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**A MIXED METHODS APPROACH TO THE STUDY OF PELL RECIPIENTS'
FORMATION OF ACADEMIC CAPITAL AND THE INFLUENCE OF
INSTITUTIONAL AGENTS**

by
Rebecca S. Royal

A Dissertation

Submitted to the
Department of Educational Services and Leadership
College of Education
In partial fulfillment of the requirement
for the degree of
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at
Rowan University
February 21, 2022

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Dedication

I would like to dedicate this manuscript to my husband for his unwavering love, support and encouragement, to my sons for their endless patience and understanding, and to my parents who taught me the value of hard work and perseverance.

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I am very grateful for the support of so many incredible people throughout this journey. First, I would like to thank my dissertation chair, Dr. Monica Reid Kerrigan, for her patience, guidance and encouragement. Her commitment to scholarly endeavors and her passion for education challenged and inspired me to work harder and push me further in my research. I would also like to thank my committee members: Dr. Steve Rose for his unwavering encouragement and pivotal critical advice during key moments of my writing process and to Dr. Larry Nespoli for his guidance and expertise. I was fortunate to have both as faculty members, and learned a great deal from their vision and leadership within the community college sector.

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Abstract

Rebecca Royal
A MIXED METHODS STUDY OF PELL RECIPIENTS AND THE
FORMATION OF ACADEMIC CAPITAL
2021-2022

Monica Reid Kerrigan, Ed.D.
Doctor of Education

The purpose of this explanatory sequential study was to identify factors associated with Pell grant recipients' persistence in a community college setting and to understand the influence of institutional actors on the formation of academic capital. Students completed a survey designed to measure the formation of students' academic capital (St. John et al., 2011; Winkler & Sriram, 2015). Then, survey participants participated in interviews to examine the influence of institutional actors and the role they play in the development of academic capital (Stanton-Salazar, 1997; Stanton-Salazar, 2011).

Three meta-inferences emerged from the data that provided an overall explanation of the factors relevant to the persistence of Pell recipients. First, it was clear that financial aid processes generated enduring and existential barriers to the participants, creating feelings of powerlessness and a lack of agency over the process. Second, there was evidence of emotional distress caused by challenging situations during the participants' college experience. Through the encouragement and support of institutional agents, the participants overcame their difficulties; they developed confidence which grounded them in the academic community. Lastly, the third meta-inference revealed how the participants relied on their academic capital to develop their self-advocacy in a college setting. By using the information and resources mobilized by institutional agents, the participants employed more control over their college experience.

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Chapter 1

Introduction

Background

The college completion agenda dominates the higher education landscape, and is a primary focus at community colleges (Bailey et al., 2015; Bragg & Durham, 2012). Graduation rates took central importance with President Obama's 2009 American Graduation Initiative, which sought to increase the number of students in the United States with a college credential (The White House, Office of the Press Secretary, 2009). The presidential charge provided the impetus for most states to establish higher education completion agendas along with goals to achieve at least 60% of working age residents attaining a credential or degree by 2025 (Lumina Foundation, 2020). In addition to state plans focused on increasing the number of degrees and credentials, several organizations have led efforts centered on the completion agenda.

Achieving the Dream (ATD) is one such organization that has been instrumental in leading community colleges in institutional improvements to serve students more effectively and increase student outcomes (Bailey et al., 2015). ATD endeavors to support institutions by developing a culture of evidence, using data to prioritize actions, and continually improving strategies for better outcomes. Connected to ATD efforts is research conducted by Community College Research Center (CCRC), which is committed to help community colleges bolster opportunities and improve outcomes through scientific methods that are designed to gather evidence for practical implementation (CCRC, n.d.). Other organizations, such as the Kresge Foundation, Jobs for the Future (JFF) and the Bill and Melinda Gates Foundation Postsecondary Success

(Gates Foundation), aim to promote equity. These groups aim to increase college readiness and the number of people with a marketable degree or certificate, and to foster career success through innovative programs and public policies (Gates Foundation, n.d.; JFF, n.d., Kresge Foundation, n.d.). Their efforts have fostered the completion agenda in the community college sector. As a result, the focus at community colleges shifted from one primarily centered on access to one emphasizing outcomes or credentials earned (Bailey et al., 2015; Bragg & Durham, 2012).

This is evident in New Jersey (NJ) where funding from the Kresge Foundation provided the impetus for the NJ Council of County Colleges (NJCCC) to create the NJ Center for Student Success (NJCCC, n.d.). A statewide initiative to improve student outcomes in community colleges, the NJ Center for Student Success promotes best practices and delivers professional development and partnerships to enhance college efforts. More than ten years have passed since the presidential challenge was issued and increasing completion rates remain a core value of higher education (King Jr., 2016; Lumina Foundation, 2020).

Community colleges have significant potential to influence the number of students with college degrees because of the large number of college-going students who enroll at a community college. In fall 2019, approximately 5.4 million students were enrolled in public two-year colleges (National Student Clearinghouse [NSC], 2019). Many of these students rely on the Federal Pell grant program. In fact, in 2017-2018 nearly 2.2 million recipients received a Pell grant at public two-year institutions for a total of \$7.7 billion in expenditures (Department of Education [DOE], 2019; DOE, n.d.). The cost of the program is under heightened scrutiny by legislators and the American

public alike because of the federal financial commitment to the Federal Pell grant program, with expenditures in 2017-2018 totals nearly \$28.7 billion dollars (DOE, 2019; Nichols, 2015; Whistle & Hiler, 2018)

When Pell eligible students enroll in higher education, it is with an aim of improving their social mobility and economic opportunity (Cahalan et al., 2019). The data on graduation rates comparing Pell and non-Pell recipients reveal that receipt of a Pell grant does not necessarily translate into the same opportunities to graduate and achieve social mobility as students who do not receive a Pell grant (Bailey & Dynarski, 2011; Cahalan et al., 2019; Whistle & Hiler, 2018). As a result, completion rates for Pell grant recipients figure prominently as a public issue.

Problem Statement

There is a college completion problem within higher education in the US. The six-year graduation rate for those entering as a first-time, full-time student at a four-year institution is 60%; (National Center for Education Statistics [NCES], 2019). This means that six out of every 10 students, who start college with plans to graduate within four years, complete their degree in six years. The remaining four students take longer than six years or do not obtain a bachelor's degree. At two-year institutions, the three-year graduation rate for students entering as first-time full-time is 26.6% (NCES, 2018). The completion rates for students starting at two-year institutions are significantly lower than students starting at four-year institutions, and at the same time are more nuanced because the pathway to graduation frequently involves transfer to a four-year institution, changes in enrollment statuses, and enrollment breaks (Bailey et al., 2015).

The data illustrate the problem with college completion from a broad perspective based on the traditional notion of full-time enrollment at a four-year institution; however, college-going students represent a more complex demographic. As a result, the Department of Education has recently expanded the characteristics included in reports on college completion. The statistics now include the completion rates for Pell grant recipients and non-Pell grant recipients at an institutional level (NCES, 2018). At two-year institutions, the graduation rate for Pell recipients is 23% and the non-Pell graduation rate is 31.5% (NCES, 2018). The Pell graduation rate is 49%, and the non-Pell graduation rate is 65% at four-year institutions (Whistle & Hiler, 2018). The data on graduation rates reveal a significant and sustained disparity between Pell and non-Pell recipients at both two-and four-year institutions (NCES, 2018; Nichols, 2015; Whistle & Hiler, 2018). The disparity is significant because it means that low-income students, as defined by the parameters of meeting the eligibility requirements of a federal Pell grant, have inequitable potential outcomes compared to students who do not receive a Pell grant.

Summary reports on the differences that exist for Pell recipients and non-Pell recipients at four-year institutions illustrate the disparity in completion rates at over 1,200 schools. The community college sector does not have similar reports examining graduation rates based on Pell grant criterion at a national level. As a result, I situated my study in a community college to provide more details on this sector. My study focused on examining the graduation rates of Pell recipients and non-Pell recipients in community colleges. To further explore the differences, I began by examining distinctive indicators related to completion rates at four-year public institutions followed by a summary of

graduation rates at public community colleges, in an effort to speculate on reasons for the college completion problem. While the national report on four-year institutions reveals potential indicators related to completion, there is a noteworthy distinction between two- and four-year institutions. Community colleges have an open-door admission policy, while four-year institutions have discrete admission policies, ranging from highly selective to non-selective, and these differences may influence student outcomes (Cohen et al., 2014; Whistle & Hiler, 2018). Despite the difference in admission criteria, the report holds value in understanding the persistence of Pell recipients.

While the gap in completion rates exists at the majority of four-year institutions, it is important to note that there are hundreds of institutions that have higher graduation rates for Pell recipients than for students who do not receive Pell (Whistle & Hiler, 2018). This means that while the overall graduation rate depicts a significant disparity, it is not substantiated across all institutions. One possible interpretation of the data are that there is a difference in the students' experience at these institutions.

Purpose of the Study

The purpose of this explanatory sequential study was to identify the factors associated with Pell grant recipients' persistence in a community college setting. The first phase involved collecting quantitative data from a survey of current students, and then explaining the quantitative results with more comprehensive qualitative data (Creswell, 2014; Teddlie & Tashakkori, 2009). In the first phase of the study, the unit of analysis was the student. The survey instrument measured six social processes associated with the formation of students' academic capital: concerns about costs, development of networks, navigation of college systems, trustworthy and accurate information, access to college

knowledge, and family uplift (St. John et al., 2011; Winkler & Sriram, 2015). The concepts associated with the student's formation of academic capital can be attributed to how students navigate the college experience and gain college knowledge, contributing to the persistence of Pell recipients (Chen & Starobin, 2019). Research showed that the mechanisms associated with the formation of capital in community college students are distinct from students at four-year institutions and as a result valuable to study independently (Wang et al., 2018). Information from the first phase was explored in more depth during the second, qualitative phase. During the qualitative phase, interviews were used to explore significant findings that emerged from the quantitative data analysis (Creswell, 2014; Ivankova & Stick, 2006). The unit of analysis was the student, in which students who respond to the survey were interviewed. The purpose of the qualitative phase was to explore further factors associated with persistence and to explain the quantitative results on the formation of the six social processes associated with academic capital. Moreover, it addresses the potential role fulfilled by institutional actors in support of students' development of academic capital.

Research Questions

This study further sought to understand the persistence of Pell recipients and the influence of institutional actors on the formation of academic capital during the student's enrollment in college. Students can begin developing academic capital prior to starting college. I sought to understand the academic capital students accumulated after two semesters in college, recognizing that some of this capital may have been acquired prior to starting in college.

1. What is the extent of academic capital formation among students who have completed at least two semesters of enrollment?
2. How do institutional actors influence the formation of academic capital in Pell recipients who persist in school?
3. How do Pell recipients explain the roles institutional actors engage in that are relevant to their persistence?
4. What resources do institutional actors deliver that Pell recipients describe as influential to their persistence?
5. What results emerge from using quantitative data on the formation of academic capital in Pell grant recipients that provoke qualitative interview data on the influence of institutional actors?

Theoretical Framework

In this study, the persistence of Pell recipients was examined through the theory of academic capital formation and the social capital framework of institutional agents (St. John, et al., 2011; Stanton-Salazar, 2011) Elements of academic capital included how concerns about the costs of college discouraged low-income families, especially when they had limited experience with college. The study also focused student' understanding and working through systems within the college experience and getting reliable information from college personnel. Lastly, supportive networks were considered an important resource during the transition to college. These concepts combined to form academic capital for a student. The formation of academic capital was attributed to how students navigate the college experience inclusive of the completion of the financial aid process, and as a result persist in college (St. John et al., 2011).

Research on academic capital illustrated how knowledge of college costs, and the ability to pay can impact college preparation and enrolling in college (St. John, et al., 2011; Winkler & Sriram, 2015). When a student has not formed academic capital, then the financial aid process, from application to receipt of financial aid, may present challenges for students. While financial aid programs were intended to support college access and affordability, their complexity may have served to deter students from completing the process (Smith, 2018; Warick, 2018). As a result, the financial aid process had a potential negative impact on college enrollment and completion for students eligible for federal financial aid programs, including the federal Pell grant program.

Significant elements to academic capital formation included navigation of systems, supportive networks, and trustworthy information, which were derived from the social processes inherent to the model (St. John et al., 2011). These characteristics interrelated with the theory of the social capital framework of institutional agents. This theory demonstrated how the development of instrumental relationships with institutional agents provided key forms of support for students through advocacy, social networks, mobilizing resources in purposive action for the student (Stanton-Salazar, 1997; Stanton-Salazar, 2011). I intended to connect the two theories, academic capital formation and the social capital framework of institutional agents, to show how institutional actors influence the formation of academic capital in community college students (Chen & Starobin, 2019). There may be connections that surface related to support programs in place in community colleges to provide support to low-income students, such as the federally funded TRIO Student Support Services and the state funded program like the Educational Opportunity Fund Program (Dortsch, 2012; Watson & Chen, 2019). As I

studied the formation of academic capital in community college students and the related influences on their development, knowledge of support programs available to students became an integral part of the research.

Significance of the Study

The significance of this study pertained to the attempt to gain a comprehensive understanding about the factors associated with persistence of Pell recipients in the community college sector (Bettinger, 2012; Whistle & Hiler, 2018). It also tied to the higher percentage of first-time, full-time Pell eligible students who enroll at two-year institutions over four-year institutions (Cahalan et al., 2020) Having an increased awareness of the student experience was important because of the inequity in the graduation rates for Pell recipients compared to students who don't receive Pell.

Additionally, the public investment and the level of funding allocated to the Federal Pell grant program focused attention on the expenditures (Mumper et al., 2011)

Definition of Terms

Academic Capital: Academic capital incorporates human capital, social capital and cultural capital into a theory based on social processes that contribute to gaining family knowledge of college and career opportunities, and navigating college systems and structures (St. John, et al., 2011). St. John, Hu, and Fisher (2011) derive six elements of academic capital from their research: concerns about costs, supportive networks, navigation of systems, trustworthy information, college knowledge, and family uplift. These concepts, individually and taken as a whole, contribute to understanding access to and success in college (St. John, et al., 2011).

Cultural Capital: The social aspects of an individual, such as education and cultural knowledge, which are transferable into assets and potentially lead to promotion of social mobility form cultural capital (Bourdieu, 1988; St. John et al., 2011)

Federal Pell Grant Program: The Federal Pell grant program is a federally funded program that provides support to low-income students to pay for college (Nichols, 2015). It is based on financial need, and in subsequent terms includes academic standards that must be met by students for continued support (Schudde & Scott-Clayton, 2016). Pell grants are the foundational award for many students. They are designed to go to the student's college of choice while being administered by the institution (Dynarski & Scott-Clayton, 2013).

Free Application for Federal Student Aid (FAFSA): The FAFSA is the application completed by students and their parents (of dependent students) to be considered for federal student aid programs (Department of Education, 2019; Dynarski & Scott-Clayton, 2013). It includes reporting on personal identifiers, income and asset information, and other untaxed income. The application is renewed annually by students, and requires updated income and family status information (Department of Education, 2019; Goldrick-Rab, 2016).

Graduation Rate: Graduations rates are calculations of students who start and finish at the same institution within a specific timeframe (NCES, 2016). Normal time to completion is four years for a bachelor's degree and two years for an associate degree. On-time degree completion is 150% of normal time, so for a bachelor's degree it represents six years and three years for an associate degree (NCES, 2016). Traditionally, the on-time degree

completion rate is used in federal reporting of graduation rates (Nichols, 2015; Whistle & Hiler, 2018).

Human Capital: The knowledge, education and experiences that an individual has, which is understood in terms of its value to an organization or that person, constitute human capital (Becker, 1993).

Institutional Actors: An institutional actor is an individual who has knowledge and skills in an educational organization and has the capacity to use those traits to manage and access valuable resources within an institution to help students navigate college systems (Stanton-Salazar, 1997; Stanton-Salazar, 2011).

Institutional Agents: As an institutional agent mobilizes in intentional action to support the student and provides resources and opportunities; a significant connection can occur that leads to the formation of a relationship and the establishment of trust between the student and the institutional agent (Stanton-Salazar, 1997; Stanton-Salazar, 2011).

Key Forms of Institutional Support: Key forms of institutional support include college knowledge, bridge to social networks, advocacy, role modeling, emotional and moral support, and guidance and advice. Students are able to achieve meaningful goals through access to resources that are not their own and are derived from institutional support (Lin, 1999; Stanton-Salazar, 2011).

Social Capital: The aggregate of resources, potential or actual, that an individual or a collective can access, which are linked to a social network, constitutes social capital (Bourdieu, 1988; Coleman, 1988; Lin, 2000). Since social capital has the potential to generate resources, it has value as an investment or for the mobilization of an individual or a group (Bourdieu, 1988; Coleman, 1988). The quality and quantity of the resources

accessible through the network of relationships denotes the volume of social capital of an individual or collective (Bourdieu, 1988; Lin, 2000).

Scope of the Study

The scope of the study encompassed Pell recipients who enrolled in at least their third semester in a community college. The third semester was important because it was indicative of persistence in school, and potentially leading to completion (Center for Community College Student Engagement [CCCSE], 2019; NSC, 2019). Pell recipients represented the target population in the investigation to understand more about factors leading to persistence. Conducting this study in a community college provided relevance to the higher education experience of students who attended school in this sector.

Delimitations

The study centered on the experience of Pell recipients who persist in school. There was a logical connection to the FAFSA because the population were Pell grant recipients. While the study investigated obstacles students face in securing financial aid, it did not examine the application itself or investigate possible ways to improve the process. Furthermore, the study did not explore the role of the financial aid officer in detail. Oftentimes, financial aid officers were considered agents of the Department of Education, which relegated students to a secondary role (Broton, 2019). It inherently placed the student behind the institutional obligations, which may influence a student's perception about their ability to receive financial aid. However, my study did not investigate this relationship, but instead focused on the role fulfilled by institutional actors for Pell recipients (Stanton-Salazar, 2011).

Additionally, the scope of my study centered on the student experience, instead of the examination of an institution as the unit of analysis. As a result, my research relied on understanding the persistence of a Pell recipient rather than the exploration of a high-performing or low-performing institution regarding the completion rates of Pell recipients. Furthermore, it was significant to note that data reveal there were potential equity gaps with respect to race and ethnicity of Pell recipients (NCES, 2019). While this was an important area of research, since I intended to study Pell recipients through the lens of the financial aid process and the complexities of the Pell grant program, the focus centered on exploring an equity gap from a socioeconomic perspective.

This study reported on outcomes based on the federal definition of completion rates, which relied on data on first-time full-time students, because this data represented a universal dataset in higher education (NCES, 2019). However, there were limitations to using the first-time full-time graduation rate, particularly within the community college sector. Students who attended community colleges had diverse educational goals and using benchmarks that inaccurately account for the mission of community colleges had deficiencies (AACC, n.d.; López, 2014). The community college sector developed an accountability framework that measured student progress and outcomes called the voluntary framework of accountability (VFA). The VFA captured the mission of two-year institutions, and was intended for analysis and identification of best practices for improving institutional performance (López, 2014). However, since it was not used universally across all community colleges and because the institution I studied did not participate in VFA, there was an inability to access the reporting tool for my research. As a result, I relied on the graduation rates reported for first-time, full-time students. Lastly,

this study sought to understand the formation of academic capital during the student's experience while in college and did not evaluate a measure of academic capital prior to enrollment (Winkler & Sriram, 2015). As a result, the measurement may have incorporated academic capital formed before the students' college experience.

Overview of the Dissertation

This study sought to understand the influence of institutional actors on the formation of academic capital in Pell recipients. Through the use of mixed methods research, I took a practical approach toward conducting a research study and attempted to better understand a problem, oriented toward understanding what works to address the problem (Onwuegbuzie et al., 2009). This correlated with a pragmatic worldview because the research was conducted to find a practical solution to a problem, stemming from actions and situations (Creswell, 2013; Teddlie & Tashakkori, 2009). The dissertation consisted of five chapters: introduction, literature review, methodology, findings, and conclusion.

The first chapter presented the topic, included related background information, and situated the study within a broader social issue of the college completion agenda. By describing the problem statement, the purpose and significance of the study, the introduction set the stage for the ensuing research. Chapter two featured the literature review, which provided the theoretical framework of the study and supportive literature situating my study within a larger context. This included research on graduation rates, the Federal Pell grant program, academic capital, and institutional actors. Next, the third chapter presented the rationale for the sequential explanatory design of the study and outlined the data analysis plan. Then, chapter four described the data findings of the

study, and connected the results to the theories of academic capital formation and the influence of institutional actors. Finally, the fifth chapter included interpretations, limitations and the conclusion of the study.

Chapter 2

Literature Review

The persistence of Pell recipients is influenced by various factors. The literature review presents selected research and illustrates significant findings pertaining to the persistence of Pell recipients and the disparity in graduation rates between Pell and non-Pell recipients. Because the focus of my study was on Pell recipients, I begin, with a definition of a Pell recipient and then report on research associated with the differences in completion rates for Pell recipients at four-year institutions. Next, to place my study into context, I provide relevant information on community colleges, and detailed statistics on graduation rates for Pell recipients at two-year public institutions. I also closely examine the Federal Pell grant program, through a summary of the intended purpose, a presentation of current research, and a description of factors associated with completing an application for financial aid. Included in this analysis is a review of the potential barriers students face during the completion of the financial aid process. Next, I link the theory of academic capital formation to my study by exploring how Pell recipients form the related components of the model (St. John et al., 2011). Then, I introduce the theory of a social capital framework for the study of institutional agents. I connect the potential role fulfilled by institutional actors in support of students with the development of social capital, a fundamental concept of academic capital theory (Stanton-Salazar, 1997; Stanton-Salazar, 2011). Through the use of research and theory, I contend that the disparity in the graduation rate for Pell recipients warrants a meaningful investigation.

Pell Grant Recipients

My research examined the persistence of Pell recipients, so I began with who receives a Pell grant. Pell grants are earmarked for low-income families and independent students with low-income (Cahalan et al., 2020; Dynarski & Scott-Clayton, 2013; Goldrick-Rab, 2016). Eligibility for a Pell grant is based on student reporting of family income, family size, the number attending college, and asset information (Cahalan et al., 2020; DOE, 2019). Additionally, students who qualify for a Pell grant need to meet other criteria such as enrollment in a degree or certificate program, citizenship requirements, registration with selective service, and have a high school diploma or GED. To illustrate the income requirements for a Pell grant, I provide details on the distribution by income for Pell recipients from the Federal Pell Grant Program Databook, 2015-2016 in Table 1 (NCES, 2019).

Table 1

Pell Recipients Distribution by Income

Income Range	Percent of Pell Recipients
\$0 - \$9,000	27.3%
\$9,001 - \$20,000	25.8%
\$20,001 - \$30,000	16.9%
\$30,001 - \$40,000	11.7%
\$40,001 - \$50,000	8.2%
\$50,001 - \$60,000	5.4%
\$60,001 or more	4.8%

The distribution by income shows that 70% of Pell recipients have a reported income of \$30,000 or less, demonstrating that the Pell grant serves to provide access to college to low-income students (NCES, 2019). The data support the idea that, from an economic perspective, there is financial justification for students eligible for Pell to enroll at higher rates at lower priced institutions because the Pell grant covers a larger proportion of the cost. As a result, the decision to enroll at a college seemingly becomes a financial one for low-income students. While access to an affordable college is a central component to the student experience of a Pell recipient, I also examined the role of degree completion for Pell recipients.

Differences in Graduation Rates at Four-Year Institutions

In 2015, the Education Trust first reported from a national level on the difference in graduation rates in Pell recipients and non-Pell recipients at four-year institutions and found that 51% of Pell recipients graduated within six years, compared to a graduation rate of 65% for non-Pell recipients. Exploring completion rates from this perspective introduces a new way to consider the data, and at the same time, exposes a potential area of inequity. Evidence of the disparity in graduation rates for Pell recipients and non-Pell recipients is identified in the initial investigation of data in 2015 and persists, as illustrated by a national report called the Pell Divide (Nichols, 2015; Whistle & Hiler, 2018). The Pell Divide report examines college completion statistics for Pell recipients compared to non-Pell recipients at four-year institutions (Whistle & Hiler, 2018). This study illustrates a disparity in completions rates between the two populations, with Pell recipients completing at a lower rate than non-Pell recipients. Furthermore, the data show that the majority of institutions face a gap in graduation rates between these two

populations. From the research, I draw some broad conclusions related to the persistence of Pell recipients. Specifically, I examine in more detail three areas of influence related to Pell recipients and graduation rates: the disparity in the graduation rate, the institutions with a high proportion of Pell recipients, and access to high performing Pell serving institutions.

Disparity in Graduation Rates

According to the latest research on four-year institutions, 49% of first-time, full-time Pell recipients graduated from their institution within six years, the timeframe considered by the DOE as on-time for inclusion in the institutional graduation rate (NCES, 2016; Whistle & Hiler, 2018). When a Pell recipient enrolls in college, they have slightly less than a 50% chance of graduating in six years; in comparison to the non-Pell recipient, who has a 65% chance of graduation within six years. It should be noted that the characteristics of a Pell recipient resemble a middle-class American, in terms of race, academic preparedness and family status (Goldrick-Rab, 2016). There is significance in the price Pell recipients pay for college. The increase in tuition costs have surpassed the increase in the Pell grant, while at the same time family income has remained unchanged. I provide more details on this topic later in this chapter. Additionally, Pell grants require supplemental actions in the form of applications, documentation and compliance with regulatory requirements, actions that non-Pell recipients do not need to fulfill (Goldrick-Rab, 2016; Scott-Clayton, 2017). The difference in the graduation rate for Pell recipients and non-Pell recipients represents a diminished opportunity for Pell recipients to attain a college degree.

Link between Proportion of Pell Recipients and Pell Graduation Rate

There are a large number of institutions that have a high proportion of Pell recipients represented in their total population (Whistle & Hiler, 2018). Many of these institutions struggle to achieve good outcome measures. The research indicates that there is a relationship between the proportion of Pell students enrolled and the institution's Pell graduation rate (Whistle & Hiler, 2018). The data reveal that more than 200 institutions with a high proportion of Pell recipients have a Pell graduation rate of 25% or lower. However, there are examples of institutions where Pell recipients have the same or a better completion rate than non-Pell recipients (Nichols, 2015; Whistle & Hiler, 2018). While the number of institutions with better completion rates is a fraction of the total, their success is noteworthy. This suggests that these institutions are doing something different than institutions with a low Pell graduation rate.

Access to High Performing Pell Four-Year Institution

College choice for Pell recipients is often determined by cost (Goldrick-Rab, 2016). As previously noted, graduation rates at institutions with a large proportion of Pell recipients are remarkably lower than the overall institutional graduation rate (Whistle & Hiler, 2018). Of the institutions where more than one-third of students are Pell recipients, only 25% have a Pell recipient graduation rate greater than or equal to 50%. This means that a student who has limited options for going to college, because cost is a driving factor, may not be served by an institution that is high performing for Pell recipients, and the students' chances of graduating decline. As a result, Pell recipients may not have access to an institution with strong completion outcomes.

National reporting spotlights an important issue in higher education: the disparity in graduation rates between Pell recipients and non-Pell recipients at four-year institutions (Nichols, 2015; Whistle & Hiler, 2018). There is evidence that the same disparity exists in community colleges (NCES, 2019). By having the background information on the differences in graduation rates at four-year institutions, I intend to determine if the findings are substantiated within the community college sector. The factors outlined previously on the disparity in the graduation rate, the link between the proportion of Pell recipients and the Pell graduation rate, and access to high performing institutions, are instructive and help inform the experience and outcomes of Pell recipients. I intend to show how they are noteworthy and relevant to the experience of community college students. I begin by defining the role of community colleges; and I outline the characteristics of community college students. Ultimately, I present information on graduation rates at two-year public institutions.

Community Colleges

Community colleges serve an important function in the higher education landscape, providing access through a broad mission of affordability and opportunity for students (Cohen et al., 2014; Mullin, 2017). Community colleges are primarily two-year public institutions, and I use the two terms interchangeably. Because federal reporting uses the classification of two-year public institutions, I make the connection with the term community colleges. In 2017-2018, approximately 38% of all college students attended public community colleges (NCES, 2019). Not only do community colleges have an open-door policy serving any student who wants to attend, they also reflect a public commitment to educational opportunity (Bailey et al., 2015; Cohen et al., 2014). Access

is an important pillar for community colleges in terms of both an open-door policy and low cost. At the same time, community colleges are designed to serve their locality, providing higher education to the community in which they are situated (Cohen et al., 2014). By offering educational opportunities at an affordable cost, community colleges provide a worthy option for low-income students in the local community.

First-Time Full-Time Pell Eligible Students

First-time, full-time Pell eligible students consistently enroll at community colleges at higher percentages than four-year institutions. In 2017, 52% of first-time, full-time degree seeking students at a public two-year institution received a Pell or other federal grant in comparison to 36% at public four-year institutions (Cahalan et al., 2020). The percentage of Pell recipients is a relevant concept regarding community college students because of the relationship to access to a college education. Interestingly, the overall percentage of undergraduates who received a Pell grant at public two-year institutions is 33.5% and at public four-year institutions is 38.2 % (NCES, 2019). The differences in the percentages of Pell recipients between first-time, full-time and the overall rate at two-year institutions implies there are other factors that are implicit to the student's enrollment status. However, since the primary NCES graduation rates are based on a calculation of first-time full-time students, I utilized this percentage in my study (NCES, 2019).

Characteristics of Community College Students

The affordability of community colleges and the economic circumstances of students is significant, as highlighted previously. At the same time, it is meaningful to investigate other factors associated with the experience of a community college student

(Cahalan et al., 2020; Mullin, 2017). The demographics of a community college student suggest a more complex picture than presented by the statistics on Pell recipients, and one that urges further consideration (Mullin, 2017). The demographics of community college students have relevance to my study and offer insight into the student experience. Community college students are unique in that many are first-generation college students, representing 29% of the population, and 15% report they are single parents (Mullin, 2017; NCES, 2018; NSPAS, 2018). Additionally, large numbers of students who enroll in community colleges have risk factors associated with retention and persistence, such as delayed enrollment, caring for dependents, and working while in college, (Mullin, 2017; NPSAS; 2013). Students with no risk factors represents 16% of the student population, compared to 70% who enroll at four-year institutions. Some 53% of community college students report having five to seven risk factors (Mullin, 2017; NPSAS; 2013). These characteristics provide insight into the complex nature of a community college student.

Race and Ethnicity of Pell Recipients

Examining race and ethnicity provides another perspective to consider when garnering insight into community college students. Table 2 displays the percent of undergraduates at public two-year institutions with a Pell grant by race and ethnicity, and for comparison purposes the percentages at public four-year institutions are included (NCES, 2019).

Table 2*Percent with Pell Grant by Race/Ethnicity*

Race/Ethnicity	Percent with Pell Grant in 2015-2016	
	Two-year Institution	Four-year Institution
American Indian	48.4	51.8
Asian	26.0	34.6
Black/African American	47.7	57.3
Hispanic	34.0	51.8
Other or two or more races	35.9	42.3
Pacific Islander	30.7	35.5
White	29.6	29.5

This data reflect the overall percent of Pell recipients, and does not distinguish for first-time, full-time students. I note this distinction because my study relies on first-time, full-time graduations rates, the federal standard for reporting on-time completion rates (NCES, 2018). An analysis of two-year and four-year institutions shows the percent with a Pell grant is higher for all groups at four-year institutions, with the exception of White students. While my study is about the persistence of Pell recipients at two-year institutions, it is significant to note that the data show the Pell grant program is even more important for students of color at four-year institutions than at two-year institutions (NCES, 2019). There has been minimal variation in the distribution of Pell recipients at four-year institutions based on race and ethnicity between the 2011-2012 and the 2015-

2016 reporting on student aid, suggesting Pell recipient trends have remained largely unchanged.

The data also illustrate that there is a disproportionately larger percentage of Black/African American and Hispanic students than Asian and White students who receive a Pell grant at two-year institutions (NCES, 2019). The statistics on race and ethnicity of Pell recipients demonstrates a disproportionate effect on Black/African American and Hispanic students because of the greater percentage of students who receive Pell grants. Furthermore, the data provide further insight into characteristics of Pell recipients at public two-year institutions. When this evidence is examined along with completion rates by race and ethnicity, it reveals a potential inequity. The six-year completion rate for students who started at community colleges in fall of 2013 varies based on race and ethnicity: 49.8% for Asian students, 28.8% for Black/African American students, 37.1% for Hispanic students and 49.2% for White students (NSC, 2020).

Disparity in Graduation Rates at Community Colleges

The disparity in the graduation rate between Pell and non-Pell recipients is notable in not only four-year institutions but also in the community college sector. The graduation rate is calculated using the prescribed statute definition of first-time, full-time completers within 150% of the normal time to degree (NCES, 2018). In examining the graduation rate specific to community colleges, the overall graduation rate for the 2014 cohort totals 26.6%; the graduation rate for Pell recipients is 23%; and the non-Pell graduation rate is 31.5% (NCES, 2018). On average the graduation rate for Pell recipients

is 8.5% lower than for non-Pell recipients; this compares to a gap of 16% at four-year institutions.

While the disparity in the Pell and non-Pell recipient graduation rate is not as large at community colleges as four-year institutions, the imbalance is amplified at community colleges for another reason. First-time, full-time Pell recipients enroll at a higher rate at community colleges than at four-year institutions, a rate of 52% compared to 36% (National Postsecondary Student Aid Study [NPSAS], 2018; NCES, 2018). As noted previously, community colleges have a low cost compared to four-year institutions, and for low-income students who are eligible for Pell grants, a community college represents an opportunity for an affordable education (Cahalan et al., 2020).

Graduation Rate Data from New Jersey Community Colleges. To investigate graduation rates further, I examine data from New Jersey community colleges. I present on the first-time, full-time graduation rate of New Jersey community colleges. I analyze four categories of the data: overall, Pell, non-Pell, and the gap between the Pell and non-Pell graduation rate. Additionally, I report on the percentage of first-time, full-time students who are Pell recipients. The results are displayed in Table 3, sorted by the highest gap between Pell and non-Pell graduation rates (NCES, 2020). I present the data in this order to demonstrate the evidence of the gap in graduation rates, and to connect later to the site of my study.

Table 3*New Jersey Community Colleges First-Time Full-Time Graduation Rates*

New Jersey Community College	% of Pell Recipients	First-Time Full-Time Graduation Rates			
		Overall	Pell	Non-Pell	Gap
Cumberland County College	59	33	27	45	18
Ocean County College	42	42	32	48	16
Salem Community College	47	31	25	39	14
Brookdale Community College	33	36	28	41	13
Camden County College	55	20	15	26	11
Union County College	61	22	18	29	11
Warren County Community College	49	34	27	38	11
Mercer County Community College	44	22	17	26	9
Atlantic Cape Community College	59	29	26	34	8
Passaic County Community College	69	19	16	24	8
Rowan College at Gloucester County	42	34	29	37	8

New Jersey Community College	% of Pell Recipients	First-Time Full-Time Graduation Rates			
		Overall	Pell	Non-Pell	Gap
Middlesex County College	47	28	24	31	7
Rowan College at Burlington County	39	34	30	37	7
Bergen Community College	46	33	30	36	6
Essex County College	71	18	16	22	6
Raritan Valley Community College	35	33	29	35	6
Hudson County Community College	70	18	17	22	5
County College of Morris	29	44	44	44	0
Sussex County Community College	36	27	40	17	-23

Note. The data are sorted based on the largest gap in graduation rates between Pell and non-Pell students.

I find the median gap in first-time, full-time graduation rates between Pell recipients and non-Pell recipients in New Jersey community colleges is eight percent (NCES, 2020). With the exception of two community colleges, most reflect a population where more than one-third of first-time, full-time students are Pell recipients. Additionally, seven of the 19 community colleges report Pell recipients as at least 50% of the first-time, full-time student population. The data echo the disparity in the graduation

rates between Pell and non-Pell recipients at four-year institutions. Furthermore, the gap in the graduation rates corroborates the disparity reported at the national level for community colleges of 8.5% (NCES, 2018). With the exception of two community colleges, there is a significant gap in Pell and non-Pell graduation rates, ranging from five to 18 percent, and seven schools report a gap of more than 10 percentage points. The data on first-time, full-time graduation rates comparing Pell and non-Pell recipients reveal that receipt of a Pell grant does not necessarily translate into the same opportunities to graduate for students who do not receive a Pell grant.

Access to High Performing Pell Community College. For many Pell recipients, the local community college is the primary educational option for higher education (Cohen et al., 2014). The decision to attend community college may be a matter of convenience or made because of the proximity of the institution to home. It may also be attributed to cost, or other factors that allow students to attend school and fulfill other responsibilities simultaneously (Goldrick-Rab, 2016; Mullin, 2017). Often students select a local community college by default; it becomes more of a decision based on practicality. This means that students may not have access to a community college with a high graduation rate among Pell recipients (NCES, 2020). Furthermore, as students make decisions based on cost or on being able to care for family members, the relevance of the graduation is overshadowed by other factors (Mullin, 2017). This suggests that Pell recipients may have inequitable opportunities to obtain a degree, as it relates to accessing an institution with a high graduation rate for Pell recipients.

The research and data on the disparity between Pell and non-Pell recipients shed light on student outcomes, an important concept to my study. I have also presented other

factors associated with the experiences of a community college student. To further understand what it means to be a Pell recipient, I review the Federal Pell Program. I discuss the intended purpose of the program, current research, and factors associated with the application and the administration of the funds related to the student experience.

The Federal Pell Grant Program

To expand on research associated with the topic of my study, I begin with describing the initial purpose of the Federal Pell Grant program. Through the passage of the Higher Education Act of 1965, the federal government becomes the primary resource for funding in higher education (Dynarski & Scott-Clayton, 2013; Mumper et al., 2011). The intent of the legislation is to remove financial barriers to a college education by providing direct support to students to assist in paying for college costs. As a result, a new funding model emerges, which allows students to use student financial aid funds at the college of their choice. The Pell grant program promotes equal opportunity primarily through supporting college access (Dynarski & Scott-Clayton, 2013).

The Federal Pell grant is the foundational award used to promote equal opportunity in higher education, and it is a strategy for reducing income inequality in attaining a college degree (Goldrick-Rab et al., 2016; Mumper et al, 2011). Eligibility for a Pell grant is based on student reporting of family income, family size, the number attending college, and asset information through a web-based application called the Free Application for Federal Student Aid (FAFSA). The student's financial strength is calculated based on these factors, and results in an Expected Family Contribution (EFC) using a formula created through Congress (Cahalan et al., 2020; DOE, 2019). The EFC is used to determine the student's financial need and eligibility for a Pell grant; award

amounts in 2017-2018 ranged from \$593 to \$5920 (DOE, n.d.). It has served as the primary instrument for increasing access for low- and moderate-income students (Nichols, 2015). However, it is not without challenges to its central purpose, as demonstrated by research on family income and the possibility of earning a college degree (Bailey & Dynarski, 2011; DOE, 2019; Nichols, 2015; Whistle & Hiler, 2018). As a result of such research, the central focus of the program has shifted and expanded so that researchers are now examining persistence and completion in addition to access, as discussed later in the review.

Current Research on Pell Grant Program

While the primary purpose and the effectiveness of the Federal Pell grant program has focused on access to higher education, the ability of the program to have an impact on Pell recipients' the social mobility pertains to not only access but also to the completion of a college degree (Goldrick-Rab et al., 2016). In other words, when Pell eligible students enroll in higher education, they aim to improve their social mobility and economic opportunity (Cahalan et al., 2020).

Research on Family Income and College Access. To investigate further the potential for Pell eligible students to attain a college degree, I explore research on family income and higher education (Bailey & Dynarski, 2011). The primary determinant of a Pell grant is family income (Scott-Clayton, 2017). Research on family income indicates that the likelihood of earning a college degree continues to be linked to family income (Bailey & Dynarski, 2011). The inequality in postsecondary education is examined over the past 70 years, with a closer focus on 1980 and the following thirty years. The data show that there are growing income gaps in access, persistence and college completion

(Bailey & Dynarski, 2011). While the college entry rates are increasing across all income quartiles, the growth in the top two is about 22% and the growth in the bottom quartile grew by 10%. As a result, the gap between the bottom and top quartiles for college entry grew from 39 to 51 percentage points (Bailey & Dynarski, 2011).

At the same time, the rates of college completion followed a parallel pattern. The top quartile increased by 18%, while the bottom quartile grew by four percent. Similarly, persistence rates climbed with income, as evidence of the top quartile being more than twice as likely to graduate as the bottom quartile (Bailey & Dynarski, 2011). For students in the bottom income quartile, who are largely representative of Pell recipients, the research demonstrates that not only are they less likely to go college, they are less likely to graduate once enrolled. The data suggest that growth in college entry may result in unequal increases in college completion (Bailey & Dynarski, 2011).

Recent research on college participation rates and family income corroborates the data reported in the previous study through demonstration of the variation in family income for high school graduates' college continuation rates (Cahalan et al., 2020). In 2018, the college continuation rates for high school graduates in the lowest income quartile (average household market income of \$21,000) is 68 percent; and in contrast the college continuation rates for high school graduates in the highest income quartile (average household market income of \$291,000) is 84 percent. In a separate study of 9th graders from a 2009 cohort, 53% in the lowest income quartile had attended college within three years of the scheduled high school graduation, compared to 92% of students in the highest income quartile. Despite the ability to receive a Pell grant to offset the cost

of education, research demonstrates the persistence of a disparity in college participation rates based on income (Cahalan et al., 2020; DOE, 2019).

Research on College Access by Race and Ethnicity. Additional research on the study of equitable opportunities in higher education provide more insight into the present funding model of the Pell grant program. Research shows that college participation rates are unequal by not only income but by race/ethnicity. In examining a study from a 2009 cohort of 9th graders, 84% of Asian students, 62% of Black/African American students, 66% of Hispanic students, and 73% of White students attended college within three years of high school graduation (Cahalan et al., 2020). The evidence from the study of the 2009 cohort of 9th graders shows a disparity in racial and ethnic groups who participated in college. Further evidence reported by NCES (2018) shows that college participation rates are rising for all groups. However, disparities still exist as shown by participation rates for different groups from 2018: Asian students is 88%, Black/African American students is 68%, Hispanic students is 69%, and White students is 74% (Cahalan et al., 2020).

Research on College Costs and Pell Grants. Another aspect of the Pell grant program that potentially contributes to the persistence of Pell recipients pertains to costs. In examining trends in the Pell grant program across several years, it is evident that the price students pay for college has increased significantly. Increases in the cost of college outpaces the increase in the Pell grant (Goldrick-Rab, 2016; NPSAS, 1996-2012). In 2018, Pell grants covered only 25% of average college costs, in comparison to a height in 1975-1976 of covering 67% of average college costs. The diminishing amount that the Pell grant covers is largely attributed to the increase in college costs. The official cost of attendance increased from \$8,503 to \$12,975 at community colleges from 1996-2012

expressed in constant dollars; public four-year institutions report a similar increase from \$13, 740 to \$19,780. (Goldrick-Rab, 2016; NPSAS, 1996-2012). Federal Pell grant awards more than doubled during this same timeframe; however, the award amounts did not keep up with the rising costs of the cost of attendance. The 2019-2020 student budgets have further increased with the average cost of attendance in a two-year public institution being \$17,930 and \$25, 890 at a four-year public institution, with a maximum federal Pell grant of \$6,195 (College Board, 2020). As a result, the Pell grant purchases a diminished amount of tuition. Thus, from the student perspective, the Pell grant provides the impetus to go to college, but it does not make it affordable (Goldrick-Rab, 2016). The gap between the Pell grant and the cost of attendance may contribute to the ability of Pell recipients to persist.

Research on Growth in Unmet Need for Lowest Income Quartiles. Additional research shows a growth in unmet need for the lowest income quartiles (Cahalan et al., 2020). Unmet need is defined as the cost of attendance less the student's EFC and all grants that do not need to be paid back. In 2016, dependent students in the lowest income quartile have an average of \$9,675 in unmet need, which is two and half times higher than the figure was in 1990, in constant dollars (Cahalan et al., 2020). Dependent students in the second lowest income quartile have an average unmet need of \$8,027, nearly two and half times higher than the figure was in 2008 in constant dollars (Cahalan et al., 2020). The research illustrates the increased financial burden on low-income students to attend college in the significantly larger amount of unmet need.

The research presented thus far centers on Pell grants from a programmatic angle, showing trends based on income, race and ethnicity, and cost. Equally important to the

research on the Pell grant program is the examination of the process to receive a Pell grant from the student perspective. As a result, I transition from reporting on trends associated with the Pell grant program to an examination of the financial aid process and research associated with the complexities inherent to receiving a Pell grant.

Financial Aid Process

Completion of the FAFSA is the initial step students take to receive a Pell grant; the application is complex for students and families to complete (Scott-Clayton, 2017). The first step requires students and parents to create a federal identification, called an FSA ID. It is used to confirm their identity and serves as an electronic signature for the FAFSA (DOE, 2019). Once the FSA ID is verified by the DOE, then a student can complete a FAFSA. The application requires reporting of specific line items on tax returns and answering questions that are potentially unrelated to the student, and as a result a source of potential misunderstanding (Goldrick-Rab, 2016). The resulting application is sent to colleges listed on the application which take on the administration of the financial aid process from this point forward. Eligibility is determined through a formula that produces an EFC or an index, which is used to calculate the student's award.

The Pell grant is awarded to the student from the institution the student attends, and it is often combined with other types of awards (DOE, 2019). Completing the financial aid process initiates the determination of eligibility for the Federal Pell grant program (Cahalan et al., 2020; Scott-Clayton, 2017). The stakes are high for completing the financial aid process because going to college may depend on the successful completion of the form (Dynarski & Scott-Clayton, 2013). Often the successful submission of the FAFSA is only the beginning of the process.

Complexities in the Financial Aid Process. After submission of the FAFSA, student applications are potentially selected for a process called verification, which results in additional steps for students to complete to receive financial aid (DOE, 2019). During the 2016-2017 funding year, more than half of the students with a Pell eligible FAFSA were selected for verification. For these students, the financial aid process involves providing documentation to prove that their application is correct. The process is more than the submission of an application (NASFAA, 2018; Warick, 2018). The process becomes completing forms, locating appropriate documentation, securing the correct tax information in a precise format, and providing it to the financial aid office. In addition, there are several other regulatory requirements for information or clarification of data submitted through the FAFSA. There are roughly 400 comment codes produced through submission of the FAFSA, with more than one quarter of these comment codes resulting in a follow up request to the student for additional information (DOE, 2019). These additional steps make the process complex and create barriers for students. Difficulties in receiving financial aid for students is often associated with the process of applying for financial aid and navigating the system (Bettinger, 2012; Goldrick-Rab, 2016). It results in uncertainty felt by students, and the sense that they are not eligible for financial aid when they have to submit additional documentation (Schudde & Scott-Clayton, 2013). The complexity leads to their inability to enroll and persist in college, so as a result the financial aid process is an important aspect of my study. There are a number of students who don't complete the FAFSA; 30% of students who don't complete the FAFSA would otherwise be eligible for a federal Pell grant (Scott-Clayton, 2017). Statistics on the large percentage of non-completers suggest that the application is not serving its intended

purpose of removing cost as a barrier to college (Mumper et al., 2011). The data on non-filers are relevant to new students applying for financial aid and for continuing students who need to renew their application annually (Goldrick-Rab, 2016).

Lack of Information. Lack of information as a concept is significant, and it is often cited as a reason for not completing the FAFSA (Bettinger et al., 2012). Different matters are attributed to lack of information, such as not knowing about the FAFSA, unaware of how to complete the form, unclear about different types of financial aid, and uncertain about where to obtain assistance (Bettinger, 2012). Any of these issues can result in the student unable to submit a FAFSA. Since completion of the FAFSA results in higher persistence rates for students who receive financial aid, making the application and the process transparent are critical to fulfilling the purpose of financial aid programs (McKinney & Novak, 2013). Research shows that 16% of first year Pell grant recipients in good academic standing did not refile their FAFSA. This translates into low-income students who are eligible for grant assistance not receiving the financial resources to pay for college (Bird & Castleman, 2016). Over time, this affects student persistence and completion of a degree. Students who don't refile their FAFSA are less likely to graduate (Bird & Castleman, 2016).

Research shows that students have incomplete understanding of their financial aid and how it functions to support them. Generally, students hope to be able to follow the rules and regulations associated with financial aid awards, but students may not know what the rules to keep their financial aid require (Goldrick-Rab, 2016). The procedural hurdles and the complexity of the process leads to the discouragement of students from the financial aid they are entitled to receive. Research shows that community college

students have misconceptions about financial aid, and as a result fail to receive financial aid (McKinney & Roberts, 2012).

Students go to financial aid offices seeking guidance on their financial aid when they are confronted with financial issues. Financial aid counselors at community colleges are obligated to serve many different functions with differing goals, while serving a large number of students (McKinney & Novak, 2013; McKinney & Roberts, 2012). Adherence to the rules and regulations of financial aid administration, rather than serving in the role as counselor, often becomes the priority of financial aid officers (McKinney & Roberts, 2012). This suggests that if there are adequate resources designated to financial aid counseling, there may be greater opportunity for students to receive financial aid and a greater understanding of financial aid policies. The complexities of the financial aid process are not only associated with the FAFSA; they permeate other aspects of a student's ability to receive a Pell grant and are related to time to completion and academic progress toward a degree.

Regulatory Changes Linked to College Completion. Students must adhere to not only financial criteria but also meet academic standards to receive financial aid (Goldrick-Rab, 2016; Schudde & Scott-Clayton, 2016). Changes in legislation under the classification of new program integrity requirements came into effect in 2012, which impacted Pell recipients' academic progress (DOE, 2011). They include a change to the Pell lifetime eligibility limit and the satisfactory academic progress regulations (DOE, 2011; NASFAA, 2011). The rate of on-time degree completion is based on six years of full-time enrollment for a bachelor's degree and three years for an associate degree, based on guidance from the DOE (NCES, 2019). The timeframe of six years corresponds with

the federally set limit for receipt of Pell grants. Once a student has received a Pell grant allocation equivalent to 12 full-time semesters, then the student has reached their Pell lifetime limit (DOE, 2019). A Pell eligible student who does not complete their degree within six years is no longer eligible for a Pell grant to assist them in completing their studies.

Since students lose their eligibility for Pell grants after six years, ensuring students reach completion within that timeframe becomes essential. In 2012, the Pell grant lifetime eligibility decreased from 18 semesters to 12 semesters, immediately impacting students who become ineligible for a Pell grant with the new legislation (DOE, 2011). The implication is that community colleges play a role in ensuring students have sufficient financial aid for their four-year institution. If a Pell recipient uses more than six semesters (the federally defined timeframe for on-time degree completion) of a full-time Pell grant to complete their associate degree, then they deplete their eligibility for their bachelor's degree (DOE, 2019).

For many students, the various mechanisms of financial aid blur together (Goldrick-Rab, 2016; Schudde & Scott-Clayton, 2016). There is lack of understanding of financial aid policies, largely because they stem from various sources: the FAFSA, their financial aid awards, their academic progress toward their degree, the eligibility limits. Students report feeling powerless over the financial aid process, and students who feel powerless appear to make poorer decisions. When they feel informed, they seem to make more effective choices (Goldrick-Rab, 2016). These factors are worth considering while exploring the persistence of Pell grant recipients.

Institutional Administration of Pell Grant Program

The institutional role of the Federal Pell Grant Program is to serve as steward of the Pell funds the student brings to the institution and ensure compliance with Title IV regulations (Evans et al., 2017; Goldrick-Rab, 2016). Institutions receive FAFSA data from the DOE, and upon evaluation either calculate an admitted student's eligibility for financial aid or request additional information to complete the financial aid application (Dynarski & Scott-Clayton, 2013; Evans et al., 2017). The request for additional documentation is a result of various regulatory requirements performed by the institution, such as verification of data items submitted on the FAFSA, proof of citizenship, and demonstration of satisfactory academic progress toward degree. As discussed earlier, upon matriculation, institutions award a student's Pell grant eligibility based on their enrollment status, and credit the funds toward their account at the institution (DOE, 2019). The Pell grant is applied toward tuition and fee expenses at the institution. The institutional emphasis is from a transactional and financial perspective to ensure compliance and accountability standards (Mumper et al., 2011).

While the focus of the institution is on the critical measure of demonstrating administrative capability, it leaves open the question of the role institutions play as receiver of the funding on behalf of the student. The Pell grant program provides revenues to colleges and universities without requirements for the institution in relation to college completion, with the exception of reporting on the Pell graduation rate (Burd, 2016; NCES, 2018). Accountability measures ensure fiscal responsibility of taxpayer dollars; however, it does not address the counseling aspect related to the financial aid administration. Part of the focus of the Pell Divide report is to examine how well the

college system is doing at improving the economic mobility of Pell students through college completion. The data expose the question of the institution's responsibility to help their Pell recipients succeed (Whistle & Hiler, 2018).

Historically, information on how well institutions serve Pell students has not been available. That changed when the DOE recently incorporated this reporting requirement (Nichols, 2015). Beginning in the 2016-2017 collection year, NCEES began obtaining and reporting on data that incorporates Pell grant eligibility and graduation rates (NCEES, 2017). The expectation has shifted so that institutions are now required to report on graduation rates for full year cohorts, Pell grant and non-Pell grant recipients. Now that data are available, an opportunity exists to learn more about the potential for degree completion for Pell grant recipients.

One reason for this gap is that colleges operate independent of guidelines that benefit Pell grant recipients; there is a lack of coordination between the federal efforts to support access to higher education and tuition pricing at colleges and universities (Goldrick-Rab, 2016). In addition, colleges have steadily become more dependent on tuition revenues because of declining government support (NCEES, 2020). Since 2005-2006 and through 2017-2018 (most recent year reported), revenues from tuition and fees at public institutions have increased by double digits, and by as much as 25%, over four-year periods, when dollars are constant. The increased reliance on tuition and fees revenues results in higher costs for students, and a diminished purchasing power of the Pell grant (Goldrick-Rab, 2016). Another way to examine the trends in financing higher education is to look at how the costs are covered. The percent covered by federal and state sources has declined; the amount covered by students and families has

increased. The share paid by students and families has increased from 33% in 1980 to 48% in 2018 (Cahalan et al., 2020).

The research presented on the Pell grants, the data on disparities in graduation rates, and the reporting on trends associated with access to higher education based on family income and race and ethnicity are instructive of the Pell grant program. They represent potential factors that influence the persistence of Pell recipients. Empirical studies related to the financial aid process, the institutional role, and the cost of attending college provide further evidence to support my study.

Theoretical Framework

Despite the scope of literature on the purpose of financial aid and the complexities associated with receiving and retaining financial aid, there is relatively little known about how students garner knowledge about the financial aid process (Bettinger, 2012; (Bird & Castleman, 2016; Goldrick-Rab, 2016; McKinney & Novak, 2013). Understanding what leads to Pell recipient persistence necessitates examining their experiences. I draw on two theoretical frameworks to explore further the student experience: the formation of academic capital and the social capital framework for the study of institutional agents. Both of these theories incorporate social capital, specifically the components of networks, trust and navigation of systems, into understanding behaviors and constructs (St. John et al., 2011; Stanton-Salazar, 1997; Stanton-Salazar, 2011). By establishing the link between academic capital and institutional actors and using the human and cultural capital elements of academic capital, I applied these theories to study the persistence of Pell recipients.

Academic Capital

Academic capital formation is a theory based on social processes that contribute to gaining family knowledge of college and career opportunities, and steering through college systems and organizations, incorporating human capital, social capital and cultural capital (St. John et al., 2011). St. John et al. (2011) identify six elements of academic capital: concerns about costs, supportive networks, navigation of systems, trustworthy information, college knowledge, and family uplift. To illustrate the components of academic capital, I begin by introducing the sources of capital integrated in this theory to show how these distinct concepts are linked to form the framework. Human capital is the education, knowledge, and experiences that an individual has, which is understood in terms of its value to an organization or that person (Becker, 1993). Human capital pertains to academic capital through the financial aspect of college access, the framing of concerns about college costs and the public investment in financial aid (Becker, 1993; St. John et al., 2011). Cultural capital pertains to the social aspects of an individual, such as education and cultural knowledge, which are transferable into assets and potentially lead to promotion of social mobility (Bourdieu, 1988; St. John et al., 2011). In academic capital theory, college knowledge and family uplift are derived from an individual's cultural capital.

Trust, information, and networks are critical components of academic capital, and are foundational to social capital theory. (St. John et al., 2011). Social capital is defined as the aggregate of resources, potential or actual, that an individual or a collective can access, which are linked to a social network (Bourdieu, 1988; Coleman, 1988; Lin, 1999; Lin, 2000). The volume of social capital of an individual or collective is associated with

the quality and quantity of the resources accessible through the network of relationships (Bourdieu, 1988; Lin, 2000). Reproduction of social capital occurs in the same form or in an enhanced manifestation of it (Bourdieu, 1988; St. John et al., 2011). Because social capital has the potential to generate resources in the form of a network of relationships, it has value as an investment or for mobilization of an individual or a group (Bourdieu, 1988; Coleman, 1988). The relationship between social resources and status attainment has significance to the extent resources are accessible through connections and in the mobilization of social capital (Lin, 2000). In other words, social ties and the associated resources influences status attainment.

Social capital theory is an integral part of academic capital formation. Evidence of how a social capital framework relates to the persistence of Pell grant recipients is demonstrated through the associated elements. I describe in more detail the six components that comprise academic capital and illustrate how they are linked to my study. I begin with the aspects associated with human and cultural capital, followed by the elements derived from social capital.

Concerns about Costs. The financial aspect of going to college is integral to low-income families for two reasons. First, they don't have the ability to pay the cost without the support of financial aid and second there are concerns about the cost of college (St. John, et al., 2011). Both of these points demonstrate relevance to the persistence of Pell grant recipients. Concerns about the costs of college potentially discourage low-income families, in particular when they have limited experience with college (St. John et al. 2011). Research on academic capital illustrates how opinions of college costs, and the ability to pay can impact college preparation and enrolling in college (St. John et al.,

2011; Winkler & Sriram, 2015). In addition, studies have shown that concerns about costs can hinder preparation, while assurances of financial aid are shown to help with navigating college (McKinney & Roberts, 2012; St. John et al., 2011). The research demonstrates that the meaning of college costs is of primary importance to low-income students and their families. As they develop an understanding of educational systems, they simultaneously know that they may not be able to pay for college. College costs is a concern that permeates their families and communities (St. John et al., 2011). The concerns about costs do not dissipate.

College Knowledge. When an individual has the capacity to envision themselves in a college environment, this signifies college knowledge. This is not the same as college aspirations but is instead related to their attendance in college rather than entering the workplace. Additionally, college knowledge is revealed through an awareness of determining how to progress in an educational operation (St. John et al., 2011). Research shows that families have a significant role in students obtaining college knowledge. This manifests itself in two ways: families supporting students in their college aspirations or families hindering their educational goals. For low-income families, there can be a struggle between college expectations and support for the family unit (Goldrick-Rab, 2016; St. John et al., 2011). In one study, academic capital is linked to degree aspirations of community college students and is associated with a stronger effect than family social capital (Yu & Soko, 2019). This provides evidence of the significance of college knowledge for the academic success of students.

Strategies to increase college completion may need to account for the struggles and challenges students face that are linked to the financial aid system. As it stands, the

availability of resources associated with human and cultural capital are not factored into the process. It does not convey the complexity and the challenges that low-income students face as they navigate paying for college. Because the FAFSA re-application occurs annually, students need to obtain tax documents and electronic signatures from parents to complete the form. This can result in friction between students and their families, and as a result it leads to mistrust of financial aid system (Goldrick-Rab, 2016).

Understanding more about familial expectations is also a noteworthy concept. Students often spend time and contribute financial resources to help support their families. Research shows that family reciprocity is a facet of one in three students' lives (Goldrick-Rab, 2016). One of the consequences students face is tension with their families related to support for the household and the FAFSA process. Overcoming these challenges becomes an important factor in increasing college attainment for Pell recipients (Goldrick-Rab, 2016).

Family Uplift. As a family increases educational prospects across generations through college knowledge and an understanding of how to navigate educational systems; this pattern of behavior may lead to the expansion of economic opportunities (St. John et al., 2011). Research shows that this is a complicated concept because it does not account for the challenges low-income families face (Goldrick-Rab, 2016). There is evidence that as students earn a college degree, this can influence other family members to pursue the same opportunities (St. John et al., 2011).

Navigation of Systems. The ability to obtain information and use it appropriately within an educational structure is an important element to forming academic capital (St. John et al., 2011). Accomplishing this objective without being discouraged by obstacles is

a resource available and represents a form of social capital (Coleman, 1988; St. John et al., 2011). The financial aid system has complex rules, procedures and requirements; the degree to which students are able to navigate the system is an important concept to understanding persistence. The concepts of understanding and working through the systems within the college experience and getting reliable information at key times is crucial to the development of academic capital.

Supportive Networks. Social resources are accessible through networks and are generally accessed for the mobilization of social capital in the process of position attainment (Coleman, 1988; Lin, 1999). Information that exists in social relations has the potential to be an important form of social capital (Coleman, 1988). By developing social ties and relationships within a college environment, students gain access to resources embedded in the social structure (Lin, 1999; Lin, 2000; St. John et al., 2011). Establishing supportive networks with resources to obtain trustworthy information help students overcome trepidation over attending college and paying for it. Furthermore, the research demonstrates that students looked for social ties with individuals they can trust (St. John et al., 2011). Community college students who are able to build networks within the institution are able to overcome barriers presented by the financial aid system. Research shows that being able to work through obstacles and problem solve issues in the college experience leads to student persistence and degree completion (Martin et al., 2014).

Trustworthy Information. Trust is an integral concept to social capital because a group with considerable trustworthiness is able to attain more than a group with a lesser level of trust (Coleman, 1988). Trust is a concept introduced in academic capital

formation theory (St. John et al. 2011). Trust is defined as an evolving process, which includes evaluating guidance and information as trustworthy, receiving practical knowledge to advocate for self, and building relationships with staff (St. John et al., 2011). The research demonstrates the importance of students finding a trustworthy individual for information and educational choices, and to help navigate pathways into and through college.

Trust of the financial aid system is associated with the concept of obtaining reliable and accurate information. Research shows that as students and families experience barriers related to the financial aid system, it is likely to lead to a decline in trust. As a result, financial aid is no longer a program to support college aspirations but instead represents an obstacle to degree completion (Goldrick-Rab, 2016). Given the financial aid issues identified by students, it is difficult for students to establish trust with the financial aid offices. As a result, students are often unsure if their financial aid will continue (Goldrick-Rab, 2016).

Connection between Underlying Social Processes. Navigation of systems, supportive networks and trustworthy information are identified as important factors in the development of academic capital. They are interrelated and as such share influences on the student experience. For example, support services provided by a trusted individual at the college help students navigate different processes and are related to the student's academic integration and success (St. John et al., 2011). Students form supportive relationships and build networks of trust. This helps them feel connected to the institution. Additionally, information about college options from a trustworthy person holds more value for the student. This is especially critical because information from

family and friends is oftentimes viewed as more trustworthy than information from college personnel (St. John et al., 2011). The research shows when students describe information deemed important, it was mostly made in relation to the people providing the information instead of from official college material.

The concept of trust is corroborated in student engagement surveys when students point out that relationships with college personnel are what helped them stay in college (CCCSE, 2019). When a student has a connection with a trusted individual at the college, they see themselves as part of an academic community. It provides the student with a sense of identity as a college student. It provides a valuable form of capital for the student.

Academic capital formation theory and specifically the association with concerns about cost is relevant to students completing the financial aid process. The theory integrates the notions of college knowledge and family uplift, as important social processes in persisting in school. Research shows that navigation of systems, supportive networks and trustworthy information, the social capital components of academic capital formation, are pertinent to the persistence of Pell grant recipients. Next, I show how these themes are associated with the study of institutional actors, which presents a social capital theory grounded in the perspective of the institutional agent who supports students through intentional actions (Stanton-Salazar, 1997; Stanton-Salazar, 2011).

Social Capital Framework for the Study of Institutional Agents

A social capital framework grounded in the concepts of institutional agents and empowerment is a theory of relevance for understanding more about the persistence of Pell recipients (Stanton-Salazar, 1997; Stanton-Salazar, 2011). This framework identifies

the role institutional agents play in the social development of low-income students. Threaded through the theory are concepts of the navigation of systems, supportive networks and trustworthy information, identified in academic capital formation, and how the influence of institutional agents plays a role in the students' development of social capital (St. John et al., 2011).

The theory emphasizes the use of networks, specifically instrumental relationships, within a multiple dimensional social structure (Stanton-Salazar, 1997; Stanton-Salazar, 2011). The model places primary importance on the ability to develop instrumental relationships with institutional actors who provide key forms of institutional support to students. An institutional agent is an individual who has capital in the educational organization, and is able manage and access valuable resources within an institution to help students navigate the system (Stanton-Salazar, 1997; Stanton-Salazar, 2011). Institutional agents mobilize support, such as resources, services and opportunities, in deliberate action for the student.

Role of Institutional Agents. Stanton-Salazar (2011) identifies several roles an institutional actor has the capacity to take on in support of students. Direct support, integrative support, system developer and system linkage represent manifestations of the actions taken for students by institutional agents. Decoding the system, providing a social network, bridging resources and advocating for students are integral components to becoming an institutional agent who mobilizes on behalf of a student. Specific examples of functions include advisor, advocate, networking coach, cultural guide, lobbyist and bridging agent. When the institutional agent transmits their resources directly to the student, an important connection can occur with the student. The institutional agent

strives to support students, then as a result a relationship may develop with the student. The development of this relationship is dependent on the establishment of trust between the two parties.

Access to Key Forms of Institutional Support. Successful communications and exchanges between the student and the institutional agent result in social capital for the student (St. John et al., 2011; Stanton-Salazar, 1997; Stanton-Salazar, 2011). It leads to providing access to key forms of institutional support. They include college knowledge, bridge to social networks, advocacy, role modeling, emotional and moral support, and guidance and advice. With the establishment of an instrumental relationship, students are able to achieve meaningful goals through access to resources that are not their own (Lin, 1999; Stanton-Salazar, 2011).

Intertwined into the social capital framework grounded in the concept of institutional agents are themes represented in academic capital formation. Developing a relationship with an institutional agent who leverages resources to support students are important ways for the student to develop social capital. Exploring both of these theories in relation to the persistence of Pell recipients is relevant to my study. There is ample evidence of the complexities associated with completing the financial aid process. Tying this process to the exploration of how Pell recipients form academic capital and the role of institutional actors in the development of social capital may provide a more thorough understanding of student persistence (Stanton-Salazar, 1997; Stanton-Salazar, 2011).

Woven into my literature review is support for the strategy employed by this study. To demonstrate the connection, I presented a comprehensive understanding of my topic. I began by demonstrating evidence of the disparity in graduation rates for Pell

recipients and non-Pell recipients. I presented evidence of trends linked to Pell eligible students. Then, I examined the financial aid process, which contributes to my study because Pell grant recipients complete the financial aid process to receive a federal Pell grant. There are several steps to this process, and potential barriers along the way that influence the student's experience and potential ability to persist (Scott-Clayton, 2017).

I connected the formation of academic capital as a concept that imparts a theoretical framework to my study (St. John et al., 2011). I demonstrated how the cultural, human and social capital components of academic capital contribute to gaining an understanding of the persistence of Pell recipients. By systematically exploring the components of academic capital, I described how each one pertains to my proposed study, with an underlying theme of finding a practical solution. Lastly, I connected the theory of the social capital framework for the study of institutional agents to the formation of academic capital, and I examined the meaning of supportive networks, access to key institutional support, and trustworthy information from the influence of institutional agents for students. By using both quantitative and qualitative data, the strengths of both types of methods were used to understand the research (Teddlie & Tashakkori, 2009). Furthermore, it may lead to new or more in-depth insights that may not have been obtained through a single method of study.

Chapter 3

Methods

Mixed methods research involves collecting and analyzing both quantitative and qualitative data separately, and integrating the results from both phases together (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). The research design supports concurrent data collection or in sequence with one phase occurring before the second phase. In a parallel research design, quantitative and qualitative research is conducted at the same time. For a sequential study, one method of research is conducted first, either quantitative or qualitative, and is followed by the other approach (Creswell, 2014; Teddlie & Tashakkori, 2009). Often, one type of research takes precedence and is the primary method over the other method, the secondary one. The research is organized into a structure that follows specific procedures, which provides the rationale and approach for how the study is conducted (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). Once the data sets are collected and analyzed independently, the two forms of data are integrated in the design analysis. This occurs through merging and making connections with the data, so there is integration of the types of data to provide a more complete understanding of the results (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009).

In this chapter, I explained my rationale for using a mixed methods approach, taking into account the assumptions associated with the underlying paradigm of my research. Next, I presented my research questions to be answered by the study, and included an alignment matrix (see Appendix C) displaying the connection between my research questions, the theory, data sources and analysis techniques. This was followed

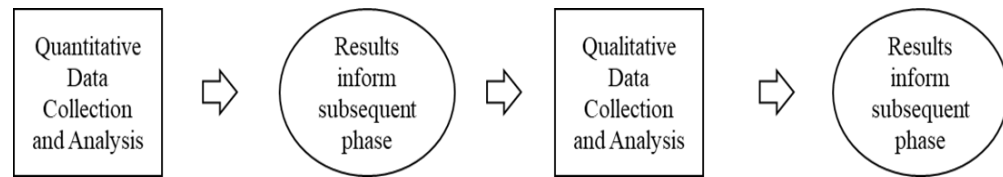
by a description of first the quantitative sampling, data collection methods, instrumentation, data analysis and validity concerns; second the qualitative sampling, data collection methods, instrumentation, data analysis and credibility; and third the integration of the quantitative and qualitative data strands. Then, I outlined the potential limitations and present validity concerns of my research. Lastly, I described ethical considerations connected with performing this study.

Rationale for Mixed Methods

Mixed methods research uses all possible methods to answer research questions, and it allows the researcher to simultaneously engage in both exploratory and confirming questions (Onwuegbuzie et al., 2009; Teddlie & Tashakkori, 2009). Through the integration of the quantitative and qualitative findings, mixed methods research has the potential to shed new understandings or insights that may not be gleaned with a single method of study (Bryman, 2006). By using quantitative and qualitative approaches, the weaknesses of the individual methods are offset and thus provide strength to the mixed methods design (Creswell & Plano Clark, 2018). It also provides more evidence, and stronger inferences as a result of using two approaches. From a procedural standpoint, it is a useful strategy for developing a more complete understanding of the research (Teddlie & Tashakkori, 2009). Figure 1 depicts the strategy associated with a mixed methods research design.

Figure 1

Sequential Explanatory Design: A Mixed Methods Approach



Note. Model is adapted from Creswell & Plano Clark (2011).

Explanatory Research Design

This study used an explanatory sequential research design to gain an understanding of the influence of institutional actors on the formation of academic capital associated with Pell recipients who persist. For the first phase of this study, I administered the academic capital scale developed by Winkler and Sriram (2015). It was an instrument that measures quantitatively the formation of academic capital. Specifically, it measured concerns about costs, development of networks, navigation of college systems, trustworthy and accurate information, access to college knowledge, and family uplift, the six components of academic capital outlined by St. John et al. (2011). The academic capital scale was administered to Pell recipients in their third semester or later, in a community college setting, and was inclusive of academic capital formed prior to enrollment. Students in their third semester or later were selected as the participants because persisting to the third semester represented a significant benchmark for students in community colleges (CCCSE, 2019). The national average for persistence to third semester was 63%, and was a strong indicator of graduation (NSC, 2019). As a result,

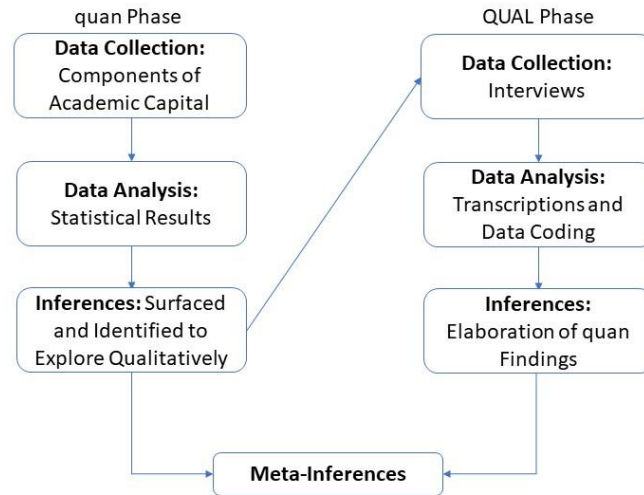
students in their third semester or later offered a prospective pool of individuals to study and to understand more about their experiences.

After the administration of the academic capital scale and the analysis of the results, the qualitative phase of the study was conducted (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). The results of the quantitative portion informed the selection of the participants and the types of questions asked during the qualitative portion of the study (Creswell, 2014). The purpose of the qualitative phase was to help explain the response from the quantitative instrument. A particular focus of the qualitative inquiry was on the areas of the navigation of systems, supportive networks, and trustworthy information as it pertains to institutional actors (St. John et al., 2011; Stanton-Salazar, 1997; Stanton-Salazar, 2011).

Figure 2 provided an illustration of my research design to demonstrate visually the format of this explanatory sequential study (Teddlie & Tashakkori, 2009). The purpose was to depict the sequence of data collection and analysis for the quantitative strand, shown as quan Phase, and the qualitative portion, shown as QUAL Phase. Furthermore, it served as a representation of the connection between both phases, and how the integration potentially results in meta-inferences.

Figure 2

Explanatory Sequential Research Design



Note. Design was adapted from Teddlie & Tashakkori (2009).

Because the research design in this study was an explanatory sequential approach, I first collected and analyzed quantitative data. Next, through my data analysis, I looked for areas that I wanted to explore in more detail. Then, I conducted the qualitative phase of my study, and collected and analyzed data within this stage. The qualitative phase represented the priority method in this approach because of the emphasis on the detailed accounts collected from the Pell recipients. I used the qualitative phase to understand more thoroughly the results from the quantitative phase (Teddlie & Tashakkori, 2009). As a result, this may have led to stronger inferences and finding a practical solution to a problem.

Ontological and Epistemological Assumptions

This research study attempted to better understand a problem and was oriented toward understanding what works to address the problem (Creswell & Plano Clark, 2018; Onwuegbuzie et al., 2009). This was characteristic of a pragmatic worldview because the research was conducted to find a practical solution to a problem, stemming from actions and situations (Creswell, 2013; Teddlie & Tashakkori, 2009). By using both numeric and descriptive data, the analyses used two methodological tools to answer the research questions.

The ontological assumptions associated with a pragmatist worldview derived from both singular and multiple perspectives and hold that diverse viewpoints represent realities (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). In other words, the results of the quantitative portion of the study relied on the descriptive and inferential statistics of the research, while the context of the study and the participants' perspective is not part of the research, thus resulting in a singular perspective (Creswell & Plano Clark, 2018). Conversely, the qualitative phase delved into the experiences of the participants and the potentially ensuing diverse viewpoints of social realities. By having both the singular, descriptive frame of reference and the multiple perspectives gained from the qualitative phase, the research employed diverse positions to understand social realities (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009).

The epistemological assumptions were associated with the researcher and the connection with the area under study, which spanned a range between objectivity and subjectivity (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). The pragmatist worldview took the position of engaging in research methods that most

effectively answer the research questions. As a result, instead of ensuring adherence to a particular paradigm that necessitated a particular connection between the researcher and the participants, the research questions were of primary importance in the approach (Creswell & Plano Clark, 2018). The methodological choices in the study were guided by a practical research principle, whereby the relationship between the researcher and the participants operated on a continuum between neutrality and partiality (Teddlie & Tashakkori, 2009).

Research Questions

This study engaged in the exploration of five research questions to understand further the persistence of Pell recipients and the influence of institutional actors on the formation of academic capital. The first question was for the quantitative phase, the next three questions pertained to the qualitative strand, and the last question related to the integration of both phases of the study.

1. What is the extent of academic capital formation among students who have completed at least two semesters of enrollment?
2. How do institutional actors influence the formation of academic capital in Pell recipients who persist in school?
3. How do Pell recipients explain the roles institutional actors engage in that are relevant to their persistence?
4. What resources do institutional actors deliver that Pell recipients describe as influential to their persistence?

5. What results emerge from using quantitative data on the formation of academic capital in Pell grant recipients that provoke qualitative interview data on the influence of institutional actors?

Setting

The site of this study was a medium-size (with approximately 8,500 students), multi-campus community college; and my unit of analysis was the student. More than 50% of the first-time, full-time students received a federal Pell grant (NCES, 2019). The enrollment status of the student population was represented by 45% who attended full-time and 55% who attended part-time. It was relevant to conduct this study at the selected site because the disparity in the graduation rate between Pell recipients and non-Pell recipients is higher than the state median. Furthermore, the majority of the student population were Pell eligible students. To adequately conduct the two phases of the study, different sampling strategies were used in this study (Ivankova & Stick, 2006).

Quantitative Strategy

Participants and Sampling

For the quantitative portion of the study, I contacted all Pell recipients (1,954 students) who had at least started their third semester. Students who had started their third semester or later were selected for two reasons. First, persistence to the third semester was a strong indicator of students' completion (CCCSE, 2019). Second, students who were in their third semester have completed at least two cycles of the financial aid application process. Because I delivered the survey to all students who met this criteria, the strategy was to include all students who satisfy the criteria (Teddlie & Tashakkori,

2009). The survey measured the formation of academic capital and included academic capital developed prior to enrollment in college.

Procedures for Data Collection

The data collection procedures proceeded in a sequential order as it related to my study (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). First, I collected quantitative data, in the form of a 28-item survey (see Appendix A: Academic Capital Scale). To contend with a potential low response rate, I sent four requests to complete the survey instrument: the initial request, followed by another request in the subsequent week, a third request one week later, and a final request after two weeks (Fink, 2013).

Online Data Collection. The data collection for the quantitative phase occurred through the use of information and communications technology (ICT) (Salmons, 2017). To obtain the descriptive statistics, I used an electronically delivered survey distributed through Qualtrics online survey software, and the data were delivered asynchronously. By conducting research with online methods, there was an opportunity to utilize different modes to collect data and it had the potential to result in increased inclusivity (Braun et al., 2017). However, online data collection was not without its challenges. For example, there may have been challenges with accessing the platforms used, and consideration for the protection of online data was important (Lo Iacono et al., 2016; Salmons, 2017).

Instrumentation. The instrument I used for the quantitative phase of the study measured academic capital formation (St. John et al., 2011; Winkler & Sriram, 2015). The scale measured concerns about costs, development of networks, navigation of college systems, trustworthy and accurate information, access to college knowledge, and family uplift, the six components of academic capital outlined by St. John et al. (2011). It

used a six-point Likert scale to rate the level of agreement, and used strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree, and strongly agree possible responses (Winkler & Sriram, 2015). During the administration of the instrument by the researchers who developed the scale, the academic capital scale was distributed to all students at a multi-campus community college, and the response rate was approximately one percent. The researchers cautioned that the low response rate suggested the inability to generalize from the data (Winkler & Sriram, 2015). At the same time, the instrument was administered at a four-year institution, which yielded higher results. Analysis of the principal components generated the same factors from both types of institutions and produced results that indicated accuracy and consistency (Winkler & Sriram, 2015). As a result, this indicated that the academic capital scale instrument could be used to measure the formation of academic capital. Cronbach's alpha was used to measure internal consistency, and reliability of the academic capital scale. The scale was measured for acceptable standards of reliability using a measure of Cronbach's alpha. Each factor met or exceeded the minimum standard of reliability in the principal components analysis: navigation of systems is 0.82, family uplift is 0.83, supportive networks is 0.84, concern about costs is 0.69, trustworthy information is 0.77, overcoming barriers is 0.81, familial knowledge is 0.85, and college knowledge is 0.70 (Teddlie & Tashakkori, 2009; Winkler & Sriram, 2015).

Data Analysis

Through the academic capital scale, I collected survey data for the quantitative phase of this study. I used an electronic survey instrument to execute the survey, and to collect data (Fink, 2017). This included the development of the survey, testing the survey,

and delivering the instrument through a consistent platform. Upon the collection of the data, I explored the data to check for inconsistencies and early identification of patterns (Fink, 2017; Creswell & Plano Clark, 2018). To measure the reliability of the administration of the academic capital scale, I calculated Cronbach's alpha. Next, I performed an analysis through a correlation matrix across all items within the academic capital scale. Then, I analyzed the data through descriptive statistics, and provided a summary of the data (Pallant, 2016). The instrument used a Likert scale, so to analyze the data I examined the distribution of the responses, the modes, the medians and the frequencies of each component to describe the characteristics of the data from my sample and to explain my research question related to the formation of academic capital (Pallant, 2016) Initially, I intended to use bivariate correlation tables, through the use of Spearman Rank Order Correlation (ρ), to assist with the analysis of each component; however, I replaced this type of analysis with a correlation matrix since it provided a more comprehensive look at the data.

I examined the data, looking for ways to interpret it. I studied the data to try to draw conclusions and make inferences from the descriptive statistics (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). Through this process, I made meaning from the data collected. Furthermore, the inferences drawn from the quantitative data informed the identification of areas to be explored in more detail during the qualitative phase of the study (Teddlie & Tashakkori, 2009). The quantitative findings were used to inform the types of questions to be asked during qualitative phase (Ivankova & Stick, 2006). The overall intent of the research design was for the qualitative data collection and analysis to help explain in more detail the quantitative results (Teddlie & Tashakkori, 2009).

Qualitative Strategy

Participants and Sampling

The research design employed was an explanatory sequential study, so information derived from first sample was used to select the second sample. This sampling strategy was purposive and was employed for the qualitative phase of the study (Teddlie & Tashakkori, 2009). This means that individuals from the initial quantitative phase were included in the qualitative portion to explore the quantitative results in more detail. Specifically, I used a nested mixed sampling strategy (Onwuegbuzie & Collins, 2007). Using a nested strategy implied that the sample used for the qualitative phase were a subset of the participants from the quantitative phase. The responses to the academic capital scale informed the selection of participants, using an intensity sampling strategy (Patton, 2002). Specifically, I looked for participant responses that demonstrated a high degree of academic capital formed with the intent to produce rich examples of student experiences. To obtain my participants in this manner, I requested survey respondents to provide an email address if they were interested in providing more details for the second phase of the study. Responses to the survey questions further refined the group of students selected for qualitative phase of the study so that the sample were selected purposively using a convenience sampling strategy (Collins et al., 2007; Onwuegbuzie & Collins, 2007). The intended sample size was up to 20 students so that sufficient data were collected to develop meaningful themes (Creswell & Plano Clark, 2018; Patton, 2002).

Procedures for Data Collection

I used the findings from the quantitative phase to inform on the second qualitative phase (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). The quantitative results supported the purposeful selection of the participants for the qualitative phase (Ivankova & Stick, 2006). Additionally, findings were used to inform the types of questions asked during the qualitative phase, questions that were general and open-ended. Next, the qualitative data were analyzed separately. The overall intent of the research design was for the qualitative data collection and analysis to help explain in more detail the quantitative results (Teddlie & Tashakkori, 2009).

Online Data Collection. The data collection for the qualitative phase occurred through the use of ICT (Salmons, 2017). By conducting research with online methods, it had the potential to result in increased inclusivity (Braun, Clarke, & Gray, 2017). However, online data collection may have made it more difficult to build a connection during an interview. For my study, I conducted interviews through videoconferencing. The exchange was synchronous, including visual interaction with the participant (Salmons, 2017). While this type of medium does not allow for the same type of in-person connection between the interviewer and the interviewee, research showed that it lends itself to having a longer interaction and the moments of the interview can be relived through recordings (Lo Iacono et al., 2016). For this reason, using ICT had the potential to produce rich, qualitative data.

Instrumentation. For the qualitative phase of the study, I used systematic inquiry for data gathering procedures, and established and employed the same interview protocol (see Appendix B) for all interviews and made the process transparent (Rossman & Rallis,

2017; Rubin & Rubin, 2012). The interviews were semi-structured, and the types of questions were general and open-ended. The questions were designed to garner information on the formation of academic capital and the role institutional actors had related to the student experience, and to use interviewee descriptions and examples to help answer my research questions (Rubin & Rubin, 2012). At the same time, it was important to be accepted by the interviewee as a conversational partner, and this may have meant understanding there were cultural differences to navigate during the interview.

The interviews were structured to facilitate depth and richness in the descriptions (Rossman & Rallis, 2017; Rubin & Rubin, 2012). To obtain detail during the interviews, I focused on how students form academic capital and what resources they used to persist in school, and at the same time sought details about the particulars, such as relationships they built and barriers they overcame, and the sequence of events in a given situation. I emphasized the why of the response to obtain depth from the interviewee. At the same time, I attempted to understand the shades of meaning from the responses (Rubin & Rubin, 2012). By seeking details, depth and nuances on the formation of academic capital and the role of institutional actors, I obtained rich interviews that yielded many themes to explore on the persistence of Pell recipients. For consistency, I developed an interview protocol to follow for each interview. This included an introduction and asking for permission to participate in the study, my research question for reference, a reminder that there were no right or wrong answers, interview questions, and a conclusion (Rossman & Rallis, 2017; Rubin & Rubin, 2012). I designed the interview protocol to establish the interviewee as the expert in an area that has value to study.

Data Analysis

Initially, I transcribed the data to document the interviews conducted. Next, I examined the transcriptions to begin to understand the data collected. Then, I engaged in in vivo coding to obtain meaning inherent to the interviewee's experience (Rubin & Rubin, 2012; Saldaña, 2016). In vivo coding used the terms and concepts established by the participants to examine the data; it conveyed something that occurred as demonstrated by the data (Saldaña, 2016). Through this coding method, I applied a code when something in the data stood out; it captured behaviors and processes. By using this method, I was able to think through routines, and behaviors in the data. The application of this method of coding was helpful in developing concepts and seeing categories within the data.

I used analytical memos to explore the data, and to analyze the coding of the interviews in more depth (Rossman & Rallis, 2017; Saldaña, 2016). Through analytical memos, I reflected on assumptions of the participant, thought through the experiences distinctive to college, considered unexpected insights, and identified outliers in the data or consistencies across data sources. As a researcher, I reflected through analytic memo writing and second cycle coding. After completing the in vivo coding, I conducted pattern coding, and developed coding from first cycle to a second cycle coding. I examined first cycle coding to evaluate for commonality of codes, and then assigned pattern codes. By grouping together related codes into a smaller number of categories, more general themes emerged (Saldaña, 2016). I used pattern codes as a way to generate theoretical social constructs from the data. Additionally, I relied on analytical memos to add depth to the second cycle of coding (Rossman & Rallis, 2017; Saldaña, 2016).

Mixing of Quantitative and Qualitative Phases

After reporting the quantitative and qualitative results, then the third form of interpretation occurred. This included consideration of how the qualitative findings explained the quantitative results and determining if implications were drawn from this integrative strategy (Ivankova & Stick, 2006; Teddlie & Tashakkori, 2009). Lastly, making inference from the integration of the findings occurred within the framework of answering the research questions (Teddlie & Tashakkori, 2009).

Limitations

There were limitations inherent to this study. First, the academic capital scale was designed to garner data to improve institutional practices and it was not a tool to assign or label a student based on the results (Winkler & Sriram, 2015). While there was the potential to misconstrue the use of the instrument, the benefits of using the tool outweighed the constraint. Another limitation of the study was based on the setting of the study. The study took place at a medium size institution with a high percentage of Pell recipients, and thus the results of the study may have been narrowly defined by the context. The student was the primary focus of my study; however, other factors related to the Pell grant program may have swayed the direction of the study away from the emphasis on the student experience.

Validity

There were different validity concerns associated with a mixed methods research design (Teddlie & Tashakkori, 2009). They could be attributed to the quality of the procedures used to answer the research questions. In addition, validity could be ascribed to the inferences made from the results of the study. During the quantitative phase, the

qualitative portion, and the integration of the data, concerns related to validity could have surfaced (Teddlie & Tashakkori, 2009). Furthermore, even though I was not studying the effect of COVID-19 on Pell recipients, I needed to be attentive to how the pandemic influenced the student's experience, presenting a potential validity concern.

Quantitative Validity

From a quantitative perspective, statistical conclusion validity was part of addressing validity concerns. It included determining if the statistical procedures were appropriate and was it pertinent to make inferences from data (Teddlie & Tashakkori, 2009). With internal validity, it was important to reason through the elimination of other interpretations, for example, consideration of potential interpretations of the quantitative results (Creswell, 2014). Construct validity concerns related to the appropriate measurement of the variables and determining if this occurred and whether inferences can be based on this process. The survey was a validated instrument, as demonstrated through an exploratory factor analysis, which consistently and accurately measured academic capital in college students (Winkler & Sriram, 2015). There was a construct validity concern related to the academic capital scale used to measure the formation of the participants' academic capital because it did not meet an adequate threshold of reliability across all the components. As a result, the scale did not reflect internal consistency in the measurement of the social constructs of the instrument. In addition, there was a validity concern related to the formation of academic capital by students prior to entering college. Lastly with external validity, consideration was given to whether the inferences made from the findings are consistent.

Qualitative Validity

Trustworthiness in qualitative research involved credibility, transferability, dependability, confirmability (Teddlie & Tashakkori, 2009). Credibility pertained to obtaining an understanding of the reality of the individuals interviewed. This was realized by using observations of the interviews to enhance data collection efforts and through careful listening and recording of the data. Transferability related to the use of elaborate descriptions to address concerns with external validity (Teddlie & Tashakkori, 2009). Dependability, or reliability, involved the ability to demonstrate regular results in data analysis. Lastly to address confirmability, it was important to ensure the results were grounded in data (Teddlie & Tashakkori, 2009). I used a strategy to minimize validity threats by selecting the participants purposefully through the identification of participants from the results of the quantitative results who could provide rich data from their experiences.

Validity Associated with Merging and Connecting Data

Because the research design used a mixed methods approach, integration of data analysis is an essential part of the process (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). This entailed the integration of quantitative and qualitative findings and inferences. It may have led to making meta-inferences from the interpretation of the data and making meaning across the approaches (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). To address validity concerns during the integration of the data analysis, having good design quality and being rigorous during interpretation supported my study. Lastly, during this stage it was appropriate to reference back to the original rationale for using mixed methods research (Teddlie & Tashakkori, 2009).

Ethical Considerations

Within human research, ethical considerations were an important consideration because participants may be vulnerable. IRB had standards that protected several populations of individuals; however, protected populations may not be a factor due to the setting of my study. Using an alternative viewpoint, the Kipnis model examined vulnerability from a different perspective (Sieber & Tolich, 2013). For example, cognitive vulnerability, vulnerability to authority, and deferential vulnerability may have surfaced from the potential participants. For example, the participants may have been vulnerable because of the unfamiliarity with the actual language, or the participant may have believed that there was risk associated within the relationship if there was no participation, or there may have been a reluctance to offend others hiding an inner aversion to participate.

I conducted research at my institution, so these vulnerabilities may have surfaced during my research (Rossman & Rallis, 2017). Remedies to potential vulnerabilities included clear communication and discussion during consent (Sieber & Tolich, 2013). This took into account ensuring the consent procedure and the data were confidential. It also meant creating a consent process that eliminated social pressures that a person may sense (Sieber & Tolich, 2013).

Furthermore, biases may have influenced my data collection, analysis and interpretation of the data. During my research, I interviewed students, and the power dynamic may have impacted the individual's ability to communicate openly. To neutralize this imbalance, I expressed how I was a student, and to consider my role as a researcher and not my position at the college during the interview process (Rossman &

Rallis, 2017). Through reflection and transparency, I hoped to minimize these biases. Additionally, by having an understanding of the cultural context where my research occurred and the potential vulnerabilities that may have surfaced may mitigate ethical considerations. Lastly, the population may have experienced vulnerabilities resulting from COVID-19 pandemic. College students were asked to do more and transition to a new learning environment rapidly, potentially influencing their experiences.

Conclusion

Understanding the persistence of Pell recipients in a community college setting through the student perspective represented an important topic as it pertains to degree completion and family uplift (St. John et al., 2011). The influence of institutional actors characterized a potential practical strategy to consider with respect to the student experience. Through the use of a mixed methods strategy, I was able to develop a more complete understanding through my research. By engaging in both confirming and exploratory questions, I used all possible methods to answer my research questions (Onwuegbuzie et al., 2009; Teddlie & Tashakkori, 2009) By using quantitative and qualitative data, it provided more evidence and potentially yielded stronger inferences (Creswell & Plano Clark, 2018). Mixed methods research, through the integration of the quantitative and qualitative findings, may have resulted in new insights that may not have been obtained with a single method of study (Bryman, 2006; Creswell & Plano Clark, 2018).

Chapter 4

Findings

This study sought to identify the factors associated with the persistence of Pell grant recipients in a community college setting. I began with measuring the six components of academic capital formation, concerns about costs, supportive networks, navigation of systems, trustworthy information, college knowledge, and family uplift, through a survey instrument. With semi-structured interviews, I collected data to understand the persistence of community college students and to explore the influence of institutional actors on the formation of academic capital. Through the use of both survey data and interview data, I attempted to interpret, from the student experience, factors related to student persistence. This was characteristic of a pragmatic worldview because the research was conducted to find a practical solution to a problem, stemming from actions and situations (Creswell, 2013; Teddlie & Tashakkori, 2009).

The ontological assumptions associated with a pragmatist worldview derived both singular and multiple perspectives and hold that diverse viewpoints represented realities (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). In other words, the results of the quantitative portion of the study relied on the descriptive and inferential statistics of the research, informing the qualitative phase, which focused the research on the participants' perspective (Creswell & Plano Clark, 2018; Teddlie & Tashakkori, 2009). The pragmatist worldview took the position of engaging in research methods that most effectively answer the research questions. Mixed methods research used all possible methods to answer research questions, and it allowed the researcher to simultaneously engage in both exploratory and confirming questions (Onwuegbuzie et al., 2009; Teddlie

& Tashakkori, 2009). It also provided more evidence, and stronger inferences as a result of using two approaches. From a procedural standpoint, it was a useful strategy for developing a more complete understanding of the research (Teddlie & Tashakkori, 2009). As a result, instead of ensuring adherence to a particular paradigm that necessitated a particular connection between the researcher and the participants, the research questions were of primary importance in the approach (Creswell & Plano Clark, 2018).

This study sought to understand the persistence of Pell grant recipients through the following research questions:

1. What is the extent of academic capital formation among students who have completed at least two semesters of enrollment?
2. How do institutional actors influence the formation of academic capital in Pell recipients who persist in school?
3. How do Pell recipients explain the roles institutional actors engage in that are relevant to their persistence?
4. What resources do institutional actors deliver that Pell recipients describe as influential to their persistence?
5. What results emerge from using quantitative data on the formation of academic capital in Pell grant recipients that provoke qualitative interview data on the influence of institutional actors?

In this chapter, findings were presented on the quantitative and qualitative data collected. First, I reported on the results of the academic capital scale, the survey

instrument administered during phase one of the study. Next, I discussed the findings from phase two, which drew from the student interviews. Then, I integrated the results of both the quantitative and qualitative portions together. Through this analysis, I identified patterns to answer my research questions. Lastly, I summarized my findings identified through inferences that surfaced during the quantitative phase and explored qualitatively, resulting in a comprehensive analysis of the data.

Phase I: Quantitative Overview

During the first phase, the number of Pell recipients in at least their third semester of enrollment totaled 1,954 and as a result became the population size for my study. I administered the survey four times to this population through a personalized email message in an effort to maximize the number of survey responses. After the third email request to complete the survey as planned in my study, the number of completed surveys totaled less than 200. To obtain a higher confidence level in the survey results, I sent a fourth request to complete the survey and received a total of 286 survey responses. With a population size of 1,954 and a margin of error of five percent, the confidence level was 90%.

I collected quantitative data through the administration of a 28-item survey (see Appendix A: Academic Capital Scale). Then, I reviewed the results of the survey to check for incomplete surveys and to explore for inconsistencies. Through this examination, incomplete responses and test surveys were eliminated. The data was delivered over a series four administrations of the survey over a five-week period through online survey software, which ensured electronic access and the protection of data. The response rate of submitted surveys was approximately 14 percent, 286 survey responses.

First, I analyzed the reliability of the academic capital scale using Cronbach's alpha. Next, I performed a correlation matrix across all items within the academic capital scale. Then, I examined the distribution of the responses, the modes, medians and frequencies of the data for each component of the academic capital scale. Lastly, I compared the levels of academic capital demonstrated by the responses to identify early patterns to be explored qualitatively.

There were validity concerns related to sample size. The survey instrument was administered four times to increase the number of responses; however, despite these efforts the total responses were insufficient to achieve a 95% confidence level. Therefore, it was inappropriate to generalize these findings, but they still provided substantive insights that I pursued during the qualitative portion of the study (Teddlie & Tashakkori, 2009). The analysis approaches I selected were appropriate for my research question since they demonstrated substantive data that allowed for the comparison of components. The comparison of mean approaches was useful in understanding the data collected within each component (Frankfort-Nachmias & Leon-Guerrero, 2018).

Phase I: Survey Findings

First, I analyzed the reliability of the academic capital scale with my population using Cronbach's alpha. Cronbach's alpha measured how closely linked a set of questions are within a group, resulting in low, moderate and high consistency. The reported values for Cronbach's alpha of .65 and higher demonstrated an internally consistent measure (DeVellis, 2012). Next, I examined the relationships between the items by running Pearson's correlation coefficients for the items within the academic capital scale. Then, I described the findings by each component and presented specific

findings from the quantitative data analysis. Finally, I brought together the findings from each component to view the data from the broader lens of human capital, social capital and cultural capital, which as a whole makeup academic capital.

Results of Cronbach’s Alpha Analysis

The purpose of performing an analysis using Cronbach’s alpha was to determine the reliability of the academic capital scale. The measure assessed the internal consistency of the questions within each component (DeVellis, 2012).

Table 4

Cronbach’s Alpha Analysis of the Academic Capital Scale

Factor	Number of Items	Cronbach’s alpha
Navigation of Systems	5	0.86
Family Uplift	4	0.81
Supportive Networks	4	0.80
Concerns about Costs	5	0.46
Trustworthy Information	3	0.63
Overcoming Barriers	3	0.65
Familial Expectations	2	0.55
College Knowledge	2	0.43

I used a minimum of alpha = 0.65 to determine acceptable reliability for each factor, which was consistent with the alpha score used to determine acceptable reliability during

the administration of the academic capital scale delivered by Winkler and Sriram (DeVellis, 2012; Winkler & Sriram, 2015). The results of the analysis reflected varied measures of internal consistency. The items for the components of navigation of systems, family uplift and supportive networks demonstrated a reliable measure with a Cronbach's alpha of 0.80 and higher for each one, as displayed in Table 4. The academic capital scale reflected an accurate and reliable measure for navigation of systems, family uplift and supportive networks. The items in the component for overcoming barriers exhibited an internal consistency of 0.65, demonstrating a moderately reliable measure. The remaining components produced measures that were less than the acceptable reliability threshold of 0.65, so the academic capital scale may not have been a reliable means to assess these social constructs. Concerns about costs resulted in a measure of 0.46; trustworthy information produced a measure of 0.63; familial expectations exhibited a measure of 0.55; and college knowledge resulted in a measure of 0.43, as shown in Table 4.

Analysis of Correlation within Academic Capital Scale

Through a correlation matrix, I analyzed the items of each component from the academic capital scale. By completing this calculation, I made comparisons between each variable to probe further into the identification of correlations within the data. As such, I looked for negative, positive, and no correlation between the 28 items of the academic capital scale. Furthermore, I examined the data to look for patterns and potential areas to explore in more detail. I displayed the results of the correlation matrix in Appendix D.

Through the correlation matrix, I identified several areas with a positive correlation between variables. Each of the five variables within the component for navigation of systems demonstrated a moderate positive correlation between the other

variables of the component. The strongest significant correlation occurred between how to use different support services and awareness of the resources that help me be successful ($r = .73$). Similarly, the component for supportive networks displayed a moderate positive correlation between each of the four items of the component. Having the support in the decision to attend college and having the encouragement to succeed had the strongest significant correlation ($r = .82$).

Within the component for trustworthy information, being more trusting of information received from my college than my family correlated with being more trusting of information received from my college than my friends ($r = .59$). A positive correlation occurred between being more trusting of information received from my college than my family and viewing people who work at the college as trustworthy sources of information ($r = .53$). Lastly, being more trusting of information received from my college than my friends significantly correlated with viewing people who work at the college as trustworthy sources of information ($r = .63$).

Within the component for overcoming barriers, being confident to overcome any barriers significantly correlated with despite any obstacles, confidence in continuing to attend ($r = .72$). Additionally, being confident to overcome any barriers correlated with having overcome obstacles ($r = .62$). Lastly, a moderate correlation occurred between being confident to overcome any barriers and having overcome obstacles ($r = .55$).

For the component on family uplift, three of the four variables demonstrated a significant positive correlation between the variables. Expect to get a better education than previous generations correlated with want to get a better education than previous generations ($r = .67$). Expect to get a better education than previous generations

correlated with hope to achieve more in life than previous generations ($r = .60$).

Furthermore, a significant correlation occurred between want to get a better education than previous generations and hope to achieve more in life than previous generations ($r = .81$).

The two variables on familial expectations demonstrated a significant correlation between family encouragement to consider other paths than college and family expected me to pursue other paths than college ($r = .86$). Having role models in my family who attended college correlated with having role models in my community who attended college, the two variables associated with college knowledge ($r = .56$). Finally, for the variables associated with concerns about costs component, a correlation occurred between only two variables: continuing to attend college without financial aid and confident in ability to financially afford to finish college ($r = .60$).

Next, I examined correlations between the variables within different components and found there was correlation between variables in a few areas. The variable “I view people who work at my college as trustworthy sources of information” correlated with people on campus have reached out to offer me support ($r = .52$); when I struggle in college, I know that I have someone to turn to for help ($r = .62$); knowledge of how to use the different support services offered by my college ($r = .59$); awareness of the resources at my school ($r = .66$); and feeling comfortable seeking information from those who work at the college ($r = .71$).

Then, I identified moderate correlations between variables of different components. There was a moderate correlation between the items, I know how to use the different support services offered by my college and I am more trusting of information

about my education that I receive from my college than of information about my education that I receive from my family, ($r = .41$). There was a moderate correlation between the variables: I know how to use the different support services offered by my college and I am more trusting of information about my education that I receive from my college than of information about my education that I receive from my friends ($r = .40$). I am aware of the resources at my school that can help me to be a more successful student correlated with I am more trusting of information about my education that I receive from my college than of information about my education that I receive from my friends ($r = .43$).

Furthermore, a moderate correlation was demonstrated between one variable from trustworthy information, I am more trusting of information about my education that I receive from my college than of information about my education that I receive from my friends and two variables from supportive networks: I have people in my life who encourage me to succeed in college ($r = .44$) and I have the emotional support that I need to get through college ($r = .42$). The moderate correlations demonstrated here in conjunction with the earlier correlations between trustworthy information variables and navigation of systems variables highlighted a pattern in the data. It showed a correlation between the components for navigation of systems, trustworthy information and supportive networks, all of which were attributed to social capital.

Moderate correlations were also demonstrated between variables within overcoming barriers, navigation of systems and trustworthy information; I illustrated this correlation because it integrated cultural capital and social capital. Confident that I can overcome any barriers to my success in college correlated with I am aware of the

resources at my school that can help me to be a more successful student ($r = .42$); and confident that I can overcome any barriers to my success in college correlated with viewing people who work at my college as trustworthy sources of information ($r = .46$). Despite any obstacles that I face, I am confident that I can continue attending college correlated with I know how to use the different support services offered by my college ($r = .40$); despite any obstacles that I face, I am confident that I can continue attending college correlated with I am aware of the resources at my school that can help me to be a more successful student ($r = .43$); despite any obstacles that I face, I am confident that I can continue attending college correlated with I feel comfortable seeking information from those who work at my college ($r = .40$), and despite any obstacles that I face, I am confident that I can continue attending college correlated with I view people who work at my college as trustworthy sources of information ($r = .46$).

Lastly, a moderate correlation occurred between I have overcome the obstacles that would prevent me from being a successful student and I am more trusting of information about my education that I receive from my college than of information about my education that I receive from my friends ($r = .44$). I have overcome the obstacles that would prevent me from being a successful student correlated with I view people who work at my college as trustworthy sources of information ($r = .42$). The correlations observed through the correlation matrix identified patterns to explore further in during the qualitative analyses. I next examine the descriptive statistics for each of the components in the academic capital scale.

Navigation of Systems

I presented the descriptive statistics related to navigation of systems in Table 5. There were five items associated with understanding the formation of this component, as presented in Table 5. The possible responses for the Likert scale questions were one for strongly disagree, two for moderately disagree, three for slightly disagree, four for slightly agree, five for moderately agree, and six for strongly agree.

Table 5

Navigation of Systems Descriptive Statistics

Variable	Mode	Mean (n = 271)	SD
Campus support	6	4.73	1.49
Support when struggling	6	5.00	1.30
Knowledge of support services	6	4.87	1.38
Knowledge of college resources	6	5.09	1.22
Comfortable seeking help	6	4.97	1.32
Navigation of systems scale	6	4.93	1.35

The mean for each item ranged from 4.73 to 5.09 and the mean for the five items as a single component totaled 4.93, demonstrating the distribution favors an agree response for the component navigation of systems. The mode, or the most common response was six or strongly agree for all variables. The statistics in Table 5 point to a strong navigation of systems demonstrated by the responses. The standard deviation ranged

from 1.22 to 1.49 with an average of 1.35, demonstrating a high variance in responses. This was also evident in the range of responses varying from one through six. However, despite the high variance in responses, the extent of academic capital formation among students who completed at least two semesters of enrollment was strong because responses to the component navigation of systems were moderately agree for the mean and strongly agree for the mode.

Family Uplift

I displayed the descriptive statistics pertaining to family uplift in Table 6. There were four items associated with understanding the formation of this component, as presented in the table.

Table 6

Family Uplift Descriptive Statistics

Variable	Mode	Mean (n = 271)	SD
Familial expectation	6	5.33	1.22
Desire to get better education	6	5.63	0.93
Hope to achieve more	6	5.73	0.82
Familial desire to achieve more	6	5.53	1.15
Family uplift scale	6	5.55	1.05

Note. Scale is one to six, and one is strongly disagree.

The mean for each item ranged from 5.33 to 5.73 and the mean for the four items as one measure totaled 5.55, indicating the distribution favored an agree response for the

component family uplift. The range in mean range was 0.4, with the greatest difference reflected in family expectations of 5.33 and the student's hope for achievement of 5.73. The mode was six for the four variables, representing strongly agree the most frequent responses. The data points in Table 6 reflected a high level of family uplift. The standard deviation ranged from 0.82 to 1.22 with an average of 1.05, signifying a variance in responses. The extent of academic capital formation among students who have completed at least two semesters of enrollment was strong because responses to the component family uplift were strongly agree for the mean and mode. Notably, there was variation in the responses to the items related to family expectations and student's hope for academic achievement, which is worth exploring further in the qualitative phase.

Supportive Networks

I reported the descriptive statistics pertaining to supportive networks in Table 7. There were four items associated with understanding the formation of this component, as presented in the table.

Table 7*Supportive Networks Descriptive Statistics*

Variable	Mode	Mean (n = 271)	SD
Supportive people	6	5.51	1.06
Encouraging people	6	5.54	1.00
Emotional support	6	5.03	1.34
Trustworthy supportive people	6	5.32	1.23
Supportive networks scale	6	5.35	1.18

Note. Scale is one to six, and one is strongly disagree.

The mean for each item ranged from 5.03 to 5.54 and the mean for the four items as a single factor totaled 5.35, indicating the distribution signals an agree response for the component supportive networks. In Table 7, the largest difference between means was found in two items: I have people who encourage me with a mean of 5.54 and I have the emotional support that I need to get through college with a mean of 5.03. The mode was six, representing strongly agree for the highest frequency in responses. These data points reflected a high level of supportive networks. The standard deviation ranged from 1.00 to 1.34 with an average of 1.18, signifying a variance in responses. The strongly agree response associated with the mode signified the extent of academic capital formation among students who completed at least two semesters of enrollment was strong. Notably, there was a difference in the responses between encouragement from others and emotional support needed to get through college and denoted an area of potential exploration during the qualitative phase of the study.

Concerns about Costs

I displayed the descriptive statistics pertaining to supportive networks in Table 8. There were five items associated with understanding the formation of this component, as presented in the table.

Table 8

Concerns about Costs Descriptive Statistics

Variable	Mode	Mean (n = 271)	SD
Attend college without FA	1	1.85	1.43
Financially afford college	1	2.44	1.65
More focused on academics	4	3.58	1.64
Discouraged financially*	4	3.57	1.66
Limited by college costs*	6	4.80	1.47

Note. * Item four and item five were both reversed scored. Scale is one to six, and one is strongly disagree.

Since the descriptive statistics for each question related to concerns about costs lacked common responses and were not consistently ordered, I presented the analysis independently for each question in Table 8. For the variable, I can continue to attend my college without financial aid, the mode was one as shown in Table 8. This response corresponded with strongly disagree, and the mean of 1.85 fell between strongly disagree and moderately disagree. The standard deviation was 1.42, which reflected variation in the responses. This was also evident in the range of responses varying from one through

six. Because of the nature of this component and its relation to financial matters, it would be difficult to attribute the formation academic capital to the responses.

The variable, I am confident that I can financially afford to finish my college degree, exhibited inconsistency between the mean and mode. The mean was 2.44; and the mode was one. The variation in responses to this item was also reflected in the standard deviation, which was 1.65. Again, the range in responses included one through six. The implication of this analysis did not reveal an association with the formation of academic capital, but instead in the presence of a strong variation in responses.

Interestingly, in Table 8 the data for the third variable, I am more focused on my college coursework than I am on my financial concerns, demonstrated consistency in the mean and mode responses. The mode was four, or slightly agree, and the mean is 3.58. However, the standard deviation of 1.64 and the range of five showed a variation in the responses. Similar to the previous item, the wide range of responses had implications for the formation of academic capital.

A reversed scored item, the fourth variable pertained to feeling discouraged from continuing in college due to financial constraints. Similar to the previous items, there was a great deal of variation in responses, demonstrated by the standard deviation of 1.66. However, at the same time the mean, 3.57, and mode, four, reflected a consistency. The variation in responses minimized any potential conclusions that may be drawn from the measures of central tendency, middle score and highest frequency.

The fifth variable, my concerns about college costs limit what colleges I can attend, was also a reversed scored item. The mean of 4.80 demonstrated a response of

moderately agree, while the mode exhibited a strongly agree response of six. The standard deviation of 1.47 and the range of five reflected variations in responses.

Trustworthy Information

I reported the descriptive statistics pertaining to trustworthy information in Table 9. There were three items associated with understanding the formation of this component, as presented in the table.

Table 9

Trustworthy Information Descriptive Statistics

Variable	Mode	Mean (n = 271)	SD
More trusting of college	6	4.57	1.30
More trusting of friends	6	4.82	1.23
Trustworthy college officials	6	4.91	1.24
Trustworthy information scale	6	4.77	1.26

Note. Scale is one to six, and one is strongly disagree.

The distribution of responses favored a moderately agree response for the component with the mean ranging from 4.57 to 4.91 and a scale mean of 4.77; the highest frequency in responses was strongly agree. The standard deviation in Table 9 ranged from 1.23 to 1.30 with an overall standard deviation of 1.26. Because the mean was lower than the mode, there were a significant number of values that pulled the mean lower. This signified a variance in answers for trustworthy information. The extent of academic capital formation among students who completed at least two semesters of enrollment for

the component trustworthy information was moderately agree for the mean and strongly agree for the mode. The mean was pulled lower than the median for the variable, I am more trusting of information about my education that I receive from my college than of information about my education that I receive from my family, which was noteworthy.

Overcoming Barriers

I presented the descriptive statistics pertaining to overcoming barriers in Table 10. There were three items associated with understanding the formation of this component, as presented in the table.

Table 10

Overcoming Barriers Descriptive Statistics

Variable	Mode	Mean (n = 271)	SD
Confident to overcome barriers	6	5.31	1.02
Confident in ability to continue	6	5.28	1.01
Overcame barriers	6	4.99	1.28
Overcoming barriers scale	6	5.19	1.12

Note. Scale is one to six, and one is strongly disagree.

The mean ranged from 4.99 to 5.31 with overcoming barriers scale mean of 5.19; the mode or the response with the highest frequency was six, strongly agree. The standard deviation ranged from 1.01 to 1.28, with an overall standard deviation of 1.12. Because the mean was lower than the median and mode, there were a number of values that pulled the mean lower. This signified a variance in answers for overcoming barriers. In

particular, in Table 10 the third variable, I have overcome barriers that would prevent me from being a successful student, had a mean of 4.99 representing a moderately agree response, but the mode was strongly agree. This lower value for the mean indicated an inconsistency in the responses for this variable. The extent of academic capital formation among students who completed at least two semesters of enrollment was strong because responses to the component overcoming barriers were moderately agree for the mean and strongly agree for the mode. Notably, confidence in overcoming barriers and being able to continue in college were similar; however, responses to I have overcome barriers exhibited a difference, which demonstrated an area to examine further qualitatively.

Familial Expectations

I displayed the descriptive statistics pertaining to familial expectations in Table 11. There were two items associated with understanding the formation of this component, as presented in the table.

Table 11

Familial Expectations Descriptive Statistics

Variable	Mode	Mean (n = 271)	SD
Encouraged other paths	1	2.71	1.93
Expected other paths	1	2.53	1.87
Familial expectations scale	1	2.62	1.90

Note. Scale is one to six, and one is strongly disagree.

Familial Expectations items were reverse ordered, so to demonstrate the formation of academic capital the responses would correspond with one or two representing disagree. While the response with the highest frequency was strongly disagree, the mean responses were 2.71 and 2.53, closer to the slightly disagree response. This corresponded with the standard deviation of 1.93 for the first variable and 1.87 for the second one, showing variance in the responses to the items. Because the descriptive statistics in Table 11 reflected disagree responses, this demonstrated the formation of academic capital among students who completed at least two semesters of enrollment for the component familial expectations.

College Knowledge

I presented the descriptive statistics pertaining to college knowledge in Table 12. There were two items associated with understanding the formation of this component, as presented in the table.

Table 12

College Knowledge Descriptive Statistics

Variable	Mode	Mean (n = 271)	SD
Family role models	6	4.20	1.87
Community role models	6	4.27	1.74
College knowledge scale	6	4.24	1.81

Note. Scale is one to six, and one is strongly disagree.

For the college knowledge component, there was significance in the standard deviation of 1.87 for having familiar role models and 1.74 for having role models in the community. This demonstrated a variation in responses. Table 12 demonstrated that while the response with the highest frequency, strongly agree, is the same for both items, the mean represented a slightly agree response. The formation of academic capital among students who completed at least two semesters of enrollment for the component college knowledge are slightly agree for the mean and strongly agree for the mode demonstrated the development of academic capital.

Human, Social, and Cultural Capital of Academic Capital

Through the examination of the survey responses from the administration of the academic capital scale, I looked for ways to interpret and make inferences from the data collected. Each component on its own demonstrated a sound formation of academic capital, with the exception of the component related to concerns about costs, which pertained to an examination of the development of human capital. The responses associated with the concerns about costs component were inconsistent across each variable and as whole. The survey results did not capture conclusive data related to concerns about cost. Because this component is fundamental to my study, it was important to learn more about the student experience with regard to the component associated with human capital. As a result, concerns about costs was an area to explore further during the qualitative phase to understand more about the variation.

From a broader perspective, the data demonstrated that the academic capital scale was a reliable measure of the components related to social capital. Furthermore, there was significant positive correlation among the components of social capital: the capacity

to navigate college systems, the growth of supportive networks and the development of sources of trustworthy information. The academic capital scale did not demonstrate that it was a reliable measure of the components pertaining to cultural capital, with the exception of overcoming barriers. However, each of the components exhibited a positive correlation between the items within the individual component. Furthermore, there was a positive correlation demonstrated in the items related to overcoming barriers with navigation of systems and trustworthy information, signifying a link between the formation of social capital and overcoming barriers.

From the quantitative analysis of the components of academic capital, I identified several areas to explore during the qualitative phase in addition to concerns about costs. First, within the component on navigation of systems, the variable related to people on campus have reached out to offer support appeared to be an area to examine in more depth. This area had sufficient variation to warrant further examination. Second, there was variation in the responses to familial expectations and the student's hope for academic achievement, which highlighted a concept to be explored qualitatively. Third, the data from the component on supportive networks highlighted an area to pursue in more depth; it pertained to the notion of encouragement from others and the impression of having the emotional support to get through college. Fourth, the results on trust of information from family and from the college were vague, so it warranted exploring the concept of trustworthy information qualitatively. Fifth, the results on overcoming barriers were inconclusive because based on the results, it was indeterminable whether the student had overcome barriers or they had no obstacles or they lacked agency with respect to the barriers. From the quantitative findings, in particular, the five areas identified previously

plus the concerns about costs component, informed the questions asked during the qualitative phase.

Phase II: Qualitative Overview

The second qualitative phase relied on the collection of data through semi-structured interviews with participants identified by the completion of the academic capital scale survey. Since this study is a sequential, explanatory mixed methods research design, the results of the quantitative phase informed the selection of participants for the qualitative strand by identifying participants with well-developed academic capital as potential candidates to be interviewed (Onwuegbuzie & Collins, 2007). Priority was given to the qualitative phase to explore further the factors associated with persistence, and to explain the quantitative results on the formation of the six social processes of academic capital by community college students and the potential role fulfilled by institutional actors in the support of the students' development of academic capital.

With consent from the participants, the interviews were recorded and later transcribed from the audio recording (Rubin & Rubin, 2012). Particular attention was paid to the accuracy of transcription to ensure the content of the interview and the experience and voice of the student prevailed. The qualitative data were analyzed through first in vivo coding and then with pattern coding. At different stages of the interviews and coding of the data, I reflected on the process through analytical memos. For example, after the first four interviews had been conducted, through an analytical memo I considered and documented my thoughts on the participants thus far. I noted that they shared characteristics of being students who returned to school after a significant absence, were female, and had dependents. While the content of the initial four

interviews resulted in rich narrative, I made an effort to expand the characteristics of the participants and elicit variability in participants during the interview process. The data analysis led to the generation of themes, based on an explanatory concept derived from the data, a sequence of action observed or a network of relationships, to answer my research questions (Saldana, 2016).

Interview Participants

I conducted semi-structured interviews in a virtual format with 16 individuals. Table 13 displays the characteristics of the participants.

Table 13*Interview Participants Characteristics*

Characteristic	n	Percent
Gender		
Female	9	56
Male	7	44
Age		
18-24	11	69
25 or older	5	31
Race and ethnicity		
African American/Black	8	50
Asian	2	13
Hispanic	2	13
White	4	25
Enrollment status		
Full-time	10	62
Part-time	6	38

The interview participants represented a diverse group of students. The interviewees self-identified as single parents, recent immigrants, first generation college students, caregivers for extended families and English language learners. The participants attended college during the day, while others attended in the evening; some worked full-time and others part-time; and their enrollment status was both full-time and part-time. Their

educational goals varied from career focused programs such as licensed practical nursing and physical therapy assistant to transfer programs in engineering, communications and computer science. Lastly, the participants were part of different cohort programs, such as the Educational Opportunity Fund Program and the Honors Program. The diversity in characteristics was indicative of the College included in the study and community college populations in general, and brought an inherent richness and breadth to the data collected during the interviews. Each participant shared their unique experiences influenced by their own worldview, while at the same time adding dimension to and parallels within the data.

Phase II: Findings

My research revealed six key findings that can be grouped into three broader categories. The first finding, *Finding One: Students described lack of agency to overcome barriers*, centered on the theme of obstacles and barriers students face in college that were beyond their control. Findings two through four concerned the theme of support, and the resulting feelings of belonging, that students benefit from in their college experience. This support and positive feelings then helped students overcome those obstacles and barriers. These findings were: *Finding Two: Support with Financial Aid Enabled Persistence*, *Finding Three: Importance of Supportive Networks to Student*, and *Finding Four: Feeling of Belonging Increased Student Confidence in Academic Experience*. The final theme related to students gaining trust and knowledge, due to the support they received, that allowed them to gain confidence, self-sufficiency and feelings of agency. These finding were: *Finding Five: Students Built Trusting Relationships with College Officials* and *Finding Six: Students Developed Skills to Self-Advocate*.

Finding One: Students Described Lack of Agency to Overcome Barriers

The participants described overcoming multiple types of barriers at different stages of the interviews, grouped into seven categories. I outlined them briefly below, followed by a more elaborate analysis of each type of barrier. The differing obstacles were inherent to the college experience, as well as driven by ones associated with internal and external factors of the student. Importantly, of the various barriers students faced, the financial aid process clearly provided the most stress and inflicted an emotional toll on the participants. This level of stress existed because, for most participants, access to financial aid became an existential factor with respect to their ability to persist: they received financial aid and they can attend college; they didn't receive financial aid and they cannot go to college. Related to financial aid but expressed distinctly, cost was seen as a barrier to persisting in school.

Another common barrier described by the participants pertained to the scheduling of courses. The obstacle related to either the scheduling of a specific course or having the availability of the courses needed to graduate. The interviewees also described difficulty in a specific class, which resulted in a barrier for them. External factors played a role in creating a barrier for the participants' college experience. Participants talked about feeling scared of enrolling in college and the fear associated with college created a barrier for the student. Another common trend among the participants was the obstacle stemming from the difficulty in balancing school and work obligations, as well as experiencing a conflict between the ability to succeed in school with personal responsibilities and the financial remuneration associated with work. Lastly, the participants described challenges that surfaced as a result of the COVID-19 pandemic. They included the transition to

learning through an online format, the ability to receive virtual services, and the pressure to increase hours at work because of loss of income from a parent. I presented below further elaboration of these barriers.

Completion of Financial Aid Processes Caused Vulnerability. Financial aid processes clearly caused high levels of stress and represented a risk to their persistence; all participants expressed difficulties with completing a financial aid process. This was compounded by views that various financial aid processes were opaque, arcane, and beyond the students' control. The high levels of stress amplified the participants' lack of a sense of agency and control over their financial aid processes. Students identified various difficulties they experienced with completing the financial aid process to receive funding for college costs. The commonality amongst them can be attributed to the student's delay in or ability to receive financial aid, resulting in feeling like it was beyond their control.

One such instance pertained to the regulation related to the student's satisfactory academic progress toward their degree. The student, Hailey, described how she needed to submit a satisfactory academic progress (SAP) appeal to financial aid so that she could be considered for continued federal funding for the next semester. She was troubled by the steps she needed to take to complete the appeal and the complexity of the process. Hailey recounted her experience in working through the process.

[I had to complete] the SAP appeal and my letter and she showed me to make sure that [I did it in the requested format]. Because that was honestly in my whole college experience that was the most stressful and that was the most [over]bearing on me so she really helped me I had to get a lot of help, because all of the required

requirements that were missing they had to email me, what are these, what are those, and now I'm okay.

For Hailey this process represented a real challenge to persisting in school. She described it as “the most stressful” and “the most [over]bearing,” which reflected her lack of agency in the process and the emotional toll it caused to her college experience. The continuation of federal financial aid was dependent on the successful completion of the SAP appeal process. Without the support to complete the process or if Hailey did not reach out for assistance, then she may not have persisted in school, as described by the participant “she helped me with it, she helped me fix it...I was like yo, if it gets denied again like I'm in trouble.”

Another instance of overcoming a barrier related to the financial aid process concerned the completion of the application. In this case the student, Janelle, expressed frustration with the application. She was living independently in the United States and her parents resided in another country. Despite the existence of distinct households, Janelle needed to include her parents' income on the FAFSA. She described:

I had to get all these stuff, questions from my parents, when I applied and I didn't know anything about that... and there was this filing of the parents joint filing for the tax returns...I had a problem with that tool, so the campus had to call me many times to remind me to do this to do that.

For students like Janelle who don't fit neatly into the parameters of the application, completing the FAFSA was an untenable process. Completing the application felt like it was beyond her control. Her parents lived in another country; she supported herself; but she was under 24 years of age and as a result required to provide parental income.

Without the outreach from the institution, Janelle would have thought herself ineligible for financial aid: “I actually didn't know anything about fafsa...so the campus had to call me many times to remind me to do this to do that.”

Another participant, Lemar, talked about his experience in navigating the financial aid process. He shared his difficulties in receiving financial aid and enrolling for the semester as a student because of the regulation related to unusual enrollment history. In this case, the participant was flagged through the financial aid application because of enrollment at more than one institution over a period of time. Lemar described his experience as:

Apparently, some of my funding was ineligible, it wasn't going through. I signed onto the self-services but also...on top of the financial aid being neglected, it also made me, it also made me get kicked out on my classes. Oh yeah so for...the spring semester I couldn't login to certain classes. Like I would have to sign up on the self-service and through there get the email so I could be even on canvas and then go through it, so the unusual enrollment history, it kicked me out because I wasn't a student per say.

In this example, the unusual enrollment history requirement created a snowball of events that barred the student from being able to participate in classes. He described how he was no longer a student; this process had derailed his enrollment and school was outside his reach. Later, Lemar assessed “the process of getting financial aid or get to financial aid, whether it be employment or income or immigrant status or whatnot, it does provide a very hard path to get financial aid.” His description reiterated the vulnerability of students

who relying on financial aid to go to school. In another instance, a participant Charles described his process for applying for financial aid as:

I also go to the school too because I, you know I didn't really know some of the information. Also, to have some papers that that the financial aid office needed you know, like IRS, and all these tax papers. I had to keep you know, like bouncing back and forth just to you know, like get it done...FAFSA for me is very tricky.

These comments reflected the multiple steps students complete during the application process. This was further complicated by the timeliness of the financial aid award, which demonstrated that funding was available for school. Charles presented this by stating “Like you're just waiting and waiting and waiting and waiting and waiting until like it finally comes through last minute and then that's when you're finally relieved.” In this example, the participant demonstrated through feeling “relieved” the emotional side to the process and how financial aid was an existential threat to his persistence in school. The waiting and waiting for financial aid may have resulted in lack of funding for school, leading to the inability to enroll.

Lastly, the participant Migdalia had difficulties with her eligibility for a state-sponsored scholarship; one that initially spurred her to enroll in college. She stated:

I was on the top 15 but there was some problem, because not every student in my year graduated. Okay, so I was taken away from the NJ stars. Yeah so that got me down. And my self-esteem was out the door.

The scenario presented by Migdalia showed the emotional toll the financial aid process had on students. Furthermore, it demonstrated the uncertainty of the system by which a

student loses eligibility for a scholarship and the vulnerability the participant felt through the experience. Her high school graduated less students than expected, and as a result had a negative result for Migdalia. A concept that served to be both opaque and beyond her control.

Each one of these examples reflected obstacles experienced by the participants with financial aid processes. There were specific regulations that proved to be difficult to navigate; there were complexities inherent to the process; and there were individual students who got caught by narrow parameters of the funding structure. They are distinct in nature, with each one representing a potential barrier to persisting in school, and represented only a subset of the various challenges faced in completing financial aid processes. Participants who experienced this stress typically had few other readily available options to finance their education, as demonstrated by Migdalia who reflected the stress she faced “oh definitely the cost...it’s so much money” and Nora who stated “[if] they take away from my funding because of my mistake because Lord knows I cannot pay for college.” They felt that if financial aid did not work out, then they would not be able to remain in school. The participants conveyed a sense of vulnerability or powerlessness when it came to financial aid barriers. Importantly, this stressful process hung over them both upon their initial enrollment but was also on-going on a semester basis. The types of barriers associated with financial aid were varied and compounded by multiple issues in some instances, representing an existential threat to the participants.

Cost Is a Barrier to Attending College. The participants, six of the 16, expressed how the cost of college was a barrier to attending school; it was a compounding factor within the larger perspective of their other financial obligations. For example, the participant Tamara stated:

I don't get that much from financial aid because I still have to pay 2000 and change. Being a single parent it's kind of hard, I have, I have bills. I have doctor bills, I have, like other things as well, so it's kind of hard to you know pay for college and everything else I need to do as a parent.

In this instance, the participant recounted other financial obligations, aside from paying for college, which she incurred. The weight of having college costs, medical bills, and other bills made the cost of college a barrier for her. Another participant Migdalia related that “it kept me up a lot of times.” She further described how she thought through how to pay for college:

This is how much if I don't get the scholarship or if I don't get financial aid, this is going to be how much my parents are gonna have to take out of their pocket.

They don't make that much or my dad doesn't make that much he has to pay the rent and he has to pay the bills this and that and I'm like Okay, this is too much.

Migdalia expressed serious financial concerns with paying for college that weighed on her and wreaked an emotional toll on her experience. Similarly, the participant Lemar recognized that the cost of college was a barrier for him, but at the same time described the benefit of having financial aid funding. Lemar stated:

If I didn't have financial aid difficulties in providing education for the most part, will be very hard, because I. How do I explain this I'm the breadwinner in the

family, and I have a lot of priorities and responsibilities and with that comes expenses. So to have that you know off my back per say I'm very fortunate for that, like it goes a long way, because I don't waste out on an opportunity like that. These examples demonstrated how college costs were a significant barrier for students to overcome. It weighed on them and inflicted an emotional cost on their experience.

Scheduling and Courses Needed to Graduate. Another barrier that frequently arose during interviews with the participants concerned the ability to schedule and fulfill course requirements leading to their educational goal; 10 of the 16 participants cited challenges. This pertained to various scenarios as portrayed by the participants. One participant, Tiana, described a “barrier that I faced that kind of ticked me off, is that they didn't have the professors to teach the classes I needed to graduate on time. So I'm actually graduating late.” In this example, the student was unable to take the classes needed for their program, leading to a delay in receipt of their degree. Another participant had completed her prerequisites to apply for an Allied Sciences program. Tamara stated:

I was trying to get into the respiratory Program. Okay, I forgot the date to actually put the application in and she [my advisor] tried so hard to get me in but the Professor was like no it's too late... basically I just gotta wait just a waiting game to face.

In this case, the student was delayed in pursuing their program because she missed a deadline to apply. Despite occurring before classes started, the student was unable to enroll in the specific program that she had been working toward the previous semesters.

Another participant described the delay in her ability to graduate because of an issue with course equivalencies between two institutions. Johanna stated:

I think sifting through what was mandatory and not mandatory, as far as picking a schedule for classes. Because I was supposed to have finished two semesters ago but from a class that, but I think that what I'm about to say is across the board. So I had a class, a math class, a general requirements class that I took at [another institution] before I transferred [to this school]. I didn't need the math class [statistics] because I passed it at [another institution] with a B. So [this college] wouldn't take it because they say it wasn't equivalent.

In this case, the student passed and earned three credits in a statistics math class at another institution. Since the math requirement was equivalent to four credits, the previous course did not fulfill the student's graduation requirement. From the student's perspective, she fulfilled the math requirement because they were both statistics courses and the difference in the credit should not prevent her from fulfilling the graduation requirements.

Another participant, Lemar, described how it was difficult to understand what classes to take each semester as a student who does not follow the traditional full-time sequence. Lemar stated:

I feel like the courses aren't as direct or you know you have to take X class and take Y class and then you know they're during the same period, ... when you're scheduling classes and [the system] doesn't really provide [a clear structure]... Yeah I would say that will be my biggest hurdle to deal with will be the planning and scheduling and knowing what classes to take for my major.

Course catalogs and degree plans are often portrayed for the full-time student who begins in the fall semester and follows the sequence of courses in order. When a student's

enrollment deviated from this plan, then the educational plan became challenging to navigate. Nasir, another participant, described a similar difficulty in scheduling their classes.

The scheduling system for the high-level classes they're like...the one that is directly to the major, there is a lot less classes offered. So sometimes that time schedule that things [are] like in a very tough situation,... if you want to take like me if I want to take two or three classes that [are] directly to my major, I have to have a hard time because I have to find the best time, maybe, and sometimes the two classes, that is, like for my major is offered in the same time, two different classes.

In this example, Nasir had difficulties with their schedule because the classes needed for his program were offered at the same time and conflicted. Furthermore, courses specific to a major often have less sections because they only fulfill the requirements of a certain program, further limiting options for the student. Another participant, Charles, described scheduling as:

It could be a crazy, crazy, crazy time. Because there've been some instances where I'll register for one class, then you know, since registration is really like crazy and everybody is trying to register on time to do this, and do that...sometimes that class like you don't know if you need it at all or it could be like one minor mistake and then all of a sudden, I got to drop that class because it could become a whole completely different, you know city.

This example presented another issue that occurred related to scheduling; the student enrolled in courses at multiple campuses. Because of the logistics, the student was unable

to get to that course along with his other scheduled courses. Each of these participants described uniquely challenging scenarios related to scheduling and fulfilling degree requirements, which as a result created a barrier to persistence.

Difficulty in Specific Class. The participants, eight of the 16, presented instances where they struggled in a particular class. The challenges were related to the content, to a frustration with the communication, and to a disconnection between the student and their professor. For example, the participant Janelle described:

where it's online it's like getting hard because there are a lot of stuff, like on top of one another for all the classes, lectures, and labs. And so there was a time where like especially me [I] had a hard time and I wanted to quit the program.

In this example, difficulty in a class for Janelle led to her wanting to quit the program.

The participants described scenarios such as this one where difficulty in one class contributed to feeling discouraged and wanting to stop going to school altogether.

The participants also expressed challenges that they attributed to a professor in a specific class. The difficulties led to feelings of discouragement and frustration. The participant Hailey shared her experience in a class that led to her feeling dejected.

I'm just maybe contacting teachers. And you know, trying to make up work or re-do an assignment, the grade is low or whatever the case may be, to just you know to blast class. [The] teacher who was just like it just didn't work out like when I would have a question she would be like I already said, I already answered that question to our class ...like I understand you said it during class but can you just you know reemphasize or you know break it down a little bit. So, not all the time

I feel like my answers would be across, so like I'll be reading the email, but it would be a waste of time. I wouldn't be answered.

In this case Hailey sought assistance and clarification from the professor, but she felt that her questions were not addressed, leading to feelings of discouragement. In another scenario, the participant Tyler described an experience with a professor when he was advocating for himself. Instead of feeling a positive acknowledgment from the professor, he felt the professor's frustration with his request. Tyler expressed:

Some professors are like annoyed with everyone in class. Like honestly, I am just a normal like, I'm the only person that was like oh hey I can't take my test from here. I had to go to the Testing Center or hey I need more notes or more time on this assignment. I mean there are some frustrations, like, I can tell by the body language being like it was. This one guy was just like oh, I have to do that again.

Tyler advocated for himself and was met with an unreceptive professor. This led to the student feeling discouraged from continuing in school. Difficulties in specific classes created barriers to persistence, in particular when the student felt discouraged as a result of an interaction with an individual in a position of power as a faculty member.

Fear of College. The participants presented a fear of college that created a barrier for them; five of the 16 participants remarked on this sentiment. One participant Garrett stated that “it wasn't necessarily that about cost, it was more about like my self-confidence at the time, like I wasn't very confident in my grades in high school.” Garrett expressed a lack of confidence in his ability to go to college. Gabrielle described how “because of all that was going on in my life I was scared to go to college right now. I never thought I could do it, and never thought I could graduate.” This participant

expressed her fear of going to college. Lastly, Johanna discussed an experience in a class that made her feel like she didn't belong in college. Johanna described:

like you have those certain things in life that still make you feel like a little kid.

We were doing something in class and I used to be so good at it fresh out of high school. But coming to college to do it all over again was like I really haven't done this in a year, so I was so frustrated in class. I started crying because I could not get it and I was so mad at myself, because I could not get it and I knew how to do it,... life caught up and I had to deal with life first and then come back to school.

The lack of confidence, the feeling of being scared, and the emotion of being unable to do the work in class created difficulties for the participants. These fears of college expressed by the participants produced potential barriers to their persistence in school.

Balancing School, Work, and Personal Life. Students presented a struggle in balancing their work obligations, their school commitment and their family life. 10 of the 16 participants described having concerns about managing their time, and at the same time they expressed a conscientious approach to allocating time toward their various obligations. For example, one participant Tamara stated “I find it a little struggle. Go to school full-time, work full-time and be a parent. It has its good days and its bad days.” Another participant Nora described the confluence of everything in her life as overwhelming. Nora stated “when I have a lot on my plate I tend to get overwhelmed and then, once I'm overwhelmed that's when all my things start dropping and then there's this feeling that it's not going to work out.” Figuring out how to maintain a balance between school and other obligations was a source of pressure. Two other participants, Gabrielle

and Lemar, described how they worked to resolve the many obligations and manage their time effectively. For example, Gabrielle stated:

with all that is going on in my life, am I gonna have enough time to study, am I gonna make it. And my cousin is going and is in the program I was like Okay. And also, I have a friend at work. She said, they offered me a night shift at that time, she said take it, that will help you. You can do it. You can go to school in the morning and then sometimes at work when you're on break you can study here at work late.

Gabrielle adjusted her work schedule to become more effective with her time, while at the same time she shared the support she had received from others to accomplish the management of her time. Lemar discussed how he managed his time.

When I'm just coming back from work and doing homework and finding the right hours of sleep, wake up, workout because I'll be honest, the only time for myself is working out and that's at five in the morning you get me... and then after that my day starts at seven in the morning commuting and then I'm in the bank and it's not like I can do a quiz or you know focus on school while I'm at work when you're dealing with money. So it's been very challenging but so back to time management it's all it's really time management and prioritizing what you gotta get done.

Lemar expressed the challenges of fulfilling his professional obligations while having time for school. He created a schedule that sounded difficult to manage, but at the same time he recognized it as establishing priorities. Balancing school, work and one's personal life created barriers for students, which resulted in feeling overwhelmed by the

enormity of it for some. It also led to creative and challenging ways to manage their time effectively.

COVID-19 Pandemic Challenges. Lastly, six of the 16 participants expressed challenges that they attributed toward the COVID-19 pandemic. They included increased childcare responsibilities, the delivery of student services, an increase in work hours, and the online delivery of content. For example Gabrielle described:

during COVID my daughter couldn't go to school, she was here in the house all day. So when I get home from school, it was sometimes hard for me to get some sleep before I go to work again. Yes, I was exhausted.

Another participant Johanna expressed difficulty in obtaining services early on in the pandemic and then stated that “because I’m a working parent, so I’m not that accessible and I’m not that often on campus...the virtual options for the students were very helpful for me.” In the context of the pandemic and schoolwork in general Janelle discussed “where it's online it's like getting hard because there are a lot of stuff, like on top of one another for all the classes, lectures, and labs.” Janelle expressed the difficulty with managing the online content of school, which was a result of the pandemic.

Other participants, such as Nora, increased their work hours because of the pandemic. Nora stated:

because I had to work a full-time job, and at that time, my father was not working, because of the pandemic and my sister was also laid off. So I was working a lot and I was just falling behind at some point, I really didn't want to finish the semester, because I thought it was too much on me. And you know I just sat

down, I talked to her that's why I call her sometimes and then we talked about it, that just really helps.

These participants described challenges that they attributed to the COVID-19 pandemic, and as a result they created barriers for them to persist in school.

Finding Two: Support with Financial Aid Led to Ability to Persist

In the previous section on the barriers students faced, various examples of challenges related to financial aid were expressed by participants. It became clear during the interviews that participants experienced situations when they lacked the agency to work the financial aid process independently and turned to individuals who worked at the college or to family members to overcome financial aid barriers. The financial aid challenges presented by the participants fell into three broader categories. They included the participant's concerns with completing their FAFSA accurately, regulatory misunderstandings by the participant, and the participant having difficulty in resolving a financial aid requirement. Lastly, several participants described how they relied on resources, which allayed their concerns related to the successful receipt of financial aid funding. The participant described how the receipt of support with financial aid challenges led to their ability to persist because the financial aid funding provided resources to pay for the cost of college. Without the support, completion of financial aid processes left them feeling powerless and represented a threat to their ability to persist in school.

Concerns with Completing FAFSA Accurately. The participants expressed a desire to ensure they completed the FAFSA accurately, which stemmed from a fear of not receiving financial aid. They often sought assistance from college officials to overcome

the feeling of vulnerability and powerlessness that came with completing their financial aid. The participant Nora stated:

because I live with my father and there are four of us, I know if you put in the wrong amount of people in the house, you might not get funded properly. And I don't want them to take away from my funding because of my mistake because Lord knows I cannot pay for college. So I did [get help from my advisor] that's what I was worrying about just filling it out.

Nora expressed worries over accurately filing out the application because she could not pay for college without financial aid. Another participant Charles commented that “I was able to do like some of it on my own and I still had to go to the school to like you know they verify the information is you know correct.” This participant met with their advisor to ensure they had completed their FAFSA properly. Finally, Farah stated:

I wasn't really quite sure how to answer that or how to properly, you know answer that question accurately, in order for me to receive full you know my full amount of financial aid and then she helped me with it.

These participants recognized the significance of the FAFSA for obtaining funding for college and articulated the importance of seeking assistance to ensure their application was completed accurately. They expressed a vulnerability when it came to receiving financial aid, and a lack of control over the outcome. The direct support they received from college officials contributed to their feelings of agency and confidence, ultimately fostering their persistence.

Regulatory Misunderstanding. The participants experienced difficulties in understanding and working through compliance with various financial aid regulations.

Again, they revealed their powerlessness with the situation, and understood the consequences associated with uncertainty about how to proceed. In the two following examples, college officials were able to provide direct and integrative support and ultimately changed the outcome of the student's ability to enroll in the subsequent semester. Gabrielle described:

he helped me himself. He helped me get going through everything, he did everything for me, and I can never forget him in my life. I thought that I was not eligible for any more financial aid that's why I never went back to college.

I thought that I've used all my financial aid at another institution.

The gravity of the situation for Gabrielle was evident in her expressions "I can never forget him" and "that's why I never went back to college." This participant relied on the direct support to work through the regulations and in the end received funding to assist in paying for school. The support tied directly to her ability to persist. In the next example, the participant also struggled with a difficult regulation. Lemar expressed frustration:

when I was dealing with my unusual enrollment history and was very worried with my enrollment at [the college]. Can I do this semester, and will my financial aid be at stake or can I get into this class without all you know the certain dates, where you can't register and whatnot. [The college official] took her time and you know really helped me out.

In this example, the college official worked through a challenging process to help the participant comply with the financial aid regulation. During the experience, the participant worried about their ability to continue in school. He expressed his "financial aid being at stake." Not only did the college official alleviate his stress, it provided him

the ability to persist. In both cases, the college official supported the participant through the process so that they could enroll.

Difficulty in Resolving Financial Aid Requirement. In the previous examples, the participants recounted experiences with college officials who helped them worked through regulatory misunderstandings so they could enroll in school. In the next instances, the participants had difficulty in working through a financial aid requirement that college officials could not initially resolve with the student. These examples underscored the complexity of the financial aid issue for the participant and highlighted how elusive the process can be. In the end, the participant reached an eventual resolution through their own determination and through integrative support from a college official, contributing toward their ability to persist. The participant Farah described how:

they couldn't locate my FAFSA document and I had submitted it on time, so I had to come back and forth, and I had to ask. I had to call financial aid services themselves and they told me that the issue was coming from the school it wasn't coming from them, so I had to manually provide [the college] with my information for them to locate my documents...so I spoke to financial aid and they said, the issue is not from us, it is definitely from school because we've already sent over the over the confirmation and they should be able to access your documents. So I said okay that's no problem then kind of felt like Okay, so am I being played here like what's happening.

Farah vacillated between working with college officials and Federal Student Aid to resolve her financial aid requirements. Clearly, there was difficulty in figuring out her issue, and ultimately, she received the support and system linkage she needed, but only

after she began to feel negative about the experience. In another instance, Tiana commented on the difficulty she had in resolving a financial aid requirement.

I had a problem logging into my FAFSA so I had to contact and then I had a problem with...like trying to register for certain classes and I didn't realize at first that you know [I couldn't register] because I had all the money...I paid it what they had to release. The hold they had on all my accounts, I had to reach out to them about that. So yeah it was a couple of times, it was like advisors, or something like of that nature were like I can help you.

In this instance, Tiana described a challenging situation with her financial aid, and in the end she received the direct support she needed from college officials to resolve the difficulty she had with a financial aid requirement. Lastly, the participant Lemar commented on “the process of getting financial aid or get to financial aid, whether it be employment or income or immigrant status or whatnot, it does provide a very hard path to get financial aid.” The examples provided by the participants demonstrated the challenges students face in obtaining financial aid. They demonstrated how processes are opaque, arcane, and beyond their control. They demonstrated how multiple parts are involved and financial aid challenges were ongoing and didn't end after their initial enrollment. It was evident that they needed college officials to provide direct and integrative support to resolve outstanding requirements, leading toward their persistence.

Participants Relied on Resources to Allay Financial Aid Concerns. While the participants recounted concerns with receiving financial aid and paying for college, there were examples of participants forming sufficient financial aid knowledge or experience to allay their apprehensions related to paying for college. This was significant because

completing financial aid processes caused stress and left the student feeling like it was beyond their control. The financial aid knowledge stemmed from different sources: a parent who worked in a financial aid office and direct support from college officials. The participant Johanna recounted:

my mother worked for [another institution] where she still works for...the financial aid department, so I had a lot of help... I really didn't think about the cost. Normally I go to my mom who works in financial aid and she usually if she has the answer she like knows.

Johanna gained financial aid knowledge and direct support by having a parent who worked in a financial aid office. This alleviated any stress she may have felt with respect to financial aid funding. In other instances, college officials provided the participants with the necessary support to develop sufficient financial aid knowledge to complete and have confidence in the process to allay the concerns with paying for college. The participant Gabrielle recounted:

I met with the financial aid staff first... Yes, they are very, very helpful over there and they're very helpful and they're professional. I love it that it makes me actually at first, I never thought I could do it, and never thought I could graduate but right now I have more confidence in myself that I can go further.

The experience with financial aid that Gabrielle obtained from the college helped her overcome obstacles associated with obtaining financial aid and having sufficient funding to pay for college and gave her confidence in the ability to continue in school. Another participant Migdalia had a similar experience; she stated:

I was like I don't think my dad's going to have enough money to give me to go to school, so they were like you can still do financial aid. So they just helped me they told me with this you'll be fine you'll be covered for these two years that you'll be here just remember to do your financial aid every year. Okay, and yeah thanks to financial aid, to be honest, is the reason why I can graduate

Migdalia received integrative support from college officials to gain confidence in her financial aid knowledge, which led to helping alleviate her concerns with paying for college. The participant recounted how the receipt of financial aid meant going to school. Another participant Charles demonstrated his financial aid knowledge and commitment to fulfilling the financial aid requirements to receive funding. Charles stated:

You can get like a good amount of money, so you know continue your education so I say to myself oh OK, I need to hurry up you know get it in on-time, you know, like immediately, like no matter how long it takes. You got to get your information, you gotta get these papers, you got to put it in electronically and stuff. It's just like it's a process but it's worth it.

In this instance, the participant had sufficient experience with financial aid gained through working with college officials to understand the process and the knowledge to navigate it to receive funding. In these examples, the participants recalled how the cost represented a real challenge for them. They described ways they overcame stressful situations related to receiving financial aid to pay for college costs, gained confidence in their ability to complete the financial aid process, and objectively worked through the steps to ensure they had funding for college.

Finding Three: Importance of Supportive Networks to Student

The participants reported they had encouragement from family members or had developed relationships with individuals who helped them while in school. The supportive individuals included college officials, family members, and peers. The participants described having multiple individuals who provided broad-based assistance to them when confronted with challenges related to remaining in school. Furthermore, the support systems fulfilled diverse purposes. They may have supported the classroom experience, satisfied an emotional need, or aided with a financial aid process.

College Officials. The participants described experiences with college officials who supported their efforts in college; they were academic advisors, professors and other staff who worked at the college. College officials supported the participants through teaching them about study skills, providing encouragement and motivation, being accessible and approachable, fulfilling emotional needs, and connecting the participants to the academic community. For example, Gabrielle recounted:

everything that I thought was challenging they made it easy for me. Like it isn't, it's not like they're letting me pass, they [help] make me understand. They make me understand how to take exams, how to study, how to take notes yeah so like when the Professor is speaking what to catch, so what to write down yeah they made it they made everything is easy for me.

In this instance, the participant felt supported by the study skills she was being taught so that she could be successful in the classroom.

Other participants described the encouragement they received from college officials, as well as how they felt their emotional needs were supported. One participant Johanna stated:

I was so frustrated in class I started crying because I could not get it and I was so mad at myself, because I could not get it and I knew how to do it. So he was like I just need you to calm down it's alright don't be so hard on yourself, because you will get it, it is like riding a bike and it will come back to you. He was very encouraging, he said it is OK, you know our emotions get the best of all of us. So he was very helpful he never let me kick myself in class.

In this instance, the participant received encouragement and support from her professor; it wasn't simply addressing the academic content of the course but included emotional support. Another participant Janelle described a similar experience. She recounted:

[my] psych professor and she was one of the best professors that I've had. She helped me a lot...it was my first semester out of like out of the country that I'm from. So she was very, very helpful she advised me with a lot outside of school, I mean not outside of school, but like regarding like mental health issues and stuff.

In this example, Janelle described the emotional support she received from her professor, which helped her acclimate to college. Another participant Nora disclosed how she sought emotional support from her advisor. Nora recounted "if I'm feeling really down or I feel like I can't I'm not going to finish the semester strong I usually go to my advisor we sit and she gave me great advice and I feel ready to go again." This participant described how she knew she could go to her advisor to fulfill her emotional needs and to get encouragement.

Other participants described the support they received from professors and advisors for support in a specific class. For example, Hailey indicated:

I was struggling really hard in history, and I mean he was so understanding and compassionate about like what's going on, and he was helping me and he was always available like. He had a phone number that you could just call or text if you had any questions about an assignment or anything like that ... [he] just really just helped me out.

By being approachable and accessible, this participant felt direct support from her professor. She felt that she could be successful. In another instance, Migdalia described her advisor “she was like, I told my parents, ...she's like an angel from heaven.”

Migdalia further explained:

I had this problem with one of my classes from spring last semester, and I called her and she speaks Spanish and, obviously, like I speak Spanish and speaking to her in my native language is something refreshing because I express myself better in some ways. I express myself better in Spanish so whenever I had any problems and stuff like that I always called her or texted her. So she gave me so much good advice, like, I feel like if it wasn't for her I wouldn't have gotten to where I'm at and with the information that I've gotten from her so I felt like she ... really made these two years easy.

In this instance, the participant had a strong connection with her advisor, and felt supported both academically and on a personal level. The integrative and networking support received from a college official was reiterated during other interviews as well. For example, Tyler described how his advisor “was very helpful and knowledgeable and

caring and understanding through my journey.” He went on to recount that “you can go talk to them about life or they will talk to you about scheduling or ... how your classes are going and also you do FAFSA once a year.” It became clear that his advisor provided support to him across many different facets of his academic experience. In another instance, a participant Farah described how she turned to a former professor for help in a class where she struggled.

So I had to reach out to one of my old professors ... and I told him. Okay, so I don't really feel comfortable [with] that professor, but I really have no choice because I gotta to take it, and it was during covid times, it was spring 2020. So it was during that transition, and you know what he told me he said listen ...we're going to get you set up with tutors, best tutors in there for statistics. [He said] you know what you're just gonna have to you know do, do some work with tutors and you got it.

The participant felt encouraged to reach out to their former professor for integrative support, and to figure out how to navigate the transition to online learning and how to obtain assistance in her math class. In the next few examples, the participants described how college officials provided motivation to them and steered them toward being a successful student. In the first instance, the participant Amir commented on the direct support he received from “the main two professors” in his academic program. He explained:

if I have any problem or have anything and they helped me a lot I can say...both of them. Like right now I have three researches with NASA, ..., if I have any problem if I have anything like this is the one who motivates me if I'm nervous, I

won't get the grades I want, she's the person I go and to get the motivation from her... To have that person she talks to us like a person more than like a professor... She would never say to me anything about my dream like Okay, I want to be involved in too many things, again she would say I would help you.

In this instance, the participant had ambitions to excel in his academics and at the same time undertake research opportunities. His description of the support his professors provided illustrated how it motivated him and pushed him to pursue his dreams. The theme of motivation and pushing students to succeed came across with other participants. In the instance with Farah, she recounted a college official "who really, really gives an incentive to students to actually push and keep moving forward and he doesn't just give college advice he gives life advice." Farah continued:

he cares for students, just like we're his peers, we're his you know his I don't know brothers or sisters, sons and daughters, whatever it is, he really connects with us on a professional personal level...it's like a professional slash personal level, which is, which makes it very welcoming environment...people like him really make the College, a very, very much welcoming space.

From this example, the participant disclosed the motivation the college official provided to her, and the sense of belonging she felt within the academic community. Another participant Charles expressed a similar experience.

One of my advisors that was always you know reaching out, looking out for me, make sure I'm on top of everything...she helped me, you know, like become successful student and do like better was like with time management, and all this

other stuff. I'd say in general, I'm trying to find the right word...everybody there you know helps you and everybody wants you wants you to succeed.

In this instance, Charles described how the environment was welcoming and focused on academic success, and at the same time delivered tools to support him as a student. It became evident that the participants shared experiences with not one individual who supported them but instead provided examples of multiple individuals who made up their supportive network of college officials.

Family. The participants described supportive relationships with not only college officials but with family members as well. Family members provided motivational and emotional support, and college knowledge according to the narratives. For example, Gabrielle shared: "when my cousin told me about the Program, and she told me that I can get help in paying the school. If I go to the school, they will give me all the information." In this instance, the participant's cousin motivated her to investigate going back to school. The motivation compelled her to re-enroll in college.

Another participant described how her family members increased her college knowledge and gave her confidence with respect to receipt of financial aid funding. Johanna stated "my mother worked for...[the] financial aid department [at another institution], so I had a lot of help with that...so I wouldn't be walking into something blindly and it helped that my mother worked for financial aid." Johanna recognized the foundation of support provided by her family member, and it provided her with a high degree of confidence with respect to funding her education. Another participant Hailey had a similar experience with her parent. Hailey stated:

my dad he's a high school teacher and I have an older sister who's in college so he's been through the whole process with her. So financial aid, it was like you did your financial aid yet and then, when I'm handling it when I'm doing the questions and stuff you know, sometimes it could get a little complicated so he'll be like right here.

Hailey had confidence in executing the financial aid application because she had the support of a family member.

Peers. The participants described scenarios where their peers in school provided an overall support system for them to remain in school. It was delivered in the fashion of ways to navigate an academic setting, motivational support, and acclimation to a college setting. In some ways, peer support can be invaluable because they may have had a similar experience from which they learned how to manage within an academic setting that can be imparted to their peer. For example, Gabrielle described her thought process on enrolling in college:

with all that is going on in my life, am I gonna have enough time to study, am I gonna make it. And my cousin is going and is in the program I was Okay. And also, I have a friend at work. She said, they offered me a night shift at that time, she said take it that will help you. You can do it.

Gabrielle learned from her peer an effective way to integrate going to school with her work obligations. Another participant Nasir described how his peer was “encouraging me to apply [to a research project].” Nasir recounted:

there is an engineering research project going on in the summer session. I also get to know about that thing like I know it by email, but my friend kind of encouraged me to go there and I feel like it was a good decision.

Nasir was motivated by his peer to participate in a research opportunity. He indicated he was aware of the possibility, but his peer urged him to take part in an academic opportunity that was unfamiliar to him and brought him exposure to new ideas. The participant Amir explained how his peers supported him with his English language skills. Amir described how “all of us are students, right now, who teach me, now all of them are my friends...like my close friends from when I started from the beginning of English...it is better than before so yeah they helped me a lot.” Amir explained how his peers in the classroom, who have become his close friends, supported and helped him to learn English. The participants described effective ways that peer support systems played a role in an academic setting, from encouragement to motivation to integration into an academic setting.

Finding Four: Belonging Led to Student Confidence in Academic Setting

The participants described being scared of going to college, feeling uncertain about school, and unsure if they could be successful. Addressing the concerns associated with these feelings appears to make a difference for the participants. One participant Sebastian shared his observations on the persistence of his classmates with the statement “making sure students know that they have that system around them is probably the biggest challenge of helping support them.” The comment made by Sebastian was remarkably prescient in the context of the experiences illustrated by the participants. Examples of direct support from a professor, system linkage and networking assistance

from an advisor and connecting the participants to resources led to their increased confidence and feelings of belonging in an academic community.

Support from Professor. The participants shared experiences where they felt their professors had supported them in their academic endeavors. Gabrielle explained how she reached out to her professor before an exam that she felt unprepared for and “I told her that if I can sit with her for a couple hours, I need help on just what to study for the exam and she sat with me and she yes.” In this instance, the professor provided assistance, the resources, as well as the space to become comfortable with taking the exam. Another participant Johanna described:

she was very encouraging too and I learned a lot. That was my first time doing architecture and I learned a lot in her class. But I also learned that I don't like math with architecture and the regular math classes, but she still was all encouraging the students [she was] very encouraging like I never felt out of place look, I was always the oldest person in the class.

For this participant, she had thought she would feel out place because of her absence from school and perhaps from the disparity in ages between her and her classmates. However, Johanna felt encouragement and made her feel like she belonged from her professor in a subject matter that she expressed was difficult. For Hailey, she described how approachable her professor was regarding questions about class. She explained:

he's really understanding about everything that when I emailed him about, if I can't hand in the assignment on time or if I didn't understand the assignment or a certain question on the assignment, he was really just yeah helpful.

Having a responsive professor, one who encourages and takes the time to provide assistance and resources made the participants feel connected to their classes. For instance, Hailey described an experience with a professor who “really helped me...taking that extra step...having meetings and telling you like hey your test score right here wasn't where it should be, you know let's find the root of the problem.” The participants illustrated how they connected to their classroom experience through the supportive actions of their professor.

Professional Advisor Assistance. The participants described how professional advisors, a subset of college officials who represented one category of individuals who worked at the college, made them feel supported and connected to the academic setting. Experiences shared by the participants highlighted the willingness of professional advisors to be available to them, demonstrated their empathy, and the individual assistance they provided. For instance, Janelle commented that “whenever we need help, we know his schedule and we can always pop into the meeting and ask for help, or anything.” With the participant Nasir, he remarked on the support he received with financial aid processes allowed him to focus on his academic studies; “my advisor mentor every month, so he actually kind of take care about the economic processes and all of the things so yeah the whole journey was kind of easy for me.”

Another participant Migdalia described how “[my advisor] did help me with a lot of my classes, she gave me like advice of what teachers do or who the teachers are and like to give you like a head start of what the classes are going to be.” The advisor delivered college information to the participant, this allowed the participant to develop a feeling of preparedness for the classes. Migdalia later recounted:

[the advisor] really helped me out a lot with all of us, so I feel like it did expand expand towards the end...but they can also be your friend inside and outside ... of the classroom and they can help you out with everything. So I feel like they they were very reachable they they were very and they understood you know they understood what we were going through.

The empathy the participant felt from her experience with her advisors was evident in this instance. Additionally, the advisor provided resources to the participant, which linked the participant to her college experience.

Emotional Support. The participants disclosed they received emotional support from college officials, which grounded them in their college experience. It also gave the participants a sense of belonging to the academic community. The participants shared how they would reach out when they were feeling down, were looking for motivation, and needed a welcoming environment. One participant, Nora, recounted:

if I'm feeling really down or I feel like I can't I'm not going to finish the semester strong I usually go to my advisor. We sit and she gave me great advice and I feel ready to go again... So I was working a lot and I was just falling behind and at some point, I really didn't want to finish the semester, because I thought it was too much on me. And you know I just sat down, I talked to her that's why I call her sometimes and then we talked about it, it that just really helps.

Nora developed a relationship with her advisor. The knowledge that she was readily available and the support provided to her by the advisor helped the participant overcome her doubts about staying in school and led to her feeling motivated again. The student knew she could rely on her advisor for emotional support. In another instance, the

participant Amir described who he seeks support from when he needs it. He described how “if I have any problem if I have anything like this is the one who motivates me if I’m nervous I won’t get the grades I want, she’s the person I go and to get the motivation from her.” Amir recounted that he relied on his professor for emotional support when he needed encouragement or was worried about his grades. Another participant, Farah, described the support she received from a college official:

I believe, like he was one of the people that kind of helped me push myself, especially like at the end, the last semester I had with UCC...It was my most difficult semesters, I had 18 credits five classes of which that was English sorry English and one of which was Arabic but yeah like most English classes, I have to you know essays upon essays. I was just not having it, I was hit with writer's block for a good amount of time. Oh yeah oh my God it was terrible. But he really helped inspire me like [he said] ‘Okay, whatever, get it done I don't care how just get it done.

Farah jokingly quoted the delivery of the college official’s message, but it was clear from the recounting that the individual provided emotional support when the participant needed it. Through the creation of a welcoming environment and by providing support, the college official formed a sense of belonging for the participant.

Gained Confidence in Academic Setting through Connection with College Official. In the previous scenarios, the participants shared experiences that clearly demonstrated how their professors and advisors connected them to the academic community and provided emotional support, which grounded them within the college environment. In the next few illustrations, the participants attributed their experiences

with college officials to their increased confidence in an academic setting. In the first scenario described by Charles he compared his high school experience to his college one.

He recounted:

back in high school days, they used to talk to us about college this or college that, college is hard, and you can't do this, and you can't do that blah blah blah and when I actually go over there as a matter of fact, it's funny because, like I'm doing better in college than what I was doing in high school.

Upon reflecting on high school and college, Charles noted the difference in the experiences. He went on to explain how he viewed his college "journey:"

you know I'm fresh out of high school and I'm a little you know, I'm trying to find the word, I was a little perplexed about what was going on. I was just wanting to see you know to figure everything out, but I just said to myself I'll listen to what this person has to say and yeah hopefully it will benefit me, which you know, like it did, but I'll listen to what this person has to say and then tried to you know have like a smooth you know ride across this journey we call college, because you know it can be like a big step, you know, in somebody's life. So once I just did that I kept you know going to the advising, listening to other programs and such and now here I am talking to you about this story and it's just like I don't know how to describe it. Yeah, it's really something it's really crazy.

For this participant, he described the early connection he made with college and his advisor; and he noted his initial skepticism. He also commented on the significance to him of starting in college, and the positive connection he made to his academic experience through his advisor along the way. Then, in the end, he recognized his accomplishment

and that it was remarkable to him. Another participant Gabrielle remarked after completing her academic program “because of what they said, staff and professors, I love the program. What they did, they helped me, and made me feel like I can go further.” In this scenario, Gabrielle attributed her confidence in the academic setting to the staff and professors who supported her. Another participant, Migdalia, ascribed the support she received from her professor and her advisor to feelings of belonging and confidence in being in an academic community. Migdalia stated:

my other teacher she really helped me because I was really doing very badly in one of my classes this semester, and she talked to me, she was like talk to your Professor. You know we're always here to help you with anything ... I feel like both of them have been the person that actually helped me out through these tough times actually.

The participants’ descriptions of their experiences with college officials demonstrated how the support they received aided them through a challenging situation and helped them develop confidence in their academic experience.

Finding Five: Students Built Trusting Relationships with College Officials

In some instances, the participants explained how not only did they have supportive networks within the college, but they recounted how the relationship grew into one built on trust. They initially received support from a college official, one where the college official served as a cultural guide or a coordinator of services. Through this support, they developed a bond with an individual at the college who they knew they could trust.

Support Built Trust. The participants discussed various ways that they developed trust in college officials. The descriptions showed that it stemmed from the support they received, the accessibility and willingness to listen, and the value of the college information they shared. For example, the participant Tyler recounted:

I mean some of the things I could have asked for help, I knew what I was doing, but I just wanted double clarification on how to get it done... since my first semester, I always asked, well, I asked for help with any question I always ask. And then based on a response they give me I was like I'll just double check with my advisor to make sure.

For Tyler, he knew that he could go to his advisor for help, and even when he it was only to verify an answer he felt the support was readily available. For another participant Charles, he expressed the advantage in the support he received from his advisor. He indicated “I’d say when I first came to the college, she was talking to me about the EOF program and all these other programs...I just said to myself I’ll listen to what this person has to say and yeah hopefully it will benefit me, which you know, like it did.” Initially, Charles was skeptical of the information his advisor shared with him; however, over time he learned to trust in his advisor and he acknowledged the value for him.

Trustworthy Information. By providing accurate and timely guidance to the participants, college officials were seen as trustworthy sources of information. Additionally, the participants described experiences with advisors, staff and high ranking administrators who were accessible and they felt wanted to assist them. The participant Gabrielle commented that the “staff worked hard for anything I needed. Okay, [they were] patient, they were very reliable.” There is consistency in the participants recounting

of college officials who were accessible and provided trustworthy information. Another participant Tyler described his experiences:

When applying to that I went to [my advisor] right away because I didn't know what I was doing, and he helped me through it, and now I have a better understanding. So I know I asked him to ask him for help, but I bet I pretty much know how to do it, but I just want his clarification because I don't want anything to happen with that, but yeah I'll ask him for help.

The participant sought information from his advisor, and understood that it would be reliable and accurate. Tyler noted that there may have been redundancy in seeking information from his advisor, but this further demonstrated the confidence the student had in the relationship with their advisor based on the trustworthiness of that individual.

Another participant Sebastian recounted:

my advisor was very helpful and the professors...I think all those factors kind of culminated into me being pretty well aware of the opportunities around me at the school... [if] it's a problem I foresaw and I'm glad I was able to get it out of the way thanks to her help you know as such a higher-ranking administrator in the College. It makes me comfortable to know like I was able to email her and she answered and helped me.

In this instance, the advisor served as a bridging agent for the student, connecting them to a resource at the college. The experiences described by the participants demonstrated the trust they had in college officials, which developed from receiving reliable and accurate information and being accessible to them.

Finding Six: Students Developed Skill to Self-Advocate

Self-Advocacy. The participants described experiences with college officials that led to their ability to self-advocate in an academic setting. From the descriptions, the participants narrated a pathway toward learning how to self-advocate. The participants began with obtaining assistance from a college official, and this led toward becoming more autonomous and independent in a college setting. For example, the participant Hailey recounted how her professor “really helped me with taking that extra step [early] on. You know, having meetings and telling you like hey your test score right here wasn't on where it should be, you know let's find the root of the problem.” Hailey associated this experience with learning how to navigate in the classroom. Another participant Gabrielle described how “when I started out I get information from the staff at school anything but I know that when I understood everything, I didn't really go to the school for help.” In this experience, Gabrielle recalled how the staff assisted her when she needed help, and over time she gained knowledge to become more autonomous in the college environment.

Another participant Migdalia described how “[her advisor], like put her own experience to helping me understand how important financial aid would be in it's actually going to be in the future.” In this instance, the participant gained an understanding of the significance of financial aid from the experience of her advisor. Migdalia was able to use this information and visualize for herself how to apply it to her own experience. In the experience of Tyler, he talked about how he learned from his advisor that he needed to advocate for himself. Tyler recounted:

When applying to that I went ... right away because I didn't know what I was doing, and he helped me through it, and now I have a better understanding. So I

know we asked him to ask him for help, but I bet I pretty much know how to do it...I learned cause, you have to speak up or like somebody's not likely to speak up or say something, but like you always you just present yourself on the matter you'll be fine.

Tyler described the process for him to get to the point where he grasped the importance of self-advocacy in a college setting. It started with his advisor who helped him gain an understanding and resulted with him recognizing his ability to speak up for himself.

Another participant Nora talked about how her advisor had her practice activities, such as interviewing, to help prepare her for life after college. Nora recounted:

I feel like it's helping us with the real world, because when we get a real job there's like multiple interview processes, sometimes it's like two or three. So I feel like they have to feel that kind of pressure just for them to get us used to it, even though it made me nervous I wouldn't want to change it.

Even though it made her feel uncomfortable, Nora recognized the importance of practicing interview skills and how her advisor was preparing her for life after college.

Self-Investment. From the participants' experiences, self-investment was introduced as a concept related to identifying their current and future needs. The participants connected the term of investing in oneself now to lead toward greater things for them in the future. For Nasir he weighed working more hours and having more income against having sufficient time to focus on his schoolwork. He recounted:

I actually find out that when I came here like if I do my job, like the minimum wage job like it doesn't help me to focus on my study and like and it doesn't pay me well at all. I started to look by myself for a lot of private scholarships, along

with available one in the College. ... I did I find out that it is better to look out for that kind of opportunity than doing a minimum wage job. ... So I try to save my most and give myself like if I, if I have the money to survive, then I don't have to do the work. And if I don't do the work I can focus on my studies so I'm actually trying to save the extra money all of the money I get from the financial aid.

Nasir expressed the importance of focusing on his studies over working more hours because he was investing in his future self. Another participant Amir described a similar approach to his education. Amir described:

the money, it's like just invest and make a student loan or like financial aid will kind of cover some just invest. At the end, I would be engineer at the end that would be a degree to pay for it... Okay, so, to be honest with you like everything, the first thing we have to think is about the money, how are you gonna pay for this... I have to work because I have to pay bills or be forever saying I'm responsible for myself...I have also to pay for my school. At that point I'm not sure like if there is like as if I didn't know that like financial aid or if there is no financial aid, I will not be the success like that because I have to work more to not think about the grade A no just pass this point like actually.

For Amir, he associated the ability to receive financial aid as a way for him to work less and focus on his studies. He envisioned himself as an engineer in the future, and to get there he needed to invest in himself. In more abstract terms than Nasir or Amir, the participant Johanna related:

getting an education is the most valuable thing to you. And can nobody take your knowledge away from you, so it is what it is, and if you want to get ahead in life,

you need knowledge, so I can't put a price tag on it is what it is, and I just figure out the price later.

Johanna recognized the importance of getting her degree and investing in herself. The participants' descriptions of self-investment connected to forming the skills to self-advocate. Through conveying one's goals, the participant articulated the decisions they made to achieve those goals and ultimately advance themselves.

Through the experiences expressed by the participants, I identified six key findings. The first finding, *Finding One: Students described lack of agency to overcome barriers*, revealed the obstacles and barriers students face in college. While there were a multitude of factors that impacted the student experience, financial aid processes were clearly the most significant. They inflicted an emotional toll on the participants, and produced feelings of vulnerability, powerlessness and left them feeling a lack of control in a given situation. *Finding Two: Support with Financial Aid Led to Ability to Persist*, *Finding Three: Importance of Supportive Networks to Student*, and *Finding Four: Feeling of Belonging Increased Student Confidence in Academic Experience* demonstrated how support and encouragement helped the participants overcome the obstacles and barriers they experienced, and gave them the tools to be successful and persist. *Finding Five: Students Built Trusting Relationships with College Officials* explained how students built trusting relationships and gained knowledge of academic community through the interactions. Lastly, *Finding Six: Students Developed Skill to Self-Advocate* revealed how the receipt of support allowed the participants to gain confidence, self-sufficiency and feelings of agency.

In chapter five, I will present my findings in relation to my research questions and include a discussion of the meta-inferences gleaned from the study. I will also connect the findings to the reviewed literature and my theoretical framework. Lastly, recommendations will be presented for policy, practice and research based on the themes and conclusions drawn from study.

Chapter 5

Conclusion

The purpose of this study was to identify factors relevant to Pell grant recipients' persistence in a community college setting and to understand the influence of institutional actors on the formation of academic capital during the student's enrollment in college. Through a sequential explanatory method design, I first used a survey to measure the six social processes associated with the formation of students' academic capital: concerns about costs, development of networks, navigation of college systems, trustworthy and accurate information, access to college knowledge, and family uplift (St. John et al., 2011; Winkler & Sriram, 2015). I administered the survey to students who were enrolled in at least their third semester. Survey participants participated in a semi-structured interview for the qualitative phase of my study, whereby, I sought to understand the influence of institutional actors and the role they play in support of students' development of academic capital as established by the theory on the social capital framework for the study of institutional agents (Stanton-Salazar, 1997; Stanton-Salazar, 2011). My research questions, as illustrated below, guided the quantitative and qualitative phases of the study.

1. What is the extent of academic capital formation among students who have completed at least two semesters of enrollment?
2. How do institutional actors influence the formation of academic capital in Pell recipients who persist in school?
3. How do Pell recipients explain the roles institutional actors engage in that are relevant to their persistence?

4. What resources do institutional actors deliver that Pell recipients describe as influential to their persistence?
5. What results emerge from using quantitative data on the formation of academic capital in Pell grant recipients that provoke qualitative interview data on the influence of institutional actors?

This chapter presented the findings in relation to the study's research questions and to the reviewed literature, and the extent to which the findings align with the theoretical framework. Next, I elaborated on meta-inferences revealed through analysis of the data. Then, I discussed limitations to the study and the implications of my findings on policy, practice and research. I included a recommendation for an approach for practitioners to consider in support of Pell recipients' persistence and provided suggestions for future research on Pell recipients in community colleges, in support of addressing the disparity in graduation rates between Pell and non-Pell recipients.

Academic Capital Formation

The first research question I sought to answer pertained to the formation of academic capital: What was the extent of academic capital formation among students who have completed at least two semesters of enrollment? The survey data suggested that participants exhibited academic capital that was largely well developed across the different components. The participants' responses demonstrated their capacity to navigate college systems; the presence of supportive networks; having sources of trustworthy information; the ability to overcome barriers; and envisioning themselves in college or college knowledge. The evidence of well-developed academic capital was relevant because it was present in students who persisted in school. However, the responses to

concerns about cost, an important component of academic capital, showed inconsistency and a wide variation in responses. This was noteworthy because the data showed that the formation of academic capital amongst the participants did not extend to the aspect surrounding financial matters. While the participants demonstrated the development of social and cultural capital in an academic setting, their capital formation did not extend to human capital as well.

The component, concerns about costs, pertained to an individual's knowledge and experience, and the value it holds for that person; in other words, it related to an individuals' human capital (Becker, 1993). Human capital, in association with the concept of academic capital, captured the financial aspect of college access and the public investment in financial aid programs (Becker, 1993; St. John et al., 2011). While this explanation represented a more comprehensive perspective of human capital than Becker's (1993) original conceptualization, for the purposes of this study human capital pertained to the financial aspect of college access (Winkler & Sriram, 2015). For Pell recipients, the financial aspect or the meaning of college costs represented a concern of primary importance. Research has shown that the concept of college costs and the ability to pay can impact enrollment in college (St. John et al., 2011; Winkler & Sriram, 2015). While knowledge and experience with educational systems developed, the presence of concerns about costs did not dissipate, resulting in a concern that permeated the experience (St. John et al., 2011). For Pell recipients, financial aid was intended to remove cost as a barrier to college (Mumper et al., 2011); however, the results of the survey suggested that concerns about costs remained, and students experienced many types of barriers in which they lacked agency and the barrier inflicted an emotional toll

on the student. Further exploration of the participants' concerns about costs occurred during the qualitative phase and were evident in the findings related to overcoming barriers, support with financial aid and the importance of supportive networks to students.

Influence of Institutional Actors on Persistence

The second research question I investigated related to the influence of institutional actors: How do institutional actors influence the formation of academic capital in Pell recipients who persist in school? Through the examination of the formation of academic capital and the integration of the social capital framework for the study of institutional agents, I explored the behaviors and social constructs associated with Pell recipients' navigation of systems, the development of social networks, and the establishment of trust and college knowledge (St. John et al., 2011; Stanton-Salazar, 1997; Stanton-Salazar, 2011).

The findings demonstrated how institutional actors created system linkages and provided networking support. Through the findings, it became clear how the college officials, or institutional actors, mobilized their resources in purposive action to support students, thereby establishing the college officials as institutional agents (Stanton-Salazar, 1997; Stanton-Salazar, 2011). The distinction highlighted here reflects the individual's commitment and ability to provide institutional opportunities and resources, shifting the college official from an institutional actor to an institutional agent (Stanton-Salazar, 1997; Stanton-Salazar, 2011). The participants outlined how college officials supported them through challenging situations and by connecting them to the academic community. In many instances, there were examples of multiple individuals who made up the participants' supportive network and created system linkages to steer them toward

being a successful student. Through the supportive networks, the participants gained valuable assistance, which in turn generated the formation of academic capital for the participants (St. John et al., 2011).

The participants described examples of how institutional agents supported their ability to navigate the financial aid process. In the financial aid areas of completing their FAFSA accurately, navigating a regulatory misunderstanding, providing assistance to resolve a difficult financial aid requirement, the participants gained access to knowledge and skills that gave them direct and integrative support to successfully work through college systems; they relied on social capital to influence their college experience (Bourdieu, 1988; Coleman, 1988; Lin, 1999; Lin, 2000). Furthermore, the participants recounted how the key institutional support allowed them to form knowledge and gain experience with the financial aid processes that resulted in increased confidence and alleviation of their concerns about costs, demonstrating the development of cultural capital (Bourdieu, 1988; St. John et al., 2011). In this way, institutional agents supported the development of academic capital in Pell recipients. Institutional agents in a college setting have access to knowledge and skills and use such traits to provide support to students in navigating the academic environment. Research has shown that students were able to achieve meaningful goals through the support of institutional agents by obtaining access to resources that are not their own (Lin, 1999; Stanton-Salazar, 2011).

Obtaining this support was significant because research has shown that lack of information regarding financial aid led to the inability to complete the financial aid process (Bettinger, 2012). The findings demonstrated that Pell recipients in the study received direct support, integrative support, system linkage, and networking support from

institutional agents, referenced as college officials during data analysis in the previous chapter (Stanton-Salazar, 1997; Stanton-Salazar, 2011).

Explanation of Roles Institutional Actors Engage in Relevant to Persistence

The third research question I explored related to the roles institutional actors partake in as explained by the participants: How do Pell recipients explain the roles institutional actors engage in that are relevant to their persistence? The findings suggested that institutional actors function as institutional agents, playing three roles related to student persistence: first, advisor; second, networking coach; third, cultural guide (Stanton-Salazar, 1997; Stanton-Salazar, 2011). As I discussed below, these roles are consistent with the importance of social capital development among Pell recipients.

A primary role fulfilled by college officials was that of an advisor, in a general sense, to the participant, a critical role inherent to the theory of social capital framework for the study of institutional agents (Stanton-Salazar, 1997; Stanton-Salazar, 2011). The findings demonstrated several instances of a college official who helped the participant gather information and assess the situation, leading to the development of possible solutions in collaborative manner with the participant. By serving in this role, the college official fostered effective decision making for the participant, thereby, creating an opportunity to develop academic capital. Directly related to the role of advisor, the participants frequently presented instances where college officials served as advocates for them showing how the college official protected the participants' best interests. Furthermore, the participants described how college officials were both accessible and approachable as they sought support, which gave them a sense of caring and understanding.

Another role served by college officials, as highlighted in the findings, was that of a networking coach (Stanton-Salazar, 1997; Stanton-Salazar, 2011). The participants described instances of their advisor or their professor teaching them how to network with key institutional agents and how to develop relationships with influential people on campus. The participants recounted how advisors walked them through how to approach a professor when confronted with a challenging situation in a specific class. The college official provided integrative support by coordinating the participation in networks and their assimilation into the community, leading to the participants' development of academic capital (St. John et al., 2011; Stanton-Salazar, 1997; Stanton-Salazar, 2011).

Another role filled by college officials was that of a cultural guide, as such they shepherded the participants through various college systems and taught them how to interact with college officials within the academic community (Stanton-Salazar, 1997; Stanton-Salazar, 2011). By serving in the role of cultural guide, the institutional agent influences the formation of cultural capital. It connects to the student's ability to envision themselves in a college environment and to gain an awareness of operating in a college setting (St. John et al., 2011). The descriptions of the participants demonstrated how college officials created a sense of belonging for them. While the participants recognized their early uncertainties about being successful college students, they repeatedly highlighted instances of college officials guiding them through various challenging situations they were confronted with during their college experience. College officials also served as bridging agents where they connected students to other institutional agents who could assist them in navigating a situation.

Lastly, the participants described instances when college officials coordinated support with overcoming an obstacle. There were examples of college officials who determined the needs of the participant, provided necessary resources, and ensured the participant used the resources to work through a given situation; thereby, the institutional agent relied on their capital and skills to serve as a coordinator (Stanton-Salazar, 1997; Stanton-Salazar, 2011). By fulfilling various roles for the participants, the college officials created an environment for students where they felt like they belonged, and they could be successful. The support and encouragement provided the participants with a feeling of preparedness and the ability to navigate college systems and overcome barriers. This was corroborated by research that demonstrated a student's academic integration and success were related to support provided by a trusted individual at the college (St. John et al., 2011).

These roles fulfilled by college officials were representative of the concepts associated with the social capital framework for the study of institutional agents. They demonstrated how manifestations of the actions taken by institutional agents included serving as an advisor and an advocate, being a networking coach and providing integrative support, functioning as a cultural guide and a bridging agent, and serving as a coordinator and an institutional broker for the participant (Stanton-Salazar, 1997; Stanton-Salazar, 2011). The participants developed instrumental relationships with college officials, or institutional agents, who provided key forms of institutional support (Stanton-Salazar, 1997; Stanton-Salazar, 2011). Research has demonstrated that when community college students built social ties within an institution, they were able to

overcome barriers and work through problems leading to their persistence in school (Martin et al., 2014).

Influential Resources Delivered by Institutional Actors

The fourth research question I investigated considered the resources provided by institutional actors: What resources do institutional actors deliver that Pell recipients describe as influential to their persistence? The participants described many instances of college officials providing resources, such as college knowledge, emotional support and encouragement, in support of their college experience. The examples provided by the participants illustrated how institutional agents delivered resources that led to the development of their academic capital. The participants gained access to resources embedded in the social structure of the college environment by developing social networks and instrumental relationships with college officials (Coleman, 1988).

The participants outlined several instances when college officials provided resources to support completing a financial process. There were also many examples of how college officials delivered resources to support the participant with their academics. In fact, the participants highlighted how support from college officials permitted students to focus on their academic studies rather than how to obtain the resources to navigate a college system. There were several instances where the participants described how the resources of emotional support and encouragement provided the support they needed to persist in school.

Another type of resource documented by the participants related to accurate and trustworthy information obtained from college officials. The participants cited several instances of receiving trustworthy information from college officials who know the

system and have access to knowledge that was pertinent to navigating systems (Stanton-Salazar, 1997; Stanton-Salazar, 2011). The participants illustrated how the information was not only valuable to them, but it was also accurate. The participants described how they trusted the information given by college officials, and this led to the development of trust between the participant and the college official.

The participants cited various examples of how institutional agents provided influential resources in support of their persistence in school. An essential aspect of the theory of social capital framework for the study of institutional agents, the mobilization of resources in purposive action for students, surfaced through the findings (Stanton-Salazar, 1997; Stanton-Salazar, 2011). The college officials demonstrated a willingness to listen to the participants and to deliver valuable resources, leading to their development of academic capital (St. John et al., 2011; Stanton-Salazar, 1997; Stanton-Salazar, 2011).

Meta-Inferences Related to the Identification of Factors Pertinent to Persistence

The fifth research question I sought to answer pertained to an overarching explanation shaped from the integration of the findings from the quantitative and qualitative phases: What results emerge from using quantitative data on the formation of academic capital in Pell grant recipients that provoke qualitative interview data on the influence of institutional actors? The data imparted three meta-inferences related to the identification of factors pertinent to the persistence of Pell recipients. First, it was evident that financial aid processes created real, ongoing, and existential barriers to the participants. In theory, the formation of human capital as a part of academic capital relied on the ability to overcome concerns about costs as a social process for the student. There were a variety of factors related to the investment in a college education that created a

complex social process, which became evident in this meta-inference. Second, the participants described the significance of the emotional toll caused by challenging situations. Lastly, the data revealed how the participants developed academic capital leading to their self-advocacy in a college setting.

From the quantitative data, it was evident that the component related to concerns about costs necessitated further exploration during the qualitative phase. As such, I explored the concept of concerns about costs with the participants to garner qualitative data. The participants described how the barriers caused by the financial aid processes created an existential threat to their ability to persist, such that they felt that if they were unable to overcome the barriers, they would not be able to remain in school. The barriers were ongoing and stressful, and the processes were opaque, arcane and beyond their control. They created feelings of powerlessness and deprived the participants of a sense of agency over the process. It became clear from the data that there were complexities related to overcoming concerns about costs as a social process that stagnated the development of human capital despite the evidence of the formation of cultural and social capital. Furthermore, the uncertainty associated with having to submit supplemental documentation and fulfill additional requirements created a sense that they were ineligible for financial aid (Schudde & Scott-Clayton, 2013). Research has shown that for many students there was a lack of understanding of financial aid policies, and the various mechanisms of financial aid were nontransparent and enigmatic (Goldrick-Rab, 2016; Schudde & Scott-Clayton, 2016).

Research has shown that as students faced obstacles related to financial aid, it was likely to lead to less trust in the system, resulting in a hindrance to persistence (Goldrick-

Rab, 2016). Furthermore, studies have demonstrated how concerns about costs have inhibited preparation for college; conversely, affirmations of financial aid have supported navigating college processes (McKinney & Roberts, 2012; St. John et al., 2011).

The survey outcomes displayed an inconsistency in responses and in reliability related to the development of human capital; however, the data garnered through the qualitative phase demonstrated how support from institutional agents led to the ability to overcome concerns about costs. Through the development of instrumental relationships with institutional agents, the participants had access to resources mobilized in purposive action to support them (Lin, 1999; Stanton-Salazar, 1997; Stanton-Salazar, 2011). It was evident that the participants relied on social capital to address human capital agency, delivering power and control over the financial aid processes (Bourdieu, 1988; Coleman, 1988; Lin 1999; Lin, 2000). Fulfilled by college officials who served in various roles, such as an advisor, an advocate, a cultural guide, a bridging agent, or a coordinator, the participants received the resources and knowledge to persist.

During the quantitative phase, the data pointed toward variation in the concepts of having encouragement from others and having the emotional support to get through college. As a result, this led to the investigation of encouragement and emotional support during the qualitative phase. The participants described various instances when a stressful experience in college took an emotional toll on them. Through encouragement from college officials, the participants did not feel out of place and were able to mobilize resources to their benefit (Lin, 2000; St. John et al., 2011). They further described how the emotional support they received to get through college grounded them in the community. It gave them a sense of belonging and increased their confidence in an

academic setting. The social networks that the participants developed provided access to expanded resources that were accessible through the relationships with college officials (Lin, 1999; Stanton-Salazar, 2011). The relationships started with the receipt of support from a college official, and through the support they developed a bond that grew into trust. The encouragement and the emotional support provided by college officials during challenging situations developed their confidence and made them feel as though they could persist; it re-centered them during a particularly stressful time. The correlation established between the social capital formed by participants and overcoming barriers corroborated the link between support from college officials and the ability to persist despite challenging situations.

Lastly, the data revealed how the participants demonstrated well-developed academic capital with respect to their capacity to navigate college systems, having supportive networks and sources of trustworthy information, overcoming barriers; and envisioning themselves in college. The strength of their capital led to their ability to self-advocate in a college setting. Despite an unawareness of the level of academic capital the participants started with upon enrollment, it was clear the participants had become more autonomous over time in a college setting. Obtaining assistance from an institutional agent steered participants toward the formation of academic capital, where they received trustworthy information and gained college knowledge and understanding, leading to increased independence. Support from institutional agents led to the participants becoming effective at engaging in a college environment as well as employing more control over their experience (Stanton-Salazar, 1997; Stanton-Salazar, 2011). They were able to use the information and resources from college officials and apply it to their own

experience (St. John et al., 2011). This resulted in the demonstration by the participants of their own self-advocacy.

The participants further described that by investing in themselves now, it would lead to greater things in their future; they described it as investing in their future self. They accomplished this self-actualization by articulating their goals, making decisions to achieve their goals, and ultimately advancing themselves. Through the influence of institutional agents, they were able to develop sufficient academic capital, leading to their self-advocacy (Stanton-Salazar, 1997; Stanton-Salazar, 2011).

My research confirmed the existing theories on academic capital formation and the social capital framework for the study of institutional agents with caveats carved from the findings of this study. I substantiated the importance of the development of social and cultural capital of the theory on academic capital formation; however, I was unable to corroborate the formation of human capital. In fact, there was evidence of financial aid processes creating real, ongoing, and existential barriers for participants. Furthermore, challenging financial aid situations created an emotional toll that weighed on the students' experience. The research demonstrated how the participants relied on their social and cultural capital to compensate for their inability to overcome barriers related to human capital.

Through my research, I identified a new role served by the institutional agent within the social capital framework, and in that role they functioned as a cheerleader. My findings highlighted the importance of institutional agents providing encouragement and emotional support, generating the participants' feelings of belonging and confidence in an academic setting. The role of cheerleader was distinct from the advocate in that the

actions of the institutional agent manifested through reassurance, encouragement and emotional support rather than through protection of the students' interests. Furthermore, my research deviated from the theory in that it did not corroborate that the institutional agents operated from positions of power within the institution, as suggested by the theory on social capital framework for the study of institutional agents. My findings demonstrated that the participants sought and received support with resources and opportunities from multiple individuals at the institution, and the institutional agents weren't necessarily in positions of power. However, the institutional agents had knowledge of the academic environment and mobilized resources either through their own action or by connecting the student to appropriate services.

Limitations

This study explored factors related to persistence in community college students who were in at least their third semester of enrollment. While there was sufficient evidence to make inferences from the data, there were limitations to my study related to the setting, the population, the sampling methods used, and the reliability of the academic capital scale. The study took place in a medium-sized institution with a high percentage of Pell recipients and because of the specific setting, the context may lead to narrowly defined results. Based on ecological considerations, the inferences and recommendations for policy and practice may not be transferable to other settings (Teddlie & Tashakkori, 2009).

For the study, I deliberately researched students who were enrolled in at least their third semester in college. The intent was to capture students who had completed the financial aid processes at least twice. Therefore, the results of this study may not be

transferable to students who were enrolled for a shorter length of time (Teddlie & Tashakkori, 2009). The group of participants did not benefit from temporary changes to the verification process; thus, any easing of the completing their financial aid related to this component of the complex process would not have been evident in the data collected. Furthermore, the results may not be transferable to students at other types of institutions. For my sampling strategy, I used a nested mixed methods sampling strategy (Onwuegbuzie & Collins, 2007). From this subset, I targeted students with a high degree of academic capital formed for the qualitative phase of the study, intending to produce rich experiences with regard to social, cultural and human capital. Because I selected the participants purposively, the inferences applied to the population within the study and may not be transferable to other groups (Teddlie & Tashakkori, 2009). Unique characteristics of the participants became evident during the qualitative phase, as the narrative included rich descriptions of themselves. Participants defined themselves with characteristics such as being first generation college students, recent immigrants, single parents, working while going to school, and enrollment in cohort programs like EOF and Honors. While these attributes were important to their college experience, they were not central to answering my research questions and thus my study. However, I included in the implications a potential area of research would be an exploration of these unique characteristics associated with being a community college student.

Implications

Based on the findings of this study, there were implications for policy, practice and research.

Policy

This study highlighted the challenges students faced in receiving financial aid. The findings demonstrated complexities with the process that were not limited to the application but extend to various regulations that students must contend with at different stages of their enrollment. As a result, there were implications for federal, state and institutional policy.

Federal Policy. From a federal policy perspective, the study demonstrated how the federal financial aid process accentuated challenges associated with receiving funding for school rather than ameliorating them. The findings highlighted the students' vulnerability regarding their financial aid, depriving them of a sense of agency over the process. The sense of powerless pertained to various aspects of financial aid, including the application process, the requests for documentation, and the ongoing regulations related to the continuation of financial aid. Federal policy could impact these areas in a few ways. First, simplification of the FAFSA could address the application process, and the DOE has taken steps to implement the FAFSA Simplification Act (DOE, 2021). The recommended modifications to the application and to the process represent progress for students and families by removing questions related to selective service and drug convictions; however, it retains complex steps to complete. For example, students and families can use the process to import their tax information from the Internal Revenue Service only if their current address and tax return filing address are the same. Two to three years separate these addresses and frequently students are shut out from using tax import process because of this required match. Through federal policy, it is important to

address this type of application barrier and other similar ones that commonly confront FAFSA applicants (Finaid, 2021).

Second, temporary changes to the federal verification process were implemented in July 2021, which provided relief to students in completing one component of their financial aid processes (DOE, 2021). These changes were an effort to address inequities brought about by the COVID-19 pandemic. Extending these policies and making them permanent regulations would support students and remove challenges for students in completing financial aid processes. The Federal Department of Education could provide regulatory relief for institutions with respect to ensuring compliance and meeting accountability standards (Mumper et al., 2011). The primary focus for financial aid officers was to ensure the accountability measures are met so that institutions remain administratively capable to deliver Title IV funding, leaving little room for the counseling of students. Lessening the burden on financial aid officers would allow for the ability to shift some of the emphasis on to students and their needs, since my research suggested that support with financial aid led to student persistence.

Lastly, with the proposal currently in Congress that Pell grants may be used to fund short-term academic programs (as low as 150 clock hours), my research on the significance of the formation of academic capital may have implications for students engaged in these shorter-term programs as well.

State Policy. Commonly, states legislate financial aid policies that were distinct from federal financial aid policies. States could take steps to align the state financial aid process with the federal guidelines. By doing so, there would be less burden on students to fulfill complex financial aid processes when managing two different administrations of

financial aid. Students don't understand the complexities of the process, as evidenced by the students feeling like their funding was beyond their control. For instance, loss of a state sponsored scholarship became an existential threat because it erroneously meant ineligibility for all financial aid for the student.

Institutional Policy. With respect to federal and state financial aid, institutions did not have a great deal of freedom in forming policies. However, there were policies that were written in such a way as to be subject to interpretation. When this was the case, institutions oftentimes establish a more rigid policy to ensure regulatory compliance. There was little benefit to adding layers of complexity to financial aid policies, so institutional policy should address regulatory needs while being mindful of not overburdening the student with unnecessary requirements, resulting in processes that can be opaque, arcane and beyond their control.

Practice

The findings from this study were informative to community college practitioners for a few reasons. First, the results informed on the complexity of the financial aid processes experienced by students; they were evident at enrollment and on an ongoing semester basis. Furthermore, they illustrated the existential barrier students face in completing financial aid processes. The findings linked to theories that show how students overcome barriers and mitigate concerns about costs. They established a network of support systems across the college that assist them in navigating their college experience. As evidenced by the presence of social capital in an academic setting, students were able to overcome challenging situations, leading to their persistence in school.

Lastly, it provided evidence of an approach to support Pell recipients in persistence and college completion. This approach acknowledged the ever-present and existential barrier related to concerns about costs. It identified the importance of institutional agents in guiding students through financial aid processes and mobilizing support in purposive action for the student (Stanton-Salazar, 1997; Stanton-Salazar, 2011). By providing advice, empathy and directly helping students navigate a complex process, college officials provided a supportive social structure to ease the lack of agency students experience regarding financial aid processes. It not only substantiated the significance of the model of the social capital framework for the study of institutional agents in the persistence of Pell recipients but expanded the influence of institutional agents through the identification of a new function and breadth of individuals who are in the position to support students.

In community colleges with a significant number of Pell recipients, the findings illustrated an approach to supporting students in navigating the financial aid processes that involved not only the financial aid operation but a more expansive group of college officials. By having college officials, who were not necessarily part of the financial aid operation, guide students, show empathy toward them, and assist in navigating a complex process, they instilled a degree of agency within the student. The data showed that the college official either had financial aid knowledge or acted as a bridging agent on behalf of the student to obtain support, but probably more importantly recognized the existential barrier that financial aid poses for the student (Stanton-Salazar, 1997; Stanton-Salazar, 2011). Ordinarily, institutions relied on financial aid officers to assist students with these processes. However, financial aid officers served contradictory goals of ensuring

compliance, timely processing and rigor with guiding students through a complex financial aid process (McKinney & Roberts, 2012). Through the expansion of institutional agents who engaged and offered comprehensive support to Pell recipients, it may present an opportunity to have a positive influence on their persistence.

Research

To further investigate the persistence of Pell recipients, there were other areas of research that may prove to be beneficial. One such area would be to examine the social processes associated with human capital. My study highlighted the inconsistencies in the formation of human capital and the unreliability of the scale used to measure human capital. Furthermore, conducting research to identify more items related to human capital that would assist in understanding the students' concerns about costs would be a valuable area to explore.

Another area of potential research would be to consider other characteristics of community college students, such as whether they are first generation college students, caregivers for dependents, and work while in school, and the potential impact these characteristics have on completion. Understanding more about the social constructs associated with academic capital of community college would also be an area of interest, based on the findings that surfaced during this study. Lastly, it would be interesting to replicate this study at another community college to see if my findings on the identification of a new role for institutional agents as a cheerleader are replicated in subsequent research.

Conclusion

A gap in graduation rates at community colleges exists between Pell recipients with a rate of 23% and non-Pell recipients with a rate of 31.5% (NCES, 2018). In 2017-2018, approximately 38% of all college students attend public community colleges (NCES, 2019). Community colleges reflect a public commitment to educational opportunity (Bailey et al., 2015; Cohen et al., 2014). In 2017, 52% of first-time, full-time degree seeking students at a public two-year institution received a Pell or other federal grant in comparison to 36% at public four-year institutions (Cahalan et al., 2020). The statistics demonstrate the significance of Pell recipients in community colleges to the college completion agenda and to the public investment in higher education.

Recognizing the importance of Pell recipients who graduate, I sought to understand more about the factors associated with the persistence of Pell recipients in a community college setting. The study revealed survey findings on the formation of academic capital during the quantitative phase and six findings from the qualitative phase. Through the integration of the data analysis, three meta-inferences emerged from the data that provided an overall explanation of the factors relevant to the persistence of Pell recipients. It was clear that financial aid processes generated enduring and existential barriers to the participants. There was also evidence of emotional distress caused by challenging situations during the participants' college experience. Through the encouragement and support provided by institutional agents, the participants were able to overcome their difficulties; they developed confidence and a sense of belonging in the academic community. The third meta-inference revealed by the data demonstrated how the participants relied on their academic capital to develop their self-advocacy in a

college setting. These research findings provide insight into the factors relevant to the persistence of Pell recipients and provide justification for adapting an approach that incorporates institutional agents in the development of social capital.

Lastly, it is important to make explicit the connection that Pell grants provide funding to low-income students (Cahalan et al., Dynarski & Scott-Clayton, 2013; Goldrick-Rab, 2016). Research on family income points out that the prospect of earning a college degree continues to be linked to family income; the data demonstrate that low-income students are less likely to go to school and are less likely to graduate once enrolled (Bailey & Dynarski, 2011). This suggests that my research on Pell recipients has particular relevance for low-income students and their persistence in college. The importance of ensuring that low-income students have access to the resources they need to succeed academically is a significant topic, not just for educational policy, but also for the broader implications that it has as this student demographic seeking to enhance their upward economic and social mobility.

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Appendix A

Academic Capital Scale

Navigation of Systems

People on my campus have reached out to me to offer support.

Strongly Disagree Disagree Disagree
Slightly Disagree Slightly Agree Moderately Agree
Strongly Agree

When I struggle in college, I know that I have someone to turn to for help.

Strongly Disagree Disagree Disagree
Slightly Disagree Slightly Agree Moderately Agree
Strongly Agree

I know how to use the different support services offered by my college.

Strongly Disagree Disagree Disagree
Slightly Disagree Slightly Agree Moderately Agree
Strongly Agree

I am aware of the resources at my school that can help me to be a more successful student.

Strongly Disagree Disagree Disagree
Slightly Disagree Slightly Agree Moderately Agree
Strongly Agree

I feel comfortable seeking information from those who work at my college.

Strongly Disagree Disagree Disagree
Slightly Disagree Slightly Agree Moderately Agree
Strongly Agree

Family Uplift

I am expected to get a better education than previous generations of my family.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree I want to get a better education than previous generations of my
family.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

I hope to achieve more in life than previous generations of my family.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

My parents want me to achieve more in school than they did.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

Supportive Networks

I have people in my life who support my decision to attend college.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

I have people in my life who encourage me to succeed in college.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

I have the emotional support that I need to get through college.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

There are people I trust who support me in finishing college.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

Concern About Costs

I can continue to attend my college without financial aid.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree I am confident that I can financially afford to finish my college

degree.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

I am more focused on my college coursework than I am on my financial concerns.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

I feel discouraged from continuing in college due to financial constraints.

**Reverse scored item*

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

My concerns about college costs limit what colleges I can attend.

**Reverse scored item*

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

Trustworthy Information

I am more trusting of information about my education that I receive from my college than
of information about my education that I receive from my family.

Strongly Disagree Disagree Disagree
Agree Agree Agree

I am more trusting of information about my education that I receive from my college than of information about my education that I receive from my friends.

Strongly Disagree Disagree Disagree
Agree Agree Agree

I view people who work at my college as trustworthy sources of information.

Strongly Disagree Disagree Disagree
Agree Agree Agree

Overcoming Barriers

I am confident that I can overcome any barriers to my success in college.

Strongly Disagree Disagree Disagree
Agree Agree Agree

Despite any obstacles that I face, I am confident that I can continue attending college.

Strongly Disagree Disagree Disagree
Agree Agree Agree

I have overcome the obstacles that would prevent me from being a successful student.

Strongly Disagree Disagree Disagree
Agree Agree Agree

Familial Expectations

My family encouraged me to consider other paths in life than attending college.

**Reverse scored item*

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

My family expected me to pursue other paths in life than attending college.

**Reverse scored item*

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

College Knowledge

I have role models in my family who attended college.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

I have role models in my community who attended college.

Strongly Moderately Slightly Slightly Moderately Strongly Disagree Disagree Disagree
Agree Agree Agree

Winkler, C., & Sriram, R. (2015). Development of a scale to measure academic capital in high-risk college students. *The Review of Higher Education*, 38, 565-587.

Appendix B

Evaluation Interview Protocol

Introduction:

- Thank you for taking the time to talk with me today.
- I'm going to start with some things that we need to complete before the interview, and then begin asking questions.
- I'm here to talk with you about how you answered the questions on the academic capital scale.
- Your participation is voluntary and confidential. You may choose not to participate in the study by not participating in the interview or by ending the interview at any time. If you choose to participate, then information you share will remain confidential. Neither your name nor the name of the college where you work will be used to identify you in any documents, reports, or publications.
- Are you willing to participate?
- Do you have any questions before we get started?
- Informed consent form for the interview
Informed consent for audio recording

Research Question

1. What is the extent of academic capital formation among students who have completed at least two semesters of enrollment? This first question is addressed through the completion of the academic capital scale.

2. How do institutional actors influence the formation of academic capital in Pell recipients who persist in school?

3. How do Pell recipients explain the roles institutional actors' engage in that are relevant to their persistence?

4. What resources do institutional actors deliver that Pell recipients describe as influential to their persistence?

5. What results emerge from using quantitative data on the formation of academic capital in Pell grant recipients that provoke qualitative interview data on the influence of institutional actors?

Interview Questions

1. I'm interested in learning more about how you navigate the systems you encounter in college, could you tell me about services available to you as a student?
 - a. Please describe an experience(s) you had with a department or area where you went to get help?
 - b. What other areas are available to you? Please describe experiences you have with this area?
 - c. Please talk about if there is a function that you think you seek help with, such as advising, registration, financial aid, tutoring?
 - d. Please describe what influences your decision to seek help from departments/areas?
2. Please describe the departments or staff available to you that help you be a successful student?
 1. How did you become aware of these departments and staff?
 2. In what ways have people on campus reached out to you to offer support?

3. How have you reached out for assistance from people who work at the college?
3. Who have you reached out to at the college for help or guidance?
 - a. Who do you seek this information from, such as an individual, more than one individual or an area?
 - b. Please describe the type of support you receive?
4. Please describe your knowledge of how you receive financial aid?
 - a. How did you obtain this knowledge?
 - b. Who did you go to for help?
5. In what ways does the cost of college influence your ability to go to school?
 - a. How does this relate to your ability to continue? Ability to finish your college degree?
 - b. In what ways do people who work for the college assist with gaining knowledge of the cost of college?
 - i. How does this influence your ability to stay in school?
6. How do you determine if information you receive is trustworthy?
 - a. Who do you seek this information from?
 - b. Has the individual you seek information from changed since you have been in school?

7. In thinking about the procedures you have to complete related to taking classes like advising, registration, financial aid, tutoring, what is the biggest barrier you face in continuing to attend school?
 - a. How are you able to overcome this barrier?
 - b. What other barriers do you face?
 - c. Please describe any interactions you have with people who work at the college who help you overcome barriers

8. Describe an experience you had with a person who works at the college that stands out for you that you would like to share?

Conclusion

- Is there anything you would like to share with me that I have not asked about?
- If I find I have questions as I write up the findings, may I contact you again?

What is the best way to reach you?

Appendix C

Alignment Matrix

Research Question	Theory	Data Source	Analysis Technique
<p>1. Quantitative:</p> <p>What is the extent of academic capital formation among students who have completed at least two semesters of enrollment?</p>	<p>Academic capital (St. John et al., 2011)</p>	<p>Academic capital scale (Winkler & Sriram, 2015): Likert scale questions for each component of academic capital: navigation of systems, family uplift, supportive networks, concern about costs, trustworthy information, and college knowledge</p>	<p>Descriptive statistics; Spearman Rank Order Correlation (rho)</p>
<p>2. Qualitative:</p> <p>How do institutional actors influence the formation of</p>	<p>Academic capital (St. John et al., 2011); institutional actors</p>	<p>Academic capital scale (Winkler & Sriram, 2015), Pell recipient interviews Interview question 1: 1. I'm interested in learning more about</p>	<p>First and second cycle coding, categorizing, themes</p>

academic (Stanton-
capital in Pell Salazar,
recipients who 1997;
persist in Stanton-
school? Salazar,
2011)

how you **navigate the**
systems you encounter
in college, could you tell
me about services
available to you as a
student provided by the
college?

- a. Please describe
an experience(s)
you had with a
department or
area where you
went to get help?
- b. What other areas
are available to
help you? Please
describe
experiences you
have with this
area?
- c. Please talk about
if there is a
function that you

think you seek
help with, such
as advising,
registration,
financial aid,
tutoring?

- d. Please describe
what influences
your decision to
seek help from
departments/area
s of the college?

5. In what ways does the cost of
college influence your ability to
go to school (**concern about
costs**)?

- a. How does this relate to
your ability to continue?
Ability to finish your
college degree?
- b. In what ways do people
who work for the
college assist with

gaining knowledge of
the cost of college?

- i. How does this
influence your
ability to stay in
school?

3. Qualitative: How do Pell recipients explain the roles institutional actors' engage in that are relevant to their persistence?	Institutional actors (Stanton- Salazar, 1997; Stanton- Salazar, 2011)	Pell recipient interviews 3. Who have you reached out to at the college for help or guidance (supportive networks)? a. When do you seek help or guidance from them? b. Please describe the type of support you receive? 7. In thinking about the procedures you have to complete related to taking classes like advising, registration, financial aid, tutoring, what is the biggest barrier you face in continuing to attend school?	First and second cycle coding, categorizing, themes
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- a. How are you able to overcome this barrier?
- b. What other barriers do you face?
 - i. Please describe any interactions you have with people who work at the college who help you overcome barriers

8. Describe an experience you had with a person who works at the college that stands out for you that you would like to share?

4. Qualitative: What resources do institutional actors deliver that Pell recipients	Academic capital (St. John et al., 2011); institutional actors	Pell recipient interviews 2. Please describe the departments or staff available to you that help you be a successful student?	First and second cycle coding, categorizing, themes
--	--	--	---

describe as (Stanton-
influential to Salazar,
their 1997;
persistence? Stanton-
Salazar,
2011)

- a. How did you become aware of these departments and staff?
- b. In what ways have people on campus reached out to you to offer support?
- c. How have you reached out for assistance from people who work at the college?

4. Please describe your knowledge of how you receive financial aid.

- a. How did you obtain this knowledge?
- b. Who did you go to for help?

6. How do you determine if the **information** you receive about college is trustworthy?

- a. Who do you seek this information from, such as an individual, more than one individual, or an area?
- b. How has the individual you seek information from changed since you have been in school?

5. Mixed: What results emerge from using quantitative data on the formation of academic capital in Pell grant recipients that provoke qualitative interview data on the	Academic capital (St. John et al., 2011); institutional actors (Stanton- Salazar, 1997; Stanton- Salazar, 2011)	Academic capital scale (Winkler & Sriram, 2015); Pell recipient interviews	Descriptive statistics, first and second cycle coding, categorizing, themes, inferences
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influence of
institutional
actors?

Appendix D

Correlation Matrix of Academic Capital Scale

	N1	N2	N3	N4	N5	U1	U2	U3	U4	S1	S2	S3	S4	C1	C2	C3	C4	C5	T1	T2	T3	B1	B2	B3	F1	F2	K1	K2		
N1	1.00																													
N2	0.54	1.00																												
N3	0.51	0.61	1.00																											
N4	0.51	0.61	0.73	1.00																										
N5	0.53	0.71	0.69	0.71	1.00																									
U1	0.23	0.20	0.30	0.30	0.25	1.00																								
U2	0.24	0.27	0.31	0.37	0.36	0.67	1.00																							
U3	0.22	0.28	0.24	0.36	0.31	0.60	0.81	1.00																						
U4	0.26	0.18	0.28	0.30	0.27	0.40	0.41	0.44	1.00																					
S1	0.24	0.34	0.31	0.35	0.38	0.28	0.38	0.48	0.37	1.00																				
S2	0.30	0.39	0.39	0.42	0.43	0.29	0.34	0.44	0.41	0.82	1.00																			
S3	0.31	0.48	0.42	0.50	0.53	0.14	0.20	0.27	0.23	0.59	0.62	1.00																		
S4	0.23	0.37	0.40	0.45	0.38	0.32	0.30	0.38	0.33	0.68	0.74	0.74	1.00																	
C1	0.07	0.13	0.09	0.08	0.15	-0.04	0.01	0.01	-0.02	0.09	0.05	0.19	0.06	1.00																
C2	0.14	0.19	0.26	0.24	0.22	-0.01	-0.02	-0.04	0.05	0.07	0.05	0.24	0.11	0.60	1.00															
C3	0.14	0.17	0.16	0.18	0.25	0.13	0.10	0.12	0.11	0.13	0.11	0.14	0.09	0.39	0.43	1.00														
C4	-0.01	-0.07	-0.05	-0.01	-0.10	0.09	-0.01	0.02	0.04	-0.02	0.02	-0.09	0.04	0.06	-0.06	-0.14	1.00													
C5	0.02	0.07	-0.02	0.06	0.00	0.13	0.12	0.20	0.16	0.18	0.19	0.01	0.12	-0.04	-0.06	0.01	0.47	1.00												
T1	0.36	0.33	0.41	0.36	0.37	0.27	0.25	0.26	0.18	0.23	0.32	0.19	0.24	0.09	0.12	0.15	0.09	0.19	1.00											
T2	0.33	0.39	0.40	0.43	0.39	0.14	0.27	0.28	0.28	0.27	0.37	0.30	0.24	0.12	0.14	0.17	-0.01	0.15	0.59	1.00										
T3	0.52	0.62	0.59	0.66	0.71	0.23	0.30	0.30	0.27	0.33	0.44	0.42	0.37	0.14	0.21	0.25	-0.02	0.12	0.53	0.63	1.00									
B1	0.31	0.34	0.35	0.42	0.36	0.30	0.30	0.37	0.32	0.29	0.31	0.35	0.34	0.12	0.13	0.25	-0.10	0.02	0.37	0.39	0.46	1.00								
B2	0.32	0.30	0.40	0.43	0.40	0.27	0.34	0.35	0.30	0.23	0.28	0.29	0.23	0.07	0.15	0.23	-0.17	-0.02	0.36	0.34	0.46	0.72	1.00							
B3	0.29	0.28	0.29	0.35	0.35	0.31	0.31	0.28	0.22	0.18	0.23	0.32	0.28	0.16	0.16	0.30	-0.06	0.10	0.39	0.44	0.42	0.62	0.55	1.00						
F1	0.06	0.07	0.15	0.10	0.12	0.08	0.04	0.02	0.03	-0.12	-0.07	0.04	-0.08	0.32	0.23	0.16	0.16	0.03	0.06	0.02	0.06	-0.01	-0.01	0.01	1.00					
F2	0.05	0.08	0.11	0.08	0.09	0.06	0.02	-0.01	0.01	-0.14	-0.12	0.01	-0.12	0.32	0.24	0.12	0.14	-0.03	0.04	-0.03	0.04	-0.05	-0.03	-0.03	0.86	1.00				
K1	0.22	0.21	0.20	0.18	0.31	0.02	0.12	0.08	0.08	0.14	0.14	0.27	0.19	0.09	0.14	0.10	0.02	-0.03	0.07	0.16	0.24	0.10	0.20	0.11	0.00	0.05	1.00			
K2	0.20	0.31	0.28	0.23	0.30	0.09	0.17	0.12	0.07	0.25	0.26	0.39	0.30	0.15	0.13	0.11	-0.09	-0.09	0.12	0.15	0.26	0.20	0.25	0.13	0.10	0.14	0.56	1.00		