets with a mean of 1.21 (SD=1.35). These results suggest that respondents who meet one or two study criteria, are exposed to activities that generate knowledge in cooking, on average, more than every other week but less than every week. Additionally, they are exposed to activities that foster knowledge in purchasing of goods and services, on average, more than once a month but less than every other week. Lastly, they participate in activities that generate knowledge in household budgets, on average, more than once a month but less than every other week. See Table 9 for means and standard deviations for yearly exposure to knowledge in areas of interest.

Descriptive analyses for respondents who meet all three study criteria suggest that the top three areas of fok that respondents are exposed to annually include: Cooking with a mean of 2.60 (SD=1.72), purchasing of goods and services whose mean is 1.48 (SD=1.50), and household budgets with a mean of 1.20 (SD=1.42). Results indicate that on average, respondents who meet all study criteria are exposed to activities that generate knowledge in cooking more than every other week but less than every week.
Furthermore, they participate in activities that generate knowledge in purchasing or goods and services or household budgets, on average, more than once a month but less than every other week. See Table 9 for means and standard deviations and Figure 8 for means of yearly exposure to knowledge in areas of interest.

**Table 9**
*Means and Standard Deviations for Yearly Exposure to Knowledge in Areas of Interest*

<table>
<thead>
<tr>
<th>Knowledge area of interest</th>
<th>Respondent meets one or two study criteria</th>
<th>Respondent meets all three study criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental of housing goods and services</td>
<td>Mean: .78   SD: 1.16</td>
<td>Mean: .77   SD: 1.31</td>
</tr>
<tr>
<td>Loans</td>
<td>Mean: .78   SD: 1.03</td>
<td>Mean: .82   SD: 1.10</td>
</tr>
<tr>
<td>Credit</td>
<td>Mean: .95   SD: 1.12</td>
<td>Mean: .96   SD: 1.26</td>
</tr>
<tr>
<td>Income tax</td>
<td>Mean: .68   SD: 1.03</td>
<td>Mean: .63   SD: 1.08</td>
</tr>
<tr>
<td>Accounting</td>
<td>Mean: .76   SD: 1.23</td>
<td>Mean: .65   SD: 1.23</td>
</tr>
<tr>
<td>Household budgets</td>
<td>Mean: 1.21  SD: 1.35</td>
<td>Mean: 1.20  SD: 1.42</td>
</tr>
<tr>
<td>Purchasing of goods and services</td>
<td>Mean: 1.72  SD: 1.55</td>
<td>Mean: 1.48  SD: 1.50</td>
</tr>
<tr>
<td>Cooking</td>
<td>2.40</td>
<td>1.76</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Processes to access social services (Food stamps, SNAP, Medicaid, etc.)</td>
<td>.29</td>
<td>.73</td>
</tr>
</tbody>
</table>

**Figure 8.** Means of yearly exposure to knowledge in areas of interest.

The activities included in the annual fok engagement items reflected topics derived from fok areas suggested by prior fok scholarship (Moll et al., 1992; Velez-Ibanez, 1988; Velez-Ibanez-Greenberg, 1992). Analysis results for this section showed that the most common fok engaged annually through household budgets, purchasing of goods and services, and cooking, have mathematical, business, and household management knowledge, and procedural abilities at the core. This is an important aspect to note as it speaks to the intellectual knowledge present in participants and households.
that have traditionally been perceived as intellectually deficient (González, et al., 2005; Velez-Ibanez & Greenberg, 1992). Results that suggest the engagement of these fok areas regularly also reflect the persistence of these forms of fok across time, specifically as we consider earlier research on the topic, which also identified these areas within the households in their studies (González, et al., 2005; Guitart et al., 2012; Moje et al., 2004; Moll et al., 1992; Riojas-Cortez, 2001; Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992).

Nonetheless, there were three fok areas that were seemingly less present among study participants, regardless of the criteria they met for the study. These were exposure to knowledge of income tax, access to social services, and accounting. Perhaps these areas are not areas where the support of study participants is needed.

Conclusion

This chapter presented results from the quantitative strand of this Transformative Mixed Methods study. The first section offered an overview of study participants including race/ethnicity, gender, living arrangements, and language use and history. The succeeding sections presented results of the fok survey specifically related to fok items that shed light on participants fok that remain present and relevant in their lives to this day. These results were presented for two groups of study participants who completed the fok survey (1) participants who met one or two study criteria and participants who met all three study criteria. Throughout the various result sections presented in this part of the study, similar conclusions were reached for both groups of participants in terms of their fok and engagement with fok activities. In addition to presenting a summary of survey results, this chapter offered an extended interpretation and analysis of the meaning of
these results within the context of the present study and substantiated conclusions and
theories (when possible) with evidence drawn from the larger body of literature.
Chapter 5: Focus Groups and Interview Findings

The purpose of this Transformative Mixed Methods study was to identify the Funds of Knowledge (fok) present within first-generation students, low-income students, and students of color enrolled in their senior year of college and to explore the role of fok in the ability of students to successfully navigate the college context. The survey offered a general understanding of participant fok and their engagement with these resources on a weekly, monthly, and annual basis as informed by seminal work on the topic. Nonetheless, it did not offer a rich understanding of how fok formed in participants' lives' or how participants transferred, operationalized, or transformed fok to achieve success in college. This chapter offers a rich description of how study participants transferred, operationalized, or transformed fok in college and addresses the research sub-questions, (a) What funds of knowledge are present within first-generation students, low-income students, and students of color?, (b) How do first-generation students, low-income students, and students of color acquire or develop fok? (c) How do first-generation students, low-income students, and students of color transfer, operationalize or transform their funds of knowledge and to achieve success in college? First, I present fok as described by focus groups and interview participants. Second, I explain how these fok formed through participants’ lived experiences. Lastly, I conclude by presenting ways in
which participants transformed or operationalized their fok to successfully navigate the college context.

**Funds of Knowledge Present in First-generation Students, Low-income Students, and Students of Color**

The protocol for focus groups and interviews encouraged participants to share important knowledge and skills they learned through lived experience that prepared them for college. Through rich accounts of their lived experiences, participants shared six areas of fok they acquired that remained relevant in college. These areas include: asking for help, becoming resourceful, cultural prayer and spirituality, planning and managing, resilience, and family academic aspirations. The section below offers more context into each of these six areas.

**Asking for Help**

Participants described learning to reach out to others for support as a result of their parents and families encouraging them to seek out answers, their own drive to find the resources they needed, or drastic life changes that forced them to seek out support. For example, during the focus group at Regional University, Delia, a mother of two, in her late 30s, who identifies as a low-income, first-generation, woman of color, provided her perspective on what forced her to learn how to ask for assistance. Delia experienced several emotional and economic shocks throughout her life that left to take care of multiple family members who could no longer care for themselves. From an early age, Delia had to teach herself how to find and ask for help:

Delia: I think high school, like I said, I went from being very innocent through catastrophe in middle school. So, by the time I came out in high school, doing the
schoolwork had become easy because I was able to let go ... there were so many things that were more important than the gossip at school, or you know, stigmas that people were saying.

Interviewer: Right.

Delia: And ultimately, I think that's helped me get through this situation as an adult with the stigma of having to get assistance and all that, knowing, well I have to do this to provide for my family to take care of, you know, in a really broken healthcare system.

Which is ultimately and because I’ve seen it between both my parents having accidents when I was young, and then my husband having his [debilitating condition]. Learning how everybody at some point needs help with something and learning how to ask for help has probably been one of the most [important] things with financial aid at school and learning how to use those programs. You know, I know a lot of people go, ‘Oh I don’t want to jump through their hoops,’ or ‘Oh they expect me to do this and that,’ but they [those providing assistance] are also offering you something.

In her narrative, Delia reveals how the healthcare system has failed her and her family and how she has had to identify ways to cope with those challenges. One of these foks is to seek assistance from formal institutions (Velez-Ibanez & Greenberg, 1992). In her case, Delia sought social assistance to address her needs. In her story, Delia also highlights the stigmas that she endures as a recipient of welfare support. In her account, Delia stresses that she has learned to, “let go,” and do what she needs to do to ensure the well-being of her family. Listening to Delia’s account of learning how to seek assistance
during tough times, prompted Melisa, who was also a participant of the focus group at Regional University and a young mother of two who identifies as a first-generation, low-income, woman of color to share,

Melisa: I didn't have a lot of like anybody to like help me or tell me what to do in terms of college. So I just kind of had to go sign up when I wanted to again, and well when I was trying to get my stuff together.

Interviewer: Right.

Melisa: When I found out I was pregnant, I was like, alright I better do something with myself. So I mean, the only thing I guess that I feel like growing up maybe my parents help give me to navigate through college was, them telling me go talk to people. Go figure it out.

Interviewer: Like encouragement to go figure things out?

Melisa: Yeah, pretty much, in terms of like ... I mean, my dad has always told me you have to look out for yourself and nobody's going to do for you what you're not going to do for yourself. So in other words, like you can't sit around and expect somebody to hand this or that to you.

Melisa’s recollection of the encouragement she received from her parents alludes to consejos (advice giving) (Delgado-Gaitan, 1994) as a form of fok. Even though her parents did not go to college and were unfamiliar with the processes to gain access, they actively encouraged Melisa to seek support and guidance to go to college by giving her consejos. This finding underscores the critical role parents and families play in shaping and encouraging their children to access educational opportunities, despite them not having had those experiences (Kiyama, 2010; Mwangi, 2017; Riojas Cortez, 2001).

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Furthermore, the theme of asking for help also emerged from individual interviews at Local University and Remote University. While not directly alluding to the role of his parents in encouraging him to ask for assistance, Gregorio, a low-income, first-generation, man of color enrolled at Local University shared what he learned from an early age:

You always gotta, like I said, if you need help you really have to reach out. No one’s gonna be like, ‘Hey, you’re messing up.’ Maybe some professors might do that but it’s still, I don’t know, kind of just really is dependent on you, especially, in college. You have to put the work out there and do what needs to be done” (Gregorio, Local University).

After I prompted him to say more, Gregorio added,

Yeah, or you can just rely on your classmates also. When you get more generalized in your study, it's pretty much the same people that you have in your classes. If you befriend them and get to know them, then they can help you in class because they have the same class and stuff like that (Gregorio, Local University).

Unlike Delia and Melisa who referenced seeking support from formal institutions and entities such as, social services and school personnel, Gregorio spotlighted his peers in college as sources of academic support and himself as being the sole agent for reaching out. Gregorio’s strategy of reaching out and becoming friends with his peers is an example of fok as developing a network of exchange based on friendship, trust, reciprocity, and support (Velez-Ibanez, 1988). Similar sentiments about taking responsibility asking for help were present in Maria’s narrative. Maria identifies as an
immigrant, first-generation, low-income woman of color attending Remote University. During her interview, Maria asserted:

I think there is always a drive for me to want more. I need to know more. I want to know more. And unfortunately, my parents couldn’t…. Because they didn’t have those experiences. I’m like ‘well, I wanna know the answer, why not? And I’d be like, ‘What is this really about?’ I think it’s just trying to find the answer however I could, whether that was the internet, whether that was my teachers, work some kind of way.

Evident in Marias’s narrative is the role that technology skills and access to this support play in empowering people to find answers. In defining her strategies to identify resources, Maria also mentioned her teachers as holders of knowledge. Her story like those of other participants shared in this section, points to school personnel as sources of knowledge and college fok in these scenarios, a result that was also evident in survey data where participants identified school personnel as a key source of college fok.

Collectively, through shared conversations during focus groups or in individual interview settings, participants revealed lived experiences that empowered them, encouraged them, or forced them to navigate the context of seeking assistance through the development of reciprocal relationships to receive support through difficult processes. This fok sometimes originated within their families and was shaped in different ways by the multitude of external forces that surrounded their lives. Participants’ accounts show how they acquired this fok and carried that through college as they addressed a variety of challenges. A closer look at the narratives of Delia, Melisa, Gregorio and Maria reveals that in response to scarcity of resources and knowledge within their own family and close
social networks, they identified key systems and stakeholders to address their very unique needs. Like fok seminal work (Velez-Ibanez, 1988; Velez-Ibanez & Greenberg, 1992), study participants mobilized their knowledge of formal institutions, school personnel, their peers, and technology to navigate their life, path to college, and the college context. Although only Delia and Gregorio specifically talked about the usefulness of asking for help within their context as current college students, including learning how the financial aid system works in combination with social services and the role of peers in lending academic support, one can conclude that Melisa’s and Maria’s motivation to seek assistance on the web and reaching out to school personnel remain prominent ways through which they mobilize their fok to successfully navigate the college context. The section below addresses participants’ fok as resourcefulness.

**Becoming Resourceful**

The theme of becoming resourceful is closely aligned with specific ways in which participants addressed their needs. In addition to seeking assistance from others, participants engaged in their own quest to get their needs fulfilled through available programs and resources. Some of the resources participants engaged throughout their educational journeys include public programs, social programs, and educational tools. For instance, during the focus group at Regional University, Delia shared that after her husband developed a debilitating condition and could not work anymore, she found herself working too much while supporting her husband and children. Managing multiple responsibilities impacted her ability to meet all her commitments satisfactorily, this struggle led her to lose employment, which in turn prompted her to seek social welfare support. In her search for support, Delia explains that it made sense for her to go back to
school and stop working, reasoning with which Melisa (another participant of this focus group) agreed. By not working, Delia was able to advance her education and to benefit from social support. She was able to receive assistance with her husband’s medical expenses, with food, and with after school child care. Below, I share the entire conversation between Delia, Melisa and I. I chose to share the whole conversation because it thoroughly explains how Delia made the system that oppressed her work to her benefit:

Delia: Actually, the reason we went back to school, my husband got, came down with a debilitating issue, and we had applied for disability and we were going through that process. And he couldn't work because of the disability but we had to have income. And I was trying to work too much. I couldn't get him ... I ended up losing my job because I was taking him to too many doctor's appointments and doing things. So I lost insurance, I lost that, and we had to go in and get assistance. I had never had assistance-

Interviewer: Prior to that?

Delia: Prior to that. But when I went in, after I lost my job, all of a sudden, we had everything covered on his medical, we had help with food-

Interviewer: Yeah.

Delia: I could actually get assistance with afterschool childcare. And I either had to take classes or I had to find so much work. Well, if I worked, we lost a lot of those benefits. So it was like, I'll go back to school

Interviewer and Melisa: Yeah, the system is structured to-

Delia: So, it literally by not working I got assistance.
Melisa: It made more sense.

Delia: I was able to go to school, so.

Interviewer: Yeah, for sure.

Delia: Yes I took out a lot of student loans because I still had to pay bills that were over the extent of what a dorm, traditional, college student would be because it was me supporting four people through student grants. So I mean, technically, I would have been totally covered through grants but I had to take out loans for living expenses to drive back and-

Interviewer: Yeah.

Melisa: Right

Delia: To drive back and forth, or electricity, or whatever to get back and forth. But my husband was home, but it made it so that I could take him to all of his appointments, I could be there for the kids to take them back and forth, I was actually able to do like PTA and parent things with them that I wasn't able to do when I was working two jobs trying to sustain everything. So actually in the long run it was much better once I figured out how to use the financial aid system, through DHS.

An interesting point that emerged from this discussion of Delia’s process to access social welfare was a brief comment made both by myself and Melisa about how “the system is structured to..” While neither Melisa nor myself completed the thought, we both knew that we were referring to how the “system” in this case, the welfare system works to maintain those already disadvantaged that way. That is, if Delia would have chosen to remain employed, trying to manage multiple jobs, she would not have had the
opportunity to return to college or spend time with her children or support her husband’s needs because the financial aid system would not have supported her fully. On the other hand, by opting to go to school and letting go of employment, Delia was able to make ends meet. She made the system work for her. Also for Delia, education represents an opportunity to leave the social services system one day. In her own words,

Delia: But in the long run I think it's going to help be able to sustain and pay everything back, and give back to my community. Even though my kids will be grown and going to do their things, I will actually finally be at a point where I'm sustaining myself, and I can turn around and give back to other people that are in my situation in their 20s, that are just having kids that are trying to go to school. And that's what I plan on doing, giving back to who, you know (Delia, Regional University).

Delia expresses reciprocity fok as she plans to support re-building her community once she attains her college degree. Also evident in Delia’s narrative is her reliance on fok to challenge power and dominance structures that left her and her family with less access to healthcare and education. The example of how Delia mobilized her resourcefulness is a clear depiction of the role of fok in mediating uncertainty and adversity caused by economic inequality and differential access to institutional resources (Velez-Ibanez, 1988).

The role of public services, such as transportation, in meeting participants’ needs also appeared in my one-on-one interview with Tom, who identities as a first-generation, low-income, man of color enrolled at Regional University. Tom shared that after he moved to Mountain City he resided in an area outside the city with not many educational
options. Tom decided to enroll and attend a high school in the south east part of Mountain city, Tom narrates how he made this possible,

Because even in high school, I lived close to the airport in Old Mission and I went to South East High School, which is about two hours away. So I had to, with me playing sports, I wouldn’t get home before 10pm. There were three buses to take me to school and then I transferred to the light rail and then walked the rest of the way. So, me doing that and still be able to finish school and do good in sport was really good getting me to college (Tom, Regional University).

In this specific instance, Tom explains how fok as figuring out how to use public transportation allowed him to access areas of the city with better educational opportunities, which he did not have access to at his place of residence. There are several elements that stand out in Tom’s story of how he made his path to college possible (1) knowledge of public services, (2) effective management of his resources to accomplish his goals, and (3) awareness of educational opportunity and understanding of the college going process and expectations. That is, Tom knew he had inequitable access to educational opportunity in Old Mission and he used that awareness to mobilize his fok and overcome that struggle. Part of the information that was not included in this section is that Tom, comes from a family that struggled in their home state in the Midwest. Tom’s father went to jail when he was younger, after that, his mom decided to move the family to Old Mission and to turn her life around. An important aspect of this decision is that the family of Tom’s mother lives in the area. This is how Tom ended up living in Old Mission. In my analysis of Tom’s determination to access better quality of education to develop a stronger path to college, it is evident that the mobilization of Tom’s fok to
ensure his academic success is informed by his family experiences, including his mother’s decision to turn her life around by going back to college and becoming a nurse, and his awareness of the inequity in quality of education. It is also important to note that family, like in other fok work, seems to be one of the reasons why Tom’s mother decided to relocate to Old Mission. While it was not explicit in my conversation with Tom that his extended family serve as a support system, it is reasonable to theorize that their residing in the same city underscores the centrality of family in one’s journey to seek better opportunities (Velez-Ibanez, 1988). The section below offers an overview of fok as cultural prayer and spirituality, which also appeared important fok in the lives of college students.

Cultural Prayer and Spirituality

Participants alluded to their participation and engagement with elements of spirituality through indigenous prayer ceremonies and religion. When these elements showed during our conversations, participants spoke about them in the context of hope; hoping for things to go well or things to get better. While not always attached to religion, participants described how believing in something or a greater force empowered them to regain hope for success. The following conversation took place during the focus group at Remote University, I share the entire conversation as it demonstrates how participants developed a communal understanding of the role of religion and spirituality within their lives in college,

Vicky, a first-generation, low-income, woman of color: One more thing I forgot to add was that back home my family is very traditional like spiritual based, so what also helped me growing up was going to see like a medicine man and then
getting prayers done and having ceremonies. That's one part. I think it was back a couple weeks ago, my Mom was crying and telling my Dad ... She was saying-

Juana, a first-generation, low-income, woman of color: Oh my gosh, I can't (Juana starts to cry).

Vicky: Yeah, I know.

Vicky: That she is so proud of me and my little brothers and how much we have strived for. She was telling me ‘I miss you being at home and helping’ because I'm the only other estrogen person there, everybody is testosterone. So, she was just saying, ‘don't worry about me, this is what we prayed for’. So that's a huge factor of me getting through college was the prayers and ceremonies we had.

Vicky explains how spirituality in the form of medicine prayer and ceremonies have empowered her to be successful in college and how her mother feels proud that what they have prayed for is becoming a reality. Vicky’s story brings up emotions in Juana that make her shed tears and prompts Ofelia to share.

Ofelia, a first-generation, low-income, woman of color from Ghana: Spirituality and faith it's something that I was just talking to one of my mates and she asked ‘what has helped you going all this well?’ There is not a single day that I don't pray and doing that really helps a lot because you know that there is somebody higher up that is taking care of your needs and you just commit yourself to that and you know for sure that it is really helping. Especially when you know someone is out there also helping you with that, it actually boosts your morale, and you kind of like go, and go on.
Interviewer: There is some hope there too that you can draw from if you needed to.

Ofelia: Yes, it's a precious thing. Ofelia like Vicky, holds on to religious and spiritual beliefs as fok through daily prayer and believes in God to continue moving forward. She draws hope from committing herself to God. Listening Ofelia speak of God encouraged Juana to share,

That was my struggle freshman year, is not knowing exactly where I fell with religion and all that stuff, being a science major and then coming from a Catholic home, they kind of contradict each other. I even would ask my parents like, ‘Well this doesn't seem kinda right.’ And they'd be like, ‘No, no.’ Just kind of shush it away. And freshman year I struggled until I finally figured out I don't have to have any religion, but more, if there is a God-

Interviewer: More spiritual.

Ofelia: Yeah, it's more about when I am down, even if there is no one there to listen. Just thinking that there might something out there that's listening just kind of helps me. Even though religion is not for me. I definitely think it's for the broken hearted, it's definitely for people that are needing something to kind of push them. It's interesting how people bash on religion, but it also helps people when they are really down.

Juana, engages spirituality fok for college success as she believes there is a God but do not necessarily agree with organized religion. Before unpacking this conversation, it is important to consider the background of the participants of this focus group: Vicky comes from a Native American family where medicine people and ceremonies are active
components of daily life, Ofelia comes from Ghana, also from a religiously active family, and Juana is a student from a Mexican catholic family who chose to study science. While for the three of them, religion and spirituality remain important in their college journeys, they engage these fok in different ways. For Vicky she continues to participate in indigenous prayer and ceremony, praying for success. Ofelia, remains connected to a greater “God” through daily prayer and credits her ability to do well to that practice, while Juana chooses to speak her worries into the world knowing that there might be “something” listening that makes her feel better. Once again, family and culture represent places where spirituality, ceremonial, and religious fok reside. For all three women in this conversation, these fok emerged from their upbringing within their families. For some, these fok continue to be either an element of cohesion as they continue to share similar perspectives on prayer and religion with their loved ones, or a point of contention like Juana, who critically assesses Catholic religion and concludes that she disagrees with it. Nonetheless, Juana does not completely deny the role of having something or someone to believe in when tough times strike. Juana is aware that she does not connect well with organized religion, but she acknowledges the utility of it for some people who need it. At the same time, Juana remains connected to “something” bigger through spirituality.

Spirituality and religion were also fok that Angel highlighted in the focus group at Local University, in response to my question to supportive roles he plays, Angel shared:

Angel, a low-income, first-generation, man of color: I'm really close to my community, especially my spirituality side, my religion. And, it obviously comes from my parents. When my dad got here to Mountain City, I think it was in 1960's, Our Lady of Guadalupe was the only church that spoke and gave mass in
Spanish. So, that's where I'm still serving as part of the youth group coordinator, and I'm still actively participating within my church community as well. I guess, the biggest benefit that I actually acquired through being spiritually influenced by my church community has been helping me reduce stress levels. Just having that moment with Jesus after being really stressed out, preparing for the week has helped me mentally and physically not be as overwhelmed or feel that stressed out over a certain topic, or a certain issue that I've been facing. So, I want to say just my spirituality has definitely been a big part of helping me overcome certain complications throughout my career.

In this excerpt from Angel’s experience spirituality through religion is a factor that has empowered Angel to manage his stress levels. His account also tells about reciprocity (Velez-Ibanez, 1988) in the way Angel provides support to his community through leading the youth group and receives support in difficult situations in exchange. His story also offers a historical perspective about how his father identified a community to belong to through religion, in a place where Spanish was not widely spoken. Like participants from Remote University, religion and spirituality factor play a critical role in Angel’s ability to succeed in college, specifically, having a moment to share his concerns with Jesus and unwind as a new week approaches. In addition to funds of spirituality and religion, participants identified planning and managing as important factor in college. The section below describes how participants engaged planning and managing to achieve college success.

**Planning and Managing**
Developing a plan for the future was something that participants shared as a skill and motivation acquired through lived experiences. At times, this was not directly referenced as planning but as prioritizing and managing different aspects of life. Overall, participant sentiments around planning revolved around life milestones and other specific elements of their lives such as not getting pregnant, going to college, and taking care of others. These approaches were informed by their own experience or what they saw other family members experience. The following conversation took place during the focus group at Remote University,

Vicky: So growing up, as I previously said, I grew up on a Navajo reservation. So, I saw a lot of Natives. One thing, there is a lot of occurrences that happens on a Navajo reservation like teen pregnancy, alcohol abuse, substance abuse and just the poverty there is really serious. One thing that really helped me was my Grandma and she would always tell me that education is a ladder, and she always encouraged me to go to college, to complete college, to get a degree, keep going on and get a really good job. If it wasn't for her, I don't know if I would have gone to college. My Grandma was the one who was more disciplinary with me, and said I want you to do this at this time. That really helped. Also, since I am the oldest in my entire family, even my little cousin, I have to set that role model expectation and aspect of it. Just maturing really easily, maturing really fast when I was younger helped quite a bit as well, taking care of my little siblings, babysitting them.

Here, Vicky shares that her grandma thought of education as a ladder, which is an example of fok as education symbols. This education ladder was a way for Vicky to
climb up and overcome challenges that plagued her community, to move forward and secure a good job. Additionally, Vicky speaks of her responsibility to role model as the oldest child in her family and to set education expectations for future generations. Furthermore, she alludes to supporting her family with childcare from an early age, offering this kind of support required her to mature early taking on more responsibility. After listening to Vicky share her story, I prompted her to elaborate,

   Interviewer: Do you see any of that as being useful when you came to college? Do you think that you rely on some of those skills to find your way around?
   Vicky: I think so. My Grandma had me do a lot of research before I came. Also, the high school I went to we had to do a lot of research about the universities we went to. Taking care of my little siblings did help because I am proud, I mean it's kind of a horrible thing. I don't have any kids and I am glad because my mom, she had me when she was 21, which is still, it's a normal age to have kids, but that's one thing I did not want to happen. I see that happen back home it's like somebody has a child and they just stop going to school. Just with that knowledge in the background that’s what motivated me more to continue school and not drop out.

Vicky also conveys that she transformed learning from the struggles she saw in her community into motivation and expectations of herself. That is, knowing the challenges others in her community faced due to increased responsibility at an early age, empowered her to plan her academic journey taking the necessary measures to avoid some of these challenges. Listening to Vicky’s story, encouraged Juana to share,
Juana: In my case, my life has been all over the place. My parents always moved around a lot and rented and stuff. I can agree with the maturing at a very young age. I think from going through those tough times with my parents I learned the value of education. Of saying, you know, if you don't get an education this is going to continue being your life.

Like Vicky, Juana strengthened her academic aspirations from seeing her parents struggle find a stable home. She like Vicky saw education as the means for her to have a better future. Her story is another example of fok as education symbols to achieve stability and overcome challenges earlier generations experienced. Juana later added,

Juana: Actually to add on, I was just thinking from the rest was saying, I just realized what kind of helped me kind of keep pushing forward is I kept count of years of other people. Like when my Mom had me, she got pregnant with me when she was 16, had me when she was 17. Like if I make it to 16 and 17 without a kid, not to bash anyone, but it's just like. I hope that. It just doesn't help when I'm little, it happens when I'm grown and mature and just have a stable life, then I do those things.

Here Juana highlights being prepared to take more responsibilities such as having children. She asserts that she felt accomplished managing not to have children early in life like some of her family members. Being exposed to what others experienced with additional responsibilities at an early age inspired her to choose when to do those things.

In this brief exchange, Vicky and Juana engaged in a thoughtful discussion reflecting on what they learned as children that helped them get this far in life and in their educational journey. A major component of this discussion, is their awareness of the issues that
affect economically disadvantaged communities and communities of color. Vicky specifically listed poverty, teen pregnancy, alcohol abuse, and substance abuse as major challenges Native American communities deal with. Because she saw others in her reservation struggle with those issues including her mother who had her at a young age, Vicky took in that learning and experience to craft her path in life and through education. Expressing that she took care of her younger siblings while growing up and seeing how when others in the community had children they stopped attending school, Vicky gained encouragement to pursue education. With the support of her grandmother in planning and preparing for college, Vicky was able to move through her life successfully moving past challenges that could preclude her from achieving her goals. It is critical to understand that Vicky’s consciousness and awareness of challenges that prevented her community from accessing education was a key factor as she established goals for herself. For Juana, a similar process took place, as she experienced instability most of her life, with her family moving around and struggling to make ends meet, Juana determined that education would be a way for her to craft a more stable future for herself. As Juana added, upon reflecting on what others in the group were sharing, she kept herself moving forward by reflecting on the experiences of others in her family, especially members of her family getting pregnant at a young age. Juana like Vicky shared her awareness of how people in her community do not successfully access education because of life changes that keep them from following those paths. These two young women have utilized those factors to develop a plan for their educational trajectories in search for stability and a better future.

To contrast participant perspectives that spoke to observing how certain life occurrences impacted the lives of those around them, Delia and Melisa experienced
drastic changes in their own lives that pushed them to prioritize and manage different aspects of life, they shared the following during the focus group at Regional University:

Delia: But then right before middle school my dad passed away. My mom got remarried, so new step-parent as becoming a teenager, was difficult. And then she had a baby, which changed the whole dynamic again. And then, she had a stroke and almost passed away. And then my little sister died of SIDS, all within three years. And that like basically took me from being like a really innocent child to being responsible for everything. Like in charge of everything. Because I was the oldest child. So then, you know, going through all of that, and basically it taught me what to value in life. It kind of helped me prioritize what’s important for me as far as people, or school, or you know how I prioritize things.

Delia’s family was impacted by various health concerns within a short period if time, which forced Delia to take on more responsibility within her family as the oldest child. Delia then explains how this shift sparked the development of fok to manage and prioritize different obligations including school and family. Below, Delia conveys how she has taken those life lessons to share with her children in the form of consejos,

Delia: And in turn I think that's helped me with my children teaching them to go to school but also teaching them that sometimes we have to miss a day or sometimes something has to be turned in late. It doesn't make the end of the world, but when you look at your list of priorities, people and sometimes, usually come first. Then things that you have to turn in, you know, kind of become second. But learning how to prioritize and make time management decisions and
all of that. I think that's probably the biggest thing that helped me, and shaped me, and decide making me want to go back to school.

In the excerpt above Delia speaks to how she has transferred her managing and prioritizing focus to her children through consejos. Specifically, letting her children know that sometimes life circumstances occur, which prevent people to meet all commitments successfully, and that is part of life. Listening to Delia’s story, prompted Melisa to share her own experience,

Melisa: I think growing up, what shaped me ... I've always had really like loving and supporting parents. And they always since I was little instilled into me that they wanted me to go to college. Neither, I'm the first gen. I'm the first gen. college student. And then when I was younger, my dad had to move away for work, like he went and found work in Trinidad and he was gone for a number of years, and that created kind of a rift in our relationship. But you know like looking back at it now, I always tell my dad ... because he feels guilty about it, still. And I'm like, I appreciate that you did that. I know you went and worked so to give us like a more comfortable life you know.

Melisa addresses the role her parents played, especially her father in supporting her to access education. Her story sheds light on her father’s sacrifice moving away to find a job to support his family. Below she also addresses a big change in her life, which brought additional responsibilities,

But and then like I said, when I was 19, I got pregnant with my daughter and I really think since then on is what's shaped me the most as a person. But I think it shaped me like not in a bad way, necessarily, because I've dealt with all the
stigmas of like food assistance and being on WIC. And also, now, growing up in this era with like Trump and all the racism that's flying around and everything, it's just been a weird experience. But I think, and I hope that it's molded me into like a more compassionate person to experience that kind of like hatred and that kind of stigma for just being myself, and being who I am. And I've always felt like there's this attitude placed on people who are on any kind of assistance, like you're lazy, and you just don't want to do anything, and blah-blah-blah.

Melisa describes that her pregnancy at an early age shaped her into a more compassionate person. She arrives at this conclusion by putting her experience in the context of current political times where stigma and prejudice against those more impacted by inequity reigns. She transforms this awareness into life lessons to become a better person.

Through engaging in this conversation, Delia and Melisa shared lived experiences that sparked the emergence of fok for survival. Delia points out that she learned to prioritize the many things she was responsible for, for example, she learned that it is okay to turn in something late. Currently, she strives to communicate those fok to her children via conejos about time management and establishing priorities. Earlier in this chapter, I presented part of Delia’s struggle navigating the various social and educational systems to ensure she met her family’s needs and remained in school. This section also highlights those external forces that further challenge communities already disadvantaged. Fortunately, for Delia, she was able to recognize these challenges and to use her abilities and resources to make ends meet. It is important to also highlight her role as a parent and how she works to ensure that her children learn from her lived experiences as this is a key component highlighted in foundational fok research (Velez- Ibanez & Greenberg, 1992).
Hearing Delia’s story encouraged Melisa to share that at a young age, her father moved away in search of work to support her family. Seminal focus work reminds us that families are willing to make great sacrifices to ensure that future generations have access to better opportunities (Velez-Ibanez & Greenberg, 1992). This was the case for Melisa’s family. Additionally, Melisa became pregnant when she was 19, this shift in her life has impacted her greatly as it exposed her to additional challenges that forced her to seek support from social welfare. When Melisa got pregnant, she activated her focus to access institutional assistance even though she remained aware of the stigma placed on communities that rely on social support to make ends meet. Like other focus groups participants, Melisa possesses greater consciousness of how she is viewed by society and can recognize that she is framed a certain way because of her race and class, especially in current political times.

Planning focus also emerged in the focus group at Local University, specifically for Blanca who in response to my question about skills she learned to grow up, shared,

Blanca, a first-generation, low-income, woman of color: It would be planning.

You didn't have to have a solid plan, but you just had to have a nice foundation or a guideline. So, it's like, ‘Oh, I wanted something to do like this. How will I get to it?.’ Just planning overall, like when you want to do projects, or if you wanted to pick a course, or if you just wanted to get a task done at home. Even now, I'm still struggling with it, but I've gotten better.

Blanca outlines that planning was an expectation at home, planning was encouraged from all tasks including home projects and planning for school. Listening to Blanca prompted Angel to share the following,
Angel: Because, I think that once we're studying, or in the school, we have the syllabus to help us know exactly what's expected from us and what we have to meet, but once we graduate, we're pretty much on our own. And we need to go ahead, and I guess, plan or create that syllabus and know where we want to be and where we need to start. And, I think college is just the first stepping stone to actually meet our goal.

Angel describes his planning fok as being beneficial to craft his career path beyond college. He explains how college is just the beginning step to a career path. He stresses that in college there is explicit guidance in classes that conveys expectations. However, post-graduation, expectations are set by oneself and with them a plan to accomplish those goals.

In sum, focus groups participants shared how they acquired fok related to: planning/prioritizing, time management, and managing skills in the context of their lived experiences. For some of them, those skills were instilled by family members who looked out for them while for others it was their exposure to challenges their families experienced that gave rise to those fok. Some participants found themselves addressing multiple complex changes that made them mobilize their creativity to successfully navigate struggles and others used challenges of others as a footprint to craft better futures for themselves and their loved ones. All in all, participants took those fok into the college context to establish a path to and beyond graduation. The section below describes resilience as another important fok participants acquired through their lived experiences.

Resilience
Participant accounts alluded to their ability to recover from a variety of challenges. They arrived at these reflections through thinking about life in retrospect. That is, gaining strength from knowing that they had successfully overcome greater struggles. In her one-on-one interview at Remote University, Maria described how her life in Mexico forced her to become “tough.” She shares,

Interviewer: Then you mentioned your personality. Like, your upbringing has a lot to do with your personality and how you are today. Can you talk a little bit more about that?

Maria: I guess just having to be tough because of life experiences.

Interviewer: Because of everything that you lived before moving here?

Maria: Yeah, I think it's just a lot of being from Mexico ... like dirt poor Mexico [her community was impacted by crime and poverty generated by societal forces including the expansion of capitalism and imperialism] and how do I explain it? I guess every challenge that life threw at me, it was just like, ‘Okay, I have to be stronger. I have to be even more strong.’ Every single time, I had to increase the strength, and I think, maybe, those are the experiences that made sure that I got to college.

A key word in Maria’s recollection of her time in Mexico is poverty. She describes how she had to become stronger every time life threw something at her. A surface level analysis of Maria’s story might reveal that she struggled in Mexico simply because she was born into a poor family. However, our brief exchange tells a deeper story, Mexico has struggled economically over the years, economic disparity as few hold most of the wealth of the country, leaves most of the population struggling to identify ways to
survive. One of these ways is represented in organized crime, which has caused further marginalization of communities including Maria’s. In Maria’s eyes, she attributes her life struggle with poverty to the country but does not address the fact that if wealth in Mexico would be more equitably distributed, she perhaps would have had a more comfortable life growing up. Consequently, Maria would not have had to immigrate to the United States as a result of her community becoming less safe over time. Maria’s struggle and her need to become stronger and more resilient is not an isolated occurrence, as presented in earlier sections of this chapter, participants of my study had to grow up faster, mature, and take on more responsibility than their peers. All these changes were a result of economic and social disparity that impacted their lives and those of their loved ones. These circumstances were mediated as they relied on existent or newly acquired fok to ensure their survival.

Additional examples of resilience emerged in focus groups discussions, specifically from the focus group at Local University. Below is an excerpt from Vanessa’s story where she describes her journey to college as an English learner,

Since I mentioned, my parents always expected me to graduate high school and go to college, and they always expected me to do well in school life. If I don’t work hard, I won’t be able to be in Local University or even in community college because I have no language ability. Like, I don't have fundamental English like other people. I have to teach myself, instead of the school giving me more resource, which they never provided me in high school, so I have to come up with something on my own to pursue my higher education.
Vanessa alludes to the lack of support she received in high school to access higher education as an English learner. As she speaks of her difficulty she also mentions that she had to put in hard work and make educational access a solo endeavor by teaching herself the language and finding her away. Vanessa’s story is an example of how underserved communities develop fok as tools to gain access to more opportunities when faced with differential access to institutional support.

Earlier I shared part of Juana’s experience growing up as she explained that she learned the value of education and planned on going to college because she saw how much her family struggled growing up. The following is another excerpt from this exchange:

Juana: When I was little it [her father’s job] was Neoplan, it was this big bus company that was in Lamar and then it closed. Then I moved to Vegas and then the recession happened.

Juana explains how economic downturns impacted her father’s ability to maintain a job.

Interviewer: what are some things you learned that you took with you and made you who you are today?

Juana: Strength and just resilience through hard times. Saying I'm used to this, and I've been through harder things, this is nothing, and just knowing that I am almost to my goal, that I have to keep going, that it's not as hard, that things are going to get better, that kind of deal.

From Juana’s story I gather that she saw her family struggle moving around seeking better employment opportunities. Like other families of participants of my study who did not have access to higher education, they all struggled to find jobs to support
their families. In Juana’s case, her father possessed specialized skills that he used in his job at the bus company and that were not as closely aligned with some of the other jobs he found in Vegas and Colorado. A historical perspective on fok points to industrialization and how this movement demanded the specialization of skills that encouraged people to move from having generalist fok to having more narrowly defined skills (Velez-Ibanez, 1988). Thus, the emergence of specialized knowledge comes in to marginalized communities that were able to thrive with broad fok. Nonetheless, because Juana’s family never gave up in their search for opportunity, these behavioral fok instilled resilience and strength in her. Juana gained hope and optimism for the future by reflecting on her family’s trajectory through the labor market, being certain that if she, like her family, could overcome prior challenges, she would also be able to navigate future struggle, specifically as she approached college graduation.

Resilience was more evident in Daniel’s story, not because he experienced greater challenges but because he developed resilience and learned to assert himself because of who he is as a person. To offer more context, Daniel struggled with bullying at school growing up. The multiple aggressions he faced from other students were the result of him disclosing he was gay at the age of eleven. The impact of the constant physical and emotional aggression led his mother to speak with Daniel very seriously. In my one-on-one interview with Daniel, he narrates his story as follows,

Daniel a low-income, first-generation, male of color: And my mom was fed up.

She stood me up and slapped me across the face. She goes ‘I’m sorry, I can’t take this anymore.’ And she told me a story about, this story sticks with me till this day. The coffee bean story. She tells me about this young lady going to her mom.
She’s been through divorce and everything, and her life is just going down. Her mom puts a pot of boiling water on the stove. And her mom drops in a carrot, an egg, and the coffee bean. And then let it kind of boil. After some time she took off the carrot. [And said] ‘this carrot went into the water strong, hard, now it is soft and mushy.’ And then took out the egg. It was hard boiled and she cracked it open. She’s like ‘this egg was hard on the outside, but soft and delicate on the inside. Now it’s hard on the inside and the outside.’ And then she took out the coffee bean and she said to the person [her daughter] ‘what do you see?’ and the person said ‘it hasn’t changed’ and then she [the mother] said ‘look at the pot, the clear boiling water was now brown because of the coffee bean. And so she [Daniel’s mother] went on saying, ‘the world may give you all the different things in the world. All the hurt, all the pain, all these experiences, how are you going to react? Are you with the carrot, that just gets soft and mushy? Are you going to be the egg that gets hard and just harden yourself up? or are you going to be the coffee bean? Instead of letting the pressure change the coffee bean, you change the pressure’ (Daniel, Remote University).

Daniel’s story from his mother is a great example of consejos (Delgado Gaitan, 1994). Drawing from her fok and through storytelling, Daniel’s mother offered him options of how he could choose to react to the struggle he was living in middle school. Though without directly imposing one response over another, his mother was able to convey a valuable life lesson. This interaction between Daniel and his mother is a common way in which parents offer life guidance to their children through fok (Kiyama, 2010; Velez-Ibanez & Greenberg, 1992) In this scenario, fok served to empower Daniel
to choose a course of action to address the struggle he was living. Upon telling his story, Daniel conveyed to me that “So, from there on, we both [him and his mother] vowed that I will no longer feel this way about myself ever again.” Daniel’s narrative goes beyond the transference of consejos as fok through storytelling, it also sheds light on the utility of this form of fok on bringing about change. For some, consejos as fok have strengthened academic aspirations (Kiyama, 2010) for college, for Daniel specifically, consejos as fok gave him the strength he needed to act and assert himself. Like in other scenarios Daniel’s fok reinforce the argument that fok are indeed integral in the negotiation of uncertainty fueled by inequity, in this case, inequity impacting groups with sexual orientations that challenge normative ways of being. Resilience as fok show how participants overcame struggle to develop strong paths to and through college. Some of them did so as result of seeing their families deal with challenges and others managing challenges of their own. Although the role of families in the transfer and development of fok is presented throughout this chapter the following section addresses family academic aspirations as fok.

**Family Academic Aspirations**

Several participants shared that family members both explicitly and implicitly expected them to attend college. In most instances, family members actively vocalized their expectation that their children go to college to craft a better future. In the focus group at Local University, Blanca and Angel shared the following:

Growing up, my parents, mostly my mom pushed for going to school and doing really well. She said that you can do so much with your person, but if you don't have the brains for it, then you can't go any further. She said that if you ever
needed help to always ask, but that was kind of hard, because we never got that support from them. It's like that tough love mentality.

In Blanca’s story, her mom gave her consejos to pursue higher education. While Blanca asserts her mother supported her academic aspirations she also acknowledges that she did not receive support from her beyond receiving advice. Listening to Blanca prompted Angel to share his experience,

My experience growing up was a little bit different. I guess to lack of knowledge of my parents, I remember that all my mom truly wanted was for us to graduate from high school. She wasn't even aware that such a thing as a university or college actually existed. It wasn't until my brother reached his senior year in high school that she was first introduced to that. So, that's when she's like, ‘Oh, all of you guys will be going to college or university.’ So, I guess, being always supported, supported us, one of my dad's biggest motto was, ‘You don't want to end up working like me.’ So, that was what he would use to actually motivate us pursue and education so we wouldn't have to go through all the difficulties that we were currently actually facing. I know when my older brother and my older sister graduated. It wasn't just them graduating. It was more like our entire family graduating and actually, not only were they accomplishing their goals or their desires, but also the desires of my parents and my mom.

Angel’s account also offers an example of a consejo he received from his father, specifically related to his father’s expectation that Angel should study to avoid struggles his father encountered with a lower level of education. Angel also explains how going to and graduating from college is not a solo endeavor but a family affair (Mwangi, 2017).
While Blanca and Angel voiced family support for their academic aspirations their experiences are unique and complex. Blanca for example, comes from a family of Vietnamese immigrants while Angel is the son of a family of Mexican immigrants. Their parents all completed less than high school and immigrated to this country in the search for a better future for their families. The ways in which their families fostered strong academic aspirations also varied for the two of them. Blanca comes from a family that places value on self-sufficiency, specifically in achieving more education. As Blanca described, her mother encouraged her to go to college and suggested to seek help when needed but did not offer much support herself. Although this could be a cultural value of crafting one’s own path to success as a sole effort, this messaging translated into tough love to Blanca. Despite the fact she did not sense much support to accompany her mother’s academic aspirations she took the positive elements of this experience and moved forward in her education journey. For Angel, this experience was different. Specifically, his parents did not know much about the possible educational trajectories he could pursue but they were aware that they wanted him to attain more education. Family encouragement to advance is education came in form of a consejo from his father in his saying “You don't want to end up working like me.” This saying alluded to the struggles his father faced in the labor market with the limited education he was able to acquire. Like in earlier sections of this work, I am reminded of the aspirations families have for their children to enjoy better futures and how education is perceived as the great equalizer to make these aspirations a reality. In this example, it is clear that the families of participants and participants themselves have a greater understanding of educational inequities and how those lead to inequities in other areas. Two fok: (1) awareness of the
role of education in securing a better future, and (2) values relayed through consejos, inform the ways in which the families of Blanca and Angel fostered their academic aspirations.

While focus groups conversations shed light on parents’ openly communicating their academic aspirations for their children, during my one-on-one interview with Maria, she relayed that she just knew that her parents also expected her to go to college though they never pushed the subject. Maria relates,

Maria: In my family, in the lineage, I’ll be the first one to actually graduate. And so, I think that’s what kept me going when I failed genetics. But I think it was kind of because my parents, they don’t want me to live paycheck to paycheck. And I knew it but they never pushed it. But it was expected, which I was completely okay with.

Here Maria like her peers from Local University communicates the role of education in overcoming the economic uncertainty of living paycheck to paycheck. While her parents did not actively vocalize their academic aspirations for her, she knows that a better future means to be able to not worry about financial instability. In her case, fok as academic aspirations empower her to remain invested in attaining a degree knowing that if she does, she will be more likely to be better off financially.

The development of academic aspirations of fok also took place indirectly, specifically for Tom. In my one-on-one interview with Tom, he told a story from his childhood, from which he developed his academic aspirations. Tom explains that his desire to succeed emerged from not wanting to become a statistic like society expected him to,
Tom: Just statistics, about people that are African American that we'll either end up. Well, as an African American male, we'll either end up dead or in jail by the age of I think 16. So, with that being a statistic, I think that just helped me a lot to get to where I am today.

Tom like other study participants, shared his understanding of how society perceives African Americans in this country. Because he is aware of the stock narratives others have crafted for people like him, he chooses to challenge inaccurate depictions and expectations of who he should be by advancing his education. Tom was determined not to become another statistic and thus operationalized his academic aspirations fok (Velez-Ibanez & Greenberg, 1992) to trace a strong path to and through college. Tom’s story is another example of how fok empower communities historically underserved to challenge racist, inequitable social structures. While this section highlighted the experiences of participants in reference to the fok they acquired through life that they took with them to college, the section below offers an expanded analysis of how participants’ fok formed.

**Formation of Fok through Lived Experiences**

The section above offered rich descriptions of the fok present within participants of the study, as they appeared in conversations in focus groups or individual interviews and expanded upon fok identified among respondents of the fok survey. In contrast, this section is concerned with explicating what life events or elements of participants’ lives gave rise to their fok, including those described in the previous section. Findings on the formation of fok will only preview conversations not shared previously and include a discussion of circumstances that sparked the development of fok.
Among the different stories shared by participants, one element seemed to unify common aspects of their lived experiences. This connecting piece involves life changes that forced participants to mature and take on more responsibility at an early age or how they perceived life changes impacted those around them. Drastic, unexpected life changes encompassed a common theme across participants’ stories as to what events gave rise to fok. In most cases, these changes occurred through shifts that family members encountered and that directly impacted study participants. For instance, Juana a participant of the focus group at Remote University, shared that seeing her father deal with employment uncertainty encouraged her to develop strong academic aspirations to ensure she had more opportunities in the future. A similar story was shared by Melisa, from Regional University, who disclosed that her father moved hours away when she was young to find a job to support her family. From seeing his father struggle, Melisa derived academic aspirations and understood that his father made sacrifices to offer her and her family a more comfortable life. The sentiments that Juana and Melisa communicated in their narratives, exposed the societal structures that fueled the challenges that their fathers and family faced growing up. Like participants in seminal fok studies, their families responded to economic and labor uncertainty by moving around in their quest for better employment opportunities and economic stability (Velez-Ibanez & Greenberg, 1992). It is important to recognize the role of power that large corporations hold and the large impact they cause on communities when they decide to leave a worksite. This is precisely what happened to Juana’s family and this was the event that created the struggle that they faced later moving from place to place. From Juana’s and Melisa’s perspective, education appeared as the means to accomplish a better future, this fok like many others, was
activated in response to economic uncertainty. Although not explicitly, their stories speak of hard work as a fok they developed from observing how hard their families worked to navigate economic disparity, this message was also conveyed in my one-on-one interview with Gregorio from Local University. Gregorio shared the following in response to my question about experiences growing up that shaped him as a person,

Gregorio, a first-generation, low-income, man of color: My parents have always been hard workers. And I think growing up that kind of shaped me to be a hard worker. And I worked for everything that I have so far. I definitely think that I wouldn't be here if I wasn't really driven to some extent. No one's gonna do it for you, you kind of have to do it up for yourself. Like I said, we live in a small family so you kind of just rely on each other. That's why I went back to school, is because I just wanted to do it for my parents. To actually try to give them something back.

Gregorio explains how observing his hard-working family inspired him to work hard and taught him that he must put in the effort to accomplish his goals. Another important element shared by Gregorio is that he uses giving back to his family as his motivation to work hard. In his case, Gregorio perceives reciprocity with his family as an outcome of staying focused toward the accomplishment of his academic goals, including returning to and finishing college. While Juana, Melisa, and Gregorio all shared fok originating from their families engagement/or struggle to participate in the labor market, in her one-on-one interview, Maria spoke about her grandma becoming ill, she shared the following in response to my question about experiences growing up that shaped her as a person “going back a little bit, in high school, that was my junior year when my grandma got breast
cancer. And so, I had to stop playing sports and kind of grow up and get a job. It felt like a little more youth was taken out of me because I had to grow up even more.” As a reminder, Maria is the participant who was born in Mexico but moved to the U.S. because it became unsafe for her to remain in her home in Juarez. She had already faced major struggle as she and her mom tried to stay away from the crime and death that afflicted her home town on the other side of the Mexico-U.S. border. This additional change with her grandmother being diagnosed with cancer only added to life difficulties as it required her to activate her skills to find and retain a job to be able to support her family from a young age. This experience was also common for Delia, from Regional University, who shared that her life was filled with constant health struggles among family members, which led her to acquire and activate fok that empowered her to navigate her educational journey through college.

In contrast, for participants like Vicky, from the focus group at Remote University, being the oldest child within her immediate and extended family, placed more family obligations on her, which required to offer child care support for her younger siblings and cousins. Vicky attributes added responsibility to the acquisition of childcare fok as well as becoming more mature early in life and role modeling for younger generations. Maria, Delia, and Vicky found themselves fighting different inequities that forced them to activate and/or develop fok. Maria previously escaped violence in her home country by immigrating to this country, little did she know that she would face additional challenges here such as economic insecurity as a result of her grandmother becoming ill, which deprived her from opportunities in school that could have strengthened her preparation to go to college. Similarly, Delia was also impacted
negatively by similar tragedies including death and major health concerns that prevented other family members from remaining employed. It is inevitable to see how the educational trajectories of Maria and Delia were impacted by larger societal economic and health disparities that forced them to grow-up faster. On the other hand, it is also essential to acknowledge that because these systems threatened their survival and that of their families, they developed and activated fok to continue moving forward through taking on more responsibility. In contrast to Delia’s and Maria’s circumstances, Vicky also had to support her family providing childcare to her younger siblings. As Vicky herself cited earlier, she grew up in an Indigenous community with scarce resources. Her operationalization of fok to offer care to children is a common element of support among communities historically marginalized (Moll, et al, 1992; Velez-Ibanez & Greenberg, 1992). While an association between their lived experiences and the emergence of their fok cannot be statistically inferred, it is evident that shifts happening around them and their exposure to family struggles sparked the acquisition of knowledge and skills not previously necessary for them to navigate their lives, which poses implications for their experience in college as they activate their fok to overcome struggles. The section that follows offers an understanding of how participants transferred, transformed, or operationalized fok in college.

**Enacting Agency & Operationalization of Fok in College**

Participants’ experiences shared during focus groups and interviews revealed the fok that they acquired through life and offered a glimpse into the many ways they enacted these fok. Though participants explained a handful of ways in which they successfully navigated challenges encountered in the college context, they all seemed to be
accomplished through one mechanism, agency. Participants’ enacting agency was evident as they sought solutions and answers.

For example during her one-on-one interview at Remote University, Maria shared that she was provided inadequate advising in her first year of college, she describes,

Maria: I came in Pre-Med major and there was this class CHEM 111 and she [her academic advisor] was like ‘you need to take this class.’ Then I went to one stop advising and this one lady tells me ‘Why did your advisor enroll you in CHEM 111?’ and she took me off of it. Luckily, I questioned it. So I went back [to her academic advisor], I’m like ‘Why do I need to take CHEM 111?. She’s like ‘Oh, because in order for you to take genetics you need to have CHEM 111. But imagine if I wouldn’t have taken that? I would have been behind even more.

Maria’s experience illustrates how enacting agency empowered her to find a solution asking for help and using the resources available to her. In this scenario Maria recognized conflicting advice and activated her fok on key college personnel to find clarity to her concern, like seminal fok suggests (Velez-Ibanez, 1988), Maria utilized her fok to navigate contradicting advice and was able to successfully overcome the possibility of getting behind in her academic plan. Likewise, Melisa, from Regional University, explains how she had to find the one person who could help her address her concerns “I had a lot of issues, I had to come to deal with everything and deal with people. So, I really feel like my one advisor that I’ve had was my biggest help but it really took like finding one person that I got close with” (Melisa, Regional University). Fok scholarship suggests that when communities are not able to find the fok necessary to overcome uncertainty within their close social networks, they turn to formal institutions (Velez-Ibanez, 1988).
Ibanez, 1992s). This was precisely the case for Melisa, who worked toward identifying one key person, or an institutional agent (Stanton-Salazar, 2011) at her college for support. In her account, Melisa also highlights the importance of finding someone to “get close with,” which represents the element of trust or confianza that is at the core of fok.

On the other hand, Vicky, a participant in the focus group at Remote University, explains how she laid the foundation to seek out assistance when necessary,

> What I would do is like, I am kind of a like a social person, I forced myself out of my shell freshman year. I would try to make a friend in every department and that way I knew I had at least one go to person. And I was blessed even out of campus, like a church or just friendships and creating those things.

Like Melisa, Vicky also alludes to friendship and the importance of this element in developing a relationship with someone she can trust and go to when she needs assistance. In her approach, she describes making a friend in each department. Her story is a clear example of how she developed a network of exchange (Velez-Ibanez, 1988) in college and how this network of exchange served to get her needs met. Additionally, her network of exchange traverses the boundaries of the college campus as she has also developed relationships with external community institutions, including a church.

Another active role in enacting agency to deploy fok in college was illustrated in Angel’s case, Angel is a participant of the focus group in Local University, and describes how he found academic support, “I think one of the biggest resources that have actually helped me out, has been just doing my own online search, looking for online videos or tutorials that have actually helped me understand the course” (Angel, Local University). Angel’s example depicts how he operationalized resourcefulness through activation of his
knowledge of using the web and looking for tutorials to strengthen his academic experience. Listening to Angel share his strategies, prompted Blanca, also a member of the focus group at Local University, to offer an example of how she activated her fok as she started college, “Yeah, I had more information [she acquired during her college preparation program], so I knew that I could go to this website for this scholarship, or I could go to these websites for more scholarships” (Blanca, Local University). From all the participants of focus groups and interviews, Blanca was the only one who went through a college preparation program prior to starting college, she credits her ability to know where she could go to acquire information to her participation in this program. Blanca’s case is an example of how she leveraged that knowledge that was transferred to her through her college prep program to navigate her way around college.

Although attending a different institution, Delia, a participant of the focus group at Regional University, explains how her experience as a transfer student prepared her to enroll at Regional University,

I've really enjoyed it [going to college]. It's been a long process for me. I've taken a few courses, did community college, and then I took off seven years, and then I came back to finish my bachelors. So, it's ... I actually started in 2007 and so it's 2017, so it's taken me 10 years but it's just worked around life situations, and working, and going to school.

I've really enjoyed being in school. I tried to go one semester right after I graduated high school and I didn't enjoy it. After working for a long time though, and having a family, going back to school was a lot better, so.
Delia describes that she has been pursuing her bachelor’s on and off working around life situations. When prompted to share more about her experience as a transfer student, she added:

You know I think I had a lot more support at the community college. They walked me through doing financial aid, and getting back into doing college after being out of high school for ten years and not studying. And I did work study there, I got totally immersed into college. And then when I moved on to, I transferred to four different universities, so when I left the community college, and I first went to Regional PWI University, it was horrible. It was big, I didn't know who to contact, I felt like I was all by myself. And then, after that, I took time off because I didn't enjoy it at all. So then when I came back to Regional University, before I came back here I'd gotten online, I looked up every class I was going to need, I knew how to do all the financial aid, so I kind of did everything on my own. And besides needed a signature to sign off on advising or whatever, I pretty much did it myself. I had to learn at Regional PWI University.

It is clear from Delia’s experience attending community college and then other four-year institutions that she had to acquire college fok as she navigated those spaces. As she relayed, her experience at the community college was more supportive because she had guidance through the various processes of going to college there. However, things changed for her as she transferred to four-year institutions, specifically Regional PWI University. Not only was the campus larger than the community college she had previously attended but the climate was not as supportive as what she was used to.

Entering this new hostile context prompted Delia to activate her fok to acquire the
necessary tools to survive. Although Delia did not stay at Regional PWI to complete her bachelor’s she transferred (Velez Ibanez & Greenberg, 1992) the skills she acquired in such isolating difficult context into her college experience at Regional University. Having had to learn most processes of attending a four-year institution on her own empowered her to have a smooth transition into Regional University and to be able to be about to complete her bachelor’s degree.

Participants’ accounts presented in this section allowed me to expand my understanding of how through (1) enacting agency, (2) relying on their fok either transferred to them or developed in response to challenges and uncertainty, (3) developing networks of exchange, and (4) relationships with key supporters through mutual trust, participants’ activated their fok to successfully navigate college. Additionally, there is a story that portrays how resilience was transformed into advocacy to change the climate in college. I am referring to Daniel’s story of the coffee bean. I shared his story as I pointed out how her mother transferred consejos through storytelling as she tried to support Daniel in challenging times at school. The outcome of Daniel’s conversation with her mom was Daniel choosing to be like the coffee bean and gaining the confidence to change the environment around him during college. The following excerpt from our one-on-one interview offers more context. Daniel explains,

Daniel: Personally, here there wasn’t much talk about gay rights at the time.
There wasn’t much talk about LGBTQ kind of clubs around here at the time...There wasn’t really a nurturing aspect of the, there wasn’t any, a force in this school to talk about those kind of things. So that really wasn’t, really playing well with things, but I’m a loud person. I think I was able to show somebody,
because I think, this is just me theorizing. Before I came out to this campus, they haven’t really met somebody as flamboyant, as open and as loud as I am. Using that voice and voicing opinions to, because I feel that a lot of times, they see minorities as powerless and cowardly, and they have no power and once you see someone that is part of minority come and have such a voice and follow through with that voice, they get shaken up. And I think for me, that has really slowly changed in that aspect, speaking from the LGBTQ side.

Daniel’s story reflects processes presented in seminal fok work including Velez-Ibanez (1988) article on how communities in Mexico enacted agency through networks of exchange to catalyze social change. Specifically, comadres organized to challenge corrupt authorities who threatened to evict them from their residences. In this scenario, Daniel engaged in similar activities to foster social change on campus, perhaps not engaging an extensive network of supporters such as the comadres but activating the resilience he developed from tough times growing up into voicing his concerns and bringing about change. His story like that of other participants in the study exposes the great capability of historically marginalized communities to overcome adversity and generate tools that support them to survive and thrive moving forward. These tools as fok, are essential in challenging and navigating oppressive structures that limit the prospects for success among these communities and Daniel is one solid example of these efforts. The section below ties all participant narratives presented in this chapter in a summary of how fok represent elements of college success.

**Funds of Knowledge as Elements of College Success and as Responses to Inequity**
Participants shared the utility of Funds of Knowledge to successfully enter and navigate the college context through stories of their lived experiences, examples of fok as elements of college success are below:

(1) Fok empowered participants to manage different life and career commitments through planning, managing and prioritizing skills, which were useful in planning coursework, outlining career trajectories, and persisting in college.

(2) Fok empowered participants to develop networks of exchange that supported their time in college. These networks of exchange included institutional agents and community organizations.

(3) Elements of fok including cofianza and reciprocity empowered participants to identity key institutional agents and advisors to support their journey in college.

(4) Fok as knowledge of formal institutional support allowed participants to identify support within the college campus and in the community to meet their needs and ensure their presence in college campuses.

(5) Fok as knowledge of public transportation and other services supported participants to access educational opportunity.

(6) Fok as awareness of inequity in resources and access to quality education, propelled participants to creatively craft strategies to mediate disparity.

(7) Fok as awareness of deficit social perceptions and prejudice against one’s group fueled participants’ motivation to challenge the status quo and strengthen their academic aspirations.

(8) Family academic aspirations as fok make going to and graduating from college a family affair.
(9) Prayer, religion and spirituality fok become sources of hope and faith as college students share their worries with a greater entity. Prayer and indigenous ceremonies offer college students reassurance that success is within reach.

(10) Fok as processes to navigate different systems of support within the college campus and the community allow students to make the systems work on their behalf and accomplish their career goals.

(11) Fok acquired through the transfer student experience include, learning how to enroll in college, select courses, and how to navigate the financial aid and advising systems, and empower students to manage transition between institutions smoothly.

(12) Awareness of how to use technology fok allow college students to seek answers on the web when no other sources of support are available.

(13) Fok as education symbols and communicated through consejos by family members supported participants motivation to persist in college.

(14) Inequity in access to employment, education, and healthcare catalyzed the emergence and activation of fok among participants. These bodies of knowledge and skills accompanied participants through different life context including college.

Figure 9 below, shows the activation of participants’ fok in response to inequity.
This chapter presented the findings from the qualitative strand of this Transformative Mixed Methods study. The first section presented the fok present within participants study as highlighted in participants’ stories shared in collective in focus groups or in one-on-one interviews. Fok uncovered included: asking for help, becoming resourceful, cultural prayer/spirituality/religion, planning and managing, resilience, and family academic aspirations. Under these major categories of fok, additional fok were
present including: knowledge of institutional support and key stakeholders, knowledge of public services, awareness of power and oppression and determination to challenge oppressive structures, and establishment of social networks and relationships through *confianza*. I also explained how fok emerged through participants’ lived experiences primarily as those around them or participants themselves experienced social, economic, and health adversity. Lastly, I offered a close look at how study participants transferred, operationalized, and activated fok in college, and the explicit utility of fok in college.
Chapter 6: Discussion

This Transformative Mixed Methods study identified and quantified the fok present within first-generation students, low-income students, and students of color enrolled in their senior year of college. It also uncovered the origin and emergence of fok in participants’ lives, expanded our understanding of the ways participants transferred or transformed their fok in college, and offered an overview of the utility of fok in supporting the college success of first-generation students, low-income students, and students of color. In this chapter I integrate quantitative and qualitative findings in response to the study’s research questions. I also describe the contributions of the study to the field, outline implications, and offer recommendations for theory, research, and practice.

Answering Research Questions

The overarching research question for the study was (1) What is the role of fok in empowering first-generation students, low-income students, and students of color to successfully navigate the college context? However, to craft an answer to this question, research sub-questions pertaining to each phase of the study were answered. For the quantitative phase, the research sub-question (a) What fok do first-generation students, low-income students, and students of color bring with them to college?, was answered by survey data. Furthermore, participants’ perspectives gathered during the qualitative phase
of the study helped answer research sub-questions, (b) what funds of knowledge are present within first-generation students, low-income students, and students of color?, (c) How do first-generation students, low-income students, and students of color acquire or develop fok? (d) How do first-generation students, low-income students, and students of color transfer, operationalize or transform their fok to achieve success in college? Drawing from participants’ perspectives from both phases of the study, the following sections address each research sub-question.

**The Funds of Knowledge of First-Generation Students, Low-Income Students, and Students of Color**

We learned in Chapter 4 that survey results showed lower engagement of participants’ households with members of other households in terms of providing and receiving support with a specific set of activities generated from seminal Funds of Knowledge research including, child care, transportation, and the like. Nonetheless, participants’ responses to sources of college fok highlighted the key role that school personnel, family members who have gone to college, friends of family who have gone to college, and community members with children who went to college play in the distribution of college fok. Furthermore, survey data showed that participants engaged the following fok regularly on a weekly, monthly, and yearly basis, (1) household related work, (2) shopping, (3) other financial transactions, (4) pet care, (5) praying at night, (6) praying at mealtime, (7) meditating, (8) cooking, (9) purchasing of goods and services, and (10) household budgets. Considering the quantitative results outlined above and integrating them with qualitative findings, it is evident that fok present in the lives of study participants as described by survey data, were also present in participants’
qualitative accounts. Specifically, participants in focus groups narrated their current engagement with spirituality and religion. In Chapter 5, I explained extensively the role of religion and spirituality in participants’ quest for college success. These findings agree with survey results that revealed that on average, participants engage in night prayer more than once a month. Furthermore, it was evident from participant narratives that there are key stakeholders they go to for college fok, including school personnel who serve as mentors and supporters of their journey in college. This finding was also true in survey data where participants referenced school personnel as the top source of college fok. Therefore, in response to the research sub-questions, (a) What fok do first-generation students, low-income students, and students of color bring with them to college? And (b) what funds of knowledge are present within first-generation students, low-income students, and students of color?, integrated quantitative results and qualitative findings point to fok related to religion and spirituality, and knowledge of college fok supporters as integral to the college success of study participants. Moreover, qualitative findings uncovered additional fok that were not captured by the fok survey, these included, (1) asking for help fok, (2) fok of formal institutions and systems that offer social services and public services, (3) fok to access subject-specific knowledge including the web, (4) resourcefulness fok to creatively use the resources available to them to meet their unique needs including public services and social welfare services and systems (Velez-Ibanez & Greenberg, 1992), (5) fok as awareness of deficit thinking and prejudice against one’s ethnic/racial group, (6) fok to plan, prioritize, and manage different life circumstances, (7) resilience fok, (8) fok as education symbols, (9) fok as consejos, (10) fok as awareness of inequity in access to employment, healthcare, and education, (11) networks
of exchange, (12) technology fok, (13) resilience fok, and (14) fok as family academic aspirations.

Foundational fok literature in the field asserts that fok include information and formulas for construction and repairs of homes, planting, gardening, cooking, butchering and creating things (Velez-Ibanez, 1988, p. 38). This assertion is also true for participants of this study as they possess fok related to household activities including household care, cooking, and household budgets. Furthermore, Moll et al. (1992) theorized that fok also included knowledge of financial transactions, and religion, which also represent fok that first-generation, low-income, and students of color outlined as relevant to their lived experiences (Esteban-Guitart, et al., 2012; González, et al., 1995; Riojas-Cortez, 2001). Likewise, participant knowledge of formal institutional support was also highlighted in seminal fok research (Velez-Ibanez & Greenberg, 1992) and alludes to the fact that when fok are not present within households or social networks, communities adapt and use other resources to meet their needs (Velez-Ibanez & Greenberg, 1992). This dynamic was also present within participants’ accounts. Figure 10 displays the fok present within first-generation students, low-income students, and students of color participants of this study. The fok of study participants are in the outer area of the figure and at the center of the figure are the different challenges participants faced in life and during college, which catalyzed the activation of their fok.
Figure 10. The funds of knowledge of study participants.

Origin and Development of Fok

While the fok survey was concerned with identifying and determining the level of engagement of participants with a predetermined set of fok as informed by seminal research on the topic, it was limited in explicating the origin of participants’ fok. Therefore, to answer the research sub-question (c) How do first-generation students, low-income students, and students of color acquire or develop fok?, qualitative findings offer greater insight. It was common across participants of focus groups and individual interviews for fok to emerge as responses to political, economic and social disparities (Velez-Ibanez, 1988). To offer a few examples, for Delia’s fok originated as she faced
multiple health struggles among family members, which rendered them unable to continue working and placed a strain in her ability to maintain her own job. On the other hand, Daniel’s fok originated as a result of bullying produced by socially constructed prejudice against people with different sexual orientations. Furthermore, Juana’s fok were formed as she lived through the economic struggle her father and family lived as a result of consistent struggle to identify stable employment while Tom’s fok originated as a response to challenge societal prejudice and expectations of African American males. Although the ways participants acquired and developed fok varied, their narratives offered insight into various societal forces including health care access disparities, financial struggles, and prejudice that foundational fok studies outlined. These forces pushed them to mobilize their creativity, social networks, and courage to challenge the status quo (Velez-Ibanez & Greenberg, 1992) to survive and thrive, first in life, then in college. Similarly, fok including family academic aspirations emerged as participants saw the struggle their families went through or as families wished for their children to craft a brighter future. These ideologies were also identified in other fok research (Kiyama, 2010, 2011; Mwangi, 2017; Rios-Aguilar & Kiyama, 2012).

Transfer, Transformation, and Operationalization of Funds of Knowledge in College

Participants of this study transferred and transformed their fok in ways that empowered them to successfully navigate the college context. While this piece was not commonly discussed in prior fok research, Montiel (2016) suggested that her participants drew fok from the concept of hacerle la lucha (to take on the struggle) proposed by Garcia (2004) and engaged hard work, determination to succeed and resourcefulness to
convert their fok into financial capital to support their college career. This notion resonates with agency as the mechanism that facilitated the activation of fok among study participants to overcome hurdles that threatened their ability to attain a college degree.

For most study participants, the fok they acquired growing up remained intact as they entered the college context. This dynamic aligns with Velez Ibanez and Greenberg’s (1992) assertion that fok are likely to remain present among communities when their members remain within the same social class. That is, although participants of my study have experienced educational access to college, they remain within the same working class as their parents and families, which explains the permanence of fok they developed growing up.

Below are some examples of how fok acquired growing up remained intact as participants entered and navigated the college context. For instance, Ofelia and Vicky remain strongly reliant on religion and indigenous prayer, respectively, to support their college success. Moreover, Delia’s knowledge of institutional support came in handy when she was able to connect financial aid with social welfare to be able to support herself and her family. Also, her experience as transfer student empowered her to acquire a set of knowledge and skills that made her transition to Regional University smooth. Similarly, Melisa’s academic aspirations transferred from her parents remained solid as she managed single motherhood while completing her bachelor’s degree. In a similar fashion, Angel’s and Maria’s determination to find answers to their questions highlighted the utility of the skills to seek help that they learned as children. In the same vein, Vicky and Melisa, conveyed the importance of developing a network of support in college,
which is a strategy that emerged from the centrality of supportive relationships and trust in their own communities (Velez-Ibanez, 1988).

In contrast, Juana’s relationship with religion conveys that she transformed a fok acquired from her family’s devotion to Catholicism into spirituality, asserting that while she disagrees with principles of Catholicism, she finds solace in knowing that something out there is listening to her worries. Similarly, Daniel’s experience demonstrates that he transformed his fok into new knowledge that empowered him to become an advocate for improving campus climate. As presented in Chapter 5, Daniel took the resilience fok he acquired from his experience in middle school to bring to light the lack of campus efforts that addressed the needs of the LBGTQ community at Remote University. His work resulted in expanded awareness and change across the institution. The examples presented above outline four elements that characterize how participants of my study transferred, transformed, and operationalized fok to ensure their success in college: (1) enacting their agency, (2) utilizing fok they acquired or developed earlier in life to meet their needs in college, (3) establishing strong relationships and social networks for support, and (4) transforming their fok into new knowledge to catalyze social change.

Furthermore, below, I offer a brief overview of participants’ conversion of their fok into Yosso’s forms of capital during their college experience. While Yosso’s framework was not a theoretical centerpiece in my study, it adds clarity to the transformation of fok into forms of cultural capital.

**Funds of Knowledge Transformed into Yosso’s Forms of Cultural Capital**

Yosso (2005) describes a model for understanding cultural wealth present within college students. In her model, she outlines six forms of capital that can be used to
support student success in college, specifically success of students from historically underserved communities. There are six forms of capital in Yosso’s model including: (1) Aspirational capital, which refers to hopes for the future, specifically academic aspirations. (2) Linguistic capital that consists of language and skills to communicate. These skills include story telling and elements of those practices including memorization and attention to detail. (3) Familial capital includes social and human resources to which students have access through social networks prior to entering college. (4) Social capital represents students social networks which students utilize to access knowledge and navigate social institutions. (5) Navigational capital includes skills to navigate social institutions including unsupportive environments such as the college campus. (6) Resistance capital emerges from a historical legacy fighting for social justice, specifically for communities historically marginalized. This legacy translates into students desire to prepare themselves to catalyze social change.

The fok present among participants of this study and their utility in the college context expands of our understanding of how participants transformed their fok into Yosso’s forms of capital. Table 10 shows the fok and the form (s) of capital they transformed into to successfully navigate the college context.

<table>
<thead>
<tr>
<th>Funds of Knowledge</th>
<th>Forms of Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of formal institutional support</td>
<td>Navigational capital</td>
</tr>
<tr>
<td>Planning, managing, and organizing fok</td>
<td>Aspirational capital, navigational capital, and resistance capital</td>
</tr>
<tr>
<td>Networks of exchange</td>
<td>Social capital</td>
</tr>
<tr>
<td>Concept</td>
<td>Capital Types</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Consejos and family academic aspirations</td>
<td>Familial capital and linguistic capital</td>
</tr>
<tr>
<td>Confianza and reciprocity fok</td>
<td>Aspirational, navigational, and resistance capital</td>
</tr>
<tr>
<td>Knowledge of public services</td>
<td>Navigational capital, resistance capital, and aspirational capital</td>
</tr>
<tr>
<td>Awareness of deficit thinking and prejudice against one’s group</td>
<td>Resistance capital and aspirational capital</td>
</tr>
<tr>
<td>Prayer, religion, and spirituality</td>
<td>Familial capital and resistance capital</td>
</tr>
<tr>
<td>Technology fok</td>
<td>Navigational capital</td>
</tr>
<tr>
<td>Knowledge of processes to secure institutional support</td>
<td>Navigational capital</td>
</tr>
<tr>
<td>The transfer student experience</td>
<td>Navigational capital and resistance capital</td>
</tr>
<tr>
<td>Fok as education symbols</td>
<td>Aspirational capital and resistance capital</td>
</tr>
<tr>
<td>Fok as awareness of inequity in access to employment, healthcare, and education</td>
<td>Aspirational capital and resistance capital</td>
</tr>
<tr>
<td>Resilience fok</td>
<td>Resistance capital, aspirational capital, and navigational capital</td>
</tr>
<tr>
<td>Asking for help fok</td>
<td>Navigational capital and social capital</td>
</tr>
<tr>
<td>Becoming resourceful</td>
<td>Navigational capital and social capital</td>
</tr>
<tr>
<td>Hard work fok</td>
<td>Aspirational capital, familial capital, and navigational capital</td>
</tr>
</tbody>
</table>

The Role of Funds of Knowledge in Empowering First-Generation Students, Low-Income Students, and Student of Color to Successfully Navigate the College Context

The sections above offered answers to research sub-questions pertaining to the two phases of this Transformative Mixed Methods study. Conclusions presented
described different characteristics of funds of knowledge of first-generation, low-income, and students of color including the fok present within study participants, the origin of fok, and the ways in which participants transferred and transformed fok within the college context. With these conclusions in mind, I offer an answer below to the overarching research question “What is the role of fok in empowering first-generation students, low-income students, and student of color to successfully navigate the college context?” below.

**Fok Paving the Path to College**

As discussed in Chapter 5, a sentiment across participant narratives was the desire to access and graduate from college. This goal was inspired by fok as family academic aspirations messaging received from parents and extended family members including grandparents. Thus, participants took in this advice and acted upon it by activating the diversity of their fok such as asking for help fok, fok of societal stereotypes of their racial/ethnic group, formal institutional support fok, religion and spirituality fok, and resilience fok to ensure their presence in college campuses from community colleges to four-year institutions.

**Fok Supporting Persistence and Retention in College**

Also evident in participant experiences in college was the utility of fok acquired early on in their lives, often as a response to economic and health disparities and educational and social inequities. As in participants’ lives, these fok offered utility in the college context, by empowering participants to find answers to their predicaments related to academic matters and financing their education. Enacting their agency, study participants were also able to develop strong relationships and social networks based on
confianza (trust) and to rely on these networks for additional support. Similarly, participants transformed their fok into new knowledge to bring about social change in their campus and as a source of hope through spirituality. The section that follows outlines the interdisciplinary contributions of this study.

**Significance and Interdisciplinary Contributions**

The significance and interdisciplinary contributions (to fields including education, anthropology, and methodology) of this dissertation study are as follows:

(1) Offers a historical exploration of the use of the funds of knowledge framework from its inception to current times, which when combined with study findings, generated tenets/principles of fok as presented in chapter 2:

(a) Fok help communities challenge power and dominance structures as they mediate uncertainty caused by economic disparity, political inequality, and differential access to institutional resources (Velez-Ibanez, 1988). Fok are strategic resources.

(b) Fok include a variety of contexts including familial, household, neighborhood, and institutional contexts (Velez-Ibanez, 1983; 1988; Velez-Ibanez & Greenberg, 1992).

(c) When not present fok are accessed and developed through the mobilization of social networks, which challenge notions of historically underserved communities as socially unorganized (Velez-Ibanez, 1988). When fok cannot be found within social networks and communities, individuals turn to formal institutions for assistance (Velez-Ibanez & Greenberg, 1992).
(d) Fok include dynamic cultural and behavioral practices and are not simply “a grab bag of tamales, quinceaneras, and cinco de mayo celebrations” (González et al., 1995, p. 456). Thus, fok are grounded in lived contexts and practices (González et al., 1995).

(e) Fok are transmitted through social networks that activate labor services, and access to information and resources (Moll, Amanti, Neff, & González, 1992; Velez-Ibanez & Greenberg, 1992).

(f) Fok can represent the fabric for academic concepts but must be transformed and transmitted through a connection to systematic concepts and in social world settings available through social relationships (González et al., 2005). Human beings and their social worlds are inseparable, therefore notions of human thinking as an endeavor residing solely within individual traits are refuted (González et al., 2005).

(g) At the core of fok is a great sense of confianza (trust in mutual trust) and reciprocity as a response to uncertainty of context and scarcity of resources (Velez-Ibanez, 1983; 1988).

(h) Fok are formed from the need for survival and are mobilized as a response to constant economic and political uncertainty (Velez-Ibanez & Greenberg, 1992).

(2) Provides a fok survey instrument to measure fok present within college students and recommendations to better measure fok.

(3) Contributes the identification of fok of college students who are first-generation, low-income, or students of color (presented in Chapters 4 and 5), thus expanding
the use of the fok conceptual framework to exploring college success in higher education.

(4) Offers an understanding of the ways in which fok of study participants originated as a response to inequity.

(5) Provides an overview of the ways in which participants transferred and transformed their fok into tools to support their success in college, which inform the implications and recommendations presented below.

(6) Establishes a connection between fok and their transformation into Yosso’s (2005) forms of cultural capital.

**Implications for Theory and Research**

Theoretically this Transformative Mixed Methods study expands the implementation of the fok framework to address issues related to college success. Though other scholars (Giraldo, Huerta, & Solorzano, 2017; Montiel, 2016) have begun this work, this study is unique in that it merges quantitative and qualitative approaches to identify and quantity fok and to understand the role of fok in the college success of students from historically marginalized communities. The study also calls attention to the need to expand the fok framework to be more relevant to the experiences of college students, specifically because the original framework was developed with households in mind and not necessarily individuals. In this study, forces that sparked the transmission and emergence of fok were similar to those presented in seminal fok work, nonetheless, fok identified were not exactly the same as those identified in foundational studies, except for fok such as the importance of education, household care, financial transactions for household management, and religion.
Furthermore, the original fok framework identified fok among marginalized communities that were impacted by major economic, social, and political disparities, which forced them to change their way of life. It is critical to note that this premise was also true in this study. Specifically, though participants were not on the receiving end of the emergence of industrialization and the expansion of capitalism and imperialism like earlier generations, they were still impacted by derivatives from these forces such as health care disparities, unemployment, unwelcoming campus environments, single motherhood, lack of access to transportation, and violence. This theoretical parallel alludes to the crucial role fok play in empowering college students who are members of historically underserved communities to mediate inequity and ensure survival and success in the college context.

Additionally, the utility of fok research goes beyond identifying the fok present within individuals and communities. It uncovers the multitude of disparities that members of historically underserved communities experience as they attempt to achieve a brighter future through college attainment. It also sheds light on the lack of support in place to address their needs and on the vast amount of creativity inherent to these communities that empowers them to disrupt oppressive structures and systems.

Furthermore, original fok theory cautioned about the challenges for fok to endure across generations when members of households move up the social hierarchy. This argument presents another implication for fok research, specifically, related to the presence and activation of fok among members of marginalized communities that advanced within the class hierarchy and are no longer as heavily impacted by inequity. This remains an unexplored area of fok.

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Implications for Practice

A major implication for practice informed by findings of this study directs our attention to key personnel that served as sources of support for students in this study. Participant narratives revealed the importance of finding one key person at their institution to serve as guide through their college journey. This person was found within cultural centers and offices that support students from diverse backgrounds and within academic advising services. An important aspect to identifying a key supporter on campus was the rapport and trust students were able to build with this person that encouraged them to continuously turn to them for assistance.

Another finding from this study that presents implications to practice is the importance of consistency in policies and practices in academics and other matters including financial aid. Specifically, some participants of the study received unclear and contradicting advising from academic advisors and financial aid personnel at their institution. Although students recognized inconsistencies and sought and found the right answer, they could have experienced unnecessary repercussions as a result of ill trained personnel.

Along the same lines, findings from the study shed light on the diverse trajectories of participants to access higher education. The findings also underscored the importance of institutional structures that can facilitate access and persistence in college, specifically financial aid systems. One of the participants in this study, after many trials, was able to establish a connection between the financial aid system at their school and the social welfare system, which ensured her persistence in college.
Findings also highlighted the importance of institutional readiness for student success. That is, findings point to the need for institutions of higher education to have the support and structures in place to welcome students from historically marginalized communities. This implication is important as it urges institutions to expand their awareness of the multitude of backgrounds of the students they enroll to be able to support their success at their campuses. While students from this study were able to activate and transform their fok to successfully navigate the college context, this dynamic uncovered the inadequate support available at their institutions.

Furthermore, findings revealed the value of institutional support for diversity and inclusion. Specifically, inclusion efforts for students from diverse backgrounds that are not represented within the majority of students. This implication reminds us of the constantly evolving diversity of the college student population and the need for institutions to offer more inclusive and less isolating environments.

Implications for Public Policy

Findings from this study alert us to the importance of measures of college success through which institutions are evaluated. More specifically student outcomes including persistence and graduation are traditionally accepted as universal measures to determine institutional performance (McPherson & Schapiro, 2008) but do not capture efforts institutions are making to support student success holistically. Maintaining this narrow definition of what institutional success encompasses limits the inclusion of strategic efforts colleges and universities are making to support students, specifically underrepresented students. Additional measures of institutional success can include the number of affinity groups present on campus, the number of programs and staff dedicated
to support students from historically underrepresented backgrounds, the existence of programs to engage and support parents and families of these students, and established partnerships for student success between institutions of higher learning and the community.

**Recommendations for Theory and Research**

An integral recommendation for theory is the need to expand the Funds of Knowledge framework to be more relevant to the experiences of students in college, specifically to be able to better measure fok. Although the principles of fok that relate to (1) the crucial role of *confianza* (trust) in establishing supportive social networks and (2) the conditions that generate and activate fok hold true for college students in this study, not all the forms and types of fok identified in seminal work match those present within college seniors. While there are important fok that are closely tied to culture such as (a) religion and spirituality, (b) fok situated within family academic aspirations, and (c) fok related to sustaining a household such as household care, household budgets and other financial transactions that remain important as students seek success in college, this study uncovered additional fok that were not measured by the fok survey.

The reciprocity items of the Funds of Knowledge survey were intended to estimate the level of engagement of households of participants in providing and receiving support from other households with a set of activities derived from fok listed in seminal work. However, it was evident that the households of seniors in college who participated in the study were not frequently engaged in providing and receiving those specific forms of support. On the other hand, items that measured participant engagement with spirituality and religion revealed higher activation of those fok in college. The same was
true for the mobilization of social networks that granted access to college fok, and for fok related to financial aspects of household management. In light of these findings and keeping in mind integral elements of fok such as the (1) development and mobilization of social networks, (2) identification of systems and structures that produce inequity in participants’ lives, (3) the types of fok, and (4) measures of college success from a fok perspective, and (5) the role of fok in supporting college success, the following recommendations are made to refine the fok survey instrument,

(1) Before addressing crucial components of fok, I recommend scholars to collect information on the diverse challenges participants encountered to enter and persist in college. To these ends, I recommend a question to capture participants’ struggles, with response options including: financial aid challenges, feel isolated on this campus, challenges with academic planning, struggling with class content, trouble identifying campus resources for support, experience discrimination, challenges defining long term career goals, feel unwelcome on this campus, challenges balancing family and school responsibilities, struggle supporting family financially, and other to gather additional insight.

(2) Findings of this study revealed key individuals and entities that supported participants’ college journey including, one key advisor/mentor, community religious groups, friends of family, and family members. My recommendation is to develop questions that capture members of participants’ social networks. A question can be “please select people and groups that have provided support during your time in college” and response options can include: academic advisor, faculty member, career counselor, cultural center mentor, financial aid advisor,
religious group, family member, friend of family, and other for participants to indicate a different person or entity. This question will reveal key supporters and can help researchers to map out the social networks that empower students to succeed in college.

(3) To solicit participant input on how participants mobilize their social networks in college, researchers could ask as a follow-up question “How have these people or groups supported your college journey” as a follow-up to the question outlined in the previous recommendation. Response options include, to answer academic plan questions, to guide my career goals, supported me socially or emotionally, provided financial support, offered spiritual guidance, helped me address financial aid concerns, supported my well-being, offered academic support for classes, and other to capture additional forms of support.

(4) To identify institutional structures that produce inequity in participants’ lives I recommend asking “What elements of this campus do not support your success in college?” I would also offer the opportunity for participants to express why those structures disadvantage them. Response options can include: campus climate, academic advising, financial aid, no support for diverse students, institution is dismissive of my culture, I am not represented in student leadership, faculty and staff do not look like me, I am the only underrepresented student in my classes, and an option for other campus elements.

(5) Furthermore, to capture external hurdles participants wrestle with as they make their way to college completion, researchers can ask “What additional struggles do you face outside of school that threaten your ability to stay and graduate in
college?" Some answer options could include, my parent/guardian (s) lost their job, I lost my job, family members dealing with chronic illness, I am homeless, my parents/guardian/family are homeless, my parents/guardians/family are being discriminated against, I provide care for family members in need, I provide care for friends of family in need, and the option other.

(6) To identify participants religion and spirituality fok as suggested by findings of this study, I recommend a question like “When in despair, what do you do?” Response options could include, I engage in religious prayer, I participate in indigenous ceremonies, I pray to God or a greater entity, I meditate, I remain hopeful about the future, and other option.

(7) To assess the presence of additional fok including those that emerged within the findings of this study, I recommend asking “what knowledge, skills, and support have you acquired growing up or during college supports your college success?” Responses can include: asking others for help, using the web to find answers, my knowledge of public services, my knowledge of social welfare systems, my knowledge of support services on campus, resilience I developed from tough times in life, my academic aspirations, skills to manage difficult situations, skills to develop an academic plan, skills to develop a life plan, my awareness of how society perceives my ethnic/racial group, my faith in God or a greater entity, my faith in indigenous ceremonies and medicine people, wisdom my parents or other family members shared with me, the social network I developed in college, the social network I developed outside of the college campus, my determination to
challenge the status quo, my desire to improve my life through education, and other.

(8) To complement the recommendation above, a question asking “How has the knowledge, skills, and support you acquired growing up or during college empowered you to succeed in college?” Response options could include, to address financial aid concerns, to solve academic planning concerns, to guide my career path, provided social or emotional support, provided financial support, provided spiritual or religious guidance, provided encouragement to keep pushing forward, fostered my academic achievement, supported my involvement on campus beyond the classroom, developed my leadership skills, supported me to become an advocate for others, gave me hope for the future, and an option for other.

(9) To expand our understanding of how students activate their focus to support their success in college, I recommend researchers to ask “what helped you utilize the knowledge, skills, and support you acquired growing up to achieve college success?” Responses can include, my determination to solve my concerns, my determination to survive despite the challenges I faced, knowing who to ask for help, and an option for other.

(10) To better measure college success beyond normative college success indicators such as GPA, I recommend asking students what challenges they overcame during their college experience. Response options can include challenges listed in recommendation number one.
Final recommendations for fok research include (a) tracing the presence and activation of fok for members of historically underserved communities who have experienced socioeconomic mobility. This research can expand understanding of transmission and persistence of fok across generations and can shed light on the utility of fok within contexts less impacted by inequity. (b) exploring the evolution of religion and spirituality fok in college. (c) Additionally, given that campus personnel were framed as important sources of support and college fok by participants of this study, it is of interest to explore how they can empower students to activate their fok for college success and how they can engage their own fok in doing so.

Recommendations for Practice

Recommendations for practice are informed by key study findings that urge institutions to implement the following to support the college success of underrepresented students,

(1) The Holistic College Advisor/Mentor

Study findings revealed the importance of having one key supporter during the college experience. Integral ingredients to this relationship include strong rapport and trust between students and their key advisor, which are more likely to be developed over an extended time and through a close interpersonal relationship. My recommendation is for institutions is to assign one key person that can support students holistically and offer academic support, career support, and social and emotional support. This individual does not need to be an expert in every aspect of the college experience but must be able to refer students to reliable sources of support when necessary. Most importantly, this advisor must be committed to inclusion and social justice and be genuinely committed to
student success. Although accomplishing this recommendation will require more funds to sustain holistic advising roles, if the university is committed to the success of its students, then making this happen should not become a major roadblock.

(2) Policies that Keep Advising Personnel on the Same Page

Some study participants alluded to issues such as receiving inaccurate information regarding various processes including selecting the right courses. Specifically, in one instance a participant referenced speaking with two college personnel about the same matter and receiving contradicting advice. Luckily one of the advisors was able to deliver correct information and the participant was able to stay on track with the completion of courses. My recommendation to institutions is to ensure that all personnel are up to date and informed about the various policies that govern the various academic and nonacademic aspects of going to college. This recommendation is important particularly regarding students receiving inaccurate advice about what courses to take. This challenge can (1) delay students time to graduation by not taking necessary courses when offered, and (2) place additional financial burden on students who are already struggling to make ends meet and pay to stay in college. Furthermore, both consequences can lead to students stopping out and not completing their degrees, which from a broader perspective represents a larger issue for which the institution can be considered at fault.

(3) The Relationship Between Higher Education Institutions and Community

Findings from this study also point to the important role community can play in becoming a partner in student success. Specifically, study participants identified community entities such as religious groups as sources of support during college. I recommend institutions to more actively welcome community entities and acknowledge
their role as partners in student success. An idea to start this process is to put together a community connection fair where community organizations come in to share the work they do with students. This can yield benefits including (1) student awareness of community services that can benefit them, (2) generate connections between community organizations and students for civic engagement, and (3) establish relationships between community organizations and the institution to develop additional support for student success.

(4) The Link Between Institutional Support and Social Services

It was evident in this study that there are ways in which different support systems can connect to foster student success. Accordingly, I recommend heightened awareness among college personnel that advise students, specifically, regarding social services and public services from which students might benefit. This recommendation is tied to recommendation number one where I urge institutions to dedicate holistic advisors for student support. Familiarity with external forms of support for students is one piece of information holistic advisors can share with students as another source of support for college persistence and success.

(5) Developing Student Advocates from a Fok Approach

Study findings offered an example of a participant who became a leader and advocate for his peers while drawing on his funds of knowledge. While becoming a leader was not guided by institution, insights from his experience highlight possibilities for developing institutional support. My recommendation is to expand programming for leadership development to include developing advocates for social justice. This training will be grounded on fok philosophies that assert that all students bring invaluable
knowledge and skills gained from their lived experiences. Thus, students will be encouraged to identify knowledge and skills that empowered them to overcome challenges. They can then determine ways in which their knowledge and skills can be transferred or transformed into skills and knowledge for advocacy for social justice. This approach is (1) guided by fok principles, (2) empowers students to draw from their fok, and (3) expands the concept of leadership to address issues of social justice through advocate development.

(6) Inclusion on Campus

This recommendation is not unique but offers a reminder on the importance of inclusive campuses in the experience of historically underserved students. To these ends, I urge institutions of higher learning and college personnel to (1) continue working toward the development of welcoming, inclusive environments that strengthen students’ sense of belonging and (2) to demonstrate awareness of disparities that impact diverse student populations. This recommendation emerged as study participants shared the isolating conditions they encountered on their respective college campuses. Being an underrepresented student and not seeing oneself reflected in students, faculty, and staff of the college is a source of stress. This stress worsens as one learns that their institution is not actively engaged in supporting their persistence and success in college, as demonstrated by the lack of resources and personnel genuinely committed to supporting students.

Recommendations for Public Policy

Tied to the implications for assessing institutional performance through normative student success indicators is the need to expand and redefine these metrics. To these ends,
I recommend public policy entities and legislators to reassess the universality of current measures to evaluate institutional performance on student success. Specifically, to think of additional elements that can be measured and accounted for when evaluating institutional efforts to support student success. These metrics can include capturing institutional investment in programming and personnel that cater to students from underrepresented backgrounds. For example, the number of affinity groups and communities of support on-campus, existence of structures to facilitate parent and family engagement, and number of programs and personnel dedicated exclusively to serve students most impacted by educational inequity.

**Conclusion**

This chapter integrated quantitative and qualitative findings to answer study research questions, outlined the contributions of this study to the field of higher education, and outlined implications and recommendations for theory, research, and practice. Among the contributions of the study to the field of higher education are proposed principles or tenets for Funds of Knowledge, a survey instrument to measure fok present in college students, an understanding of the origin of fok among study participants, types of fok participants engage for success in college, and an overview of how participants transfer or transform fok to ensure their persistence and success in college. Implications that emerge from this study include expanding the Funds of Knowledge framework to better examine the experiences of students in college, specifically through the refinement of ways to measure fok. Implications for practice revealed the importance of key advisors in college as well as the need for expanded systems of support. The chapter concludes with recommendations that offer tangible
strategies for researchers and practitioners to strengthen support for students from historically marginalized communities from a fok perspective.
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Appendices
Appendix A

Funds of Knowledge Survey

Q1 What is your age? (in years)

Q2 What are the last four digits of your college ID?

Q3 What is your school email address?

Q4 What is your cumulative grade point average (GPA)?

Q4a What school do you attend?

Q5 What is your gender?

☐ Male (1)

☐ Female (2)

☐ Transgender (3)

☐ Gender non-conforming (4)

☐ Other (please specify) (5) ____________________

Q6 Do you consider yourself to be:

☐ Heterosexual (1)

☐ Bisexual (2)

☐ Gay/Lesbian (3)

☐ Other (please specify) (4) ____________________
Q7 What is your race/ethnicity (check one)

- Asian American (Please Specify) (1)
- Latino/Hispanic (Please Specify) (2)
- African American/Black (3)
- European American/White (4)
- Native American/Alaska Native (6)
- Other (5) ____________________

Display This Question:

If What is your race/ethnicity (check one) Asian American (Please Specify) Is Selected

Q75 What is your race/ethnicity (check one) Asian American (Please Specify)

- Chinese (1)
- Filipino (2)
- Korean (3)
- Vietnamese (4)
- Native Hawaiian (5)
- Other Asian Group (6) ____________________
Display This Question:

If What is your race/ethnicity (check one) Latino/Hispanic (Please Specify) Is Selected

Q76 What is your race/ethnicity (check one) Latino/Hispanic (Please Specify)

- Mexican American/Chicano (1)
- Puerto Rican (2)
- Cuban (3)
- Other Latino/Hispanic Group (4) ____________________

Q8 In which country were you born?

Q9 How long have you lived in the United States?

- All my life (1)
- Ten years or more (2)
- Five to nine years (3)
- Less than five years (4)

Q10 What is your marital status?

- I am single (1)
- I am married/remarried (2)
- I am separated (3)
- I am divorced or widowed (4)
Q11 If you are MARRIED, who else lives with you? (Check all that apply)

☐ I live alone (1)

☐ My parents (mother and father) (2)

☐ My spouse (3)

☐ My mother or My father (4)

☐ My children - How many? (5) ________________

☐ Brothers or sisters - How many? (6) ________________

☐ Grandfather or grandmother - How many? (7) ________________

☐ Other relatives - How many? (8) ________________

☐ Non-relatives - How many? (9) ________________

Q12 If you are NOT MARRIED, who do you live with? (Check all that apply)

☐ I live alone (1)

☐ I live with my male partner (2)

☐ I live with my female partner (3)

☐ My parents (mother and father) (4)

☐ My mother or My father (5)

☐ My children - How many? (6) ________________

☐ Brothers or Sisters - How many? (7) ________________

☐ Grandfather or grandmother - How many? (8) ________________

☐ Other relatives - How many? (9) ________________

☐ Non-relatives - How many? (10) ________________
Q13 What is your current employment status?

- Employed (1)
- Unemployed looking for a job (2)
- Unemployed not looking for a job (3)

Q14 If employed, how many hours/week do you spend working?

- Less than 20 hours/week (1)
- About 20 hours/week (2)
- More than 20 hours/week but less than 40 hours/week (3)
- 40 hours/week (4)
- More than 40 hours/week (5)
Q15 If employed, what is your current occupation?

- Community social services (1)
- Construction (2)
- Education (3)
- Farming/fishing/forestry (4)
- Food Service (5)
- Healthcare support (6)
- Housekeeping (7)
- Manufacturing (8)
- Office/admin support (9)
- Personal Care (10)
- Professional and business services (11)
- Sales (12)
- Transportation (13)
- Other (Please specify) (14) ____________________
Q16 What type of financial aid did you receive in college? (Choose all that apply)

- Federal Pell Grant (1)
- State Grants (2)
- Institutional scholarships (3)
- Outside/External scholarships (4)
- Federal student loans (5)
- Parent Plus loan (6)
- Did not receive any financial aid in college (7)

Q17 Are you head of household? (a person who is running a household and looking after a dependent or dependents)?

- Yes (1)
- No (2)

Q18 How many years have you been a college student in this particular college?

Q19 Are you in contact with your mother?

- Yes (1)
- No (2)
Display This Question:

If Are you in contact with your mother? (If NO skip questions 20-23) Yes Is Selected

Q20 Was your mother born in the U.S.?

☑ Yes (1)
☑ No (2)
☑ I don't know (3)

Display This Question:

If Are you in contact with your mother? Yes Is Selected

Q21 If born outside of the U.S., in what country was she born?

Display This Question:

If Are you in contact with your mother? Yes Is Selected

Q22 What is your mother’s race/ethnicity?

☑ Asian American (please specify) (1)
☑ Latino/Hispanic (Please specify) (2)
☑ African American/Black (3)
☑ European American/White (4)
☑ Native American/Alaska Native (6)
☑ Other (5) ____________________
Q105 What is your mother’s race/ethnicity? Asian American (please specify)

- Chinese (1)
- Filipino (2)
- Korean (3)
- Vietnamese (4)
- Native Hawaiian (5)
- Other Asian Group (6) ____________________

Q106 What is your mother’s race/ethnicity? Latino/Hispanic (Please specify)

- Mexican American/Chicano (1)
- Puerto Rican (2)
- Cuban (3)
- Other Latino/Hispanic Group (4) ____________________
If Are you in contact with your mother? Yes Is Selected

Q23 Highest level of education that your mother completed
- Less than elementary school (1)
- Elementary school (2)
- Middle school (3)
- High school (4)
- Some College (5)
- Bachelor’s degree (6)
- A Graduate degree (7)
- I don’t know (8)

If Are you in contact with your father? Yes Is Selected

Q24 Are you in contact with your father?
- Yes (1)
- No (2)

If Are you in contact with your father? Yes Is Selected

Q25 Was your father born in the U.S.?
- Yes (1)
- No (2)
- I don't know (3)
Q26 If born outside of U.S., what country was he born?

Q27 What is your father’s race/ethnicity?

- Asian American (please specify) (1)
- Latino/Hispanic (please specify) (2)
- African American/Black (3)
- European American/White (4)
- Native American/Alaska Native (6)
- Other (5) ____________________
Display This Question:

If What your father’s race/ethnicity? Asian American (please specify) Is Selected

Q107 Click to write the question text

☐ Chinese (1)
☐ Filipino (2)
☐ Korean (3)
☐ Vietnamese (4)
☐ Native Hawaiian (5)
☐ Other Asian Group (6) ____________________

Display This Question:

If What your father’s race/ethnicity? Latino/Hispanic (please specify) Is Selected

Q108 What your father’s race/ethnicity? Latino/Hispanic (please specify)

☐ Mexican American/Chicano (1)
☐ Puerto Rican (2)
☐ Cuban (3)
☐ Other Latino/Hispanic Group (4)
Display This Question:

If Are you in contact with your father? Yes Is Selected

Q28 Highest level of education that your father completed

☐ Less than elementary school (1)
☐ Elementary school (2)
☐ Middle school (3)
☐ High school (4)
☐ Some College (5)
☐ Bachelor’s degree (6)
☐ A Graduate degree (7)
☐ I don’t know (8)

Q30 How many job(s) have you had in the last 3 years?

☐ I have not worked in the last 3 years (1)
☐ 1 (2)
☐ 2 (3)
☐ 3 or more (4)
Q31 Which of the following best describes the job(s) you have had in the last 3 years?

- Community social services (1)
- Construction (2)
- Education (3)
- Farming/fishing/forestry (4)
- Food Service (5)
- Healthcare support (6)
- Housekeeping (7)
- Manufacturing (8)
- Office/admin support (9)
- Personal Care (10)
- Professional and business services (11)
- Sales (12)
- Transportation (13)
- Other (Please specify) (14) ____________________

Display This Question:
If Are you in contact with your father? (If NO skip questions 25-28) Yes Is Selected

Q33 Was your father employed in the last 3 years?

- Yes (1)
- No (2)
Display This Question:

If Are you in contact with your father? (If NO skip questions 25-28) Yes Is Selected

Q34 Which of the following best describes your father’s job(s) in the last 3 years? (Check all that apply)

☐ Community social services (1)
☐ Construction (2)
☐ Education (3)
☐ Farming/fishing/forestry (4)
☐ Food Service (5)
☐ Healthcare support (6)
☐ Housekeeping (7)
☐ Manufacturing (8)
☐ Office/admin support (9)
☐ Personal Care (10)
☐ Professional and business services (11)
☐ Sales (12)
☐ Transportation (13)
☐ Other (Please specify) (14) ____________________
Display This Question:

If Are you in contact with your mother? Yes Is Selected

Q35 Was your mother employed in the last 3 years?

☑ Yes (1)
☑ No (2)
Q36 Which of the following best describes your mother’s job in the last 2-3 years?

- Community social services (1)
- Construction (2)
- Education (3)
- Farming/fishing/forestry (4)
- Food Service (5)
- Healthcare support (6)
- Housekeeping (7)
- Manufacturing (8)
- Office/admin support (9)
- Personal Care (10)
- Professional and business services (11)
- Sales (12)
- Transportation (13)
- Other (Please specify) (14) ____________________
Q37 In the last 3 years, did you participate in activities aside from a regular job to bring income to your family? (for example, provided child care services to other families, sell home-made and other types of products)

☐ Yes (1)

☐ No (2)
Q38 In the last month, how frequently did your household RECEIVE the following help/support from families/other households with whom you interacted regularly?
<table>
<thead>
<tr>
<th>Service</th>
<th>Never (1)</th>
<th>At least once (2)</th>
<th>Every other week (3)</th>
<th>Every week (4)</th>
<th>Almost daily (5)</th>
<th>N/A (Not applicable) (6)</th>
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<td>Child Care (1)</td>
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<td>Help to find a Job (5)</td>
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<td>Help with translation (6)</td>
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<td>Help to access services (for example, schools and hospitals) (8)</td>
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</table>
Q39 In the last month, how frequently did your household PROVIDE the following help/support to the families with whom you interacted regularly?
<table>
<thead>
<tr>
<th>Service</th>
<th>Never (1)</th>
<th>At least once (2)</th>
<th>Every other week (3)</th>
<th>Every week (4)</th>
<th>Almost daily (5)</th>
<th>N/A (Not applicable) (6)</th>
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<td>Other (Please specify) (11)</td>
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</table>

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Q40 In the past year, have you talked to anyone about your college experiences?

☐ Yes (1)

☐ No (2)

Q42 If you have, who have you talked to about your college experiences? (Check all that apply)

☐ My male partner (1)

☐ My female partner (2)

☐ My parents (mother and father) (3)

☐ My mother or My father (4)

☐ My children (5)

☐ Grandparents (6)

☐ Brothers or sisters (7)

☐ Other relatives (8)

☐ Friends (9)

☐ Colleagues from work (10)

☐ Peers in college (11)
Q43 What are the topics you have discussed about your college experiences? (Choose all that apply)

☐ Grades (1)

☐ Which classes to take (2)

☐ How long it will take to finish college (3)

☐ How I am treated on campus by staff (4)

☐ How I am treated on campus by peers (5)

☐ What I plan to do after I finish college (6)

☐ Explained to them what I am studying (7)

☐ What I do on campus when I am not in classes (8)

☐ Things that worry me personally (9)

☐ Things that worry me academically (10)

☐ Financing college (11)

☐ Loans for college (12)

☐ Career goals (13)

☐ College responsibilities (14)

☐ Family responsibilities (15)

☐ Jobs (16)

☐ Other (Please specify) (17) ____________________

☐ None of the above (18)
Q44 When YOU or YOUR parents need to ask questions related to college, who do you/they ask? (Choose all that apply)

- School personnel (1)
- School personnel who speak your parents’ language (2)
- Members of the family who have gone to college (3)
- Members of a religious congregation (4)
- Friends of the family who have gone to college (5)
- Community members who have children who went to college (6)
- Other (7)
- I don’t know (8)

Q45 What are you studying?

- Accounting (1)
- Business (2)
- Education (3)
- Engineering (4)
- Mathematics (5)
- Psychology (6)
- Sociology (7)
- Other (Please specify) (8) __________________
Q46 How would you describe your academic standing? (determined by university based on how you are performing academically)

- Good Academic Standing (1)
- Academic Probation (2)
- Not sure (3)
Q47 In your own opinion, how do you agree or disagree with the following statements about the purpose of education?
<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Agree (3)</th>
<th>Strongly agree (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get ahead in this country (1)</td>
<td>◯</td>
<td>◯</td>
<td>◯</td>
<td>◯</td>
</tr>
<tr>
<td>To be financially independent (2)</td>
<td>◯</td>
<td>◯</td>
<td>◯</td>
<td>◯</td>
</tr>
<tr>
<td>So that people in this country do not discriminate against you (3)</td>
<td>◯</td>
<td>◯</td>
<td>◯</td>
<td>◯</td>
</tr>
<tr>
<td>To make your parents proud (4)</td>
<td>◯</td>
<td>◯</td>
<td>◯</td>
<td>◯</td>
</tr>
</tbody>
</table>
Q48 What is the highest level of education you plan to achieve?

- Finish a certificate (1)
- Finish some college (2)
- Finish an associate’s degree (3)
- Finish a bachelor’s degree (4)
- Finish a graduate degree (masters, doctor, etc.) (5)
Q49 What is the highest level of education your family wants you to achieve?

- Finish a certificate (1)
- Finish some college (2)
- Finish an associate’s degree (3)
- Finish a bachelor’s degree (4)
- Finish a graduate degree (masters, doctor, etc.) (5)
- I don’t know (6)
Q50 How much would your FAMILY agree or disagree with the following statements
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Agree (3)</th>
<th>Strong agree (4)</th>
<th>I don't know (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The education that their children get in college will help them get ahead in this country (1)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>The education that their children get in college will help them become financially independent (2)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Statement</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Their children won’t be discriminated against if they attend college (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The education that their children get in college will help them get a good job (4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both females and males should get the same amount of education. (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q51 Do you speak a second language?

☐ Yes (1)
☐ No (2)

Q52 What language did you learn to speak first?

☐ English (1)
☐ Spanish (2)
☐ Other (Please specify) (3) ____________________

Q53 How well do you speak your first language?

☐ Not at all (1)
☐ A little (2)
☐ Well (3)
☐ Very well (4)
Q54 How frequently do you speak your first language?

- Never (1)
- Rarely (2)
- Occasionally (3)
- A moderate amount (4)
- A great deal (5)
- N/A-not applicable (6)

Q55 What's your second language?

- English (1)
- Spanish (2)
- Other (Please specify) (3) _______________________

Q56 How well do you speak your second language?

- Not at all (1)
- A little (2)
- Well (3)
- Very well (4)
Q57 Were you considered an ELL (English Language Learner) student in high school?

- Yes (1)
- No (2)
- I don't know (3)

Display This Question:

If Were you considered an ELL (English Language Learner) student in high school?<o:p></o:p> Yes Is Selected

Q58 How many years did you spend in English immersion or bilingual programs?
Q59 In the last week how frequently did you engage in the following?
<table>
<thead>
<tr>
<th>Activity</th>
<th>Once a week (1)</th>
<th>Every other day (2)</th>
<th>More than once a day (3)</th>
<th>N/A (Not applicable) (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household related work (1)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>Car care (2)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>Pet care (3)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>Household paperwork (4)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>Child care (5)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>Shopping (6)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>Other Financial transactions (7)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>(banking, purchasing money orders, paying bills)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
</tr>
<tr>
<td>Medical services (for self or others) (8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accompanying family members to receive professional services (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offering financial support to household (10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q61 In the last month, how frequently did you engage in the following?
<table>
<thead>
<tr>
<th></th>
<th>At least once (1)</th>
<th>Every other week (2)</th>
<th>Every week (3)</th>
<th>Almost daily (4)</th>
<th>N/A (Not applicable) (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prayed at night</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>(1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated in choir at church</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>(2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attended family funerals (3)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Attended non-family members' funerals (4)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Visited family graves (5)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Visited non-family members' graves (6)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Meditated (7)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Prayed at mealtime (8)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Activity</td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Attended religious services (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participated in youth religious groups (10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engaged in indigenous rituals/ceremonies (11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q62 In the last year, how frequently were you exposed to activities that fostered learning in the following topics?
<table>
<thead>
<tr>
<th>Activity</th>
<th>Once a month (1)</th>
<th>Every other week (2)</th>
<th>Every week (3)</th>
<th>Every day (4)</th>
<th>More than once a day (5)</th>
<th>N/A (Not applicable) (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental of housing, goods, or services (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Loans (2)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Credit (3)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Income Tax (4)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Accounting (5)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Household budgets (6)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Purchasing of goods or services (7)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Cooking (8)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Processes to access social services (Food stamps SNAP, social security benefits, Medicaid, Medicare, etc.) (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------</td>
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</tr>
<tr>
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<td><img src="null" alt="Icon" /></td>
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<td><img src="null" alt="Icon" /></td>
<td><img src="null" alt="Icon" /></td>
<td><img src="null" alt="Icon" /></td>
</tr>
</tbody>
</table>
Q63 In the last year, did you do any of the following?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes (1)</th>
<th>No (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled in a course to learn a new language (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolled in a course to learn a sport (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolled in a fitness course (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolled in a course to learn craft skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(needlework/sewing, other craft activities) (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engaged in volunteering opportunities (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travelled outside the US (6)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q64 Are you currently employed?

- Yes (1)
- No (2)
Q65 If you are employed, how long do you anticipate your current job to last? (Enter number of years)

Q66 If you are in a transitory/temporary job What is the expected duration of your job? (Enter number of months)

Q67 Please rank the following expenditure categories (by month) (RANK BY IMPORTANCE)

______ Food (1)
______ Childcare expenses (2)
______ Clothing (3)
______ Rent (4)
______ Transportation (5)
______ Gas (if own car) (6)
______ Household Items (car house maintenance) (7)
______ Other (8)
Q82 How easy it is for you to get credit or a loan?
- Very easy (1)
- Somewhat easy (2)
- Not very easy (3)
- Not easy at all (4)
- I don't know (5)

Q83 What amount of credit or loan can you get?
- Enter amount (1) ____________________
- I don't know (2)

Q84 How easy it is for you to go to a doctor or clinic when you are sick?
- Very easy (1)
- Somewhat easy (2)
- Not very easy (3)
- Not easy at all (4)
Q85 How easy it is for you to go to a doctor or clinic when children or family members are sick?

- Yes (1)
- Somewhat easy (2)
- Not very easy (3)
- Not easy at all (4)
- N/A (5)

Q86 Do you own any of the following? If yes, what do you use it for? (Please answer in the text box)

<table>
<thead>
<tr>
<th></th>
<th>Yes (1)</th>
<th>No (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land (1)</td>
<td>◯</td>
<td>◯</td>
</tr>
<tr>
<td>House (2)</td>
<td>◯</td>
<td>◯</td>
</tr>
<tr>
<td>Car (3)</td>
<td>◯</td>
<td>◯</td>
</tr>
</tbody>
</table>

Q87 Considering family finances, how is your family?

- Wealthy (1)
- Middle class (2)
- Working class (3)
- Poor (4)
- I don’t know (5)
Q97 How worried are you about the following? Please rank according to intensity (1-Not worried, 2-Somewhat worried, 3-Very worried)

<table>
<thead>
<tr>
<th></th>
<th>Not worried (1) (1)</th>
<th>Somewhat Worried (2) (2)</th>
<th>Very Worried (3) (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Losing job (1)</td>
<td>○</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>No access to credit (2)</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>No access to healthcare (3)</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>Losing your house/place to live (4)</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
<tr>
<td>Losing car/transportation (5)</td>
<td>◼</td>
<td>◼</td>
<td>◼</td>
</tr>
</tbody>
</table>

Q97 What would you do if you experienced any of the following? (Losing job, no access to credit, no access to healthcare, losing your house/place to live, losing transportation)
Q96 How worried are you that your family might experience following? Please rank according to intensity (1-Not worried, 2-Somewhat worried, 3-Very worried)

<table>
<thead>
<tr>
<th></th>
<th>Not worried (1)</th>
<th>Somewhat worried (2)</th>
<th>Very worried (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Losing job (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>No access to credit (2)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>No access to healthcare (3)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Losing house/place to live (4)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Losing car/transportation (5)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q98 What would your family do if they experienced any of the following? (Losing job, no access to credit, no access to healthcare, losing your house/place to live, losing transportation)
Q103 How worried are you about the following? Please rank according to intensity (1-Not worried, 2-Somewhat worried, 3-Very worried)

<table>
<thead>
<tr>
<th></th>
<th>Not worried (1)</th>
<th>Somewhat Worried (2)</th>
<th>Very Worried (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety in neighborhood (1)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Immigration (2)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Discrimination (3)</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q104 What would you do if you experienced any of the following concerns? (Safety in neighborhood, immigration, discrimination)
Q105 How much do you think your family worries about the following? Please rank according to intensity (1-Not worried, 2-Somewhat worried, 3-Very worried)

<table>
<thead>
<tr>
<th></th>
<th>Not worried (1)</th>
<th>Somewhat worried (2)</th>
<th>Very worried (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety in neighborhood</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Immigration</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Discrimination</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Q106 What would your family do if they experienced any of the following concerns? (Safety in neighborhood, immigration, discrimination)

Q108 Are you willing to participate in a focus group in the future?

○ Yes (1)

○ No (2)
Appendix B
Funds of Knowledge Focus Group & Interview Protocol

1. Please share a little bit about yourself and your family (how many siblings you have, living arrangements, etc.).
2. Please describe your experience in college generally (from when you first started to today).
3. What challenges did you encounter when you first started college?
   a. How did you address these challenges?
   b. What helped you overcome these struggles?
   c. Who helped you?
4. What kind of experiences did you have growing up that shaped you as a person?
   a. What did you learn?
   b. How did you get exposed to these experiences?
   c. How did you use what you learned to succeed in life?
   d. Who helped you learn from these experiences?
5. What did you learn growing up that helped you prepare for college?
   a. How did you acquire this knowledge? /What experiences were you exposed to?
   b. Who taught you?
   c. How did you use this knowledge to be successful in school?
6. How do you define success in college? What does it look like?
   a. What successes have been most meaningful to you? And How so?
   b. What successes have been most meaningful for your family?
   c. What supported you to reach these goals?
   d. Who supported you to reach these goals?
7. Please describe how engaged are you with your family and other members of your community
   a. What kind of activities do you take part of?
   b. Do you play supportive roles for them? If so, please elaborate.
   c. How do you think these experiences shaped your ability to get this far in college? (being about to graduate).
Appendix C

Survey Consent Form

University of Denver
Consent Form for Participation in Research

Title of Research Study: Funds of Knowledge and the College Success of first-generation students, low-income students, and students of color at four-year institutions in Colorado

Researcher(s): Delma Ramos, MS, University of Denver

Purpose
You have been selected to participate in this online survey from a list of all current seniors at your school. Participation is completely voluntary and responses are strictly confidential. The purpose of this research is to explore college success through cultural, familial, and community resources of first-generation students, low-income students, and students of color.

Procedures
If you participate in this research study, you will be invited to take an online survey that will take you between 15-20 minutes to complete. The survey will ask you questions about your experiences, views, and information about your family, home, and community.

Voluntary Participation
Participating in this research study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to answer any survey question for any reason without penalty or other benefits to which you are entitled.

Risks or Discomforts
Potential risks and/or discomforts of participation include no more than minimal risk. That is, the probability and magnitude of harm or discomfort anticipated in this research
are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examination or tests. No psychological risks or loss of privacy are associated with participating in this study.

**Benefits**
Your participation in this study and sharing your experiences, views, and information about your family, home, and community will help us learn more about your assets. The information you provide will be key as colleges and universities prepare to better serve first-generation students, low-income students, and students of color.

**Incentives to participate**
If you decide to participate in this study, you will be entered into a drawing for one $50 Starbucks gift card.

**Confidentiality**
The researcher will store all survey data in a password protected computer to keep your information safe throughout this study. Your individual identity will be kept private when information is presented or published about this study. However, should any information contained in this study be the subject of a court order or lawful subpoena, the University of Denver might not be able to avoid compliance with the order or subpoena. The research information may be shared with federal agencies or local committees who are responsible for protecting research participants.

**Questions**
If you have any questions about this project or your participation, please feel free to ask questions now or contact Delma Ramos at (719) 691-9007 and/or delma.ramosmartinez@du.edu at any time or faculty sponsor, Judy Marquez Kiyama at Judy.Kiyama@du.edu. If you have any questions or concerns about your research participation or rights as a participant, you may contact the DU Human Research Protections Program by emailing IRBAdmin@du.edu or calling (303) 871-2121 to speak to someone other than the researchers.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

If you agree to participate in this research study, please sign below. You will be given a copy of this form for your records.

_________________________________________  ____________
Participant Signature             Date
Appendix D

Focus Group & Interview Consent Form

University of Denver
Consent Form for Participation in Research

Title of Research Study: Funds of Knowledge and the College Success of first-generation students, low-income students, and students of color at four-year institutions in Colorado

Researcher(s): Delma Ramos, MS, University of Denver

Purpose
You are being asked to participate in a research study. The purpose of this research is to explore college success through cultural, familial, and community resources of first-generation students, low-income students, and students of color.

Procedures
If you participate in this research study, you will be invited to participate in one focus group to offer your perspectives on cultural, familial, and community resources and success in college. Focus group will last approximately 1.5 hours. In total, your participation in this research study, will not exceed 2 hours of your time. Focus groups will be audio recorded.

Voluntary Participation
Participating in this research study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to answer any focus group question for any reason without penalty or other benefits to which you are entitled.

Risks or Discomforts
Potential risks and/or discomforts of participation include no more than minimal risk. That is, the probability and magnitude of harm or discomfort anticipated in this research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examination or tests. No psychological risks or loss of privacy are associated with participating in this study.

Benefits
Your participation in this study and sharing your experiences, views, and information about your family, home, and community will help us learn more about your assets. The information you provide will be key as colleges and universities prepare to better serve first-generation students, low-income students, and students of color.

Incentives to participate
If you decide to participate in this study, you will be entered into a drawing for one $50 Starbucks gift card.

**Confidentiality**
The researcher will store all survey data in a password protected computer to keep your information safe throughout this study. Your individual identity will be kept private when information is presented or published about this study. However, should any information contained in this study be the subject of a court order or lawful subpoena, the University of Denver might not be able to avoid compliance with the order or subpoena. The research information may be shared with federal agencies or local committees who are responsible for protecting research participants.

**Questions**
If you have any questions about this project or your participation, please feel free to ask questions now or contact Delma Ramos at (719) 691-9007 and/or delma.ramosmartinez@du.edu at any time or faculty sponsor, Judy Marquez Kiyama at Judy.Kiyama@du.edu. If you have any questions or concerns about your research participation or rights as a participant, you may contact the DU Human Research Protections Program by emailing IRBAdmin@du.edu or calling (303) 871-2121 to speak to someone other than the researchers.

**Options for Participation**

Please initial your choice for the options below:

___The researchers may audio record or photograph me during this study.

___The researchers may NOT audio record or photograph me during this study.

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Please take all the time you need to read through this document and decide whether you would like to participate in this research study.

If you agree to participate in this research study, please sign below. You will be given a copy of this form for your records.

_________________________________________  ____________
Participant Signature                          Date
Appendix E

Participant Recruitment Email

Subject: Help improve how colleges serve first-generation, low-income, and students of color!

Hello!

You have been selected to participate in an online study that explores college success through cultural, familial, and community resources of first-generation students, low-income students, and students of color. This study was designed especially for students who are in their senior year of college. Therefore, your input is important.

The online survey takes between 15-20 minutes to complete. By completing the survey, you will be entered into a drawing for a $50 Starbucks giftcard!

Your participation will help us learn more about your assets and information you provide will be key as colleges and universities prepare to better serve first-generation students, low-income students, and students of color.

To participate now, follow the link below:

Qualtrics Link Here

If you are not able to complete the survey in one sitting don’t worry, you can save your progress and finish it later.

Thanks in advance for your participation!

Delma Ramos, MS, Doctoral Candidate, Morgridge College of Education, University of Denver

Delma.RamosMartinez@du.edu