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Finding the Path to College Completion: A Qualitative Exploration of the Experiences of First-Generation Students at a Technical College in Rural West Tennessee

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by

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ABSTRACT

Finding the Path to College Completion: A Qualitative Exploration of the Experiences of First-Generation Students at a Technical College in Rural West Tennessee

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The purpose of this qualitative study focused on the experiences of first-generation students attending a technical college in rural West Tennessee. The results of this study may identify barriers faced by students from these special populations and may also provide insight into the support systems that motivate these students to persevere. Although significant research has been conducted on first-generation and underrepresented students attending community colleges and four-year universities, there is a gap in the published literature pertaining to the lived experiences of students attending technical colleges, especially those living in rural areas.

First-generation college students face many challenges as they strive to integrate and acclimate to the college campus environment, such as having poor study skills or habits, lack of peer support, and fear of the college environment. In addition, the lack of specific social and cultural capital contributes to their inability to navigate the college experience and complete their degree or certificate attainment.

This research involved interviews with 17 students attending a technical college in rural West Tennessee. Participants discussed their experiences while enrolled at the technical college, backgrounds which included prior educational experiences, any barriers they faced, and identified support systems that increased their academic success. The findings indicate additional

campus programs and initiatives may be needed at the technical colleges, especially those in rural areas, to help low-income students with their educational outcomes.

DEDICATION

I want to dedicate this dissertation to my wonderful and patient family – my husband, Tavoris, son Kevin, mother Debra, and all my extended family members who supported me throughout this process. The past few years have been challenging, but you remained understanding of the commitment and sacrifice of family time that was needed for me to get here.

This is also dedicated to sweet Briana. I wish you could be here to celebrate this joyous occasion with me. I love you and will always carry you in my heart.

"And now unto Him who is able to do exceedingly, abundantly above all that we ask or think, according to the power that works in us, to Him be glory in the church by Christ Jesus to all generations, forever and ever. Amen" – Ephesians 3:20-21

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Chapter 1. Introduction

Students seek postsecondary education to provide better career opportunities, financial gain, and professional development. According to Whitley et al. (2018), at least 65% of all jobs will require a postsecondary degree or credential at some point. Individuals with higher educational attainment typically earn higher salaries and have lower unemployment rates than those without (Torpey, 2021). The earnings potential for college graduates is 84% more than those earning only a high school diploma. According to data published by the U.S. Bureau of Labor Statistics (BLS), individuals with a minimum bachelor's degree had the median weekly earnings of $1,305 in 2020 compared to those who only graduated high school (Torpey, 2021). In 2021, the wages for workers over 25 who earned a degree were still higher than those who only held a high school diploma (Career Outlook, 2022). In addition to improving employment opportunities and earning potential for students, higher education can benefit communities. Individuals earning a higher-level degree become less reliant on social welfare programs and charitable contributions (Perna, 2015).

As postsecondary institutions focus on student enrollment and retention rates, degree attainment and program completion have become an indicator of the performance of postsecondary institutions (Jeffson, 2012). Many states are moving to hold institutions accountable for student outcomes by implementing performance-based funding formulas (Miao, 2012). These formulas help determine state allocations and appropriations to higher education institutions based on student program completion and degree or credential attainment. Postsecondary institutions use their institutional statistical data to identify specific trends in student retention (Lowery-Hart & Pacheco, 2011). These trends reveal the path to college completion can be easy for certain student populations but more challenging for others.

Specific student populations face not achieving their educational goals due to obstacles hindering their ability to succeed. These special populations are first-generation students who are underrepresented and come from disadvantaged backgrounds and low-income families (McCulloh, 2016). First-generation college students are identified as students attending college, but their parents did not (Balemian & Feng, 2013; Nunez & Cuccaro-Alamin, 1998; Ward et al., 2012). Unlike other social classes, first-generation college students typically have lower graduation rates and face more challenges in postsecondary education attainment (Amaya, 2010; Cataldi et al., 2018; Peabody, 2013). Smith (2004) identified the contrasting gap in the graduation rates of students and emphasized the need to improve strategies for retaining underrepresented and low-income students. Factors such as social class, race, gender, and residential location are often identified as the leading indicators of college access and success (Hall, 2018). Research conducted by Gilmore (2017) indicated there is room for continued studies on first-generation college students who live in rural areas. Despite the distinctions among rural communities, first-generation college students' poverty rates are greater than those living in nonrural locations (Ruiz & Perna, 2017).

Postsecondary education is offered at institutions of higher learning, including community colleges, universities, and technical colleges. However, when comparing the educational and credential attainment of those students who live in rural areas, studies show more individuals obtain associate's and bachelor's degrees (Marre, 2017). Students' academic success may be influenced by factors such as the rising cost of tuition and fees and a push for higher completion rates (Marre, 2017). While the technical colleges' student demographics range from various backgrounds, students' low socioeconomic status is a common factor among students. Students enrolled at technical colleges typically come from low-income families and

backgrounds, including hardship, recent job losses, lack of success, and other barriers to their economic security (Complete College America, 2011). Approximately 95% of students enrolled at technical colleges receive federal and state aid (Tennessee Board of Regents, n.d.-c). Of the 86% percent of students who submitted a financial aid application, the average family income was $48,834 (Tennessee Board of Regents, n.d.-c).

Students living in rural areas must also contend with non-educational barriers such as the need for childcare, inadequate transportation, minimal access to technology, and other financial obstacles (Scott et al., 2015). As the demand for a more skilled labor workforce arises, so has the need for specialized technical training (Jones, 2021). Although considerable research has been conducted on first-generation and underrepresented students attending community colleges and four-year institutions, there is a gap in the published literature concerning the experiences of students attending technical colleges, especially those living in rural areas.

Statement of the Problem

First-generation students who live in rural areas face unique challenges, such as limited college preparation knowledge, a lack of community support, and low socioeconomic living conditions (McCulloh, 2016; Peabody, 2013). A county's economic status is deemed distressed or at-risk based on a three-year average of unemployment, poverty, and per capita income, encompassing the composite measure (Transparent Tennessee.gov, n.d.). First-generation students will limit their college options even when qualified for admission into more renowned colleges and universities (Banks-Santilli, 2014). This decision may be due primarily to a lack of knowledge of the overall college admissions process or having limited financial resources (Banks-Santilli, 2014). In addition, some first-generation college students do not understand the distinctions between college types, such as comparing public and private institutions (Banks-

Santilli, 2014). There have not been as many opportunities for first-generation students living in rural areas to create a social capital pipeline (Sims & Ferrare, 2021). Therefore, to understand and address the educational barriers and the barriers students from rural areas face regarding access to postsecondary education, socioeconomic status and geographical location must be studied and explored as the factors contributing to educational disparities.

Community and technical colleges have historically provided vocational education opportunities for students and continue to offer these programs today (Harris, 2013). In addition, Garza and Bowden (2014) identified community colleges as the "primary starting point for minorities in higher education" (p. 405). According to research conducted by Hicks (2006), community colleges are “best able to attract first-generation students because of their ability to meet the needs of a diverse student population” (p. 15). Community colleges have also been identified as the "legitimate entry point to higher education for all students," providing career services and vocational education (Garza & Bowden, 2014, p. 406). Most first-generation students attend community colleges, with 52% having reported wanting to transfer to a four-year university (Evans, 2016). However, technical colleges remain a practical option for postsecondary education (Tennessee Board of Regents, n.d.-a). Under the State College System of Tennessee, the Tennessee Colleges of Applied Technology (TCATs) have been identified as the state's premier technical training providers (Tennessee Board of Regents, n.d.-b). In addition, this statewide system of technical colleges has been deemed unique and a model for other states due to its structure, organization, and practices (Complete College America, 2011).

Although significant research has been conducted on first-generation and underrepresented students attending community colleges and four-year universities, there is a gap in the published literature pertaining to the lived experiences of students attending technical

colleges, especially those living in rural areas (Allen, 2020; Austin, 2011, Banks-Santilli, 2014; Creswell-Yeager, 2012; Garza & Bowden, 2014; Heinisch, 2018; Hodson, 2012; Methvin, 2012; Moschetti & Hudley, 2015). Comparing technical education with other higher education institutions implies that technical colleges are a second-choice pathway. Historically, "low college aspirations and socioeconomic status" have been the strongest predictors for students enrolling in vocational education programs (Silverberg et al., 2002, p. 45). Technical education has carried the perception that it primarily serves underrepresented students who have no plans for college, struggle academically, have disabilities, are from low-income, minority racial or ethnic groups, or have behavioral issues (Jones, 2022; Silverberg et al., 2002). There is a need to explore further how students who enroll in technical colleges in rural areas perceive their college experience.

Using an inductive analytical approach, this qualitative study focuses on the experiences of first-generation students attending a technical college in rural West Tennessee. The results of this study may identify barriers faced by students from these special populations and may also provide insight into the support systems that motivate these students to persevere. Barriers are defined as the educational gaps and challenges students face regarding their access to higher education, including race, socioeconomic class, and geography (McCulloh, 2016; Peabody, 2013). Additionally, by sharing the participants' perceptions of their experiences at a technical college, this study may provide additional insight for educational stakeholders who wish to emphasize students' success and completion and graduation rates. Finally, by sharing the participants' perceptions of their experiences at a technical college, there may be recommendations for future educational initiatives.

Theoretical Framework

The research for this study will be viewed through the lens of Bourdieu's social, cultural, and human capital theory (Bourdieu, 1986). This view of cultural capital is based on the belief that it can be attained from an individual's social class and the need for social connections. There is a connection between first-generation college students and social class. Research shows that first-generation college students would not have the social and cultural capital needed for college if their parents could not help them acquire this through socialization at home (Ricks & Warren, 2021). Students from low-income families and backgrounds are considered disadvantaged due to a lack of social capital (Methvin, 2012). First-generation college students who enroll in college enter into a cultural environment with cultural norms they have not typically encountered (Irlbeck et al., 2014).

Bourdieu believed that cultural capital, a resource developed over time through parental guidance, would make students more likely to attend college (Bourdieu, 1986). Although students can develop cultural capital once they enroll in college, it is more distinct when acquired early and obtained from family (Dumais & Ward, 2009). The absence of specific social and cultural capital, such as academic preparation and parents' education values, contributes to students' inability to navigate the college experience and complete their degree or certificate attainment (Peabody, 2013). First-generation college students are considered underrepresented and lack the same resources as their peers (Hall, 2018). Institutions must identify existing barriers to retaining first-generation college students and address the issues to provide adequate solutions.

Research Questions

The following research questions guided this qualitative research study:

1. How do first-generation technical college students in rural Tennessee describe their educational experiences?
2. What experiences do first-generation students attending technical colleges in rural West Tennessee perceive as impacting their academic success?
3. What are the reasons first-generation students report for attending a technical college?
4. How do first-generation students perceive the program initiatives at the technical college?

Significance of the study

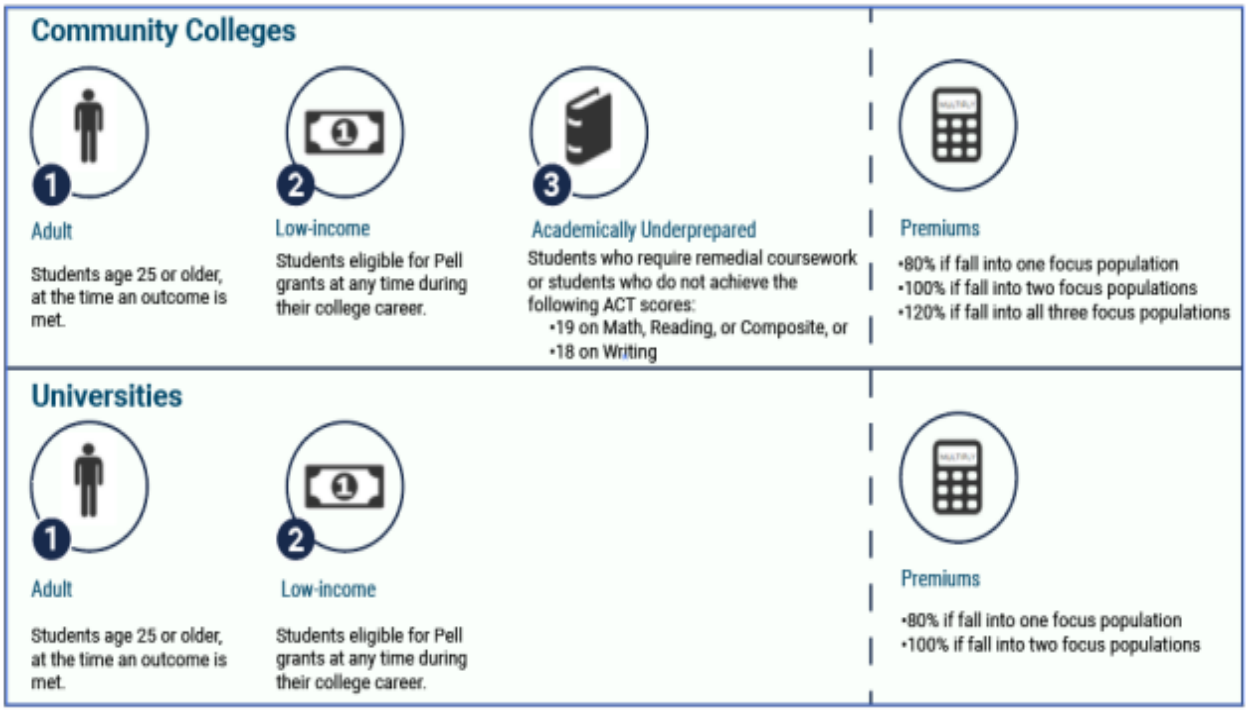
A range of institutional types, from community colleges to four-year universities and technical or vocational colleges, provide postsecondary options for diverse populations of students (Harris, 2013). The direct relationship between socioeconomic class and its influence on student success has become an increasing concern (Hall, 2018). First-generation college students face many challenges as they strive to integrate and acclimate to the college campus environment, such as having poor study skills or habits, lack of peer support, and fear of the college environment (Murphy & Hicks, 2006; Schustack, 2001). The lack of specific social and cultural capital contributes to their inability to navigate the college experience and complete their degree or certificate attainment (Peabody, 2013). Institutions must identify additional barriers to retaining first-generation college students if they are to address the issue and provide solutions adequately.

Students' retention and college program completion is an essential aspect of excellence for higher education institutions. An integral component of retaining first-generation students is creating an environment where they can excel (Garza & Bowden, 2014). In addition, at-risk and

underrepresented students need additional support to help them connect with postsecondary institutions and persist in their educational goals (Garza & Bowden, 2014; Murphy & Hicks, 2006). Tennessee's outcomes-based funding formula for Tennessee's public colleges and universities incorporates focus populations that include students who are deemed at-risk and require additional resources for educational success (Testa, 2017). These populations of students are low-income and academically underprepared students. In addition, the formula incorporates additional weights for student populations that historically struggle in their progression and college completion (Testa, 2017). The premiums from this formula provide institutions with additional resources if at-risk students achieve completion outcomes (Testa, 2017). In the 2015-2020 funding formula currently used for 2022 appropriations, focus populations differ between community colleges and four-year universities. Adult and low-income students are the only two focus populations at universities, as seen in Figure 1.

Figure 1

Focus Populations and Premiums, Tennessee Outcomes-Based Funding Formula



Note. Focus Populations and Premiums. Adapted from Tennessee Office of Research and Education Accountability. Retrieved October 15, 2022, from https://comptroller.tn.gov/content/dam/cot/orea/advanced-search/2017/2017_OREA_OutcomesBasedFund.pdf. In the public domain.

In addition, community colleges also include academically underprepared students in their three focus populations. Although technical colleges are included in the state funding formula, they are funded primarily through a formula that includes cost and enrollment (Testa, 2017).

Colleges and universities may confront retention issues by developing and implementing ways to provide additional student support. For example, programs implemented on college campuses can be designed to establish social networks that may prove instrumental in helping

students persist in their academic goals toward college completion (Garzan & Bowden, 2014). These variables should also be analyzed when identifying the factors contributing to the educational experiences of first-generation students attending postsecondary colleges.

According to Hodsdon (2012), much of the research that has not been studied pertains to college attainment among rural students. For the foundation of this research, I have incorporated research from a previous pilot study on first-generation students attending a small technical college in a distressed county in West Tennessee. For the pilot study, I chose five participants who identified as first-generation students to share their experiences at the technical college. Based on the results of that study, there were additional implications for continuing the research outreach. This research study will expand the geographical location and include additional participants to gain a broader perspective of this topic. Additional research is needed on the experiences of first-generation students who chose technical education as a career option and attend technical colleges in rural West Tennessee.

Definition of Terms

The following terms are used consistently throughout this study and defined as follows:

At-risk counties: Counties at risk for becoming economically distressed based on their "three-year average unemployment rate, per capita market income, and poverty rate. These counties rank between the worst ten and 25 percent of the nation's counties" (Appalachian Regional Commission, n.d.).

Career and Technical Education (CTE): A term applied to institutions and educational programs specializing in skilled trades, STEM programs, and career preparation. It was commonly referred to as *vocational education* (Advance CTE, n.d.; Glossary of Education Reform, 2014).

Distressed counties: The most economically deprived counties based on their "three-year average unemployment rate, per capita market income, and poverty rate. These counties rank in the worst ten percent of the nation's counties" (Appalachian Regional Commission, n.d.).

First-generation college student: Those students who enroll in a postsecondary college or university and whose parents did not have any college education (Nunez & Cuccaro-Alamin, 1998; The 96th Congress; Ricks & Warren, 2021; Whitley et al., 2018).

Postsecondary education: "Academic, vocational, technical, or other institution, college, or university offering educational credentials or instruction, or services primarily to individuals who have completed or terminated their secondary education. Postsecondary education institutions may be classified as public or private" (Putnam, 1981).

Retention: "Defined as continued enrollment (or degree completion) within the same higher education institution" (NSC Research Center, 2015).

Rural area: Non-metro **l**ocations based on population density, geographic isolation, and economic and social integration (Economic Research Service, n.d.).

Summer Bridge Programs: Programs implemented to ease the transition into college and support students' postsecondary success by focusing on the academic skills and social resources needed to navigate college (NCES, 2016).

Tennessee Board of Regents (TBR): The Tennessee Board of Regents is the largest higher education system in Tennessee. It provides governance over 13 Community Colleges and 24 Colleges of Applied Technology (Tennessee Board of Regents, n.d.-a)

Tennessee Colleges of Applied Technology (TCATs): There are 24 Colleges of Applied Technology in Tennessee. These technical colleges are the state's premier providers of workforce development and technical training (Tennessee Board of Regents, n.d.-b).

TRIO Programs: Federal outreach and student services programs that are designed to identify and provide services for those individuals who come from disadvantaged backgrounds (Office of Postsecondary Education, n.d.)

Underrepresented student: Individuals from disadvantaged backgrounds that include first-generation, low-income, racial, ethnic, minority, or disabled that make up a small number of an institution's total student population. These students face unique challenges in their pursuit of educational attainment (Ramos & Sifuentez, 2021).

Limitations and Delimitations

To understand the lived experiences of first-generation college students living in rural areas attending a technical college in rural Tennessee, a qualitative approach is used to collect responses from participants. This study is limited to participants who identify as first-generation college students living in the specified geographical location in West Tennessee. Therefore, this study may not utilize other first-generation college students' perspectives in different regions. It cannot be assumed that all participants who meet this study's qualifications will share the same experiences as other first-generation college students living in rural areas. This study is also limited by the information shared by the participants and the honesty of their responses.

This study is further limited by the relevance and appropriateness of the theoretical framework used in determining the correlation between social and cultural capital and the educational attainment of first-generation college students. The theory that first-generation college students enroll in colleges and enter into an environment encompassing a cultural

environment with various cultural norms and unspoken rules, as noted by Irlbeck et al. (2014), is limited by the definition of "unspoken rules" and what is considered suitable cultural norms.

This study is delimited to technical college students enrolled in programs ranging from eight months to less than two years, who identify as a first-generation student, and who live in a rural area in Tennessee as specified by the geographical counties identified in the study. The participants of this study are delimited to first-generation college students who have been enrolled for at least one trimester in their program of study. Therefore, their perspectives can only be determined based on their enrollment at the technical college and not generalized to other two-year or four-year institutions. Students who identify as first-generation college students but do not live in the specified geographical locations are excluded from the study. In addition, students who live in the defined geographical locations, but do not identify as first-generation college students, are also excluded from the study.

Chapter Summary

Research on this student population includes areas of focus regarding social and financial barriers, familial involvement, and challenges regarding knowledge of the college admissions process. This chapter introduces readers to the problem that will be researched, the purpose of the research, the overall research questions, and the significance of the study. In addition, readers will find the definitions of terms, the limitations, and the delimitations of the study. Chapter 2 introduces readers to the literature relevant to first-generation college students living in rural areas who attend a technical college in West Tennessee. Therefore, this study is structured to provide focus areas regarding (a) technical education, (b) theoretical framework, (c) barriers to retention, (d) financial implications, (e) geographical locations, (f) parental involvement, and (g) existing supportive programs and strategies. Chapter 3 contains the methodology for this

qualitative study, including the design, the research questions overview, the researcher's role, the data collection method, ethical considerations, and trustworthiness. Chapter 4 is a presentation of the interview results and research findings. Finally, Chapter 5 offers a discussion, conclusion, and recommendations for future studies and higher education administrators.

Chapter 2. Review of Literature

As institutions of higher learning face pressure to increase enrollment and provide more access to diverse populations of students, the recruitment and retention of first-generation college students remain challenging (Lowery-Hart & Pacheco, 2011; McCulloh, 2016). One-third of students who enroll in a postsecondary institution exit before completing their degree or earning a credential (Johnson, 2012). First-generation college students are those who enroll in a postsecondary college or university and whose parents did not have any college education (Nunez & Cuccaro-Alamin, 1998). Although the defining characteristic of a first-generation college student is that neither of their parents graduated college, there are additional common characteristics they may have (Phillips, 2015; Ramos & Sifuentez, 2021; Ricks & Warren, 2021). These students are also likely to be members of an underrepresented racial or ethnic group, live in low-income households, receive minimal or no financial support from their parents, live off campus, and enter college academically underprepared (Phillips, 2015). The term "first-generation" was introduced into the U.S. Education Amendments of 1980 and was defined as "a person neither of whose parents completed a baccalaureate degree" (The 96th Congress, 1980; Whitley et al., 2018). It was intended to identify underrepresented students from minority, low-income, or rural backgrounds (Whitley et al., 2018). These students never received the benefits of the cultural capital of navigating the college process due to their parents' lack of completing a college degree.

Throughout the decades since 1980, several variations of the definition of "first-generation" have evolved based on specific programs and meeting particular needs of the population (Whitley et al., 2018). Many colleges and universities define first-generation colleges in alignment with the U.S. Department of Education for federal reporting requirements. Still,

they broaden the definition to include students whose parents earned a postsecondary degree in another country or earned a degree after 25 (Whitley et al., 2018). Some institutions include variations of the definition of parent to include biological parents or single-parent households, in which the student only lives with one parent. The first-generation classification is based on the custodial parent (Whitley et al., 2018). The research involved in this literature review focuses on the definition of first-generation college students whose parents never attended college and earned a degree.

This chapter incorporates information from researchers who have studied first-generation students and their college experiences, including the initiation of their college admissions process, the first year of college enrollment, and the duration of their enrollment period. Phillips (2015) research revealed two factors limiting first-generation students' postsecondary opportunities. These two factors are students' social class and their location of origin. To provide supporting research on those limitations, I will review the literature on socioeconomic class and geographical location to better understand and address the educational hardship and challenges first-generation students from rural areas face regarding their access to higher education.

While the college experience of first-generation students can include barriers to retention, their stories may also bring to light their motivation and determination to persevere despite any obstacles they may face. Boyd (2017) stated that institutions must help first-generation college students transition to the college campus and provide support to help them become more acclimated to the campus community. Providing peer and social networks positively impacts students' critical thinking skills, retention, and persistence (Boyd, 2017). Other researchers have also recommended that higher education institutions become more involved in helping first-generation college students acclimate to college, not only from an academic standpoint but also

socially (Hutchison, 2015). This chapter will present literature identifying higher education institutions' special programs and services to help support first-generation college students' educational goals. The research will also identify the strategies that higher education institutions have implemented to increase the retention of first-generation college students.

Higher education encompasses various institutional types, including community colleges, four-year universities, and technical or vocational colleges (Harris, 2013). These institutions of higher learning provide postsecondary options for diverse populations of students (Harris, 2013). In the 2020-2021 academic year, there were approximately 3,500 degree-granting higher education institutions in the United States (National Center for Education Statistics, 2022). Included in this number were 2,278 four-year colleges and universities offering bachelor's or higher degree awards and 1,289 two-year institutions offering associate degrees and other certificates and diplomas (National Center for Education Statistics, 2022). Considerable research has been conducted on first-generation students attending two-year community colleges (Allen, 2020; Garza & Bowden, 2014; Hodson, 2012; Methvin, 2012; Moschetti & Hudley, 2015; Murphy & Hicks, 2006; Scott, Miller, & Morris, 2015; Smithers, 2018; Wingate, 2022). In addition, there have also been several studies of first-generation college students' experiences while attending four-year institutions. I found that the majority of research studies involving first-generation college students came from their experiences at four-year universities (Austin, 2011; Banks-Santilli, 2014; Creswell-Yeager, 2012; Heinisch, 2018; Martin, Stefl, Cain & Pfirman, 2020; McCants, 2019; Parks-Yancy, 2012; Pringle-Hornsby, 2013; Reid, 2013; Sims & Ferrare, 2021; Stebleton & Soria, 2012; Wohlgemuth et al., 2007). Based on this research, there remains a gap in the published literature concerning the lived experiences of first-generation technical college students.

Students defined as first-generation and rural college students have faced significant challenges that impact their path to college completion. These students are theorized to be an at-risk population (Schultz, 2004). Students who live in rural areas lack experience in the college environment and struggle with the diversity found on college campuses. Several studies have been conducted on the lived experiences of college students who not only identify as first-generation college students but those who live in rural areas as well (Allen, 2020; Byun, Meese & Irvin, 2012; Gilmore, 2017; Grimard, 2004; Hall, 2018; Heinisch, 2018; Henley & Roberts, 2016; Hewitt, 2021; Hodsdon, 2012; Maltzan, 2006; Marre, 2017; McCants, 2019; McCullogh, 2016; Methvin, 2012; Phillips, 2015; Ruiz & Perna, 2017; Schultz, 2004; Scott et al., 2015; Sims & Ferrare, 2021). Again, there is a gap in the published literature regarding the experiences of first-generation students who attend technical colleges, especially those who live in rural areas.

The literature provides evidence that students from this population face many challenges on their path to college completion, encompassing several focus areas and academic requirements (Schustack, 2001). Therefore, the research is structured to provide focus areas regarding (a) technical education, (b) theoretical framework, (c) barriers to retention, (d) financial implications, (e) geographical locations, (f) parental involvement, and (g) existing supportive programs and strategies. These variables will be reviewed and analyzed to identify the factors contributing to the educational experiences of first-generation students attending technical colleges in rural areas.

A Brief History of Technical Education

Career and Technical Education (CTE) defines the applications of schools, institutions, and educational programs specializing in the skilled trades, attaining practical skills, modern technologies and applied sciences, and career preparation (Glossary of Education Reform, 2014).

Technical programs provide both academic and career-focused programs of study and allow students to gain work experience. This work experience is attained through industry certifications, co-op, and work-based learning activities, internships, and other on-the-job training opportunities (Glossary of Education Reform, 2014).

The development of technical education began in the 1800s as an evolution of the industrial revolution (Evans, 2009). However, during most of the 19th century, the development of technical education was met with prejudices and resistance to gaining credibility and recognition (Evans, 2009). This resistance came from society and the state, resulting in inadequate funding and support. This resistance was also coupled with negative attitudes from managers towards technical education, who feared the loss of their trade secrets if the workers knew the inner workings of their industrial technologies and techniques (Evans, 2009).

During the mid-19th century, the emergence of the Great Exhibitions allowed for a period of industrial countries that rivaled Britain's reign as supremacy in manufacturing (Evans, 2009). One such occasion was the Great Exhibition of the Works of Industry, which celebrated industrial technology and design and attracted over six million people from and near Britain (Evans, 2009). Evans (2009) said the Great Exhibition brought positive and negative outcomes in developing technical education. First, it brought on the need to establish a technical education system. Following the Great Exhibition, higher education institutions were better prepared to introduce science and technology into their programs. In the 1850s, the Massachusetts Institute of Technology and the Cincinnati College of Agriculture were founded as an investment in advanced technical education (Thelin, 2011). During the late 1870s, it became evident that the country needed to establish a national framework for technical education (Evans, 2009). Around

1881, additional outside funding began establishing various technical institutions. Finally, it became evident that state funding was needed to expand technical education.

The Royal Commission on Technical Instruction (Samuelson Report) was implemented in 1881 to address the unregulated structure of technical education institutions (Evans, 2007). Due to the decline in industrial technology and manufacturing, the Technical Instruction Act was passed thirty-eight years after the Great Exhibition. It was a recognized need for a national framework for technical education (Evans, 2007). This Act brought about the development of technical institutions across the country that satisfied the increasing demand for technical education (Evans, 2009). However, for most of the 19th century, the armed forces received specialized training and government funding focused on manufacturing weapons. Although the state government refrained from being involved in technical education for much of the 19th century, it made an exception for the military (Evans, 2007).

The first federal legislation related to vocational education was the Smith-Hughes Act of 1917, which made available federal funding for programs such as "agriculture, trades and industries, and home economics" (Malkus, 2019, p. 4). This act was created to provide a workforce of semi-skilled workers. In the early 1930s, there were approximately 100 junior technical colleges with an enrollment of 30,000 students (Evans, 2009). Between 1944 and the 1950s, the naming convention of these colleges changed to technical colleges, colleges of technology, municipal college, and colleges of further education (Evans, 2009). In the 1960s and 1970s, vocational legislation involved unemployment caused by the post-war baby boom and equity issues brought to light by the "civil rights and women's movements" (Silverberg et al., 2002, p. 18). The 1980s focused on slow economic growth (Silverberg et al., 2002).

One of the most prevalent federal programs implemented to improve the quality and availability of technical education is the Carl D. Perkins Vocational and Technical Education Act (Silverberg et al., 2002, p. 1). Under the Perkins Act, vocational education is defined as occupational programs that require less than a bachelor's degree. The purpose of the 1998 Perkins Act was not only to enhance the vocational and technical skills of students choosing vocational education but to raise the academic achievement of disadvantaged and underrepresented students (Silverberg et al., 2002).

Policymakers have expressed several concerns regarding the uneven access to education, including vocational education., which led to increasing educational outcomes for all vocational education participants and underserved groups (Silverberg et al., 2002). These educational outcomes resulted in the implementation of several organizations that have, over the years, focused on the recognition of technical education and the importance of supporting students' career attainment.

Technical Education Organizations

Several organizations have been implemented to help students gain the training necessary to become part of a skilled workforce and advance technical education. The American Technical Education Association (ATEA) is an international organization devoted solely to postsecondary technical education and workforce development (ATEA, n.d.). ATEA was founded in 1928 as a non-profit professional education association. The organization is dedicated to the professional development of postsecondary educators and focuses primarily on creating a network of leaders in technical education who can share best practices (ATEA, n.d.). The ATEA organization also partners with postsecondary education institutions, business and industry members, and labor

and government stakeholders who can support their mission by enhancing workforce development strategies (ATEA, n.d.).

SkillsUSA is a non-profit national education organization serving over 331,000 students each year and is instrumental in preparing students for careers in trade, technical, and service occupations (SkillsUSA, n.d.). SkillsUSA was founded in 1965 as the Vocational Industrial Club of America (VICA). The membership grew exponentially over the years, eventually changing its name to SkillsUSA-VICA in 1999. In 2004 the name SkillsUSA-VICA was officially changed to SkillsUSA. The organization has been recognized by the U.S. Department of Education and the U.S. Department of Labor as a proven advocate of workforce development (SkillsUSA, n.d.). The mission of SkillsUSA is to empower students to become world-class leaders and responsible members of the workforce (SkillsUSA, n.d.).

The Association of Career and Technical Education (ACTE) (n.d.) is currently the largest national education association dedicated to advancing technical education and preparing individuals for successful careers. CTE programs train students to be college and workforce ready by providing employability skills and specialized training. CTE programs are implemented in high schools, job and career centers, two-year community colleges, technical colleges, and four-year universities. In addition, ACTE serves thousands of CTE professionals, and its mission is to provide educational leadership by empowering educators to provide high-quality CTE programs and training opportunities (Association of Career and Technical Education, n.d.).

Advance CTE: State Leaders Connecting Learning to Work is another organization founded in 1920 and is the longest-standing national non-profit comprising a network of career and technical education directors and state leaders (Advance CTE, n.d.). The organization

focuses on establishing equity in CTE for underrepresented populations of students who are low-income, minority, and historically marginalized (Advance CTE, n.d.). Advance CTE developed a series called “Making Good on the Promise,” which tackles the negative aspects of CTE and provides solutions to help state leaders close the equity gaps for historically underrepresented populations.

As outlined in Figure 1, technical education encompasses 16 national career clusters that serve as a bridge and educational pathway from secondary to postsecondary educational systems (Advance CTE, n.d.). The career clusters include but are not limited to career and technical education options such as Science, Technology, Engineering, and Mathematics (STEM), Manufacturing, Health Science, Information Technology, and Business Management. In addition, within these 16 career clusters, there are over 79 career pathways to help educate students on various CTE career options (Advanced CTE, n.d.).

Figure 2

Career and Technical Education Career Clusters

Note. Career and Technical Education Career Clusters. Adapted from ACTE. (Association for Career & Technical Education, n.d.) Retrieved October 2, 2022, from https://www.acteonline.org/wfd-cte/membership/acte-clusters. In the public domain.

Advance CTE also provides comparison and profile reports for each state, including enrollment profiles for secondary and postsecondary CTE students, CTE accountability, Perkins CTE grant funding, administration and governance, and CTE program quality (Advance CTE, n.d.). For example, the profile for the state of Tennessee identified the minority population of students in postsecondary CTE enrollment as 21.7% African Americans, 5.2% Latino, .3% American Indian or Alaskan Native, 1.5% Asian, and 2.6% Two or More Races (Advance CTE, n.d.). The Tennessee profile also identified 30 area technical schools in Tennessee. However, several private technical colleges are now closed. The Tennessee Higher Education Commission

(n.d.) provides information on each of these private technical institutions and information related to their closure. Many technical colleges in Tennessee are public institutions under the Tennessee Board of Regents State College System (Tennessee Board of Regents, n.d.-b).

State Technical Colleges in Tennessee

Under the State College System of Tennessee, the Tennessee Colleges of Applied Technology (TCATs) are considered the state's premier technical training providers (Tennessee Board of Regents, n.d.-b). The institutions began as secondary vocational-technical institutions under the State Department of Education (Complete College America, 2011). The Tennessee legislature reestablished this statewide system of technical colleges as State Area Vocational Technical Schools during the 1963 General Assembly (Tennessee Board of Regents, n.d.-b). The Tennessee State Board of Education system supervised these technical schools until 1983, after which the institutions were put under the "jurisdiction of the Tennessee Board of Regents" (Tennessee Board of Regents, n.d.-b).

In 1994 the technical schools' name changed to the Tennessee Technology Centers to reflect better the mission and vision of the institutions for technical education. In 2013, the Technology Centers became the Tennessee Colleges of Applied Technology through legislative action. In addition, they supported the efforts to increase the number of postsecondary credentials for Tennesseans (Tennessee Board of Regents, n.d.-b). The name change was also implemented to promote the institution as a legitimate college and remove the stigma that vocational education was intended only for those unable to attend a community college or university.

The Tennessee Colleges of Applied Technology originated as 27 institutions across the state. Due to several institutions in West Tennessee having the same administrator for multiple

campuses, some technical colleges have merged into one primary institution. The consolidation of institutions will streamline administrative processes and several operational functions to increase efficiency (Tennessee Board of Regents, n.d.-b). Therefore, there are 24 Tennessee Colleges of Applied Technology across Tennessee in the West, Middle, and Eastern regions. There are nine technical colleges in Middle and East Tennessee and six in West Tennessee (Tennessee Board of Regents, n.d.-b). Each College is situated within an approximate 40-mile radius of the other to provide more access and availability to prospective students. The technical colleges in West Tennessee are in predominantly rural areas. Currently, only one public technical college in West Tennessee is designated as an urban, metropolitan location.

While the technical colleges' student demographics range from various backgrounds, students' low socioeconomic status is a common factor. Students living in rural areas must contend with non-educational barriers such as the need for childcare, inadequate transportation, minimal access to technology, and other financial obstacles (Scott et al., 2015). Students enrolled at technical colleges primarily come from low-income families and backgrounds, including financial hardship, recent job losses, lack of success, and other barriers to their economic security (Complete College America, 2011). As the demand for a more skilled labor workforce arises, so has the need for specialized technical training. Approximately 95% of students enrolled at technical colleges receive federal and state aid (Tennessee Board of Regents, n.d.-c). Of the 86% percent of students who submitted a financial aid application, the average family income was $48,834 (Tennessee Board of Regents, n.d.-c).

Although some state college systems have incorporated technical and vocational education into community colleges, the Tennessee Colleges of Applied Technology remain distinct from community colleges (Complete College America, 2011). The technical colleges are

clock-hour institutions, not credit hour-based, with programs ranging from eight to 20 months. Each academic term is categorized into trimesters or a four-month timeframe in the calendar year. Each program has a competency-based statewide curriculum, and students can enroll in programs part-time or full-time. Although the Tennessee Colleges of Applied Technology have a distinct classification from two-year or four-year institutions, governance by the Tennessee Board of Regents and the thirteen community colleges in Tennessee allows for collaboration and cohesiveness of a statewide system (Tennessee Board of Regents, n.d.-b). The following research provides broader insight into the distinct classifications of higher education institutions and the significance of each institution.

Classification of Higher Education Institutions

Carnegie Foundation

The diversity of higher education institutions in the United States has been a positive aspect of education since the foundation of colleges and universities (Harris, 2013). A range of institutional types, from community colleges to four-year universities and technical or vocational colleges, provide postsecondary options for diverse populations of students (Harris, 2013). The Carnegie Classifications of Institutions of Higher Education (Carnegie Foundation, n.d.) was established in 1970 and continues to be the nation's leading framework for describing the diversity of higher education institutions. The Carnegie Classification uses data and student characteristics to identify specific categories of institutions based on their mission and purpose. These institutions include "doctoral-granting institutions, comprehensive universities and colleges, liberal arts colleges, two-year colleges, professional schools, and other specialized institutions" (Carnegie Foundation, n.d., para 2). The Carnegie Foundation classifies these

institutions based on information gathered from the National Center for Education Statistics data and updates their data every three years.

The Carnegie Foundation partners with the American Council of Education and plans to develop a broader classification of education institutions under the Social and Economic Mobility Classification system (Carnegie Foundation, n.d.). This expanded classification will challenge institutions in higher education to address the increasing economic, social, and minority concerns in today's landscape of higher education, especially as it relates to first-generation and other underrepresented student populations. In addition, they aim to collaborate and support postsecondary institutions and expand their efforts to effectively serve minority and first-generation students (Carnegie Foundation, n.d.).

Although the classification of four-year colleges and universities is straightforward under the Carnegie Classification, there are several variations of two-year degree institutions. The categories of technical and vocational institutions may also vary according to the 2021 Carnegie Classification, as referenced in Table 1. Carnegie classifies career and technical disciplines within the *Associate's Colleges* institutions, with separate designations for disciplinary focus – transfer, career and technical or mixed, and for student type – traditional, nontraditional, or mixed. These institutions award associate degrees as their highest award level. In 2020, the enrollment of underrepresented minority student populations in this institutional type encompassed 26.8% Hispanic or Latino, 12.2% African American, 6.32% Asian, 3.9% of two or more races, and 1% American Indian or Alaska Native (Data USA, n.d.-a).

Table 1

Distribution of Institutions and Enrollments by Classification Category, 2021

Category	Institutions		Enrollment	
	Number	Percent	Total	Percent
Associate's Colleges: Mixed Transfer/Career & Technical-High Traditional	104	2.6%	607,174	3.1%
Associate's Colleges: Mixed Transfer/Career & Technical-Mixed Traditional/Nontraditional	97	2.5%	432,911	2.2%
Associate's Colleges: Mixed Transfer/Career & Technical-High Nontraditional	115	2.9%	678,903	3.5%
Associate's Colleges: High Career & Technical-High Traditional	108	2.7%	241,112	1.2%
Associate's Colleges: High Career & Technical-Mixed Traditional/Nontraditional	117	3.0%	430,365	2.2%
Associate's Colleges: High Career & Technical-High Nontraditional	90	2.3%	241,463	1.2%
Special Focus Two-Year: Technical Professions	52	1.3%	37,153	0.2%
Special Focus Two-Year: Other Fields	54	1.4%	20,486	0.1%
Special Focus Four-Year: Other Special Focus Institutions	33	0.8%	36,265	0.2%

Note. Adapted from the 2021 Carnegie Classification Summary Tables (Carnegie Classifications, n.d.) https://carnegieclassifications.acenet.edu/downloads.php. In the public domain.

Degree concentrations may also be awarded for technical colleges classified as *Special Focus Two-Year: Technical Professions* (Data USA, n.d.-b). These institutions award undergraduate degrees with a special focus on technical programs. In 2020 the retention rate of students who began their studies the previous fall and returned the following year was 69%, a rate that was considered lower than institutions with similar enrollment (Data USA, n.d.-b). In addition, enrollment of underrepresented minority student populations was approximately 19.1% African American, 18.3% Hispanic or Latino, 3.6% two or more races, 2.2% Asian, 2.2% American Indian or Alaska Native, and .5% Native Hawaiian (Data USA, n.d.-b).

Integrated Postsecondary Data System

In conjunction with the Carnegie Classification System, the Integrated Postsecondary Education Data System (IPEDS) is a system and coordination of surveys conducted yearly by the

National Center for Education Statistics (National Center for Education Statistics, n.d.-a). IPEDS collects information from every institution that receives federal student financial aid and is used at the federal and state levels to review policy analysis and development (National Center for Education Statistics, n.d.-a). The IPEDS data may also be used to provide an analysis of trends in postsecondary education. The institutions included in the survey collection include two-year colleges, four-year universities, and technical and vocational institutions.

In addition, IPEDS must report data regarding race, ethnicity, and gender under the Title VI of the Civil Rights Act of 1964, Title IX regulations of the Education Amendments of 1972, and the Title VII of the Civil Rights Act of 1964 (National Center for Education Statistics, n.d.-a). This Act was amended by the Equal Employment Opportunity Act of 1972 (National Center for Education Statistics, n.d.-a). IPEDS must also collect and report data regarding vocational programs. This data collection of race, ethnicity, and gender was mandated by the Carl D. Perkins Vocational Education Act (National Center for Education Statistics, n.d.-a). In addition, community stakeholders and higher learning institutions recognized a need to assist students with overcoming barriers.

Community colleges have historically provided vocational education opportunities for students and continue to offer these programs today (Harris, 2013). In addition, Garza and Bowden (2014) identified community colleges as the "primary starting point for minorities in higher education" (p. 405). Community colleges have also been deemed the "legitimate entry point to higher education for all students," providing career services and vocational education (Garza & Bowden, 2014, p. 406). A significant majority of first-generation students attend community colleges, with 52% having reported needing to transfer to a four-year university (Evans, 2016).

However, technical colleges remain a practical option for postsecondary education opportunities (Tennessee Board of Regents, n.d.-a). Although the Carnegie Classification search for technical and vocational colleges yielded significant results for public and private institutions, the Tennessee Colleges of Applied Technology were not included in this classification system (Carnegie Classifications, n.d.). In addition, the IPEDS classification system categorizes the Tennessee Colleges of Applied Technology as public, two-year institutions. However, most programs at technical colleges fall under the two-year timeframe (National Center for Education Statistics, n.d.-b).

Students enrolled at the Tennessee Colleges of Applied Technology colleges come from families with low income and socioeconomic status (Complete College America, 2011). Students may be classified as economically disadvantaged, single parents, or displaced homemakers and may experience other economic security barriers (Complete College America, 2011). By looking through the lens of Bourdieu's theoretical framework, the association between first-generation students and social class will be identified (Bourdieu, 1986).

Theoretical Framework

This literature was assessed through the framework of Pierre Bourdieu's social, cultural, and human capital theory (Bourdieu, 1986). The view of cultural capital is founded on the belief that it can be acquired according to an individual's social class. According to Bourdieu (1986), the idea of cultural capital did not result from pure theoretical work but from the need to ascertain the influences of social connections. As a theoretical framework, social capital theory is often related to research on adult learners and the dynamic of social and family support (Methvin, 2012). Existing research on social capital theory pertaining to postsecondary education has also identified students of ethnic race, low-income, first-generation, and low socioeconomic

status (Moschetti & Hudley, 2014). Students from low-income backgrounds are disadvantaged in their college and career decision-making due to a lack of social capital (Methvin, 2012).

There is a connection between social class and first-generation college students, especially regarding educational attainment. First-generation college students enroll in colleges and enter an environment that is not only academic but encompasses a cultural environment with various cultural norms and unspoken rules (Irlbeck et al., 2014). Students who lack social capital tend to face challenges their peers do not encounter, such as isolation or the lack of knowledge (Peabody, 2013). Yeh (2010) also believed first-generation students who came from low-income households would not have the social and cultural capital they needed in college. Therefore, students could not overcome the barriers to their degree attainment. However, research on first-generation students from low-income families, who attended a historically black college and university, revealed that students' academic experiences improved significantly due to their perceived social capital from their professors (Parks-Yancy, 2012). Students were able to form attachments to their instructors due to a social connection and sense of relatability. In addition, students could communicate easily with faculty members from the same ethnic background. If faculty members were also first-generation college students, students would develop more positive relationships and social connections (Parks-Yancy, 2012).

Ricks and Warren (2021) stated that the challenges of first-generation, underrepresented students might also be explained based on cultural capital. This research showed that "cultural capital is described as the ability to communicate effectively, knowledge of the educational system, and understanding educational pathways" (Ricks & Warren, 2021, p. 2). Therefore, to become successful on the college campus, first-generation students must also gain the necessary forms of cultural capital. This capital is gained through campus activities such as college

organizations or clubs, community service projects, and other leadership activities (Austin, 2011). In addition, research indicated that cultural capital is acquired over a period of time through parental guidance and home life, and students with this positive upbringing are more likely to attend college (Ricks & Warren, 2021). Bourdieu believed that cultural capital is a resource that is acquired over time but primarily through socialization at home. Although students can develop cultural capital in the college setting, cultural capital is more distinct at its earliest acquisition, which is obtained by family (Dumais & Ward, 2009).

Bourdieu (1986) studied the correlation between students' academic ability and cultural capital reliant on the family's investment, identifying a connection between first-generation students and social status. As it correlates to the study of first-generation students, Bourdieu believed that parents who were in a "class-divided society" did not have the necessary "means to support their children's extended educational goals" (Bourdieu, 1986, p. 19). According to this theory, educational degree attainment helped increase the social status of individuals, and those who could not achieve this education were deemed lower-classed (Bourdieu, 1986). As a result, first-generation students with parents who did not attend college and came from low-income households were considered less prepared academically and financially for college (Creswell-Yeager, 2012).

In addition, first-generation students do not have the cultural experience to navigate the enrollment and admissions process since their parents lacked this knowledge (Irbeck et al., 2014; Nelson, 2015; Peabody, 2013). Most first-generation college students come from families who lack cultural capital in the form of college degrees and credentials and therefore do not have experience with the college admissions process (Dumais & Ward, 2009). As a result, these students will opt not to pursue a college education or withdraw because they feel they are not

suited for it. In addition, students become disconnected due to their parent's inability to relate to their college experiences and withhold information related to their schoolwork (Brinkman et al., 2015).

According to Martin et al. (2020), social relations influence students' goal attainment. Over the past thirty years, career and technical education once recognized as vocational education, carried a social stigma that identified students by their race and social class (Malkus, 2019). The study of social capital as it relates to first-generation students proposes several factors that influence the outcomes of marginalized students (Martin et al., 2020). These factors include familial influences, outside-classroom engagement, college-classroom engagement, and other external factors (Martin et al., 2020).

In creating social capital, the role of families emphasizes the "transmission of human capital via the social network between parents and children" (Peabody, 2013, p. 5). According to McCullogh (2016), established social relationships are a form of social capital and are intrinsic for students to gain support from interactions with their parents, family members, and community. By establishing these social relationships as a form of social capital, information is communicated with students that may be advantageous in developing a foundation that helps build their path to postsecondary education attainment (McCullogh, 2016). In addition, according to social capital theory, relationships can help provide emotional support and guidance to students in unknown territory (Moschetti & Hudley, 2014). Moschetti and Hudley (2014) used the social capital theory to examine the impact of first-generation students on their effort to attain social capital on the college campus. Their research showed that low-income first-generation college students struggled with retention if they could not build a successful, supportive network at school (McCants, 2019).

These networks are a form of social capital typically made available to students from parental connections or well-connected peers (Sims & Ferrare, 2021). Students from lower social class backgrounds encounter more obstacles, and these students often do not leave their communities due to the separation by social class (McCants, 2019). When students arrive on college campuses, they expect to feel included; however, they struggle to move forward when facing social barriers. According to McCant's (2019) research, students develop "class-based rejection sensitivity" when they experience rejection based on their socioeconomic status (p. 43).

First-generation college students face many challenges as they strive to integrate and acclimate to the college campus environment. The lack of specific social and cultural capital contributes to their inability to navigate the college experience and complete their degree or certificate attainment (Peabody, 2013). Institutions must also identify additional barriers to retaining first-generation college students if they are to address the issue and provide solutions adequately.

Barriers to Retention

Students' academic success may be driven by factors such as the increasing cost of tuition and a push for higher completion rates. Unlike other social classes, first-generation college students have lower graduation rates and face more challenges on their path to postsecondary education (Amaya, 2010; Cataldi et al., 2018; Peabody, 2013). According to Whitley et al. (2018), this population of students accounts for approximately one-third of college undergraduates. At a minimum, 65% of all jobs will require a form of postsecondary credential (Whitley et al., 2018). Earnings potential for college graduates is 84% more than for students who only learn a high school diploma (Whitley et al., 2018). Some researchers have found that first-generation college students cannot take full advantage of institutions' learning opportunities

during their period of enrollment (Kinzie et al., 2008; Stephens et al., 2015). Students from these populations arrive on college campuses less prepared academically, enroll in fewer credit hours, participate in fewer college activities, hold jobs, and receive lower grades (Hebert, 2018). First-generation college students were twice as likely to leave a four-year university before their second year of enrollment compared to students whose parents earned a college degree (Hebert, 2018).

Specific trends related to retention are identified as colleges and universities analyze their institutional statistical data. First-generation college students "display different patterns of persistence and degree or certificate attainment" (Cataldi et al., 2018). First-generation college students are more likely than other groups of students to change their program majors, which causes an increase in the likelihood of not completing their degree (Sims & Ferrare, 2021). Research conducted by Hall (2018) reveal that factors such as social class, race, gender, and residential location are often identified as the leading indicators of college access. While not all minorities are first-generation college students, minority classes such as Hispanics and African Americans have historically been considered underrepresented in higher education (Amaya, 2010; Schustack, 2001).

According to Wingate (2022), there is a significantly high rate of first-generation college students leaving postsecondary institutions without program completion. Students' satisfaction with financial solvency and social fit are factors in institutions' retention rates (Carroll, 2015). Students who are unsatisfied in these areas are less likely to return to school. Even when qualified for admission into leading colleges and universities, first-generation students will still limit their choices (Banks-Santilli, 2014). Their decision was due primarily to a lack of information regarding two-year or four-year colleges. In addition, students had limited income

to pay multiple school application fees (Banks-Santilli, 2014). Some first-generation college students do not understand and recognize the differences between college types, such as the difference between public and private institutions (Banks-Santilli, 2014). Allard (2019) also stated that first-generation college students' pre-college experiences might negatively impact their progression and require them to enter college with a lower GPA.

In their research, Stebleton and Soria (2012) used probability assessments such as the Kolmogorov-Smirnov probability tests to determine differences between first-generation and non-first-generation students. The results of their study determined that first-generation college students, compared to non-first-generation students, experienced more frequent barriers in their family and job responsibilities and study skills (Stebleton & Soria, 2012). As a result, these factors negatively impacted college students' academic achievement. In addition, according to research by Smithers (2018), many underrepresented students "experience differential retention rates and inequities in academic achievement" (p. 12). A lack of social support and financial and transportation issues were identified as barriers to retention and student success (Hughes, 2017). According to a report by the Lumina Foundation, students with access to transportation and reliable childcare assistance would be more likely to continue their enrollment (Chaplot et al., 2018).

Smith (2004) also identified the contrasting gap in the graduation rates of white versus non-white students and emphasized the need to improve strategies for retaining these underrepresented students. Ishitani (2006) used the attrition and theoretical persistence models to study the behavior patterns of first-generation college students. The study identified the probability of students withdrawing from college and the events that led to their decision. The findings revealed that first-generation college students were likelier to drop out of college than

those whose parents had attained a college education (Ishitani, 2006). Finally, Wohlgemuth et al. (2007) used regression analysis to analyze college students' retention and graduation rates from specific demographics. The study indicated a first-generation student's decision to continue their college enrollment was due to their personal life, family background, and how well they adjusted to the social and academic life on the college campus (Wohlgemuth et al., 2007).

Financial Implications

College costs are one of the most substantial financial obligations a student will face. First-generation college students struggle financially due to the increased costs of higher education (Banks-Santilli, 2014). According to a ten-year comparison of tuition and fees provided by the National Center for Education Statistics, the total cost of attendance at postsecondary institutions continues to increase (National Center for Education Statistics, n.d.-b). For the academic year 2020-2021, among first-time, full-time undergraduate students at four-year institutions, the average cost of attendance was $25,700 for students who lived on campus and $26,000 for students who didn’t live on campus (National Center for Education Statistics, n.d.-b). For two-year institutions, the total cost of attendance for first-time, full-time undergraduate students was $19,600 for students living off campus. In addition, at two-year institutions, the average tuition and fees were 18 percent higher in 2020-2021 than in 2010-2011 for public and private institutions. Tuition and fees for private nonprofit two-year institutions were nine percent higher in 2020-2021 than in 2010-2011 (National Center for Education Statistics, n.d.-b). Although first-generation college students may qualify for federal Pell Grants and other financial aid, additional student loans are often required to help subsidize the cost of college and achieve degree attainment (First Generation Foundation, n.d.). The type of financial aid and the amount a student receives has a bearing on their persistence to remain enrolled.

Students from low-income families eligible for grants were less likely to withdraw from school (Wohlgemuth et al., 2007). Receiving additional state and institutional grants in their first year of enrollment gave students a greater chance of remaining enrolled.

Students attending the Tennessee Colleges of Applied Technology and state community colleges receive additional state funds under the Drive to 55 initiatives. The Drive to 55 Alliance was launched in 2015 and is an alliance of community partners who work together to support the goal of "equipping 55 percent of Tennesseans with a college degree or certificate by the year 2025" (Driveto55, n.d.). Tennessee became the first state to offer high school graduates two years of free tuition if they attended a technical or community college. The Tennessee Promise Scholarship program provides two years of free tuition for eligible high school graduates. Most Tennessee Promise recipients are first-generation college students who benefit from this scholarship (Driveto55, n.d.). However, some students do not retain the scholarship due to failure to comply with mandatory requirements. To continue their eligibility, students must attend mandated meetings and participate in a mentor program sponsored by TN Achieves (TN Achieves, n.d.). Students must also enroll in full-time programs, continue participating in the mentoring program, and perform eight hours of community service before the beginning of each term (College Pays TN, n.d.). First-generation college students who do not have parents who can help them navigate the enrollment process may struggle with meeting the mandatory requirements of this scholarship. The mentors may be instrumental in guiding students through advising and offering support. TN Achieves works with students and the state of Tennessee to help increase college retention and completion (TN Achieves, n.d.)

In addition, the Tennessee Reconnect grant offers support for eligible adult students who wish to attend a community college or technical college. This scholarship provides free tuition

for eligible students (Driveto55, n.d.). The Tennessee Promise and Tennessee Reconnect grants are last-dollar scholarships and do not pay for students' books, supplies, or other program costs. First-generation college students who struggle financially and cannot get assistance from their families may seek additional resources to assist with other expenses of their programs of study.

Throughout recent decades, college completion rates have increased for students with high-income backgrounds, while those from low-income brackets have not changed (Stephens et al., 2015). Many first-generation college students experience additional hardship in their postsecondary credential attainment due to the financial difficulties they face while in college (McCants, 2019). Students from low-income households with parents who did not attend college will be less prepared academically and financially for college (Amaya, 2010; Stephens et al., 2015). Often, parents did not have the income to help contribute to college expenses, such as application fees, pre-entrance exams, and the costs associated with traveling to college campuses (Hodsdon, 2012).

Since first-generation students' parents may lack the knowledge to provide information regarding the enrollment process, students may not receive the proper financial counseling. Students who do not understand the financial aid application process or how to apply for financial assistance may incur extensive financial obligations. Research by Brinkman et al. (2013) reported that students struggled with not feeling as privileged as their peers on campus. These students felt guilty that their parents could not afford to care for their primary academic needs, such as purchasing textbooks (Brinkman et al., 2013).

In addition, first-generation students may come from lower-income families who depend on them for income and financial support (Messmer, 2021; Wilkins, 2018). Heinisch's (2018) study indicated that students who live in rural areas have less postsecondary preparation due to

having lower-income families. Therefore, students living in rural areas are more likely to choose enrollment at a public institution over a private college than their suburban and urban peers. Research published by the National Center for Educational Statistics indicated that fifty-four percent of first-generation college students did not obtain a postsecondary credential or degree because they could not afford the expense (Redford & Hoyer, 2017). The statistics also revealed that first-generation students had more student loans in their first year of college enrollment than their non-first-generation peers (Redford & Hoyer, 2017). First-generation students concerned with excessive student loan debt were more prone to dropping out of college (Austin, 2011).

Taking trips to college campuses and participating in campus tours is a standard part of the college enrollment process. However, working first-generation students cannot afford these campus visits (Stephens et al., 2012). Limited financial resources can also prevent first-generation students from applying to a wide selection of colleges, ultimately increasing their chances of acceptance. Students' decision on which college to attend may be based on the least expensive institution or the amount of financial aid eligibility (Austin, 2011).

During enrollment, working students have minimal financial resources and often do not participate in social or extracurricular activities at their school (Stephens et al., 2015). These students work more hours and take out more student loans due to their low-income status (Irlbeck et al., 2014). Families of first-generation college students may ultimately resent their decision to attend college due to the financial hardship it places on the family (Hodson, 2012). When parents determined college is affordable for their children, they are more likely to encourage the college enrollment process (Hodson, 2012).

Parental Influence

First-generation college students can gain postsecondary credentials as a means to a well-paid career and upward social escalation (Sims & Ferrare, 2021, p. 4). There is an association between student enrollment in postsecondary education and parents' education level (Hodsdon, 2012). A college education is an opportunity that students' parents could not attain due to geographical location, socioeconomic status, or familial upbringing (Sims & Ferrare, 2021). The percentage of parents who earned a bachelor's degree among students living in rural areas was 20% in comparison to students living in urban (34%) or suburban areas (36%) (Byun et al., 2012). Sixty-three percent of students living in rural areas were less likely than their suburban peers to come from a two-parent household (Byun et al., 2012). In addition, students' parents in rural areas did not frequently discuss their academic work.

Parental influence and encouragement are among the most significant predictors for students deciding to attend college (Amaya, 2010; Hodsdon, 2012). Students whose parents were more involved in the enrollment process and who spoke with them regarding college were more prone to attend college in higher numbers (Mitchall & Jaeger, 2018). Students could participate in campus tours and engage with college representatives in preparation for enrollment. According to research conducted by Murphy & Hicks (2006), students whose parents held a college degree spent more time meeting with their professors or teachers than students whose parents had no degree. Hodsdon (2012) stated that marginalized students indicated they never received encouragement from parents, which made them not put forth an effort in their academics at school. This research by Hodsdon (2012) also revealed that parents wanted their children to attend college but believed it was not within their reach. Sy et al. (2011) stated that a lack of emotional and parental support could contribute to the stress levels of first-generation

college students. Students also felt they received less emotional support from their parents, which caused them to have increased anxiety and stress levels (New, 2014). The study also determined that parents who lacked knowledge of the college process could not help their children transition into postsecondary education (Parks-Yancy, 2012; Sy et al., 2011). Their study also showed negative relationships between first-generation students whose parents showed minimal or no support (Sy et al., 2011). Although parents may wish for their children to succeed, they lack the knowledge and advice to get involved.

According to Reid (2013), parents' involvement influences students' outcomes, which would result in students gaining access to four-year colleges and universities. Parents who did not attend college were limited in their knowledge and understanding of navigating the college enrollment process, meeting admissions application deadlines, other college requirements, and available options for financial aid (Hodsdon, 2012). Students who did not have family members who understood how to navigate the educational process or pass on knowledge of the enrollment process were more likely to enter college with a limited understanding of the postsecondary college process (Boyd, 2017). Due to the lack of knowledge regarding the selection of colleges and admissions processes, parents of first-generation students may find navigating the college experience daunting (Amaya, 2010; Sims & Ferrare, 2021). This can cause parents to influence their children not to further their postsecondary education. In addition to a lack of parental knowledge, this can result in students relying on high school personnel and guidance counselors as their primary source of information regarding college admissions (Hebert, 2018; Hodsdon, 2012). Research by Hebert (2018) concluded that although their parents did not understand how to help their children navigate college, they remained supportive. Students whose parents with

postsecondary credentials were more actively involved in their children's college decisions as opposed to those whose parents did not have postsecondary credentials (Sims & Ferrare, 2021)

In addition, first-generation students who did not have parents or family members in college may experience the "imposter syndrome," which stems from the belief that they do not deserve or belong in college (Gomez Salvatierra, 2022). According to Stebleton and Soria (2012), the imposter syndrome is a dissociative state in which first-generation students may never feel socially connected, grounded, or confident during their college experiences. The phenomenon of imposter syndrome became more prevalent in higher education, with studies linking marginalized communities (Le, 2021). Students may also feel guilty for accomplishing more in their educational attainment than their family members. On college campuses, first-generation students reported higher levels of depression and stress and a lower sense of belonging (Le, 2021).

However, non-first-generation college students, in comparison, reported a greater sense of belonging with lower levels of depression and stress. In addition, research has shown that students with a sense of self-efficacy and self-confidence tend to accomplish academic achievement (Brinkman et al., 2013; Gomez Salvatierra, 2022). Students who experience imposter syndrome consider withdrawing from school or do not wish to participate in school activities (Gomez Salvatierra, 2022). Students also place unrealistic goals and expectations on themselves to strive for perfection.

Some higher education institutions reported addressing the phenomenon of imposter syndrome directly with first-generation students to help them understand their feelings and develop coping strategies (Whitley et al., 2018). However, without the necessary resources, such as access to counseling services, first-generation students experiencing imposter syndrome may

continue their feelings of guilt for leaving their families at home. Therefore, higher education institutions are incorporating resources to help these students address self-efficacy (Gomez Salvatierra, 2022; Ramos & Sifuentez, 2021).

First-generation college students may feel disconnected from their families during their college enrollment due to the new social implications (Brinkman et al., 2013). This disconnect may stem from the student spending more time on their academic studies and other college activities that would have typically been spent with their families (Brinkman et al., 2013). First-generation students may see themselves as nurturers for their families with a sense of responsibility to help care for their siblings and other family members. However, once the students became busy with their academic studies, their families began to feel socially disconnected (Brinkman et al., 2013). As a result, some parents may encourage their children to drop out of college so they can help support the family (New, 2014).

Living in a Rural Area

Research conducted by Gilmore (2017) indicated there is room for continued studies on first-generation college students who live in rural areas. The United States Census Bureau defines rural areas as open countries with population densities of less than 500 individuals per square mile and locations with fewer than 2,500 residents (Economic Research Service, n.d.). Urban areas are defined as urbanized clusters that may or may not include cities with 50,000 or more residents (Economic Research Service, n.d.). The geographical location is vital to a student's academic achievement, and credential attainment is typically lower in rural counties (Henley & Roberts, 2016; Ruiz & Perna, 2017). Byun et al. (2012) defined rural areas as locations outside of Metropolitan Statistical Areas, whereas schools in urban areas are located in the central cities of metropolitan areas. Suburban schools are those located within a surrounding

area of a central city within a metro county (Byun et al., 2012). Despite the variations among rural communities, first-generation college students' poverty rates are greater than those living in nonrural locations.

Students living in rural areas face obstacles due to living in areas with low economic stability, transportation barriers, and minimal educational preparation (Scott et al., 2015). Research conducted by Hall (2018) indicated that residential origin, in addition to other factors such as social class, gender, and race, is often identified as one main predictor of college access. Additionally, these factors may affect students' "college enrollment, persistence, and completion" (Byun et al., 2012, p. 3). For example, students who live in distressed and at-risk rural counties are twice as likely to drop out of college than those living in urban areas (Allen, 2020; Maltzan, 2006). In addition, students who dropped out of college were less likely to apply to four-year universities and more apt to apply to two-year community colleges (Maltzan, 2006). Sims and Ferrare (2021) contended first-generation college students would be more likely to persist at institutions that incorporated more outreach measures for students living in rural areas.

Students living in rural areas with limited colleges in those communities may also decide not to leave their families to attend college elsewhere. Fifty-two percent of first-generation students who took the SAT and ACT stated they wanted to attend college in their home state or close to home (Balmian & Feng, 2013). Many first-generation test takers also said they planned to stay at home instead of on campus. However, many non-first-generation test takers stated they planned to live on campus (Balmian & Feng, 2013). Students may feel pressured by their parents to attend a college close to home but may not have access to these colleges in their rural areas (Gilmore, 2017). Gant's (2019) review revealed that many parents of underrepresented students living in rural areas did not value education and would not make sacrifices to help their children

attend college. The lack of parental and community support is a factor for students living in rural areas not to attend college (Anonymous, 2011).

In addition, based on data from the Centers for Disease Control, people who live in rural areas have barriers and additional challenges related to health, economic and community development, and educational attainment (CDC, n.d.). For example, low-income minority individuals often have minimal access to supermarkets and healthy foods and limited transportation options. In addition, low-income residents of rural communities are more likely to be uninsured and live farther away from adequate health care services (CDC, n.d.). Students who lived in rural areas were also behind in degree or credential attainment compared to those who lived in nonrural areas (Byun et al., 2012; Byun et al., 2015). These students were also less likely than their nonrural peers to attend a prominent postsecondary institution and were more prone to delay their enrollment in college (Byun et al., 2015). Students living in rural areas also had limited opportunities to participate in preparatory college courses, which could negatively impact their college prospects.

The Tennessee State Collaborative on Reforming Education (SCORE) advocates for improving educational opportunities for students who live in rural areas and educating community stakeholders, policymakers, and other education advocates in Tennessee (Pratt & Richard, 2019). Tennessee has three primary regions: West, Middle, and East, with 21 counties in West Tennessee (Transparent Tennessee.gov, n.d.). These communities range from the smallest unincorporated areas to the urban, metropolitan city of Memphis, one of the largest cities in Tennessee. Tennessee is ranked fifth in the nation regarding students attending schools in rural areas, with more than 293,000 rural students, three times more than students enrolled in metropolitan regions (Pratt & Richard, 2019).

The Appalachian Regional Commission (ARC) prepares and publishes an annual report of the economic status of each county in the United States (Transparent Tennessee, n.d.). The county's economic status designations are identified by a “composite measure of a three-year average of unemployment and poverty rates and per capita market income” (Transparent Tennessee.gov, n.d.). Based on these statistics, a county is identified as at-risk or distressed. Distressed counties are ranked among the ten percent of economically distressed counties in the nation (Transparent Tennessee., n.d.). Although there are currently ten distressed counties in the state of Tennessee, this year, the state “will achieve an annual improvement in county economic status ranking in 70% of its rural counties” (Transparent Tennessee, n.d.) Of the 21 counties in the western region of Tennessee, two counties are considered distressed, while eight are deemed at-risk (Transparent Tennessee, n.d).

Environmental and cultural factors also influence the behaviors of residents living in rural communities. Individuals in Western Tennessee's Delta Region face challenges regarding limited economic and education opportunities (TN Department of Health, n.d.). Rural areas often have limited service providers and job resources (TN Department of Health, n.d.). During the COVID-19 pandemic, underrepresented students with financial barriers could not access the necessary resources for virtual learning. In addition, institutions that implemented online and hybrid instruction diminished student engagement for minority students in lower socioeconomic classes (PwC, 2021). These students faced many barriers, including poor internet and technology access, and often lived in environments that were not conducive to learning (PwC, 2021). First-generation students who live in rural, distressed, and at-risk regions, as defined by the Appalachian Region Commission, face unique barriers, such as having minimal preparation for college, low socioeconomic status and living conditions, and a lack of support from their

community (Gilmore, 2017; McCulloh, 2016; Transparent Tennessee, n.d.). This community support may not be available to students due to the rural economies and the lack of professional role models who can provide guidance (Gilmore, 2017).

Due to the geographical location of living in a rural area, first-generation students may face the issue of transportation barriers. Most rural areas do not provide public transportation options in relation to urban and suburban areas (Gilmore, 2017). This causes an additional barrier to college access if these students do not own a car or have other transportation options. In addition to a lack of adequate transportation, students may face challenges with internet access in rural areas. Internet services may be unaffordable or unavailable in some rural regions (Allen, 2020; Hebert, 2018).

Based on statistics published by the United States Department of Agriculture (USDA), the rural-urban gap in underrepresented students' college completion continues to increase (Marre, 2017). In addition, educational attainment in rural areas varies among racial, ethnic, and minority groups. Rural counties with low educational attainment levels of their populations face higher poverty and unemployment rates (Marre, 2017). According to this research, individuals from low-income families in rural areas are more likely to drop out of college (Marre, 2017). The geographic isolation of the rural area, combined with social and cultural norms, can hinder students' postsecondary aspirations (Henley & Roberts, 2016). Ultimately, postsecondary education may be determined based on the most affordable and conveniently located institution.

Technical Education – First or Last Option?

Published statistics showed one-third of first-generation undergraduate students were enrolled in postsecondary institutions (Cataldi et al., 2018). First-generation college students are more likely to enroll in postsecondary education part-time and attend two-year higher education

institutions, for-profit institutions, and other less than four-year institutions (Nunez & Cuccaro-Alamin, 1998). ACT and SAT test-takers in a study conducted by Balmian and Feng (2013) showed a higher percentage of first-generation students planning to attend two-year community colleges than non-first-generation students. This coincides with previous National Center on Education Statistics data, which stated that first-generation students were more prone to enroll in community colleges (National Center for Education Statistics, 2022). More recent statistics revealed that 44% of low-income students enrolled in community colleges and several minority groups were considered underrepresented (National Center for Education Statistics, 2022). When comparing the postsecondary educational attainment of those students who live in rural areas, research showed more individuals received associate and bachelor's degrees (Marre, 2017).

Students believe obtaining a bachelor's degree increases their lifetime earnings potential, and those with a bachelor's degree earn 84% more than those without a high school diploma (Stephens et al., 2015). However, according to data from Carnevale et al. (2011), the calculated difference between those with a high school diploma and individuals with a bachelor's degree is approximately 74%. According to their research, $2,268,000 is the lifetime earnings for those with a bachelor's degree, while $1,304,000 is the lifetime earnings for those with a high school diploma (Carnevale et al., 2011). Their findings were based on total earnings from those identified as full-time workers aged 25 to 64 years old. The research also revealed that earnings varied based on the race and ethnicity of the individual, with African Americans and Hispanic workers having lifetime earnings lower than their white counterparts.

In addition, first-generation college students living in rural areas from lower-income families may choose career fields that lean toward more high-paying jobs (Sims & Ferrare, 2021). However, according to a study by Moore (2022), first-generation students enrolled in

community colleges, and four-year institutions felt less prepared than their non-first-generation counterparts when transitioning to postsecondary education.

The Vocational Act of 1963 brought a focus on students who were either academically or economically disadvantaged. In the late 1980s and 1990s, vocational education was scrutinized due to the population of students it served (Malkus, 2019). However, the growing stigma behind vocational education continued to grow, especially during the early 1990s. Postsecondary students whose families were from a lower socioeconomic status were more likely to enroll in vocational programs than students from financially prosperous families (National Center for Education Statistics, n.d.-c).

Over the past thirty years, career and technical education, once classified as vocational education, carried a social stigma and categorized students by their race and social class (Bither, 2018; Malkus, 2019). The perception of technical education has been influenced by many factors, including the relevance and quality of training outcomes to employers (Ackehurst et al., 2022). Comparing technical education with other higher education institutions implies that technical colleges are a second-choice pathway. Historically, "low college aspirations and socioeconomic status" have been the strongest predictors for students enrolling in vocational education programs (Silverberg et al., 2002, p. 45). Inevitably, vocational education has carried the perception that it primarily serves students who are underrepresented or disadvantaged; have no plans for college; struggle academically, have disabilities; are from low-income; are minority racial or ethnic groups; or have behavioral issues (Silverberg et al., 2002).

Many individuals view four-year universities as the most viable career pathway to financial stability and success (Ackehurst et al., 2022). In addition, students may receive pressure from their families to attend a four-year university due to technical education's negative stigma

(Bither, 2018). However, students who graduate from technical colleges tend to incur less debt and experience a more positive statistical outlook in the job market (Ackehurst et al., 2022).

Students enrolled in technical colleges have been stereotyped as lazy or not intelligent enough to attend a "real" college (Bither, 2018). As a result, these underrepresented students are less likely to enroll in selective higher education institutions and may choose technical institutions as an option for postsecondary education (Allard, 2019). A publication by the National Center for Education Statistics (n.d.-c) stated that individuals of special populations, such as single parents and the economically disadvantaged, were more apt to enroll in vocational education institutions. Although vocational education has become more career-centered, many academically challenged students from special populations are informed that technical education is their best chance at a sustainable career (Malkus, 2019). In addition, students from low-income families are more likely to enroll in vocational education than those from higher socioeconomic classes (Silverberg et al., 2002).

As a result, there was a push to rebrand vocational education. As a result, Perkins V or the *Carl D. Perkins Strengthening Career and Technical Education for the 21st Century Act* was signed into law in 2018 and enacted on July 1, 2019 (Granovskiy, 2018). Under this new reauthorization, funds are used to develop and improve career and technical education programs through an allocation formula for performance indicators. Government entities and technical education providers also use various strategies to include diverse pathways, quality improvement, and marketing campaigns highlighting technical education's benefits to prospective students (Ackehurst et al., 2022). For example, some implemented marketing campaigns rebranded the name from vocational education to “technology education, careers education, industry education, and technical education” (Ackehurst et al., 2022, p. 6). In

addition, organizations that promote skills competitions, such as SkillsUSA, have been instrumental in promoting the raised standards of technical education (Ackehurst et al., 2022; SkillsUSA, n.d.). These competitions raise standards by providing opportunities for individuals to demonstrate their technical skills and showcase technical education and training.

Students' retention and college program completion is an essential aspect of excellence for higher education institutions. An integral component of retaining first-generation students is creating an environment where they can excel (Garza & Bowden, 2014). In addition, at-risk and underrepresented students need additional support to help them connect with postsecondary institutions and persist in their educational goals (Garza & Bowden, 2014). Colleges and universities confront this issue by developing and implementing ways to provide this additional support.

Implemented Programs and Strategies

To reduce social class disparities for first-generation college students, strategies are implemented in institutions of higher learning to help individuals perform academically at their fullest potential. Creating a more inclusive campus culture can help students acclimate to the college environment and encourage them to participate in school activities (Stephens et al., 2015). In addition, first-generation college students with access to career services, co-op or internships, or other professional development shadowing opportunities have more positive outcomes upon graduation and throughout their post-college careers (First Generation Foundation, n.d.). With the focus on student attrition, colleges and universities have invested in additional resources, such as developing new initiatives and offering support programs to help first-generation students attain their degrees. For example, first-generation college students

attending urban postsecondary institutions were exposed to mentoring programs, allowing a smoother college transition (Sims & Ferrare, 2021).

However, there have not been as many opportunities for first-generation students living in rural areas to create a similar social capital pipeline. As a result, these students tend to create their own form of social capital that may affect their transition to postsecondary education (Sims & Ferrare, 2021). The theory of social capital provides higher education institutions with a foundation of practice as they create policies and implement procedures to help underrepresented populations of students (Peabody, 2013). The types of activities students engage in on college campuses are equally crucial to their retention and development (Garza & Bowden, 2014). Colleges and universities that can keep students engaged in various activities can retain students at a higher rate than less engaged students (Garzan & Bowden, 2014). In addition, programs implemented on college campuses can be designed to establish social networks that may prove instrumental in helping students persist in their academic goals toward college completion. Boyd (2017) believed first-generation students should engage in "social and peer networks," which were proven to positively impact "student retention and persistence" (p. 22). Other programs implemented on college campuses may also include “first-year interest groups, residence living groups, seminar memberships, and other community-building activities” that may prove beneficial throughout a student’s sophomore year (Hicks, 2002, p. 4).

Institutions have built positive campus climates for first-generation students by hosting celebratory events such as a first-generation student awareness week and other hosted events (Whitley et al., 2018). These events can allow parents to participate and gain additional insight into their children’s college experiences. In addition, implementing programs highlighting students’ achievements can help foster a campus culture that allows students to gain confidence

and forge pathways to success. Finally, these opportunities for first-generation students can help improve and support institutional student retention efforts.

Theoretical Retention Models

Hewitt's (2021) research referenced theoretical retention models to evaluate first-generation students from low-income backgrounds. These models included Alexander Astin's Involvement Model (1999), Vincent Tinto's Student Integration Model (1975), and Bean's Model of Student Attrition (1981). Astin's theory premised that students' retention was contingent on how involved the institution was in the daily facets of the student's life (Astin, 1999; Carroll, 2015; Garza & Bowden, 2014; Hewitt, 2021; Thayer, 2000). Astin also believed that a student's identification of self before enrollment could determine their success level in college. Eventually, how students perceive themselves during enrollment could change as they develop social and academic relationships at the institution. In addition, according to Astin (1999), students' chances of withdrawing are more significant at a community college than at a four-year university. This high withdrawal rate is due to minimal involvement between the student and faculty members. Students who attend community colleges are commuters and typically enrolled part-time. Living on campus increases the students' likelihood of persisting and attaining their degrees. As a result, first-generation college students are more apt to work off campus. This workload can cause retention to suffer because students spend significant amounts of time on activities unrelated to academics. This also decreases students' time and energy to devote to their academic studies and other campus activities (Astin, 1999).

Tinto's student retention theory identified the unique relationship between students and their college environment (Tinto, 1975). His theory asserted that students' decision to withdraw from an institution resulted in their interactions with the campus community. Tinto believed a

student could become integrated into the academic side of the institution but still not be acclimated to the social aspect of college, thereby deciding to withdraw from the institution (Tinto, 1975). First-generation college students understood the college experience outside the classroom (Lowery-Hart & Pacheco, 2011). However, these students also stated they entered college with less knowledge of what to expect and tend to differ in the expectations of their families (Lowery-Hart & Pacheco, 2011). This lack of cultural connection made them afraid to discuss their cultural identities.

Bean's Model of Student Attrition included several background variables such as "parents' education, helpfulness of advisors, contact with faculty members, and memberships in campus organizations" (Bean, 1981, p. 10). In addition, the model also included environmental variables such as "family approval of the institution, family responsibilities and difficulty of financing one's education" (p. 11). These variables were used to identify the likelihood of students withdrawing from college. Concerning first-generation college students, the common theme of these models identified students' academic preparedness, socioeconomic status, parental education, and college goals and aspirations. Bean also argued the social system and institutional commitment of peer groups and faculty interaction lead to social integration, decreasing the likelihood of students withdrawing from college.

Faculty Interaction

The disconnect between students' first-year experiences and their expectations can hinder their ability to continue into their second year. Students tend to form college expectations based on high school experiences (Nelson, 2015). The inability to interact with their college instructors hinders first-generation students' academic engagement (Hutchison, 2015). In addition, "gender, race, and socioeconomic status" influence how students formulate their college expectations

(Nelson, 2015, p. 40). Some research has attributed students' success to their instructors' race or ethnicity (Parks-Yancy, 2012). For example, first-generation students from low-income families, who attended a historically black college and university, revealed that students' academic experiences improved significantly due to the social capital they received from their professors (Parks-Yancy, 2012). These forms of social capital included career counseling and faculty mentoring. In addition, the research also suggested that by increasing the number of minority faculty members on the college campus, students were more receptive to gaining support from their teachers and, therefore, increased their social interaction (Parks-Yancy, 2012).

According to Nelson (2015), first-generation college students' first-year persistence is due to their ability to interact positively with faculty members. For example, first-generation students who participate in focus groups regularly identified one individual that they felt was instrumental to their academic success (Whitley et al., 2018). These individuals were faculty members or mentors who acted as a point of contact to advocate for first-generation students. The research in this study revealed that the individual must be familiar with the institution and connected to both the institution's student services and academic side (Whitley et al., 2018). However, if students lack the self-confidence to engage with faculty members, this can impede their academic progress. In addition, Nelson (2015) concluded that female, first-generation students might not interact with faculty compared to first-generation male students. This lack of interaction is because female students may feel more marginalized and underrepresented, which will minimize their faculty interactions (Nelson, 2015).

Additional research conducted by Boyd (2017) stated that increasing faculty interaction with first-generation students also helps students to enhance their critical thinking and comprehension of subject matter. Faculty identifying as first-generation are also more willing to

engage with students due to the connection of their own experiences (Whitley et al., 2018). A report published by Whitley et al. (2018) revealed that faculty members were excited to engage with first-generation students and invited them to participate in workshops and other campus events. This research also reaffirms Astin's Model, which says students who frequently interact with faculty members on campus are more likely than other students to express satisfaction with all other aspects of their college experience (Astin, 1999).

Students at four-year universities who took advantage of faculty mentoring felt they benefitted intellectually from this engagement (Hebert, 2018). Students also felt they gained more self-confidence and developed more professional and organizational skills from supportive faculty who shared knowledge of their respective fields (Hebert, 2018). However, Morales (2014) believed that most faculty never had formal training in teaching students from various cultural and economic backgrounds. Morales (2014) identified the approach faculty members could take to increase resilience in first-generation students. This approach included applying a resilience paradigm that could identify and heighten the critical attributes first-generation college students need to succeed. Instructors increase students' self-efficacy by providing feedback on most course assignments and allowing students the opportunity to choose the topics for assignments (Morales, 2014).

The need to restructure faculty mentoring programs for first-generation students was also argued by Smith (2004). The researcher believed the issue with colleges and universities' existing mentoring programs is they do not teach students how to understand “the hidden curriculum” of the higher education system. Smith (2004) also believed that one on one mentoring between faculty and students was not as beneficial as a network of faculty and

administrators who could help students understand the academic and cultural knowledge of higher education.

First-generation college students receiving assistance such as tutoring and peer mentoring support received higher grades than those not participating in tutoring services (Pringle-Hornsby, 2013). Students credited their mentors with providing guidance and support. Relationships with authority figures from diverse backgrounds and social classes help first-generation, underrepresented students feel connected and part of the campus community (Stephens et al., 2015). In addition, a network of mentors could apply various pedagogic strategies regarding curriculum, interactive workshops, seminars, and other supplemental materials to help first-generation students navigate their postsecondary experience (Smith, 2004).

Bridge Programs

Schelbe et al. (2019) stated that first-generation college students began their postsecondary education at a disadvantage in comparison to their peers due to a lack of "social support, academic expectations and preparation, and access to resources" (p. 62). Due to this lack of preparation, institutions began developing programs to help improve students' retention rates and academic success (Schelbe et al., 2019). Programs that focus on first-generation students' transition to college and offer support to students related to their academic progress are called "bridge programs" (Schelbe et al., 2019). These programs are designed to help first-generation students build strong social and academic networks in hopes of increasing graduation rates. Colleges and universities typically provide these early college experiences for at-risk, underrepresented students during the summer before their first semester or at some point during their first year of college (Grimard, 2004). Research by McCants (2019) revealed first-year

structured programs designed to promote persistence, increased at-risk students' academic performance.

However, a study by the Center for First-Generation Student Success stated that summer bridge programs are not enough by themselves but must be incorporated with additional programs offered by the institution (Whitley et al., 2018). These programs include mentoring and sharing information across the campus and have been a foundation of the first-generation experience. However, institutions are now modifying outdated services and expanding their program outreach to meet the needs of a larger campus community (Whitley et al., 2018). A study by Ricks and Warren (2021) also validated this research by stating the experiences their participants reported while attending summer programs. The students felt they did not benefit from the summer orientation. They also noted that the group advising was complicated, and they did not have enough time to ask questions. Students had specific questions about program costs but were confused about the process (Ricks & Warren, 2021).

Learning Communities

Stebleton and Soria (2012) believed first-generation students benefited from intentional engagement, such as learning communities and other activities that enhanced their college experience. Tinto (1998) proposed adopting learning communities to address institutions' retention issues. Tinto believed learning communities were beneficial for first-generation students to form peer groups and increase the quality of their academic learning. The learning communities involved students learning together in the school setting and outside the classroom. Yeh (2010) explored the experiences of first-generation college students in their involvement with academic service learning. Students interviewed during the study reflected on their experiences, which led them to examine their motivation, values, and self-improvement. The

students also reflected on how service-learning activities acted as "de-stressors" and helped them deal with school pressures. The students felt the experiences helped them stay motivated to not withdraw from college (Yeh, 2010).

To increase working-class students' sense that others on campus are like them, institutions provide service learning and community engagement to diversify cultural norms on campus (Stephens et al., 2015). First-generation students with similar socioeconomic backgrounds also understood some of the issues other students faced. Moore (2022) also believed that students involved in peer mentoring had decreased anxiety levels. The framework for this learning community also demonstrated how service learning influenced the four themes: 1) spiritual, 2) academic, 3) psychosocial, and 4) academic (Yeh, 2010). The study's findings suggested that the students could develop "cultural and social capital" (Yeh, 2010) through positive service-learning experiences.

Federal Trio Programs

In 1965, after the Federal Higher Education Act was passed, the U.S. Department of Education implemented the first federally supported education programs to help increase the college enrollment and completion rates of low-income and underrepresented college students (Pitre & Pitre, 2009). TRIO programs were implemented as part of President Lyndon B. Johnson's War on Poverty. These were the first federal college programs addressing the social and cultural barriers students faced in pursuing educational attainment (Council for Opportunity in Education, n.d.). Many higher education institutions have aligned with the definition of first-generation students since TRIO programs were some of the earliest programs implemented to report data on first-generation students (Whitley et al., 2018). The initial TRIO Programs included Special Services for Disadvantaged Students (Student Support Services), Talent Search,

and Upward Bound (Tym et al., 2004). Federal TRIO programs were created to identify and provide services to help students from disadvantaged backgrounds pursue their college education dreams (Office of Postsecondary Education, n.d). At least two-thirds of the students must be first-generation college students with less than 150 percent of the family income poverty level (Office of Postsecondary Education, n. d.) TRIO services include academic assistance such as college advising, help with college admissions processes, tutoring services, career and financial counseling, financial aid assistance, and other necessary guidance (Council for Opportunity in Education, n. d.)

According to Pitre and Pitre (2009), TRIO programs have been advantageous in increasing retention rates and educational attainment of students from first-generation, underrepresented backgrounds. For example, one four-year university that implemented TRIO Programs on campus conducted Bridge Scholars programs to implement learning communities (Thayer, 2000). The program promoted a social community and academic assistance, giving students access to staff and faculty mentors, educational workshops, and personal support (Thayer, 2000). As a result, student participation in the program over five years had higher retention rates than the overall university average (Thayer, 2000).

Thayer (2000) also researched the Student Support Services programs at postsecondary institutions and found that one of the most high-performing services involved a structured freshman program. This program emphasized the need to incorporate and promote academic experiences earlier in first-generation students' college enrollment. Tinto (1998) also believed colleges and universities should structure activities to educate first-year students, as identified by one four-year university model. This model developed and implemented stand-alone academic

units with faculty and staff primarily tasked with educating first-year college students (Tinto, 1998).

Grimard (2004) analyzed Upward Bound, a federally-funded TRIO program that offered summer programs for first-generation college students. Results from the study showed that low income and poverty was the foremost contributing factor associated with attending college and completion rates (Grimard, 2004). However, once enrolled in the program, students who lived in rural areas began to benefit academically and financially. In addition, students believed the Upward Bound program helped them better prepare for college enrollment and explore career opportunities (Grimard, 2004). The study also indicated students increased social involvement due to meeting other students in the same racial and ethnic populations. Research by Pringle-Hornsby (2013) also verified that students who participated in the Upward Bound Program at a four-year university felt prepared for college enrollment. In addition, participants from the research study felt their exposure to the program provided them and their parents with the information needed to navigate the entry process (Pringle-Hornsby, 2013). First-generation students also revealed that increased awareness helped alleviate their initial fears and concerns before enrollment (Pringle-Hornsby, 2013). However, research by Banks-Santilli (2014) revealed first-generation students did not know these programs existed. Therefore, the students were not only trying to prepare for college by themselves but also trying to educate their parents about the process.

In a report published by the U.S. Department of Education (Federal Trio Programs, n.d.) of first-generation college students participating in Student Support Services Programs, those who received services had higher rates of completion when compared to those who did not participate. The report encompassed data from the National Student Clearinghouse for two-year

and four-year universities, with cohort enrollment from Fall 2007 to Fall 2020 (Federal TRIO Programs, n.d.). However, the study did not include any data for technical colleges, which reaffirms the gap in the literature for this student population. Of those participants who enrolled at a four-year institution, 55% earned a bachelor's degree within 150 percent of normal time, while 45% of nonparticipants did not (Federal TRIO Programs, n.d.). Of those participants enrolled at a two-year institution, 43% earned a postsecondary degree within 150 percent of normal time, while 22% of nonparticipants did not (Federal TRIO Programs, n.d.). Targeted efforts to help mitigate barriers to postsecondary education for first-generation college students can be critical in recruiting and retaining students from this population (Tym et al., 2004).

Nonprofit Organizations

The Lumina Foundation is one of the most prominent supporters of postsecondary education for first-generation, low-income, underrepresented students. This nonprofit organization is committed to helping students with college success and postsecondary credential attainment (Lumina Foundation, 2009). The Lumina Foundation addresses equity outcomes across racial, ethnic, and low-income populations historically underserved. The mission of the Lumina Foundation for Education is to expand access and success among first-generation college students and low-income and minority students (Lumina Foundation, 2009). The mission is led by its goal to increase the percentage of Americans with degrees and postsecondary credentials from 39% to 60% by 2025 (Lumina Foundation, 2009). The foundation’s strategies for this goal attainment include expanding postsecondary access and outreach programs and advocating for policies and programs that help support low-income students. In addition, the foundation promotes strategies that improve degree and certificate attainment, especially for first-generation, underrepresented students (Lumina Foundation, 2009).

More than one-third of college students receive federal Pell grants, classifying them as low-income or economically disadvantaged. However, according to statistics published by the Lumina Foundation, that proportion may be higher due to many Pell-eligible students not receiving or applying for the Pell grant (Chaplot et al., 2018). As a result, many students with limited resources struggle to meet the demands of increasing college costs. In 2018 the Lumina Foundation published a report called "Beyond Financial Aid" in response to low-income students' low retention and dropout rates (Chaplot et al., 2018). This report identified five strategies for supporting underrepresented students, 1) know your low-income students, 2) review internal processes and organize supports, 3) build internal and external partnerships, 4) optimize students' use of services, and 5) create a culture of support (Chaplot et al., 2018). The Lumina Foundation believed that to help low-income students more effectively, postsecondary institutions must first recognize who these students are. In addition, these students face hardships that include lack of access to food, insufficient shelter, health care, lack of transportation, child care, and the inability to manage with limited or no income.

However, the Beyond Financial Aid (BFA) report stated that when higher education institutions organize and offer programs effectively, low-income and underrepresented students will persist in their education and graduate at higher rates (Chaplot et al., 2018). Higher education institutions that successfully closed the retention gaps and increased student success implemented more than one or two policies to maximize results (Chaplot et al., 2018). The Lumina Foundation believed that by increasing postsecondary education success among low-income adults, the nation would reach its postsecondary college completion goals and create a more college-educated workforce (Lumina Foundation, 2009). The foundation supports improving public education policy but recognizes that the entire education system must work

together to increase college access more effectively. This group of stakeholders includes community colleges, four-year universities, employer-based training systems, and other adult learning systems (Lumina Foundation, 2009).

Other non-profit organizations have implemented programs and initiatives to support underrepresented students throughout the years. For example, in 1981, the Council for Opportunity in Education was established and dedicated to providing college opportunities for first-generation, low-income students (Council for Opportunity in Education, n.d.). The Council believes everyone has an equal opportunity to complete a college education regardless of their economic background or social class. The Council has a membership with over 1,000 colleges, universities, and other community agencies. Over one million low-income students are provided services through the organization with college access and retention services from postsecondary institutions (Council for Opportunity in Education, n. d.). In addition, the Council works with colleges and universities and partners with other TRIO programs to help first-generation, and low-income students enter college and obtain a degree. Each year, the Council helps over a million low-income students and students with disabilities receive access and retention assistance through their partnerships and membership services (Council for Opportunity in Education, n.d.).

To celebrate first-generation students at the national level, the Center for First Generation Student Success partnered with the Council to celebrate and recognize first-generation college students to coincide with the 52nd anniversary of the Higher Education Act (Whitley et al., 2018). In addition, several members of Congress shared their own stories of being first-generation college students and conveyed their focus on policies related to student success (Whitley et al., 2018).

The First Generation Foundation is another nonprofit organization that offers resources and support to colleges and universities to help recruit and retain first-generation college students (First Generation Foundation, n. d.). The First Generation Foundation provides free digital resources to assist colleges and universities in recruitment and retention efforts. The organization advocates for first-generation college students aspiring to gain a postsecondary education. Its mission is to help first-generation college graduates serve, educate, graduate, and evolve (First Generation Foundation, n.d., para 1). In addition, this organization connects first-generation students to other organizations, colleges, and universities dedicated to helping students succeed. According to the organization, first-generation college students have historically faced challenges that led to failure to attain a higher education (First Generation Foundation, n. d.). The organization fulfills its mission by offering scholarships, assessments of student services for first-generation students across college campuses, and other campus and community initiatives (First Generation Foundation, n. d.). The organization's founders were also first-generation college graduates who understood the barriers many students in this population face in their pursuit of quality education.

Chapter Summary

The explicit purpose of this literature review was to provide a thorough overview of the experiences of first-generation college students in their pursuit of postsecondary education. The research in the literature reaffirms that first-generation, low-income students face issues and barriers in their pursuit of college degree attainment. A review of the literature also found that students who identified as first-generation experienced challenges and barriers, such as marginalization, based on their social-economic status, background, and geographical location

(Tate et al., 2015). However, these marginalized students could access postsecondary education with a social support network (Sims & Ferrare, 2021).

In response to these issues, the research shows community colleges and four-year universities have emphasized implementing strategies for retaining this population of students and their pursuit of academic success. While significant research and progress have been made on first-generation, low-income students, there continues to be a gap in student attrition as it relates to this population of students (Johnson, 2012). There is a need for more research to evaluate government-funded programs' long-term effectiveness and identify other opportunities institutions can make available to first-generation, underrepresented students.

Furthermore, the literature presented in this chapter reveals a gap in the research conducted on first-generation students attending technical colleges in rural areas. Rural schools lack institutional support, which can hinder students in their postsecondary education (Henley & Roberts, 2016). While there is minimal research on first-generation college students in this education sector, the pilot study I previously conducted and the research presented in this literature review are substantial enough to provide context for my continuing this study. Therefore, there is a need further to explore the experiences of first-generation rural technical college students. Chapter 3 will describe the methodological process used to guide the study of the experiences of first-generation students attending a technical college in a rural geographical location.

Chapter 3. Research Method

This qualitative study focuses on the experiences of first-generation students attending a technical college in rural West Tennessee. Additionally, by sharing the participants' perceptions of their experiences at a technical college, this study may provide additional insight for education and community stakeholders who wish to emphasize students' success and graduation rates. This chapter presents the methodology used to explore the experiences of first-generation students attending technical college in a rural area. Also included in this chapter is an overview of the research method, the research questions the study will answer, my role as the researcher, participant selection methods, the methods for data collection, and a description of the data analysis utilized in the study. In addition, this chapter also includes an overview of the trustworthiness, credibility, and ethical considerations I encountered during this study. Finally, the chapter ends with a brief summary.

Research Design

The general inductive approach in qualitative research has been identified within the past ten years (Liu, 2016). According to research by Thomas (2006), inductive analysis “refers to approaches that use raw data to derive concepts, themes, through interpretations by the researcher” (p. 238). A general inductive approach may be used for qualitative data analysis, which involves building from the data to formulate broad patterns or themes (Creswell & Creswell, 2018). These themes are then compared with participants' personal experiences or existing literature (Creswell & Creswell, 2018). According to Thomas (2006), the general inductive approach is a more straightforward approach than other traditional qualitative data analysis. I chose this inductive approach so significant themes would emerge from the data

without the restraints of other structured methodologies. Using this inductive approach, I condensed varied participant data into a brief summary format.

The analysis is conducted through multiple readings and interpretations of the data. In inductive analysis, the findings are influenced by the questions outlined by the researcher (Thomas, 2006, p. 239). According to Liu (2016), the generic inductive approach "design develops and becomes increasingly focused during the research process" (p. 130). This research design's goal is to interpret rich data (Liu, 2016). For this study, the inductive approach satisfactorily fits the research topic. This approach allowed me to inquire how participants' educational experiences as first-generation college students attending technical colleges were created and given meaning. Since participants' experiences should be approached through their own perspectives, interviews provided better access (Liu, 2016). Participants were able to interact naturally with the researcher. This research design allowed me to summarize participants' interview data into themes and develop connections with the research purpose.

Research Questions

The following research questions guided this qualitative study:

1. How do first-generation technical college students in rural Tennessee describe their educational experiences?
2. What experiences do first-generation students attending technical colleges in rural West Tennessee perceive as impacting their academic success?
3. What are the reasons first-generation students report for attending a technical college?
4. How do first-generation students perceive the program initiatives at the technical college?

Researcher's Role

This study aims to share the experiences of first-generation students attending a technical college in a rural area. According to Patton (2015), being mindful of your biases and subjectivity can help produce more trustworthiness in your research. My experiences as an educator and first-generation college student have shaped my perspective on how challenging it can be to navigate college with limited resources. Therefore**,** I am sensitive to this population of students in rural areas finding their path to college completion. Reflexivity is a process of self-reflection for the researcher and is essential for establishing credibility. According to McMillan and Schumacher (2010), bias refers to "both deliberate and unintentional influences that the researcher has on the subjects" (p. 113). Within qualitative studies, the researcher "becomes immersed in the situation and the phenomenon being studied" (p. 12). Creswell and Creswell (2018) also stated that researchers must self-reflect and clarify the bias they may bring to the research study. This period of self-reflection can begin the process of creating an open and honest narrative that will resonate with the participants as well as the readers of the study. Researchers accept that they cannot separate themselves from their "research by bringing their personal experiences, values, and perspectives" (Fusch et al., 2018, p. 19). Qualitative researchers consider human subjectivity through various strategies (McMillan & Schumacher, 2010).

Reflexivity Statement

I grew up in a low-income, single-parent household in rural West Tennessee. My family faced many hardships and obstacles during my childhood due to their lack of income and socioeconomic status. I had become a single mother during my teenage years but was determined to complete high school and further my education. I knew this would be a determining factor in having a better quality of life. I have since relocated from this rural area to a suburb of a larger

metropolitan city. However, I am a first-generation college student and can identify with the barriers this population of students can face. I can also reflect on the motivating factors that helped me push forward and continue my education. Although I did not attend a technical college for my post-secondary education, I have worked in these institutions in rural areas for the past thirteen years. I began this career field as a Student Services Coordinator and eventually became an administrator, which is the position I have held for the past five years. Due to my administrative position at a technical college, I especially see the benefits of technical education in rural communities. As the researcher of this study, I believe there is a significant need for students of all populations to receive access to post-secondary education and the opportunities they may gain with this attainment. However, when questioning participants, it was imperative for me to be clear so as not to interpret their answers based on the assumptions of my own experiences. I am a member of this population of students and an employee of the technical colleges. However, I was responsible as the interviewer and the data collector to present the information given to me in the most unbiased and distinct method possible.

I worked to address reflexivity by writing a reflexive journal for this study. The journal is a continuous record of the decisions made during the research process and the assessment of the trustworthiness of the data (McMillan & Schumacher, 2010). In addition, as the researcher, I identified my role and experience regarding first-generation students and technical education. With the reflexive journal, I could reflect on my personal experiences and consider how these experiences shaped my interpretation of the results from the interview process.

During the interviews, I limited discussions about my personal experiences with the participants. According to McMillan and Schumacher (2010), researchers establish credibility through reflexivity by building trust and being open-minded about the participants' experiences.

One of the strategies of reflexivity that I used during the interview process was "recognition of the other," where the participants were allowed to speak for themselves" (McMillan & Schumacher, 2010, p. 333).

Population

According to Butina (2015), the sample size in qualitative research is not straightforward. The sample size is ambiguous and contingent on many factors, such as the theoretical framework, resources, time, and data collection type (Butina, 2015). The logic of the sample size is related to the purpose, the research problem, and the availability of participants (McMillan & Schumacher, 2010). According to research by Liu (2016), data collection under the inductive analysis should end based on data saturation when new information is no longer being gathered. I interviewed 17 participants for this study. The inductive approach requires purposeful sampling (Liu, 2016). I used purposeful sampling to select the student participants and institution type for this research. In purposeful sampling, the researcher selects particular components from the population representing the research topic (McMillan & Schumacher, 2010). Based on the researcher's knowledge of that specific population, a determination is made regarding which subjects should be selected. In addition to purposeful sampling, I utilized snowball sampling to recruit participants. Snowball sampling is a purposeful sampling method involving participants referring other individuals who meet the research criteria (McMillan & Schumacher, 2010).

The institution chosen for this study was selected based on the educational sector and geographical location relevant to the research topic. The institution is a technical college located in rural West Tennessee with a service delivery area covering eight counties and four branch and extension campuses. The total student population is approximately 1,100 full-time and part-time secondary and postsecondary students enrolled in programs that range from four to 20 months.

The participants represented criteria identifying first-generation student populations living in rural areas in West Tennessee. While first-generation status is a key characteristic of this study's participants, other elements include socioeconomic status and geographic residence. All participants in this research study were 18 years or older and consisted of full-time and part-time students living in a rural county in West Tennessee. The technical college is a clock-hour-based institution where full-time students attend their program of study Monday through Friday for six hours each day. This equates to 432 clock hours for the entire trimester. The students were currently enrolled at the technical college and had completed the first trimester of their program of study.

Data Collection Methods

Qualitative research data may be collected through interviews, observations, or other documentation and may include a series of activities the researcher encounters during this study phase (Butina, 2015). Data collection steps can include setting the limitations through sampling and recruitment, collecting information through structured or semi-structured interviews, and establishing the protocol for recording data (Creswell & Creswell, 2018). Qualitative research involves purposefully selecting participants and sites to help the researcher understand the research topic and questions (Creswell & Creswell, 2018). Typical recruitment methods assume the participants are willing to describe their experiences regarding the research topic. In addition, according to Creswell and Creswell (2018), the researcher must discuss the strategies that will be used to recruit participants. These strategies can include offering incentives for individuals to participate and reflecting on recruitment methods that can be used if one approach is unsuccessful in obtaining participants. For the recruitment of this study, participants were given a $25.00 gift card as an incentive and token of appreciation for the time they committed to the

study. If participants decided not to progress further into the study or interview process, they could still keep their gift cards. The recruitment of participants for this study consisted of email solicitation, recruitment flyers, and the snowball collection method.

Qualitative research interviews produce information about participants' perspectives, beliefs, experiences, and opinions (Roulston, 2019). For this study, semi-structured interviews were the chosen method for data collection, utilizing an Interview Protocol with approximately 17 open-ended questions (Appendix). A semi-structured interview is more flexible than a structured one, allowing the researcher or participant to divert and pursue an idea or thought in more detail (Roulston, 2019). The researcher can ask questions to different participants in different ways while staying within the same context. Utilizing semi-structured interview protocols enables the participant to be more willing to discuss research topics on their terms than the interviewer's (Roulston, 2019).

Before initiating the interview process, I obtained ETSU Internal Review Board (IRB) approval and institutional IRB approval from the technical college president for student participation. I interviewed five participants for my previous pilot study, with all being 18 years or older. The participants comprised full-time and part-time students who lived in a distressed or at-risk county in rural Tennessee. Participants were recruited primarily by email, and a recruitment flyer was distributed throughout the institution. In addition, for the continuation of this research, several individuals contacted me regarding participation in my previous pilot study. However, I had already met the requirement for the research project and did not require additional participants. In addition, due to the expansion of the geographical location and additional branch and extension campuses for this continued research, I did not anticipate any

issues with the availability of participants. Before the interview, participants were asked to sign a consent form.

Previous research on first-generation college students has provided information on the financial, social, cultural, and academic experiences of students attending other institutions of higher learning, such as community colleges and four-year universities (Hutchison, 2015). This qualitative research will provide an understanding of the experiences of first-generation college students attending technical colleges in rural West Tennessee.

Data Analysis Methods

The use of the inductive approach is common in qualitative data analysis (Thomas, 2006). In this study, I explored the experiences of first-generation students attending technical colleges in rural areas using the inductive approach. I felt this approach was appropriate to provide a rich source of data that could be used to better understand the participants' experiences. Although there has been significant research regarding first-generation college students who attend community colleges and four-year universities, there is minimal research regarding the experiences of first-generation college students who attend technical colleges.

According to research by Butina (2015), qualitative data analysis consists of making sense of the data. Researchers often engage in meaningful conversations with the participants and focus on the segments that can provide insight into the research questions (Butina, 2015). The analysis of these conversations involves developing text into codes and eventually into themes that give the context of the participants' stories (McCormack, 2004). The inductive approach to data analysis can vary due to the lack of a universal approach. However, several researchers have documented and published their processes and guidelines (Butina, 2015; Creswell & Creswell, 2018; McCormack, 2004; Thomas, 2006).

The inductive approach to data collection includes three stages: interview preparation, conducting interviews, and transcribing interviews (Liu, 2016). During the analysis process, the researcher interprets what was stated during the interviews and finds meaning from the patterns or themes. Thematic analysis is one of four of the most common approaches for data analysis (Butina, 2015). During this process, content is the primary focus. However, thematic analysis can also produce insightful and trustworthy findings (Norwell et al., 2017). Thematic analysis is the type of analysis I utilized for this study. This type of analysis was helpful for me in examining the perspectives of different participants and allowed me to take a well-structured approach to data collection.

Thematic analysis involves five stages: 1) organization and preparation of data; 2) obtaining a general sense of the information provided; 3) qualitative coding; 4) categorizing themes; and 5) interpreting the data (Butina, 2015). The first stage of organizing and preparing the data began with transcribing the interview recordings soon after the interview. This process also gave me a general sense of the information provided, which is the second stage, by compiling the data into a single document in Microsoft Excel per participant interview. The third stage, the coding process, involved reading and highlighting the interview narratives, identifying recurring words or ideas, and creating a code list for recurring patterns. The fourth stage of categorizing themes reflected the themes most indicative of the research findings. Finally, the fifth stage of interpreting the data is indicated in the findings.

The approach I used for analyzing the interview transcripts involved inductive analysis. This approach consists of the researcher deriving concepts or themes through interpretations of the data (Thomas, 2003). The inductive approach allows the research findings to emerge from significant themes without the restraints of "structured methodologies" (p. 238). During this

process, I detailed themes from the participants' stories to provide a more detailed and meaningful discussion of their stories. The data analysis describes both the story and the themes that emerged. I used inductive coding, beginning with no existing codes and developing codes as I further explored the data. This coding helped me identify common ideas and categorize those ideas into groups, identify any redundant data, and label the data segments with codes. In inductive coding, the categories were created from actual phrases or meanings of specific segments of text (Thomas, 2006). This coding process also helped me study the meanings of transcripts and tie the data into developing themes.

Based on my research topic, coding categories were developed based on themes surrounding the research questions. Under the generic inductive approach, the data analysis process develops categories into a framework or model (Liu, 2016). Since a theoretical lens may guide qualitative studies, these themes included references to social and cultural capital aspects or participants' perceptions of their college experience. Established social relations are a form of social capital and are inherent for students to attain support from interactions with parents, other family members, and the community (Moschetti & Hudley, 2014). According to social capital theory, relationships can help provide guidance and the emotional support needed for students who are in unfamiliar territory (Moschetti & Hudley, 2014). Based on the data analysis from my previous pilot study conducted on first-generation, underrepresented students attending technical colleges in rural areas, as well as the continued research in this study, the following key themes were identified: influence of family, student resiliency, institutional support mechanisms, external guiding factors, predominant barriers, and benefits of technical education. In addition, participants shared their experiences at the technical college and identified barriers and motivating factors during their enrollment.

The researcher can focus on identifying common elements and themes that sufficiently represent the data. Creswell and Creswell (2018) stated that these themes should also show the different perspectives of each participant and interconnect into a story. The last step of interpreting the data may also correspond with the coding and categorizing stages (Butina, 2015). This stage helped me determine if the common themes provided additional insight into the research of first-generation students attending technical colleges in rural areas.

Digital recordings were transcribed in print, with the electronic data stored on a password-protected computer. Paper copies of notes or data were stored in a secured office file cabinet. In addition, all files were secured in an ETSU One Drive storage file folder. All transcribed data was shared with the participants to ensure the accuracy of the information transmitted during the interviews and to eliminate the potential for any miscommunication of data. Participants were assigned a pseudonym that would be used throughout the study. The institution will be referred to as the technical college.

Credibility and Trustworthiness

The credibility of a researcher's findings and interpretations is dependent on how well the researcher establishes trustworthiness (Patton, 2015). To be accepted as trustworthy, researchers must demonstrate that their data analysis is conducted with full disclosure consistently and precisely (Nowell et al., 2017). Furthermore, the data analysis should provide the reader with sufficient detail to determine if the process is credible (Nowell et al., 2017). According to Lincoln and Guba (1985), trustworthiness encompasses the conditions of credibility, transferability, dependability, and confirmability. Confirmability shows the findings are based on the participants' responses and not any potential bias or personal motivations of the researcher (Patton, 2015). Confirmability also involves establishing the fact that the interpretation of the

data is genuine and not made up. This process involves "linking assertions, findings, and interpretations to the data themselves" (p. 685). Finally, a researcher must avoid using biased terms, which can encourage particular responses from participants (McMillan & Schumacher, 2010). Therefore, during the interview process, I framed the interview questions to be open-ended, preventing the participant from agreeing with the stated question and allowing them to give their responses.

In addition, Roulston (2019) stated that when the researcher identifies with a participant based on the research topic, it can produce rich data. However, it can be problematic if the researcher constructs the interview to pre-identify the participants negatively. In this research, my participants are first-generation college students attending a technical college in a rural area. As the researcher, I did not reinforce stereotypes about participants attending technical colleges or being first-generation college students.

Member Checking

According to McMillan and Schumacher (2010), several strategies may enhance the validity of the research and establish credibility. One of these strategies includes member checking, which I used for this study. Member checking includes ongoing dialogue with the participants regarding interpreting the data collected (Creswell & Creswell, 2018). This process was done throughout the interviews when questions had to be rephrased or further probed to obtain a more precise understanding. I captured participant interviews through an audio recorder or Microsoft Teams. This recorded information allowed me to review interviews as much as needed to gain exact transcription. In addition, each participant was given a copy of their transcribed interview to ensure the accuracy of the information provided to me during the interview. This process helped me capture the participants' information verbatim and make any

necessary corrections or clarifications. As a result, participants could validate the information reported from their statements.

Consent forms were reviewed with each participant, along with the conditions of confidentiality. Participants in the study were allowed to choose a pseudonym they wished to be identified with, or I assigned one to them. Although strict confidentiality was not promised due to IRB requirements, I was mindful to de-identify participants as much as allowed. Other identifying information was not published. In addition, the institution's name was not used in the study.

Reflexive Journal

To achieve dependability, researchers must ensure the research is clearly documented, logical, and traceable (Nowell et al., 2017). For this study, I worked to address reflexivity by memo writing or writing a reflexive journal. The journal is a continuous record of the decisions made during the research process and the assessment of the trustworthiness of the data (McMillan & Schumacher, 2010). This reflexive journal helped me to reflect on my personal experiences and consider how these experiences shaped my interpretation of the results from the interview process. Keeping records of field notes, transcripts, and a reflexive journal also helped me establish the research's dependability, reliability, and credibility (Nowell et al., 2017). Field notes allowed me to be cognizant of the dates, times, places, and information collected from the participants of this study.

Ethical Considerations

In a qualitative study, the researcher must acknowledge any ethical considerations or conflicts of interest. I have an obligation as the researcher to respect the "rights, needs, values, and desires" of the participants (Creswell & Creswell, 2018, p. 207). This research topic is

significant to me based on my experience as a first-generation college student. I understand the significance of having access to education and the ability to attain a college credential. In addition, as an employee of a technical college, I understand the definition of "backyard research" and the implications of researching participants from within my immediate work setting (Creswell & Creswell, 2018). I am an administrator at a technical college located in a rural county. Due to the geographic location of my institution and its particular relevance to this research topic, it is necessary to include participants enrolled at the institution. However, in continuing the research from my previous pilot study, the geographic location for this research was expanded to cover additional counties and extension campuses, where I have minimal presence.

Before implementing this study, I submitted my request to the East Tennessee State University (ETSU) Institutional Review Board for approval. In addition, I also received IRB approval from the institution in which participants were enrolled. Each participant of the study signed the informed consent form, which explained their rights and any potential risks.

The participants of this research study were students enrolled at the technical college or affiliated extension and branch campuses. Although I am an administrator and assist with campus operations, I am not the head administrator of my institution and, therefore, not in the position to make decisions that adversely affect students, such as suspensions or terminations. In addition, I am not an instructor, therefore, I do not have any direct classroom or teaching affiliations with students. I do not have any personal or outside relationships with any participants. Participants were allowed to end their participation at any time and given the opportunity not to answer questions that made them uncomfortable. I also ensured data collection

and analysis reflected the participants' stories through reflexive journals, field notes, and member checking.

Chapter Summary

I chose a qualitative research method for this study because an inductive approach was more conducive to learning about the experiences of first-generation colleges attending technical colleges in rural areas rather than conducting a quantitative analysis. Chapter 3 reintroduced the research questions for the study. Also discussed was my role as the researcher and how I addressed reflexivity in my data. This chapter outlined the research design and methods used for surveying, sampling, and interviewing the research participants. The procedures for conducting this research consisted of interviewing 17 participants, gathering data through the collection of their stories, reporting each participant's experiences, and developing the order and meaning of those experiences. To ensure the accuracy of the data, I gave each participant a copy of the transcribed interview for their review. The chapter also included the coding measures I used to find patterns and themes among the statements from participant interviews. Lastly, I addressed credibility and trustworthiness in this qualitative research study. Credibility was ensured through the use of member checking and reflexive journaling.

The following chapter will discuss the interviews, the description of the participants, all responses to the interview questions, and the themes gathered from their statements. Finally, chapter 5 will detail the findings and conclusions from the data analysis. In addition, Chapter 5 will also give implications for administrators and other community stakeholders and recommendations for future research.

Chapter 4. Findings

Introduction

The purpose of this qualitative study was to share the experiences of first-generation students attending a technical college in a rural area. The population of participants interviewed consisted of individuals who identified as being first-generation students who completed their first trimester of study at the technical college. This qualitative research was conducted using inductive analysis and guided by four overarching research questions:

1. How do first-generation technical college students in rural Tennessee describe their educational experiences?
2. What experiences do first-generation students attending technical colleges in rural West Tennessee perceive as impacting their academic success?
3. What are the reasons first-generation students report for attending a technical college?
4. How do first-generation students perceive the program initiatives at the technical college?

Data Collection

For this qualitative study, semi-structured, one-on-one interviews were the chosen method for data collection, in which 17 participants were asked questions regarding their experiences attending a technical college in rural Tennessee. Thirteen interviews were conducted in person, and four utilized the Microsoft Teams platform. I initially conducted interviews for my pilot study in July 2022, continuing the interviews in December 2022 through January 2023. The initial pilot study did not require students to have completed their first trimester of study. However, due to the inclusion of this criteria for this research study, data from one participant will not be included in the analysis. The interviews were recorded and transcribed using Microsoft Excel for line-by-line color coding, which was a manual process. The Microsoft

Teams software provided an automatic transcription. However, edits were required for accuracy. As a part of member checking, all participants were given a copy of their transcribed interview to review discrepancies and verify responses.

Thomas (2006) states that the intended outcome of inductive coding is to identify and create no more than eight major themes. The researcher must determine which themes or categories are the most important and combine categories if needed. Findings from the inductive analysis include top themes as the main headings with applicable sub-themes (Thomas, 2006). All transcripts were analyzed and coded for this study, with emerging themes and sub-themes identified. The emerging themes from the participant interviews identified the challenges students faced, their motivating factors to continue their education, and the positive influences contributing to their academic success in their technical program. From the initial pilot study interview analysis, I recognized the following themes: predominant barriers, influence of family, student resiliency, institutional support mechanisms, and external guiding factors. After conducting additional interviews, I added a new theme, benefits of technical education. This also included the addition of ten new sub-themes, campus atmosphere, transportation, childcare, family obligations, rural location, job placement and financial security, institutional activities and engagement, community outreach, impact of peers, and geographical location.

Theme 1: Predominant Barriers

- Financial Needs
- Transportation
- Childcare
- Family Obligations
- Rural Location

Theme 2: Student Resiliency

- Motivating Factors
- Personal Growth and Development
- Persistence

Theme 3: Influence of Family

- Family Support

Theme 4: External Guiding Factors

Theme 5: Benefits of Technical Education

- Practical Skills Applications
- Ease of Enrollment
- Job Placement & Financial Security
- Short Program Length
- Geographical Location

Theme 6: Institutional Support Mechanisms

- Impact of Faculty and Staff
- Impact of Peers
- Institutional Activities and Engagement
- Community Outreach

Educational background and campus atmosphere were sub-themes created to add perspective to participants' overall educational experiences in rural Tennessee.

Participant Profiles

The study participants included eight male and nine female first-generation technical college students. I recruited the 17 participants through an IRB-approved recruitment email, the distribution of a flyer throughout the institution, and the snowballing method. Email notifications were sent to 700 postsecondary students enrolled at the main campus and the extension and branch campus locations. Approximately 40 students contacted me, expressing interest in the study. However, 17 students did not meet the criteria, and six did not follow up to schedule their interviews. All participants were 18 years of age or older and lived in a rural county in the service delivery area of the institution. Each participant was assigned their own pseudonym. This pseudonym was used throughout the study when referencing the participant. Table 2 outlines each participant's demographics, including their enrollment period in their program of study and previous college experience. All interviewed participants had completed their first trimester of study or more at the time of their interviews, except for one participant. Candace was included in the previous pilot study but could not complete a follow-up interview to meet the first-trimester completion criteria. This participant is listed in the table, but the information collected from the interview will not be included in the data analysis.

Table 2

Participant Characteristics and Demographics

Pseudonym	Gender	Age	*Period of Enrollment at Technical College	Previous College Experience
Alvin	Male	22	2 Trimesters	Four-Year University
Glenda	Female	40	1 Trimester	Four-Year University
Kennedi	Female	39	2 Trimesters	Community College, Four-Year University
Michael	Male	23	2 Trimesters	Four-Year University
Candace	Female	57	First Trimester	None
Chris	Male	21	1 Trimester	Community College
Donna	Female	63	1 Trimester	Community College
William	Male	18	2 Trimesters	None
Jason	Male	33	2 Trimesters	Technical College
Delafontae	Male	32	2 Trimesters	Community College
Jennifer	Female	36	2.5 Trimesters	Technical College
Jeff	Male	27	2 Trimesters	None
Matthew	Male	30	2 Trimesters	Technical College
Andrea	Female	21	3 Trimesters	Technical College
Truth	Female	24	1.5 Trimesters	Community College
Chandra	Female	30	4 Trimesters	Community College
Jackie	Female	27	4 Trimesters	Four-Year University

* Programs at the technical college range from 1 trimester to 5 trimesters (1 trimester = 4 months)

The participants' ages ranged from 18 to 63 years old. All participants, except for Candace, were enrolled in their program of study between four and fifteen months. Candace had begun her first trimester of enrollment at the time of her interview during the initial pilot study. All participants except Candace, William, and Jeff had previous college experience.

Alvin is a twenty-two-year-old student who had been enrolled at the institution for two trimesters at the time of his initial interview. Alvin is a full-time student and will be graduating in Spring 2023. Alvin was raised in a single-parent household and faced many challenges and hardships growing up. As a result, he felt education was a better path to keep him from hanging with the wrong crowd.

Glenda, a forty-year-old single mother of two teenage daughters, chose a technical college for better job opportunities. Glenda's career aspirations involve opening her own business for her daughters. She said she wanted to be an example so they would always know to keep working.

Kennedi, a thirty-nine-year-old female, had previously attended other educational institutions and earned her associate and bachelor's degrees in criminal justice. However, she chose a technical college due to the hardship of finding a job in her related field. Kennedi is also an only child and the sole caregiver of her elderly parents. She feels that what she has learned in her program of study will help in the care she provides to her parents.

Michael, a twenty-three-year-old male, initially enrolled at a four-year university to play sports. However, due to an unforeseen injury, he could not continue playing sports and decided to look for other career opportunities. Michael chose to attend a technical college because it was closer to home, and he did not want to move far away from his family. Michael also has three sons for whom he wants to provide a better life. He stated that he wanted to be an example so they could also pursue their dreams.

Chris is twenty-one years old and currently in the second trimester of his program of study. He originally grew up in Maryland and then moved to Pennsylvania. His family relocated to West Tennessee, where he has lived for four years. Chris credits his parents for helping to keep him on track. He aims "to get a good job and education, so I don't have to struggle as most people have."

Donna is a sixty-three-year-old wife and mother and was raised one of eight children. Unlike most students who enrolled at the technical college, Donna has no goals or aspirations of working in her current field. Donna's reasons for enrolling at the technical college were her

sense of achievement; she had previously attended a community college but could not complete the program. She stated:

> I'm not doing it to get a job. I'm doing it because I started it one time before, and I want to finish it. I'm not doing it for a career. I want to learn everything I can about computers and how it works. I had started this same class years ago when my kids were little, but then I was working, and then some of the classes were going to be at night. I was working a night shift job, so I had to quit.

William, an eighteen-year-old male, is the youngest participant. He enrolled at the technical college right out of high school and has completed his first trimester. William stated that he knew he wanted to attend the technical college after his middle school class visited the campus for a tour. William chose his program of study because "you'll get really far with getting jobs as long as you put your hard work into it."

Jason is a thirty-three-year-old Hispanic male student who has completed his second trimester at the technical college. Jason had previously enrolled in the college twice and completed two programs of study. However, Jason chose to change career paths and re-enroll in another program. In addition, Jason is currently helping to take care of his family and appreciates the flexibility of the technical college.

Jennifer is also a returning student to the technical college. Jennifer is a thirty-six-year-old single parent and works during the day while attending class in the evening. She was previously enrolled in another program that served as a foundation for her current program of study. However, she decided to return so she could continue her career in the healthcare field. As she stated:

> I have learned a lot in the program. I actually gained a lot of knowledge that I had already received from the first program, so I decided to continue my education with the technical institution. It's big because me being my mother's first child as far as going to college. I'm thrilled that I even gave myself the opportunity to do it and for it to be here in the town where I live.

Delafontae is a thirty-two-year-old single father who grew up in a low-income household. He chose a technical college for better job opportunities. He credits his family for encouraging him to attend college and finish his study program. He stated, "they help me whenever I needed it, making sure I do get to school, reminding me, telling me to don't give up and basically to strive." Delafontae has been enrolled in his program for two trimesters and is halfway through the program.

Jeff is also a twenty-seven-year-old single father who grew up in a low-income Hispanic household. He works a third-shift job and then attends school after his shift ends. Jeff stated that he was hired at his current job due to the skills he had gained while enrolled in his program of study. He credits his brother for encouraging him to attend technical college and encourages others to further their education. He states, "if I can do it, you can do it too."

Matthew is a thirty-year-old male who has completed two trimesters in his program of study and is halfway through completion. Matthew also works a third-shift job and attends class after his shift ends. Matthew stated that although he was already in the workforce, he wanted a career that would allow him to earn more money and be able to support his family. Matthew states, "a lot of people think college is too expensive and something unattainable. It's very attainable. You just have to put forth the effort." Matthew is dedicated to providing a better life for his family.

Andrea is a twenty-one-year-old female student who comes from a family of immigrants. She stated that after high school, she wanted to continue her education but didn't wish to spend "another two to four years." She felt the technical college was the right path to go into it instead of "having to spend more time in school." Andrea also stated, "living in a small town, all you have is a technical or community college." Andrea has been enrolled in her program of study for one year and has two months left before she graduates.

Truth, a twenty-four-year-old female, has been enrolled at the technical college for six months and is halfway through her program of study. Truth states that the technical college "is really close to my house and provides flexible hours for me to be able to still go to school and work." Truth has long-range career goals to continue her career in healthcare.

Chandra is a thirty-year-old divorced mother of two children and was raised in a single-parent household. She currently works during the day and attends class in the evening. She has been enrolled in her program of study for fifteen months and will graduate in April 2023. Chandra credits her faith in God for helping her to get through the challenging times throughout her enrollment. Chandra states:

> I just think about the finish line and what I'll be able to achieve once I finish the program and that kind of keeps me going. And gives me the motivation like when I feel like you know, I'm just like getting it or I feel like is this just too hard for me to continue. Or I just don't have the money to pay for this or I don't know how I'm gonna make it here. You know I just think about where I'll be at the end and it helps me find my way every time. And a lot of times I have to get down and pray.

Jackie is also a single mother of a one-year-old son. She, too, works during the day and attends her program of study in the evening. She states that her son is her motivation to continue

her education so she can provide him with the best future she can. Jackie also credits God and her family for helping her through the fast-paced program. She states that she has had family members who previously went through the program to help her with her studies. Jackie will also be graduating in April 2023.

Researcher Notes and Memos

According to McMillan and Schumacher (2010), researchers establish credibility through reflexivity by building trust and being nonjudgmental of the participants' experiences. I used memo writing to establish credibility and reflect on my interpretations of the data from the participant interviews. Although writing down every thought while staying focused on the interview was hard, I captured some of my thoughts and used this information to develop themes. The most extended interview was approximately 20 minutes, and the shortest was seven minutes. Before the interviews, I had limited or no contact with the participants. I did not personally know any of the participants or have any interaction with them outside the institution.

Creswell and Creswell (2018) stated that researchers should limit the discussions of their personal experiences with their participants to avoid overshadowing their experiences. Therefore, I did not discuss my personal experiences during the interviews but adhered to the interview protocol and prepared questions. I could ask follow-up questions with a semi-structured interview to pull more rich responses. Several participants asked me during initial contact why I conducted this research. At that time, I informed them that I, too, am a first-generation college student and that I believed there was a need to bring awareness to the experiences of this population of students, especially those that attend technical colleges. I received positive feedback from the participants on how this study was beneficial and would bring more attention to the topic.

Throughout the data collection process from the participant interviews, I felt each interview improved from the last. Since my initial pilot study, I felt more comfortable conducting the interviews and knowing how best to ask the questions. After my first interview, I thought I was too robotic in asking the questions. I also felt my demeanor and facial expressions made my participants nervous. So, as I progressed with the interviews, I consciously tried to soften my demeanor and work on how I appeared to my interviewees. I felt the more relaxed I became, the more comfortable the participants felt. I remember thinking that the participants seemed more at ease during the virtual Teams interviews than those who interviewed in person. This could be because they were more comfortable in their home environments. The in-person interviews were conducted in a conference room, and participants may have felt a little apprehensive. I learned early on from the pilot study to share the interview questions with the participants before the interviews. At first, I was unaware that it was okay to do this, so I did not email my first participant the research questions. The participant told me they were nervous because they did not know what questions I would ask. For example, he thought I would ask questions about any criminal activity they may have committed. After that discussion and after one of the class guest speakers shared that we might want to send the interview questions beforehand, I emailed the questions to the remaining participants. As a result, the participants knew what questions would be asked, which allowed them to provide more informative and detailed answers. As the researcher, this was a great learning experience to improve my interview process.

When I initially drafted my research questions, I worded them according to my understanding and how I felt the participants would interpret them. After I had conducted my first interview, I knew I would have to reword some of my research questions. I did not mean this as a negative reflection of the participants or to say they did not have the intelligence to

comprehend. Many participants who volunteered for this study have college degrees or some previous college education. For example, one of my original questions was, "how impactful has your program of study been at the technical college as it relates to preparing you for the workforce?". I had to reword that question to "how impactful has your program of study been at the technical college in preparing you for the workforce?". Another question I originally formulated was, "what has coming from a rural area done to make your college experience more challenging?". I restructured that question to "how has living in a rural area made your college experience more challenging?". Throughout the interviews, participants asked me to skip questions or asked me to repeat the questions they did not fully understand.

Based on my reflection on each interview, participants had similar reasons for attending a technical college. Other than Donna, who only wanted to finish what she had started years ago, all participants wanted careers that would provide security and a better life for their families. I remember asking myself how I could remain unbiased when hearing about students' experiences and knowing they were trying to get an education as much as their situations allowed. Their stories seemed so like my own. Creswell and Creswell (2018) stated that "good qualitative research contains comments by the researchers" about how their background shapes their interpretation of the findings" (p. 200). In addition, Fusch et al. (2018) stated that researchers accept that they cannot separate themselves from their "research by bringing their personal experiences, values, and perspectives" (p. 19). According to Patton (2015), being alert to your biases and subjectivity can help produce more trustworthiness in research.

A researcher must also avoid biased terms, which can encourage particular responses from participants (McMillan & Schumacher, 2010). The interview questions were framed to be open-ended to help keep the participants from agreeing with me. I was careful not to share my

personal experiences with the participants, although I related several participants' experiences throughout the interviews. I especially recall Delafontae and Alvin's interviews when they both spoke of living in a "poverty-stricken" environment. I remember thinking about how I related to that story from my childhood upbringing. "Poverty" is a word I have used several times to describe how our family lived as I was growing up. I recall having the urge to express how I could relate to living in a poverty-stricken household. Still, as the researcher, I knew I had to be mindful of leading the conversations to my experiences.

I also remember relating to the single mothers who had to work and go to school simultaneously. I recall jotting down "I know how that feels" when Jackie shared that her son was her biggest motivation to continue her education because she said, "I wanna give him, you know, the best future that I can." That statement brought back memories of my own experiences of being a single parent and being motivated by my son to continue my education. Several participants also talked about how they wanted to be an example for their children and provide a better life for them. That sentiment was prevalent throughout the interviews, and I remember feeling a level of support for the participants. As a researcher with similar experiences and an educator at a technical college, it is hard not to have some bias. However, I knew I had to remain impartial to avoid losing credibility.

Interview Results

The following section will provide detailed descriptions from each participant regarding their experiences as first-generation students at a technical college in a rural area. The inductive approach was adopted to collect rich data for interpretation. The data collected from this qualitative study was coded and categorized into common themes and sub-themes that emerged from the interview questions and responses. The themes were developed in accordance with the

relevant research question. The interview results include direct quotes from the participants to support the emerging themes of each research question. The first research question will encompass participants' overall educational experiences at the technical college and other higher education institutions they previously attended. The sub-themes included educational background and campus atmosphere. Then, additional research questions will provide more in-depth information from the themes and sub-themes that emerged from the responses.

Research Question 1

How do first-generation technical college students in rural Tennessee describe their educational experiences?

Educational Background. The first research question centered on each participant's perception of their educational experiences as first-generation students in rural Tennessee. Each participant brought perspectives that were unique to their experiences of living in a rural area and other previous experiences relevant to the interview question. The theme of educational background encompasses the previous postsecondary experiences of the participants and their enrollment at other higher education institutions.

Although the participants interviewed for this study identify as first-generation, underrepresented students and come from low-income households, all but three participants in this study had prior college experience before enrolling at the technical college. Each participant had different reasons and stories to share related to their previous postsecondary experiences. However, it was apparent that they all knew educational attainment was the key to a better future.

Alvin had previously attended a four-year university. However, he enrolled at a technical college for better career opportunities. Alvin shared the following:

> I really want a better future for myself. In about ten years, when I'm 32, I don't want to be just sitting around here doing the same thing everybody else doing. I want to do my own thing, making my own money. That's all I'm thinking about, chasing my dream.

Glenda had also previously attended a four-year university to attain a business degree but felt the technical college would provide a more personalized college experience. She also said:

> I remember being told that I shouldn't go the university path and that I was supposed to go the technical path, but I was majoring in business administration. I knew from high school that I was going to go out and major in business administration and that's all I wanted to do. So, I went down that path and which it works out because I ended up doing other things, and getting my Women's Entrepreneurship certification. These are all deposits and investments in the business I started for my daughter. The technical part of this, getting the license for her business. This is all like, it's a beautiful thing.

Kennedi had previously earned her associate's and bachelor's degrees in criminal justice. However, she chose to attend a technical college due to the hardship of finding a job in her related field. She also stated how hard it was to attain her other degrees:

> When I got my bachelor's degree in criminal justice, I tried to get a job in the rural area. You can't find a job around here. And so, it's hard to get a job in criminal justice. I've laughed. I've cried. I've screamed. I've hollered. I've done everything there is to get a degree. Both my associate degree and my bachelor's degree, it was so tough.

Truth and Chris both previously attended a community college but decided to enroll at the technical college. Chris said that his reason for attending a technical college was to change programs. He said, "I did go to (community college) but I didn't like how their program was and so then I found this one."

Delafontae, Donna, and Chandra had also previously enrolled at a community college but could not complete their programs. Delafontae and Chandra both decided to change career paths for better job opportunities. However, Donna enrolled at the technical college to finish what she started years ago. She could not attend night classes, work at night, and care for her children. Participants such as Andrea, Jennifer, Matthew, and Jason had also previously enrolled in other technical college programs but decided to change careers for better job opportunities.

Jackie had previously attended a four-year university after having earned a basketball scholarship. She wanted to enroll in an RN program but would not have been able to maintain her studies and play basketball at the same time. So, she changed her program major and decided to attend a technical college. Michael had also initially enrolled at a four-year university to play sports. However, an unexpected injury halted his dream of playing sports, so he looked at other career options and chose the technical college. He also stated that he had other family members in the same career field, so he decided on that path.

Campus Atmosphere. The sub-theme campus atmosphere was incorporated based on the responses of participants and their overall perspective of the institution and their experience at the technical college so far. According to research by Silverberg et al. (2002), technical education has carried the perception that it primarily serves students who are underrepresented or economically disadvantaged; have no college goals; struggle academically; come from low-income households; are minority racial or ethnic groups; or have other issues. In addition, students enrolled in technical colleges have been stereotyped as being lazy or not intelligent enough to attend a "real" college (Bither, 2018). As a result, underrepresented students are less likely to enroll in selective higher education institutions and may choose technical institutions as an option for postsecondary education (Allard, 2019).

Participants spoke highly of the faculty and staff and the whole institution. Jeff stated his overall experience at the technical college had been positive:

> I have nothing but some great, you know, positive reviews with the school. The teachers are great. You know the staff is great. If I need anything from the HR team, they..you know they always take care of it.

Matthew also shared that it has been "a wonderful experience," and he wishes he had done it sooner. He also stated:

> I have no complaints when I… once I enrolled, the staff is just friendly, and the teacher explains everything and I have excellent peers in class that helps pick up everything so I never fall behind.

Participants stated they felt the overall campus atmosphere was positive for students and thought they were getting what they needed in their program of study. Jason shared his thoughts on attending the technical college by saying:

> Being it was a technical college; it was a little bit different than versus like a university I felt people were more welcoming. There was a good structure. Overall, I think I like the atmosphere a whole lot better.

Glenda felt she was getting a more personal experience attending the technical college compared to attending a four-year university. She stated:

> You get what you need here. It's more personalized. I feel like it's giving me a little bit more personalization than going to a university. I feel like my attention span is more dedicated and focused than getting lost in the shuffle with a university.

Andrea stated, "I've had a great experience at TCAT so far, and I'm very happy with it." Alvin, too, stated that he liked the overall experience at the college. He said:

> Any experiences I've had so far…I like it. It makes me feel like I'm in high school again…I'll say that. Make me feel like I'm in high school again…I like the experiences here.

Delafontae also shared a similar sentiment regarding his experience at the college by saying, “a good environment, classmates good, instructor…everything great.” William also expressed his thoughts on his college experience by saying:

> It's free. It's also pretty nice. I liked it when I came here when I visited campus when I was in middle school. It's like I expected. Everyone is like really nice, and like helping everybody out and just pretty nice place when I first got here. And throughout the whole time I've been here I always thought it was real nice.

Michael revealed that he did not know what to expect when he first enrolled at the technical college but had no bad experiences. He said, “experiences? I never had a bad. I've learned a lot in the months I've been here. Just some things I never knew about this program or this school in general.” He also stated that he is “surrounded by different energy vibes” at the institution, and attending the technical college is like a “getaway.” Other participants, such as Chandra, shared that although she has enjoyed her experience, it has also been challenging. She said:

> As a student once I enrolled...I've just been...it's been a roller coaster ride. It's been kind of tough. It's been kind of challenging. It's open me up to... it's been a roller coaster ride, but it has also taught me a lot. I feel like it has helped prepare me so well when I, you know, when I finished and I get ready to go into the work field, I'll be prepared. So, I have enjoyed it, and I will miss it when I finish.

Although Kennedi stated several times throughout her interview that she “loves it,” she also shared the same sentiment as Chandra. She said, “I've laughed. I've cried. I've screamed. I've hollered.” Jackie shared that she was unsure what to expect when she first enrolled, but gaining friendships improved her experience. Truth echoed this sentiment regarding her classmates. She stated this regarding her experiences once she enrolled:

> My class is very small, and we do a lot of things together. You know a bunch of strangers coming together and talking about life experiences and stuff. It was very nice.

Donna stated, “I’m just learning as I go,” but did not know what else to share about her experiences. However, since she was not enrolled for job attainment, her viewpoint centered around completing her college education since it was something she didn’t get a chance to finish years ago.

The participants’ overall experiences were similar, but each participant’s personality determined how talkative they were and how much information they were willing to share. For example, when sharing information about previous colleges they attended, some participants hesitated to discuss why they chose to withdraw from the institution. Other participants, such as Michael and Jackie, were forthcoming about their sports injuries causing them to change career paths. Some participants were more outgoing in their interviews, while others were more introverted, with limited responses. All participants identified what made their experiences more positive at the technical college, which included the faculty, staff, and peers. A similar sentiment everyone shared was that the faculty and staff at the technical college were “nice and friendly.” Participants seemed to thrive in an atmosphere where they felt they were being helped and supported.

Research Question 2

What experiences do first-generation students attending technical colleges in rural West Tennessee perceive as impacting their academic success?

Research from Scott et al. (2015) revealed students living in rural areas face non-educational barriers such as the need for childcare, lack of transportation, minimal access to technology, and other financial obstacles. In addition, a research study conducted by Stebleton and Soria (2012) determined that first-generation college students, when compared to non-first-generation students, experienced more frequent barriers in their family and job responsibilities and study skills. After reviewing the data collected from participant interviews, predominant barriers, student resiliency, and influence of family were identified as recurring themes as participants shared what they perceived impacted their academic success.

Predominant Barriers

In this section of the study, participants identified some of the predominant barriers they experienced throughout their college enrollment or that they perceived as barriers even if they had not personally experienced them. The sub-themes that emerged included financial needs, transportation, childcare, family obligations, and rural location. According to a report published by the Lumina Foundation, students with access to transportation and reliable childcare assistance were more likely to continue their enrollment (Chaplot et al., 2018).

Financial Needs. While participants stated some of their barriers, their sentiment aligns with the literature identified in this study. According to research by Banks-Santilli (2014), first-generation students have fewer financial resources. Many first-generation college students experience additional hardship in their postsecondary credential attainment due to the financial difficulties they face while enrolled in college (McCants, 2019). However, research has shown

that students who graduate from technical colleges tend to incur less debt (Ackehurst et al., 2022). Approximately 95% of students enrolled at technical colleges receive state grants and other forms of financial aid (Tennessee Board of Regents, n.d.-c). Students receiving state and institutional grants in their first year of enrollment have a greater chance of continuing (Wohlgemuth et al., 2007).

Participants stated financial hardship as the number one barrier to continuing their education but felt some financial aid assistance was available. Several participants, like Matthew, Jeff, Truth, Jackie, and Chandra, all stated that they needed to work part-time and full-time jobs and could not afford to quit to attend school. Matthew also said he was "just trying to make ends meet and get to a point where I was like I need to do something better."

Chandra stated that needing financial assistance was a concern but also revealed the technical college was instrumental in helping find additional outside resources:

> They, the financial aid employees, they kind of, they made sure that we have financial aid to cover our costs, like they look and make sure they could get us whatever grants they could. So I haven't had to pay too much out of pocket. I have had to pay for some things like maybe books or you know other items I may have needed. But for the most part they make sure that we have enough to cover, you know, our tuition cost.

Jackie revealed that although she was enrolled full-time in her program of study, she still had to work full-time. She reported receiving financial aid but still needed assistance from a third-party sponsor to assist with books, uniforms, and other program costs. Jackie also received books and program materials from other family members who had previously attended the program. When asked how she felt the institution helped first-generation students overcome their challenges, she stated, "I would have to say with like grants and scholarships. Even me getting approved for

financial aid like all that added up to where I hadn't had to pay much out of pocket, you know." Andrea also said, "I know financial aid in that office has been very beneficial, especially for people like me, and having that there is very helpful."

Glenda noted that the cost of getting to school and expenses related to being a single parent was an area of concern for her. She also stated that she needed help paying for tuition due to insufficient financial aid. She stated:

> It would definitely have been needing help with my tuition coming up with the cost for that. When I found out I wasn't going to get any financial aid, I had someone that was here in financial aid that kind of helped me. They said you may qualify for this but let me check into it. Gave me some tools to go out there for myself to find out what was available for me. And it worked, and that was really good and helped pay for my tuition.

Kennedi was unemployed when she first enrolled at the institution. She stated:

> I had to pay for my books. I didn't have a job at the time so, I think it's good because ya'll help people that's low income. When people come in like me that didn't have a job at the time.

Delafontae shared that he lived in basic low-income housing and was not as fortunate as most. However, he shared that he was making "the best of the situation." He also stated:

> Like I say, I come from low income, you know there's not that many jobs. You might not have the funds, and here I mean, it's a lot. Like it says, financial aid is great here because it helped me a lot too.

Chris also shared that "financial aid is pretty useful in, like getting students what they need." In his interview, Jason stated more than once that the technical college was "more affordable."

William, who enrolled at the college right after high school, said that he received a state scholarship allowing him to attend for "free." State scholarships such as the Tennessee Promise Scholarship program provide two years of free tuition for eligible high school graduates (Driveto55, n.d.). However, other participants, such as Donna, did not state their need for financial assistance.

Overall, participants identified their financial needs directly related to their personal situation. Participants recognized their need to work and attend school at the same time. It was also evident that participants would not let this keep them from completing their program of study. According to Wohlgemuth et al. (2007), the type of financial aid and the amount a student receives affects their persistence to remain enrolled. This research also states that students from low-income families eligible for grants were less likely to withdraw from school. This was evident as the participants discussed the importance of financial aid and other resources and how beneficial it was to their academic success.

Transportation. According to research by Gilmore (2017), most rural areas do not provide public transportation options compared to urban and suburban areas. Therefore, first-generation students may face the issue of transportation barriers due to living in rural areas. This can cause additional obstacles to college access if students do not own a car or have other transportation options. The technical college's counties and surrounding service delivery areas do not have public transportation options. Kennedi and Glenda both felt that transportation was an issue, especially with the rising gas prices. Glenda stated:

> I think some barriers that get in the way are travelling time. You know of course gas. Luckily, I was able to team up with an outside organization to help sponsor me for going to school. That definitely helped out.

Chandra also revealed that gas was a barrier to getting to class, and she relied on third-party program assistance:

> I have to drive 35 minutes every day to class, so gas is a big factor. That's pretty much the biggest thing for me is gas and having to be able to get to class. Skills Up has been a help. They give $100 gas card every month and there is another program, I think its WOIA or something like that it also gives us assistance.

Chris stated,

> I had a problem with like my travel, so they got me in contact with a place that offers gas cards. I consider the drive. Considering I am driving quite a decent bit.

Alvin also stated that he has to have reliable transportation to get to school because he feels "nobody is going to give you a ride to school." He stated that his car is what he relied on the most to help him be successful as a student.

Jackie also stated her need for help with gas and being able to receive assistance:

> Again, the grants and scholarships that we were able to apply for that helped me out a lot, especially when they did the COVID gas cards and all that, like that helped out tremendously.

Jeff and Matthew stated they alleviated transportation issues by riding together. In addition, participants such as Kennedi, True, and Delafontae felt the institution was close to where they lived and benefited them. However, other participants, such as Michael and Donna, did not address transportation issues in their interviews.

Childcare. Although several participants had children, only four single mothers identified childcare as a concern. Each stated that they needed the support of their families to

provide childcare while they worked and attended school. Glenda noted that the expenses related to being a single parent were an area of concern for her.

Chandra shared that she relied on assistance from her mother with childcare:

> My mother, she keeps my kids for me while I go to work. And while I go to school. You know, whenever I get down or depressed or feel like I just can't make it, you know, they give me words of encouragement. And you know, they just they keep me going.

Jackie and Jennifer also relied upon their families to assist with childcare while attending school at night. Jennifer stated, “they are very supportive, especially with me being in a night program. I have a babysitter that I can get while I'm in school.” Delafontae stated that he was a single parent but also had assistance from his family. Jeff, Jason, and Matthew also have support from their family with their childcare needs.

Although Kennedi does not have children, she felt that attending a technical college was beneficial for students with children. She shared, “so I think it helps people who has kids too. I don't have kids, but I think it helps.” Truth, William and Chris do not have any children and therefore have not faced any issues with childcare. Likewise, Donna’s children are adults, which does not cause her a need for childcare.

Family Obligations. First-generation students may come from lower-income families who depend on them for financial support (Messmer, 2021; Wilkins, 2018). Several participants revealed that they had to support their families and needed to work while still enrolled in school. This obligation led participants like Jeff and Matthew to work third-shift jobs and go to school immediately after their shifts ended. Both participants modified their program schedules to have enough time to go home and rest before going into their shifts at night. Matthew stated that he worked “60 plus hours a week just trying to make ends meet.” He wants to get to the point where

he can “be home with his family and not be at work all the time.” He stated that “he has bills to pay and is doing what he must do right now to make life better.”

Jennifer, Chandra, and Jackie are all single mothers who decided to work during the day so that they could attend classes at night. Jackie stated, “because I still have to work full time, so I don't really have the time to do that, so it's just been work, school, and home to my son.” Kennedi stated that she had elderly parents that she needed to take care of:

> I got two older parents at home. My mama's 80, she just turned 80 in April, and my daddy's 77, and he's in bad health. He's got everything wrong with him you could think of. So having them at home, knowing you know my dad right now he's having issues, so knowing they're sick. And I'm the only child is kinda hard because I'm here and they're there. And I'm afraid something is going to happen to them while I'm at school you know?

Jason also stated similar reasons during his interview, “since I don't have to stay on campus, I was able to go to college, and at the same time, help take care of my mother.” Participants such as Chris, William, and Truth were not considered the primary caregivers in their families and did not reveal that they had any familial responsibilities.

According to Brinkman et al. (2013), first-generation students may see themselves as caregivers and have a sense of responsibility to help take care of their family members. This was revealed during the interviews with several participants who stated they cared for their children, parents, and other family members. This high sense of responsibility is what led them to work jobs and also attend school at the same time. Quitting their employment was not an option.

Rural Location. Participants were asked to share their experiences living in a rural area and if it made their college experience more challenging. Research shows first-generation

students who live in rural face unique barriers, such as having little to no preparation for college, low socioeconomic status and living conditions, and a lack of support (Gilmore, 2017; McCulloh, 2016; Transparent Tennessee, n.d.). In addition, first-generation college students' poverty rates are greater than those living in nonrural locations (Byun et al., 2012). Participants such as Alvin and Delfontae also used the term "poverty-stricken" when describing their rural hometown and upbringing. Glenda felt there were limitations to living in a rural county related to traveling and transportation.

Jennifer felt living in a rural area had made her fearful to leave the area:

> Kind of living here all my life I'm kind of afraid to branch off and actually go places. So, I feel like if I start here then I can at least let my son grow up a little bit, and I can then move out and branch out. So, living here is, it's kind of, you know it's been an impact on a little bit.

She also stated, "They don't offer much within the community."

Delafontae believes that there are limited job opportunities living in a rural area. He shared:

> Like I say, I come from low income, you know there's not that many jobs. You know, certainly you know once, once you do get a job, it's basically it's you know, very few factories, basically restaurants. But other than that, it's no big time, just opportunities here.

Truth stated that living in a rural area has motivated her to continue her education because although she liked where she lived, she also disliked aspects of where she lived. Studies also showed that students living in rural areas with limited colleges might decide not to leave their families to attend college elsewhere (Balmian & Feng, 2013). Truth reaffirmed this when she stated:

> And there's nothing wrong with staying close to home. A lot of people leave and they go to these far-off places but they eventually come back. There is nothing wrong with being close to home.

Jackie believes that if you don't have a degree, there are limited job opportunities in a small town. Her thoughts were, "and this right here will help that, especially living in a small town. It don't be all that good on most jobs if you don't have, you know, that degree or something."

Jason also stated there are limited resources in a rural area. He shared:

> I would say because we don't have access to the resources that some of the biggest cities have, some of the more broader ways of learning, but we make do with what we have.

Andrea felt if she wanted to attain a higher degree, she would not be able to do so living in a rural area:

> It was kind of always known if I did want to pursue a larger degree, I would kind of have to go off versus community college or technical just because it is such a small town. All you have is technical or community college.

William expressed a different sentiment that living in a small rural area has made it challenging to meet new people. He stated:

> The people sometimes. I don't know just different like meeting new people. I guess. I live in Lake County and it's real small. Coming here is a little bit bigger than down there, and I met a lot of new people.

Research by the CDC (n.d.) also shows that low-income residents of rural communities are more likely to be uninsured and live farther away from adequate healthcare services. Kennedi validated this research when discussing insurance and finding doctors in a rural county.

She had this to say, “it's hard you know, I mean it's hard to get insurance it's hard to. You see different doctors. I mean you see all the same ones, and they're all quacks.” In addition, Kennedi felt that finding a job in a rural area was hard because it depended on “who you know.” She said this:

> And the rural area you asked what the problem was. You can't find a job around here. It's who you know. You gotta know folks around here to get a job. And so it's hard to get a job in criminal justice. I got promised, "oh well when you get your degree, we’ll help you get a job.” They didn't help me get a job.

Michael stated that coming from a rural area made him more aware of his surroundings but thought that if he did something beneficial, he would not miss out on anything. Other participants, such as Jeff, Matthew, and Donna, did not have any issues with living in a rural town and did not feel it caused them any barriers.

Participants were forthcoming with their struggles and what may be deemed as barriers. The most prevalent issue participants revealed was financial needs, which could also encompass reasons participants struggled with transportation and childcare issues. Participants also recognized that living in a rural area has its share of challenges. Individuals recognized the need for adequate healthcare and felt rural areas had limited resources.

Student Resiliency

Although first-generation college students may face barriers in their postsecondary education attainment, students can also find ways to overcome those barriers and continue their educational pursuits. Another theme that emerged from the interviews and answered research question two is student resiliency. It includes the following sub-themes: motivating factors,

personal growth and development, and persistence. In addition, this section reveals other factors that have contributed to the participants' journeys of perseverance.

Motivating Factors. Parental encouragement has been identified as one of the most significant influences for students deciding to attend college (Amaya, 2010; Hodsdon, 2012). Additional research by Hebert (2018) also revealed that although parents did not understand how to help their children navigate the college process, they remained supportive. One of the recurring themes centered around participants' motivation to continue their education despite any obstacles they may face. When asked, "what has been your biggest motivation to continue your education?" several participants were motivated by their families. Jennifer stated:

> My mom, she's excited about me getting into this career and actually being a nurse.
>
> My child. He's excited about it. He's pushing me on. So, they are my motivation.

Jeff stated this about his children being his motivating factor, "oh, I want to learn all the knowledge that I can from you know the program, whatever to be able to pass it down to them so that they'll know what I know."

Jackie revealed that her son is her biggest motivation:

> Oh, definitely my son, because I'm like, I wanna give him, you know, the best future that I can. And this right here will help that, especially living in a small town. It don't be all that good on most jobs, if you don't have, you know that degree or something.

Glenda stated that she wanted to start a business with her daughter when she graduated. She also said that her daughter would push her to continue to succeed. She also stated, "these are all deposits and investments in the business I started for my daughter. So the technical part of this, getting the license for her business. This is all like, it's a beautiful thing."

Michael also stated that he had three boys and wanted a better life for them. Jeff, Matthew, and Jennifer were also motivated to continue their education because they wanted to provide better opportunities for their children. William shared that his grandparents were his biggest motivation to continue his education.

Participants were also motivated to continue their education because they felt it provided better job opportunities. Andrea stated her biggest motivation to continue her education was because she wanted "to have a career versus a job my entire life." Chris was also motivated to get a good job when he graduated. When asked about his biggest motivation to continue his education, he stated, "To get a good job … so I don't have to struggle like most people have." Kennedi also shared that her biggest motivation to continue her education was getting a job.

Truth, who works in the healthcare field, gave several motivating factors for continuing her education. First, she stated, "my job, they're very supportive. My patients. My family, myself, and my peers." Alvin wanted to "see a better future for myself, making my own money and chasing my dream."

Personal Growth and Development. According to Torpey (2021), individuals with educational attainment typically seek better job opportunities with higher salaries. However, some students enroll in college to gain knowledge without desiring to join the workforce. Such is the case with Donna. She enrolled in her program of study not to gain employment but for a sense of accomplishment. She stated:

> I'm not doing it to get a job. I'm doing it because I started it one time before and I want to finish it. You know what I'm saying? I'm not doing it for a career. I had like started this same class years ago when my kids was little but then I was working and then some of

> the classes were going to be at night. Because I want to learn everything I can about computers and how they work and all that.

In addition to better job opportunities, participants also stated they developed other skills to help them in other areas of their life. For example, Jason revealed this about his program of study:

> It has been very impactful because it's helped me with time management. It helped me to be more willing to take the initiative and help me to be stronger and have stronger work ethics.

Delafontae also revealed that since enrolling he had developed skills that he didn't have before:

> Give me the knowledge that I didn't have before, the skills I didn't have. I mean, basically everything that I was lacking, it is giving me a perspective of how to obtain it and get there.

Glenda stated, "I've experienced coming here and being confident in one thing and being opened up to many more possible things." Jeff felt that attending the technical college was more rewarding, and "you're probably going to get more benefit out of that." He also stated that he wanted to learn all the knowledge he could to pass it down to his children. Matthew felt that although he was currently in the workforce, his program helped teach them "how it is in the workforce and how to conduct yourself in that workforce."

Persistence. First-generation college students display different patterns of persistence (Cataldi et al., 2018). Each participant had reasons for what motivated them to continue their education. The majority stated they knew that educational attainment would be the path they needed to take for better job opportunities. Some participants wanted a better quality of life, while one participant was determined to meet a personal goal of gaining a college education. Hopkins et al. (2021) referenced in their research that student persistence involves the rate at

which students complete their credential attainment no matter where they began or finished their college enrollment at any given time. All but three participants had previously attended other colleges or universities. Although they did not complete those programs, they did not give up on their educational pursuits. When discussing their motivation to continue their education, throughout the interviews, the recurring words that I heard were "don't stop," "don't quit," "chasing my dream," "don't give up," "stay focused," and "if I can do it, then you can do it."

Michael believes positive energy is the key to overcoming any obstacles. He stated, “change your energy. Stay focused. Keep a positive mindset, positive energy, positive feedback, positive outcomes.” William also felt that hardships could be overcome with a bit of help. He stated, “anything that, like any challenges, like if someone is there they can always help them to find a way around it.” Finally, Delafontae encourages others to look past living in the small county. He believes, “there's more out there than just what you see. And take that thought, you know think outside the box because we're in a box here in this small area.”

Jason also shared his beliefs:

> Don't give up on your passions and dreams. Don't let where you live bring you down in any way whether you live in rural area or big city while you still have that opportunity to further your education and create and gain a career for yourself.

Chandra also feels you should not limit yourself even when living in a small town:

> Don't be limited just because you know you're in a small town. I know it's easy to become content in the small rural towns but don't. Go for what you want and don't give up until you get it.

Glenda stated that you should never give up and wants to set that example for her children:

> One thing may not work out over here but don't just put that in your back pocket just yet

> because that can still bridge over into what you're gonna do next. There are stepping stones that are going to paint the overall picture of what you do next. I'm learning that now.

Kennedi also felt you should never give up. She stated:

> Don’t ever give up. Keep doing what you do. If you dream big. If you dream you want to be a doctor, go for it. You can do it. If I can do it, you can do it.

Jeff also reiterated those same words as Kennedi that, “if I can do it, you can do it.” Alvin also felt that attending the technical college helped students to overcome challenges. He stated:

> I feel like it's helped students overcome challenges by giving us an opportunity to see a way out. It give us a better direction for the ones that are willing to take it because school is not easy and if it was easy everyone would be doing it.

Alvin also knew that if he wanted to change his life he had to stop hanging with the wrong crowd. He stated:

> I felt like this this was one of the most legit ways I can myself getting out of here, one of the legal ways I can see myself getting out of here finding a trade finding something I can see myself enjoying doing and it can keep me out of the way. I felt my mom did a good job raising me. I wish I had my dad in my life. I knew him…but… he wasn't there like I needed him to be that drove me [and]…that drove me…to start hanging with the wrong people getting involved with the wrong things, but luckily…I didn't get too deep into it. So, I'm still here. So, I'm still here. I thank God for it. Yeah, I'm just thanking God for another day. I'm still here.

Jackie felt that it was important to “prioritize and you know, do what’s best for you and what’s gonna work out for you.”

Jennifer also shared:

> Well, it's big because me being … my mother's first child as far as going to a college institution. I'm excited about it. I'm thrilled that I even gave myself the opportunity to do it and for it to be here in the town where I live, it has opened up doors for me.

Research by Tinto (1998) stated that students' experiences outside the classroom could influence their persistence in college. First-generation college students tend to fulfill work obligations which may negatively impact their persistence (Hopkins et al., 2021). This is the case in Donna's situation. She began college enrollment at a community college years ago but had to put her college aspirations on hold due to having children and needing to work a night shift job. First-generation students may also work significantly more hours per week than their non-first-generation peers. For example, Matthew stated that he was working 60-plus hours per week.

Influence of Family

Research indicates that cultural capital is gained over time through home life and parental guidance, and students with this upbringing are more likely to further their education (Bourdieu, 1986). As a theoretical framework, social capital theory is often related to research on adult learners and the dynamic of social and family support (Methvin, 2012). This was evident during the interviews when participants shared their experiences as first-generation college students. Each of the participants in this study mentioned their families during the interviews. This led to the theme of the influence of family, with a sub-theme of family support.

Family Support. Established social relations are a form of social capital and are intrinsic for students to attain support from interactions with parents, other family members, and the community (Bourdieu, 1986). I asked participants this question: "So how supportive were your

friends and family of you attending a technical college?" Each participant shared that they had the support of their families, which was essential for them as they continued their enrollment. Glenda shared that her daughters supported and motivated her to continue her postsecondary education. She also stated that her family was very supportive that she was doing something "that's going to definitely in the long run, take care of them, because I'm pouring back into them the way they poured back into me. Wanting me to be successful." Other responses included the following from Alvin:

> They pushed me to do it. They didn't want me out there with them. They talking about stay in school, stay in school, anything to keep me out of the streets.

Other responses from Michael included the following:

> They were shocked that I was actually doing it, and I'm actually still here now. I'm actually sticking with this because…cause this is something I want to do this. I see myself doing something with this. They are proud of me. They been pushing me to come here.

Chandra stated that her family was instrumental in helping to provide childcare while she went to school at night. Jackie reaffirmed this support as well. She shared:

> They are very supportive, especially with me being in a night program. I have a babysitter that I can get while I'm in school. It's worked out for me better.

William and Truth both stated their grandparents provided them with support and encouragement. When asked about attending a technical college, William said, "they was supportive either way as long as I went to school to get whatever I needed to get a job." Matthew works full-time and also attends classes. He shared that his family was understanding of his schedule. He stated:

> Oh, they're supportive just understanding as far as schedule goes and you know that if I have something to do and very supportive and encouraging me to continue on and finish the school.

Delafontae felt his family offered encouraging words and motivation. He said:

> As far as helping me whenever I needed it, making sure I do get to school, reminding me telling me, you know, give me encouragement to finish you know the program don't give up and basically to strive.

Even though Donna had no plans to work in her chosen career field, she also shared that her family was still proud of her for doing it.

Research by Hebert (2018) revealed that although their parents did not understand how to help their children navigate college, they remained supportive. This was reaffirmed when Kennedi shared her experience with college enrollment. She shared that her family was continuously asking her questions about her program of study even though they didn't know exactly what she was going to school for. However, Kennedi said they continued encouraging her and supporting her. She also stated:

> They are very helpful. They come to me, and like ask me questions, and I'm like I'm not a nurse. I don't know. But you know they are very supportive. Mama told me she said, I wish you'd went there before.

The discussions from the participants identified the support and motivation they received from their families. Although their parents did not attend college themselves, they still supported and encouraged the participants to complete college.

Research Question 3

What are the reasons first-generation students report for attending a technical college?

Two themes emerged in exploring the reasons that first-generation students report for attending a technical college. First, students identify external guiding factors and sub-themes under the benefits of technical education, such as practical skills applications, ease of enrollment, job placement and financial security, short program length, and geographical location.

External Guiding Factors

Throughout the interviews, participants shared their stories and life experiences that contributed to their educational path. Aside from better job opportunities, participants revealed other factors contributing to their enrolling in a technical college. For example, Alvin identified issues related to his home environment and being affected by negative external influences. Alvin's family did not want something to happen to him if he was out "in the streets." He felt going to school would keep him from hanging with the wrong crowd and “getting involved with the wrong things.”.

In addition, Michael had previously attended a four-year university to play sports but had injured himself during that time. This injury led him to no longer attend that university and look for other career options. Likewise, Michael expressed concerns regarding hanging with the wrong crowd. In addition, his family pushed him to look for better career options.

Jackie was also unable to continue her basketball scholarship at a four-year university and attend RN school at the same time. This led to her decision to attend a program at the technical college.

As with Alvin and Michael, environmental and cultural factors can influence the behaviors of individuals living in rural communities (TN Department of Health, n.d.). Students may often live in environments that are not conducive to positive learning (PwC, 2021). In

addition, first-generation students living in rural areas may suffer from a lack of professional role models who can provide guidance (Gilmore, 2017).

Benefits of Technical Education

Career and technical education, once identified as vocational education, carried a social stigma and categorized students by race and social class (Bither, 2018; Malkus, 2019). Research revealed the name change to the Tennessee Colleges of Applied Technology in 2013 was enacted to promote the technical colleges as legitimate colleges and to steer away from the stigma that vocational education was intended only for those unable to attend a community college or university (Complete College America, 2011). The emerging sub-themes in this section are practical skills applications, ease of enrollment, job placement and financial security, short program length, and geographical location.

When asked, "what was your prior knowledge of technical colleges before enrolling?" Alvin stated he did not know much about the technical colleges and what they offered. He stated:

> Prior to enrolling? I had no idea at all. I never knew what it was going to be like. All I knew was I would get a check for going to school. That's all I knew.

Kennedi also stated in her interview:

> I really didn't know nothing about them. I just knew that they had certain classes that you could take and they wasn't as long. You don't have to go as long and you don't have to take as many classes.

Andrea had some knowledge of the technical colleges but didn't know a lot about them:

> I knew they were a quicker alternative than a four-year university, and I knew they offered things like welding, nursing. I knew not a lot, but I knew a general gist of what it did. I think honestly, they're not talked about as much as typical four-year universities

> and I wish they would because a lot of people like me don't want to do that extra schooling. I think they need to be talked about more.

Jason first learned about technical colleges from one of his friends. He shared:

> I didn't know much about it. I was told by a friend about it, so I went and checked into it, looked at the programs that were offered, and I liked what I saw.

Other participants, such as Jennifer, saw the school one day and decided to stop in to see what it offered:

> I didn't know anything about it until I actually decided that I was going to stop and see what I had to do to get enrolled into a program here, so when I stopped and seeing what I had to do to get enrolled here, I found out it was a lot of opportunities here to further your career.

Delafontae stated that he knew about technical colleges but didn't know about the programs that were offered:

> As far as the program, I didn't know that they had offered the program that I am in before and basically, once I did find out about it how to apply and everything for it, I took initiative.

Several participants stated they wished the technical colleges had been promoted more at their high schools. Participants' responses supported the research and revealed a stigma surrounding attending technical colleges. For example, Truth stated the following during her interview:

> I think honestly, they're not talked about as much as typical four-year universities, and I wish they would because a lot of people like me don't want to do that extra schooling. I

think they need to be talked about more. And I don't wanna say they're easier, but they are more convenient for people who rather enter the workforce than more education.

Matthew also reiterated the same sentiment that technical colleges were not promoted at the high school level:

> Not much, going to high school, they talk down about technical college. They talk down about the trades in general...doing anything like that. They preached four-year degrees going to get that...and those same students went to four-year colleges. $50 to $100,000 in debt and still ended up. In effect, they didn't give us much information about technical colleges. If I had more information, I would have went away before now.

Chandra also shared the same thoughts in her interview that she did not know much about the technical colleges in high school:

> Before enrolling, I didn't have too much prior information because, like in school, you know, they always push universities and four-year programs. So, I didn't have that much knowledge on technical programs.

Glenda too did not have much prior knowledge of the technical colleges before enrolling:

> Not too much. I didn't really know much at all. I kind of seen things here and there, but I really just didn't have a knowledge of what it's for or what it, how it differed from a university. So, I just didn't really look at it at first. So, I didn't know at first.

Glenda was also concerned that the technical college was not as accredited as a two-year or four-year university. She shared the following:

> Would it be like accreditation, like would it be like holding strong as a two year or four year. Like how serious is this. I mean how would this impact me getting a job how quickly or not basically.

Practical Skills Applications. The technical colleges provide both academic and career-focused programs of study and allow students to gain real work experience. This work experience can be achieved through industry certifications, work-based learning activities, and other on-the-job training opportunities (Glossary of Education Reform, 2014). Participants shared that one of their reasons for attending the technical college was to learn technical and practical skills. Participants felt that technical education was more "hands-on." Michael felt at a four-year university, "you learn unnecessary stuff." He also stated:

> Here it's more hands-on. I like hands-on things and learning what I need to learn. It's been beneficial because I have picked up on a lot. I go home and practice some methods I learned here.

Chris felt his program of study at the technical college was better suited to teach him what he needed to learn. He said, “Considering that's like the only field that I'm interested in, and there's not too many to choose from, so yeah.” Glenda also enjoys doing hands-on and theory. She explained how the technical skills applications enhanced her confidence:

> I've experienced coming here and being confident in one thing and being opened up to many more possible things. I'm like, oh wow, I've wanted to do now too….and it was just like, what do I do with that? I've seen it going to school when I went to my university. I knew that I wanted to go for business administration, that put me in one area, but that was broad. And then graduated and then felt like the road is so broad, and where do I start? They say "oh, you need to get some experience," but where am I going to get experience? Where am I going to get the experience from? I've been here for four years. But coming here I'm getting the hands-on experience. I'm getting it all in one, getting the theory the hands-on. Then it's just like voila' when I get done, I'm going right into what I've been

> doing all this time. There's no guess work in it. And it makes me feel so good and confident. Like this is all I needed. I could have cut the shortcuts out. I could have went straight forward in the beginning.

Delafontae stated:

> My program gives me the knowledge that I didn't have before the skills I didn't have. I mean, basically everything that I was lacking. It is giving me a perspective of how to obtain it and, you know, get there.

Jeff, Matthew, and Kennedi all felt that the skills they learned in their programs were beneficial to the jobs they are currently working. Jennifer and Chandra had attended other related programs at the technical college, and both stated that the foundation helped them be more successful in their current programs. Jennifer also said, “I’m relying on the technical college, especially to give me the skills I need to further my career.”

Ease of Enrollment. Most participants thought technical education was the easiest path to postsecondary education. Although statistics from the National Center for Education Statistics (n.d.) showed members of special populations, such as economically disadvantaged and single parents, were more prone to enroll in vocational education institutions, several participants in this study had already attended other community colleges or four-year universities. All participants with previous postsecondary education felt attending the technical college was easier. Donna stated, “I don’t know, they’ve just made it easier to enroll in school and you know helping financially. It just made it 100% easier.” Kennedi stated, "you don't have to go as long and you don't have to take as many classes.”

Andrea also stated that technical colleges are not necessarily easier but are more convenient for those who would rather enter the workforce. She stated:

> Enrollment was pretty easy. Of course, there is a wait list, but you know that was pretty good once I got off that, and so far, it's been going really well. I really am glad that I'm really happy with the course and the direction it's going. I feel like for especially first generation, it's a much quicker and easier path than having to deal with the four-year and everything that comes with that…I think they need to be talked about more, and I don't wanna say they're easier, but they are more convenient for people who rather enter the workforce than more education.

Alvin stated his experience at the technical college was a lot easier than attending a four-year college:

> I actually attended a four-year college back in 2018, but it wasn't for me. I enjoyed the experience, but a technical college is far more easier because it don't put you in debt nothing like that. A technical college is way more easier.

Delfontae responded:

> Yes, for this area, yes. For some people who don't have the opportunity to go to a two-year or four-year degree, it does give you another chance of you know getting somewhere.

Jeff and Matthew stated they didn't think the technical college was necessarily easier academically, but it was the most accessible route to college education. William felt it was the most accessible, but not necessarily the easiest, "because it's still something you got to put work into, but it is the most accessible." Glenda also said, "I feel like yeah, I mean looking back now yes, most definitely."

Chandra also shared there were several factors prospective students could consider. She stated:

I wouldn't say it's the easiest, especially dealing with nursing because it's more fast track. So, you know you have to learn. Everything a little bit quicker, so the curriculum is a little bit harder, but as far as like getting enrolled and like I was talking about, uh, financial responsibilities, like it's a little bit more affordable than going to like a university. So, it depends on what aspect you're looking at.

Job Placement and Financial Security. Technical education has evolved into a more career-centered focus over the years (Malkus, 2019). One of the requirements of accreditation for technical colleges is job placement. Occupational program instructors must meet the annual benchmark of 70% placement for students enrolled in their programs of study (Council on Occupational Education, 2018). This job placement is a benefit for students looking to go directly into the workforce upon graduation from a technical college. During the interviews, participants said they hoped for financial gain and a better quality of life after finishing school. Chris stated that his primary goal was to get a good job "so I don't have to struggle like most people have." He also stated that his instructor was beneficial in providing him with the information that he needed to apply for jobs.

Alvin also stated that he was looking for better opportunities for his future:

Really 'cause I really want a better future for myself. In about ten years, when I'm 32, I don't want to be just sitting around here doing the same thing everybody else doing. I want to do my own. My own lane…making my own money. That's all I'm thinking about…chasing my dream.

Delafontae believes attending the technical college has greatly prepared him for the workforce. His thoughts were:

TCAT gives me the knowledge that I didn't have before, the skills I didn't have for a job.

> I mean, basically everything that I was lacking, it is giving me a perspective of how to obtain it. And, you know, get there.

All but one participant stated they attended the technical college due to the assistance with job placement after graduation. Even though Donna was not looking to gain a job in the field after graduation, she did state:

> I would advise anybody that if they had the chance to go somewhere like this and get a higher education to do it. It would benefit them by finding a job and all that.

William felt that he could get any job he wanted if he put in the hard work.

Kennedi stated that she had previously earned an associate degree and a bachelor's degree in another field and could not find a job she liked. This led her to want to change careers. She shared:

> When I got my bachelor's degree in criminal justice, I tried to get a job and the rural area you asked what the problem was you can't find a job around here. It's who you know. You gotta know folks around here to get a job. And so, it's hard to get a job in criminal justice. I got promised…"oh well when you get your degree, we'll help you get a job. They didn't help me get a job so I couldn't find nothing in criminal justice to do. I worked at the prison for five years but that's not for me. So, I decided to go back to school to help people.

Michael felt the technical college would be instrumental in helping him with job placement after he withdrew from the four-year university he had previously attended. Truth also felt job placement was a benefit of attending a technical college. She also shared her experience regarding family members who had difficulty finding jobs in their fields. She revealed:

> The fact that you guys help us find jobs when we're done, that's pretty much the hardest part of what I've heard from a lot of college students is finding good job. I have a godmother who is a registered nurse and she said that you know when she went to a community college, but that was one of the hardest parts. She went two years doing something other than RN, my brother he is a…he's my half-brother. He is a provisional therapist. And for two years after he got his masters, he's working at Target. So it is very difficult to find a job in your line of work, especially when you have no experience and you're fresh out of college. Technical colleges kind of take on that burden.

Kennedi, Jeff, and Matthew were also able to obtain new jobs while they were currently enrolled in their program of study. Kennedi stated:

> I got a job at the hospital so I'm doing the hospital on the weekends. I'm going here during the week for school, and it's been…so helpful like what I learn here I apply on my job.

Chandra felt her program was very impactful in preparing her for the workforce and stated:

> I feel like it has helped prepare me so well when I, you know, when I finish and I get ready to go into the work field, I'll be prepared. So umm, it's been able to show me like all aspects of what I would be walking into when I finish.

Short Program Length. Programs at the state technical colleges range between four and twenty months. All participants agreed that one of the benefits of attending a technical college was the length of the programs. Donna stated, "I figured I could get through it quicker."

Jeff also stated:

I would say that. It's easier to try to go to one knowing that you're not committed to a four-year or two-year and if you don't feel comfortable with that, you know it's just a short-term program.

Delafontae shared:

If you want to call it a certification versus trying to get, you know, a four-year… it's shorter time. For some people who don't have the opportunity to go to a two-year or four-year degree, it does give you another chance of, you know, getting somewhere.

Glenda felt she would have benefited earlier had she attended a technical college in the beginning:

Then it's just like voila' when I get done, and I'm going right into what I've been doing all this time. There's no guesswork in it. And it makes me feel so good and confident. Like this is all I needed. I could have cut the shortcuts out; I could have went straight forward in the beginning. What would be discouraging for me is if this technical college required me to go four years. Can't we shorten this thing?

Andrea stated her family was happy about the duration of her program length:

I knew they were a quicker alternative than a four-year university. I knew not a lot, but I knew a general gist of what it did. They were happy I'm following a passion I was excited about, and they were also excited for me that I wouldn't have to do so many extra years of schooling.

Jennifer also stated:

The programs are actually shorter, shorter time, and they work around your schedule. They have night programs that you can get into. ….That's what made me want to come into a technical institution.

Geographical Location. The Tennessee Colleges of Applied Technology are strategically located within an approximate 40-mile radius of each other to provide more access and availability to prospective students (Complete College America, 2011). Participants were asked their reasons for attending a technical college. While most participants stated job placement as their primary reason, a few participants stated that the technical college was conveniently located close to where they lived, which was an added benefit of attending the technical college.

Delafontae revealed that he decided to attend a technical college because it was close to where he lived, and it was easier for him to get to school. Truth, Jeff, and Matthew all live in close proximity to the technical college. They also stated that the technical college was not only close to their house but to their jobs as well. Truth stated, "it's really close to my house so the driving distance is very good…. right on the highway, driving, at least go straight to work, so it's very accessible for all of my needs."

Likewise, Michael chose to attend a technical college because it was closer to his home and allowed him to stay close to his family. Kennedi also felt the technical college was closer in location than other institutions, making it easier for first-generation, underrepresented students to access.

The technical colleges are distributed across the region, so students do not have to travel far from their homes to attend school (Complete College America, 2011). However, as stated by participants such as Chris, Chandra, and Jackie when discussing transportation needs, some students will drive distances to attend the technical college to enroll in a specific program.

Research Question 4

How do first-generation students perceive the program initiatives at the technical college?

This research question focused on each participant's perception of the program initiatives at the technical college. According to Stephens et al. (2015), creating a more inclusive campus culture can help students become more acclimated to the college environment and encourage them to participate in school activities (Stephens et al., 2015). Strategies are implemented in institutions of higher learning to help individuals perform academically at their fullest potential and to reduce social class disparities for first-generation college students. The theme that emerged from the interviews was institutional support mechanisms. The sub-themes include impact of staff, impact of peers, institutional activities and engagement, and community outreach.

Institutional Support Mechanisms

Boyd (2017) stated that institutions must help first-generation college students transition to the college campus and provide support to help them become more acclimated to the campus community. Providing peer and social networks positively impacts students' critical thinking skills, retention, and persistence (Boyd, 2017). Other researchers have also recommended that higher education institutions become more involved in helping first-generation college students acclimate to college, not only from an academic standpoint but also socially (Hutchison, 2015).

Impact of Faculty and Staff. One of the most prevalent institutional support mechanisms identified by the participants included the faculty and staff. According to social capital theory, relationships can guide and emotionally support students in unfamiliar territory (Moschetti & Hudley, 2014). First-generation college students' persistence is due to their ability to have positive interactions with faculty members (Nelson, 2015). This was evident during the interviews when participants, such as Chandra, Jennifer, and Kennedi, stated how much they appreciated their classmates and instructors. All participants felt the faculty and staff at the

institution were instrumental in their academic success. In addition, participants expressed how influential their instructors were in helping them gain knowledge of their program of study.

Several participants said that Student Services personnel were also instrumental in helping them get financial aid assistance. Glenda felt the institution was key in "finding those resources to bridge the gap between poverty or what challenges may prevent you from getting here." Alvin commended his instructor for being willing to teach so he could learn something. He also enjoyed the one-on-one instruction he received from his instructor. Chris and William stated that their instructor was “pretty easy to get along with and very helpful and resourceful.” William also shared this about his instructor:

> He helped a lot with the students, always there when they need it. Like I always needed a lot of things and (instructor) was there to help out with most of the questions and everything else. Like when I first got there I had so many questions. He was able to help me out with most of it, mainly all of it. A lot of that I didn't know.

Based on the theoretical framework of social, cultural, and human capital theory, students’ academic experiences improve significantly due to their perceived social capital from their instructors (Parks-Yancy, 2012). According to this theory, students can form attachments to their instructors due to a social connection and a sense of relatability. In addition, students can communicate easily with faculty members from the same ethnic background. If faculty members were also first-generation college students, students would develop more positive relationships and social connections (Parks-Yancy, 2012). This theory supports the relationship Delafontae has with his instructor. He credits his instructor with being his biggest motivation to continue his education. It was evident in his interview that he is inspired and motivated by his instructor sharing his life experiences:

> My instructor is great. He basically tells us his inspiration and how it took him so long to get to where he was and where he is. And basically, let me know that it's not too late. As long as you still you can get up, you can go get it.

Truth felt the instructors and staff at the institution are “inspirational and encouraging.” Jeff and Matthew were both complimentary of how instrumental their instructor has been in preparing them for the workforce. Matthew stated:

> That program teaches. He's trying to teach you how it is in the workforce and how to conduct yourself in that workforce because certain things that go on you have to learn to deal with it, and he tries to teach that and teach you how to be on the straight and narrow.

Jeff also stated that his instructor was available to help him even outside of class hours:

> My instructor, whatever, if I need him for anything, even like a reference, you know, talking to you know different jobs, I can call him at any time, or if I have anything like changing a light socket at the house, I can call him, and he'll you know, walk me through the program and go through it.

Jeff also commended other faculty and staff members:

> I feel like they're really, really great, whatever subject or class you decide to take. I feel like the teachers are personal with each... each individual student that they would.
>
> It brings growth to them and people in general. I have nothing but some great, you know, positive reviews with the school. The teachers are great. You know the staff is great. If I need anything from the HR team, they you know, they always take care of it.

Kennedi commended her instructor as well as her peers for helping her as a student:

> Our instructor she is awesome. She goes out of her way to help you. And when I got my job, she was so happy for me getting my job and stuff.

Andrea stated that she received a lot of support from the institution:

> It's a good staff there. I've never felt, you know, everyone's always been really sweet.

Glenda, Chandra, Jackie, and Kennedi also felt the institution helped students with the financial aid process and identified resources to assist low-income students.

Impact of Peers. Tinto (1998) believed learning communities were beneficial for first-generation students to form peer groups and increase the quality of their academic learning. The learning communities involved students learning together in the school setting and outside the classroom. Delafontae has relied upon peer-to-peer instruction to help him get through his program of study:

> The peer-to-peer instruction like the you know, as far as you know classmates helping each other. Because that builds a bond in a relationship with people that you might not know people that you know you might know, but it helps you understand them. You know more on a personal level because we're here with each other for six to seven hours, eight hours a day and like I say, it helps you build a better relationship and now one day. It prepares you for what we're going for.

Truth also spoke highly of her peers and how it has benefited her academically:

> Wow, it was very. My class is very small, and we do a lot of things together.
>
> You know a bunch of strangers coming together and talking about life experiences and stuff, especially when we got to the medical terminology chapter. It was very nice.

When asked what social connections have helped him as a student, Jeff stated that it was his peers:

> My peers. It was a guy that just graduated this December. If I needed anything that I couldn't, you know, reach out whatever and I'm like he pretty much talked to me through the basics. So definitely my peers.

When Jackie enrolled in the program, she found out there were other students from her hometown that were enrolled in her program of study:

> I knew two people actually this from the same town as me. So that made me feel a little better about it. And you know, you just gain those friendships as you go. So that helped ease up the program to me.

Jason also revealed that the use of Microsoft Teams in his program of study has served as a social network tool. He shared, “it allows me to communicate with the students inside and outside of class and allows us to collaborate on projects.” Kennedi spoke of the bond that she has with her peers by saying, “and my peers are awesome. We’re all like family. We help each other.”

When asked what social connections have helped him as a student, Chris felt he could ask his fellow classmates if he had a question about anything. He shared:

> Besides like your fellow peers, since you know obviously one person's knowledge is not always the best, relying on someone else, I suppose. I mean if I have a question, I'll ask someone that I know probably knows it.

Glenda stated this about her relations with her peers:

> It definitely opened me up to work with my peers and you know learn different personalities and get closer to them because, of course, some of them have been here longer than me. And they have their experiences with how things work out in the field. I'm learning from that as well.

Institutional Activities and Engagement. Hicks (2002) stated that to increase retention and help combat the lack of academic support and social needs for first-generation students, colleges and universities should implement programs to address these issues. These programs may include community-building activities, tutoring services, integrated study groups for students, and other extracurricular activities that connect the institution, students, faculty, and staff (Hicks, 2002). The Lumina Foundation (n.d.) also stated that strategies must be implemented on college campuses to address the unique challenges of low-income students. Although some participants revealed they were involved in institutional activities, participants like Andrea felt more after-school activities and projects would benefit students. She stated:

> Just things that do teamwork. I feel like that helps a lot because a lot of our careers are very people based. You have to go out and work with people daily, so stuff that you know would build good team spirit.

Truth also offered suggestions to expand what the institution currently does for students. She said:

> I would say you're kind of doing already like an open house like where they come in and they view the different classrooms and everything...and you know tells this is what you have to do to get into this class. You know?

Jason stated the institution did offer a program that he felt was beneficial for new students:

> They have well for one, it's Tech Foundations. I think that's a big part of that because it helps that and also orientation. It helps introduce the first-generation student into a college atmosphere.

Although Delafontae's program was active in extracurricular activities, he did offer suggestions for the institution to incorporate more activities for student interaction:

> More like Student Day or something you know. Because all of us are here different times. You know, like something like as far as like campus activity. Hey, because we are like you know, we might walk past, don't know somebody and hey, you never know what that person might be going through., just acknowledging other people really because everybody is here.

Delafontae also felt the institution could incorporate initiatives to help first-generation college students before enrollment:

> Basically, like a pre-screening, honestly, you know, sitting down having a talk. I mean, which we do, but it's, you know, just to make sure, like before you enroll into the program, is this really what you want to do? Because some people you know it might be your last opportunity to do that.

William was not involved in any extracurricular activities on campus but felt helping others on campus was instrumental:

> I don't know if this would be one but like sort of like helping people out with other things, they need help with. Like if something's wrong, I can help someone out. Yeah, basically that. Like in any kind of way, as long as helping them out is the best thing. School work, learning. Like they're on a certain part I've passed. I can help them with any of that. ... I'm there if they need help with it. All they need to do is ask me, and I'm there to help them with it.

Kennedi also felt helping other students helped her succeed as a student. She shared this about her experiences:

> I help people. I mean, if new students need help, I show them around, and I take them around. I show them where to go, or I tell them, or I try to help them. I guess that could be an activity…that activity to help.

Participants such as Jennifer, Chandra, and Jackie felt because they were involved in evening classes, there were not as many institutional activities for their classes. Chandra stated:

> And I haven't been involved in any extracurricular activities. I'm in the Honor Society, but they haven't really had anything for us to participate in, so I haven't really been involved in anything.

Jeff felt study groups after class with other class members would be beneficial:

> I would say some kind of study group that was, you know, brought after class like, we can get together, and we can discuss with you know individual reasons and individual stuff about the class.

Matthew felt the projects his class was involved in on campus helped with his training:

> I have been involved with extracurricular activities, now to think about it because we have fixed several things here and on campus that needed to be fixed, and it's been beneficial. Shows us what we're dealing with certain situations here at the school and gives us hand on training.

Although Andrea was not involved in any extracurricular activities on campus, she did offer suggestions:

> I'm honestly, not sure about that one. Maybe more after school activities and projects. I know we have some building classes maybe like after school activity through them would be like helping Habitat for Humanity and things like that.

Kennedi also revealed in her interview that a food pantry would be beneficial because she knew of students attending the institution who needed food assistance. Other participants did not identify any specific programs or initiatives they found helpful at the institution.

Community Outreach. Research by Yeh (2010) revealed the experiences of first-generation college students and their involvement with academic service learning. Institutions provide service learning and community engagement to diversify cultural norms on campus (Stephens et al., 2015). Tinto (1998) also believed students benefited from learning communities in the school setting and outside the classroom. Participants shared how they benefited from outreach initiatives between the institution and the community. Delafontae stated that his program was very active with community engagement and building relationships in the community:

> Taking school field trips going out into the community giving out free haircuts for the kids. Career day, Just going out… outreach, just trying to basically let people know that hey this is what we do. This is what we're offering. Even when we're trying to bring people in off the streets to come in, and you know they support our program and that's it really. Basically, reaching out, getting to know people. Building business relationships with people opportunities. Community like I said, just get my face and my name out there.

Glenda also felt her program of study did a lot with the community and external partnerships:

> We did recently like a…we partnered with the cheerleaders where we and TCAT and cheerleaders came together and brought the kids in. We did nails, we did pedicures, face painting. We took our clients the mannequins where they were able to style those and showed them how to braid. Umm that was pretty fun.

Jason said the institution was involved in organizations such as SkillsUSA, which allowed students to compete in program competitions outside the institution. Research in the literature revealed this organization had been proven instrumental in preparing students for careers in trade, technical, and service occupations and is prevalent among technical colleges (SkillsUSA, n.d.).

Jason also stated the institution was involved in a canned food drive that benefited local community organizations. In addition, he also shared that his program participated in building a float for the local town parade. Jason felt that this involvement helped him gain social connections with other students. This type of engagement reaffirms research by Yeh (2010) that suggests students can develop cultural and social capital through positive service learning experiences. Chris, William, Michael, and Alvin stated their programs were not involved in any community or outreach activities. Other participants said they were unsure if any activities were made available to students.

When higher education institutions organize and offer programs effectively, low-income and underrepresented students will persist in their education (Chaplot et al., 2018). Participants each shared the support mechanisms that helped them navigate their college enrollment. These support mechanisms included social connections with their peers and faculty members. In addition, some participants were engaged in some form of activity or community outreach project initiated by their program of study.

Chapter Summary

The purpose of this qualitative study was to share the experiences of first-generation students attending a technical college in a rural area. Data presented in Chapter 4 was collected through semi-structured interviews with 17 participants who identified as being first-generation

students attending a technical college in rural West Tennessee. During the semi-structured interviews, participants were asked approximately 17 open-ended questions. Interviews were collected via Microsoft Teams and in person utilizing an audio recorder. Each interview was transcribed and reviewed by the participants for accuracy. The transcriptions were then coded, which allowed the researcher to identify emerging themes. Finally, each theme, sub-theme, and participant quotation were categorized within the four research questions. The data presented in this chapter expressed how each study participant perceived their experiences as first-generation students attending a technical college in rural West Tennessee. In Chapter 5, I will further discuss the data and develop conclusions and implications for future practice and research

Chapter 5. Conclusions and Recommendations

Introduction

The purpose of this qualitative study aimed to focus on the experiences of first-generation students attending a technical college in a rural area. Chapter 1 provided the basis for the research by identifying the statement of the problem, the theoretical framework used to guide the research, the overarching research questions of the study, the significance of the study, the definition of relevant terms, the limitations and delimitations of the research and the overall overview of the study. Chapter 2 presented the literature regarding first-generation college students. This research included a brief history of technical education, higher education institutions' classifications, Bourdieu's theoretical framework, barriers to retention, financial implications, parental influence, living in rural areas, and implemented programs and strategies. Chapter 3 described the methodology, data collection, and analysis method, the population of study participants, the researcher's role and reflexivity statement, credibility, trustworthiness, and ethical considerations. Chapter 4 presented the participant profiles and results of the interview data collected. Finally, Chapter 5 summarizes the research findings and implications for practice and future research.

Statement of Problem

Traditionally, research on first-generation college students has included students who attended community colleges and four-year universities. Community colleges have typically been identified as the legitimate starting point for students (Garza & Bowden, 2014). In addition, research by Hicks (2006) identified community colleges as being "best able to attract first-generation students because of their ability to meet the needs of a diverse student population" (p. 15). Historically, community and technical colleges have provided technical education

opportunities for students (Harris, 2013). However, when comparing technical education with other higher education institutions, there is a perception that indicates technical colleges are a second-choice pathway (Silverberg et al., 2002). In addition, first-generation students who live in rural areas may face unique challenges, such as limited college preparation knowledge, a lack of support, and low socioeconomic living conditions (McCulloh, 2016). There is a gap in the published literature pertaining to the lived experiences of students attending technical colleges, especially those living in rural areas (Allen, 2020). There is a need to explore further how students who enroll in technical colleges in rural areas perceive their college experiences. This study intends to understand better the experiences of first-generation students attending technical colleges in rural West Tennessee.

Discussion and Conclusions Drawn from Findings

This qualitative study was accomplished using the inductive approach by conducting one-on-one semi-structured interviews with 17 first-generation students attending a technical college in rural West Tennessee. I collected data from the interviews as well as my reflexive memos. I was able to analyze this data to develop and identify themes that provided answers to the four research questions. The findings of this study may provide additional insight for educational stakeholders who wish to emphasize students' access to postsecondary education and academic success. In addition, by sharing the participants' perceptions of their experiences at a technical college, there may be recommendations for future educational initiatives that may assist first-generation college students.

Research Question 1

1. How do first-generation technical college students in rural Tennessee describe their educational experiences?

In response to question one, the themes that emerged were educational background and campus atmosphere. The participant's comfort level and ease in discussing their personal experiences and feelings limited the study. When discussing their previous educational attainment, two participants, Glenda and Kennedi, had already attained a bachelor's degree from a university. Both stated they could not get a job in that field and decided to change careers and attend the technical college. Some participants would not give any additional details other than they had attended other higher education institutions but didn't complete the program. Other participants, such as Donna, Chris, Jackie, and Michael, did not withhold the details regarding their previous postsecondary experience and gave me their reasons for not completing their program.

When discussing their overall experience at the technical college, the participants identified the faculty and staff as contributing to their having a positive experience. In addition, participants were complimentary of the assistance they received from Student Services personnel during the admissions process and how instrumental they were in helping them find financial assistance. Another factor that contributed to the participant's experience at the technical college involved how helpful their instructors were in their programs of study. Participants felt they were learning everything they needed to complete their program of study and gain employment in their field. Other participants such as Truth, Chandra, Kennedi, and Jackie also felt their fellow classmates also helped contribute to them having a positive experience. Participants thought they were able to learn from their peers as well as build social networks. Additional information on this topic will be given in response to research question four.

The research from Chapter 2 revealed that first-generation college students are more likely than other groups of students to change their program majors, which causes an increase in

the likelihood of not completing their degree (Sims & Ferrare, 2021). Cataldi et al. (2018) also stated that first-generation college students displayed varying persistence patterns in attaining their certificates or degrees. While that research was based on students attending community colleges and universities, the same could be said for the students in this study who had previously attended these same types of institutions but were now enrolled at the technical college. The participants who did not earn their degrees from previous college experience each had varying reasons for not finishing the program.

Research Question 2

2. What experiences do first-generation students attending technical colleges in rural West Tennessee perceive as impacting their academic success?

The findings of this research reaffirmed the information presented in the literature that first-generation students face challenges in their pursuit of postsecondary education. In response to question two, the theme of predominant barriers emerged with sub-themes that included financial needs, transportation, childcare, family obligations, and rural location. According to Hebert (2018), first-generation students arrive on college campuses less prepared academically and must hold jobs (Hebert, 2018). Most technical college students receive some form of financial aid (Complete College America, 2011). State initiatives like Tennessee Promise and Tennessee Reconnect also pay students' tuition (Driveto55, n.d). However, these programs do not cover the cost of books, supplies, and tools needed for their programs of study. This aid does not assist students with transportation barriers, daycare issues, or other financial concerns hindering their enrollment and academic success. Several participants stated that they needed financial assistance with the cost of their books and supplies and other program needs. In addition, students such as Glenda and Kennedi, who have already received a bachelor's degree,

were ineligible to receive the federal Pell Grant (Office of Federal Student Aid, n.d.). Therefore, additional outside resources were needed to assist with program costs.

While the research showed that first-generation students had more student loans in their first year of college enrollment than their non-first-generation peers (Redford & Hoyer, 2017), this does not hold for technical college students. The technical colleges do not participate in the federal student loan program. Therefore, students do not incur excessive student loan debt upon leaving the institution (Complete College America, 2011). According to the research, students' academic success may be motivated by factors such as the increasing cost of tuition (Peabody, 2013). However, most participants stated that one of their reasons for attending the technical college was the low cost compared to other higher education institutions.

Participants like Chris also revealed that they had issues with transportation and relied on gas cards from these outside resources. These external resources were also beneficial for providing assistance to Glenda, Chandra, and Jackie. However, students not meeting the qualifications for those programs do not qualify for assistance. In addition, some of the outside sponsors limit the amount of funding students can receive. Therefore, once students' needs assessments have reached the maximum amount, they can no longer receive funds to aid with program costs. This may cause additional financial hardship for students enrolled in higher-cost programs, such as the Practical Nursing Program.

Research by Stebleton and Soria (2012) determined that first-generation college students, when compared to non-first-generation students, experienced more frequent barriers in their family and job responsibilities. Brinkman et al. (2013) also revealed that first-generation students are responsible for taking care of their families. This research aligns with the information the participants provided during the interviews. Under the themes of financial needs and family

obligations, participants stated they had to continue working full-time while attending school. Some even worked third-shift jobs and came to school right after the following day. In addition, several participants were single parents and needed family members to assist with their childcare needs. These participants attended school at night so that they could work during the day. Other participants, such as Jason, provided care for his mother. Kennedi also revealed that she had elderly parents she was responsible for caring for even while she attended school. In addition, she still had to work on the weekends to bring income into the household.

The other aspect of this research involves students living in rural areas, another sub-theme identified under predominant barriers. First-generation students in rural areas face financial and socio-economic barriers, and poverty rates are greater than those in non-rural areas (Byun et al., 2012). Participants such as Alvin and Delafontae shared that they grew up in poverty-stricken homes in rural towns. Other participants revealed they grew up in single-parent households with multiple family members.

In addition to financial hardship, this study revealed that participants like Kennedi did not have adequate healthcare in their rural community. Participants also stated that they knew of other students enrolled at the institution who faced financial hardship and needed assistance with food. Although the technical colleges have relationships with community stakeholders who can assist students, such as WIOA and SNAP, as participants such as Chandra identified, most smaller technical colleges in rural areas do not have on-campus food banks for their students.

A second theme emerged from research question two, student resiliency. Sub-themes included motivating factors, personal growth and development, and persistence. Although participants stated they faced barriers in their postsecondary education goals, they also identified several factors that caused them to persevere. For example, participants were asked what their

motivation was to continue their education, and most of the participants were motivated by their families, which included their parents, grandparents, and children. Other participants, such as Chris, were motivated to get a good job upon graduation.

In addition to better job opportunities, participants like Donna had no plans to gain a career after graduation. Instead, she wished to complete the program as a personal goal for college attainment. Other participants stated they had gained skills such as time management and stronger work ethics.

The last sub-theme of student resiliency was persistence. According to Hopkins et al. (2021), student persistence involves the timeframe in which students complete their credential attainment, no matter where they started or ended their postsecondary enrollment. This research also stated that students might "temporarily stop out and may continue at another institution" (p.40). This research is validated by the participants who had previously enrolled at other higher education institutions but did not complete those programs. Participants like Jason advised others not to abandon their passions and dreams. Other participants, like William, felt that hardships could be overcome with help. Delafontae felt you should "look past living in a small county…and just think outside the box." Chandra shared the same sentiment when she stated that you should not limit yourself, even living in a small town.

The last theme that was developed from research question two was the influence of family. The study of social capital as it relates to first-generation students indicates several factors that influence the outcomes of first-generation, underrepresented students (Martin et al., 2020). These factors include familial influences. According to research by McCullogh (2016), established social relationships are a form of social capital and are intrinsic for students to gain support from interactions with their parents and other family members. By establishing these

social relationships as a form of social capital, information is communicated with students that may help develop a foundation for their path to postsecondary education attainment (McCullogh, 2016). The findings support this assessment through the theoretical framework of Bourdieus' social, cultural, and human capital theory. Each participant shared the same sentiment. They all felt that their families supported them in getting a college education. For example, Kennedi shared that although her parents were elderly and did not understand the college admissions process, they still supported her and asked her questions.

Research Question 3

3. What are the reasons first-generation students report for attending a technical college?

In response to research question three, participants gave many reasons for deciding to attend a technical college. The central theme of this research question was the benefits of technical education with sub-themes that included practical skills applications, ease of enrollment, job placement and security, short program length, and geographical location. The research in the literature review revealed that career and technical education carried a social stigma and historically served underrepresented or disadvantaged students (Bither, 2018; Malkus, 2019; Silverberg et al., 2022). Several participants in the study validated that research by sharing that technical colleges were not promoted at their high schools. For example, Andrea and Matthew both stated that there was a stigma surrounding technical colleges and that "people talked down about technical colleges, about the trades in general." Other participants also indicated that they did not know much about technical colleges before enrolling. Although vocational education has evolved into a more career-centered focus over time, a large population of academically challenged students from special populations is informed that technical education is their best career choice (Malkus, 2019). In addition, students from low-income

families are more likely to enroll in vocational education than those from higher socioeconomic classes (Silverberg et al., 2002).

In the literature review, research from Sims & Ferrare (2021) revealed first-generation college students living in rural areas from lower-income families might choose career fields that could lead to high-paying jobs. Job placement and financial security were the principal reason participants enrolled at the technical college due to the assistance students received with job placement. The findings in the study also aligned with the research of Ackehurst et al. (2022), who stated students who graduate from technical colleges tend to experience a more positive statistical outlook in the job market. In addition, participants shared that the length of the programs at the technical college was an added benefit so they could finish faster and go to work sooner. Finally, participants said they hoped for financial gain and better job opportunities upon graduating.

Participants also felt attending a technical college was the easiest path to gaining postsecondary education, which led to another theme, ease of enrollment. Most participants had attended other higher education institutions but felt enrolling in a technical college was more convenient. Other participants thought that it was not necessarily easier due to some of the programs being more fast-paced but felt the enrollment process of the technical college made access more attainable.

Although some participants reported that living in a rural area created barriers, some participants felt the geographical location of the technical college was an added benefit for them. Participants such as Truth, Jeff, and Matthew felt the technical college was conveniently located close to where they lived and to their jobs. Other participants, such as Delafontae and Michael,

stated it was easier to get to school because it was close to their families. Other participants did not reference the rural location as a barrier or benefit.

A final theme that emerged under research question three was external guiding factors. This theme was developed based on responses from participants who revealed other reasons related to their outside environments that contributed to their enrolling at the technical college. For example, Michael and Alvin revealed they were motivated to get a college education to "stop hanging with the wrong crowd" and "getting involved in the wrong things." I heard this sentiment from two participants who stated that their families were worried something would happen to them if they continued the same path.

Research Question 4

4. How do first-generation students perceive the program initiatives at the technical college?

This section included the theme institutional support mechanisms and included the sub-themes impact of faculty and staff, impact of peers, institutional activities and engagement, and community outreach. Research by Martin et al. (2020) identifies outside-classroom engagement, college-classroom engagement, and other external factors as social capital as it relates to first-generation students. Social networks are viewed as a form of social capital made available to students from parental connections or peers (Sims & Ferrare, 2021). Many participants shared that they were motivated to continue their education because of the relationships they had formed or established with classmates or faculty. Jeff and Matthew stated that their instructor was willing to help them not only in class but outside of class as well. Jeff also felt if he needed his instructor for anything, he felt like he could call him. Several participants felt the Student Services staff members were especially supportive and helpful in helping them find additional financial resources. According to social capital theory, these relationships can provide guidance

and emotional support (Moschetti & Hudley, 2014). Students enrolled at the technical college may have more opportunities to form a connection with their instructors since they have the same instructor throughout their program enrollment. Students are typically in class Monday through Friday for six hours a day for their entire program length.

In addition to connections with the faculty and staff, participants stated their peers were instrumental in their academic success. Delafontae said peer-to-peer interaction with his classmates allowed students to help each other. Truth was also forthcoming about how having a small class allowed her and her classmates to do a lot together. She said they shared life experiences that made it “very, very, nice.” Students like Jason also enjoyed utilizing the Microsoft Teams platform as a social networking tool. He stated that he and his classmates communicated outside the classroom, allowing them to collaborate on projects. Since most of the programs at the technical college are open enrollment and not cohort programs, classes include students at different levels of progression. Other participants shared that they could help their classmates with the subject matter they had already completed. This gave participants like William a sense of satisfaction and accomplishment, allowing students like Jeff to rely on fellow students for assistance when needed.

The research also revealed first-generation college students who had access to career services, co-op or internships, or other professional development shadowing opportunities had more positive outcomes upon graduation and throughout their post-college careers (First Generation Foundation, n.d.). In addition, programs implemented on college campuses can be designed to establish social networks that may prove instrumental in helping students persist in their academic goals toward college completion. Boyd (2017) believed first-generation students should engage in "social and peer networks," which were proven to impact "student retention and

persistence positively" (p. 22). Creating a more inclusive campus culture can also help students become more acclimated to the college environment and encourage them to participate in school activities (Stephens et al., 2015).

Participants such as Truth stated that the technical college participated in open houses that helped familiarize prospective students with the campus and the programs offered. Jason also said that programs such as Technology Foundations and new student orientation helped newly enrolled students. In addition, Jason also noted that participating in organizations such as Skills USA benefited him. Research from the literature review revealed organizations that promote skills competitions, such as SkillsUSA, have been instrumental in promoting the standards of technical education and preparing students for the workforce (Ackehurst et al., 2022; SkillsUSA, n.d.). Other participants revealed that they were unaware of other campus activities offered at the institution. Participants like Jackie and Chandra felt the institution needed more activities for students who attended evening programs. They stated that if they needed help from student services, some student services personnel were available to assist them. The findings of this study are also in line with Bean's Model of Student Attrition, that indicates the "helpfulness of advisors, contact with faculty members, and memberships in campus organizations" are variables used to determine the likelihood of students' academic success (Bean, 1981, p. 10).

Implications for Practice

Based on the research findings, the researcher recommends the following areas for future practice:

- The technical college should provide more student-based activities that encourage peer-to-peer engagement.

- The technical college should incorporate more service-learning opportunities for students to engage in while enrolled in their programs of study. While some participants identified specific community outreach programs, such as Habitat for Humanity, other participants felt more opportunities would be beneficial to them.
- The technical college should provide additional "on-boarding" resources for first-generation students to better acclimate to the college environment.
- The technical college should consider providing additional resources for low-income students, such as on-campus food banks. Although some larger technical colleges may provide this benefit to students, smaller institutions may need additional funding to support this endeavor.

A report published by the Lumina Foundation identified five strategies for supporting underrepresented students, 1) know your low-income students, 2) review internal processes and organize supports, 3) build internal and external partnerships, 4) optimize students' use of services, and 5) create a culture of support (Chaplot et al., 2018). The foundation recognizes that the entire education system must work together to increase college access more effectively. This group of stakeholders includes community partners, all higher education institutions, community colleges, four-year universities, employer-based training systems such as technical colleges, and other adult learning systems (Lumina Foundation, 2009).

Participants recognized the need for more institutional activities. For example, student services personnel should consider ways to engage first-generation students in out-of-classroom experiences that connect them with the faculty and make them feel like they are part of the college community. In addition, these experiences can help students establish and build relationships with faculty and peers. Participants such as Delafontae felt students would also

benefit from an onboarding process, especially for students who identify as first-generation college students. This type of student engagement provides beneficial resources for students who wish to become familiar with the college setting. Tinto's student retention theory identified the relationship between students and their college environment (Tinto, 1975). According to Tinto (1975), students could become integrated into the academic side of the college but still not be acclimated to the social aspect of college. In addition, the institution could benefit from incorporating more community outreach opportunities for students. Participants revealed that while some programs are actively involved in community outreach activities, this is not true for students enrolled in other programs. Initiatives implemented by the college could include programs designed especially for first-generation students.

Implications for Future Research

This qualitative study described the experiences of first-generation students attending a technical college in a rural area in West Tennessee. As there is significant research regarding first-generation college students attending two-year community colleges and four-year universities, as evidenced in Chapter 2, there is a need to continue researching first-generation students attending technical colleges.

Throughout this study, the researcher identified several areas for future research:

- A replication of this qualitative research on first-generation college students' experiences attending technical colleges, but with a focus on students living in metropolitan or non-rural areas.
- Research on the factors contributing to first-generation technical college students withdrawing from a previously attended community college or university. This research

could be viewed from a mixed methods or quantitative approach, utilizing surveys and other quantifiable data.

- A case study on the experiences of first-generation single mothers attending technical colleges.
- Quantitative research on the retention rates of first-generation technical college students in rural areas.
- A case study on the academic success of first-generation college students attending technical colleges who engage in out-of-classroom engagement experiences.

This research focused on the experiences of first-generation students attending a technical college in a rural area. However, there is room for more research regarding first-generation college students attending technical colleges in other geographic locations. The findings of this study showed that the perception of technical education being only for those academically challenged is without validation. All but three participants had some prior college or had attained degrees at other higher education institutions. More research could be done on the retention rates of technical college students and on those who previously did not complete a two-year or four-year program at community colleges and four-year universities.

More research can also be done to understand the experiences of first-generation single mothers who chose to attend college and work simultaneously. Participants of this study indicated they had support from their families regarding childcare. Still, there is room to research how this can impact students with family support and those without. In addition, how their decision to attend college and work at the same time affects their children.

Chapter Summary

This qualitative study used the inductive approach to understand the experiences of first-generation students attending a technical college in a rural area. Participants of this study are first-generation college students who did not have parental guidance to aid them with their college enrollment process. However, participants shared that although their parents could not help them navigate through the college process, they had the full support of their families. Based on additional information from the participants of this study, additional campus programs and initiatives may be needed at the technical colleges, especially those in rural areas, to help low-income students with their educational outcomes. For example, several participants shared they weren't involved in any extracurricular activities on the technical college campus or did not know what activities were offered.

Additional research can be conducted on this topic, especially regarding technical colleges. This study was conducted at one technical college in rural West Tennessee. However, this research can expand to include other non-rural counties. This expansion may provide an opportunity to view the lived experiences and gain perspectives from other students not included in this research. Although the 17 participants in this study shared similar information, each shared something new based on their experiences. Further research can also be explored to gain a better perspective on the factors that motivate this student population to persevere despite any barriers they may face. This research may tie in with other research on first-generation students attending other higher education institutions.

McMillan and Schumacher (2010) stated, "basic research is not designed to solve social problems" but "can indirectly influence the ways people think about and perceive phenomena" (p. 13). Therefore, by continuing this research, a better understanding of the experiences of first-

generation students at technical colleges can be further explored. Furthermore, with increased knowledge and transparency of the unique challenges first-generation technical college students face, postsecondary institutions and community stakeholders may have opportunities to expand educational resources for this population of students.

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APPENDIX: Interview Protocol

"Hello, and thank you for your participation in the interview today. My name is JacQuene Rainey, and I am a doctoral candidate at East Tennessee State University. This interview [1]will take approximately 30 minutes and will include questions related to your college experiences as a student having met the criteria of this research. I would like your permission to record this interview, so I may accurately document the information you give me. If you wish to discontinue the interview or recording at any time during the interview process, please feel free to let me know. The Institutional Review Board, which reviews and approves research studies, may inspect records pertaining to this research. To help protect your confidentiality, I will use an identification number and pseudonym to identify all information collected for the study. Your responses will be used to identify your and your peers' experiences while attending a technical college in rural West Tennessee. This study aims to focus on the experiences of first-generation students enrolled at a technical college in rural West Tennessee.

I would like to remind you of your consent to participate in this study. I am the principal investigator, specifying your participation in the research project: Finding the Path to College Completion: A Qualitative Exploration of the Experiences of First-generation Students at a Technical College in Rural West Tennessee.

We have both signed and dated each copy of the consent form, confirming that we agree to continue this interview. You will receive one hard copy, and I will keep the other under lock and key, which will be separate from your reported responses.

Please know that your participation in this interview is completely voluntary. If you wish to stop or take a break at any time during the interview process, please feel free to let me know. You may also feel free to withdraw your participation at any time without repercussions. Do you have any questions or concerns before we begin? Then with your permission, we will proceed with the interview.

Interview Questions

1. Tell me about yourself, your background, your hometown, and where you are from.
2. What was your prior knowledge of the technical colleges before enrolling?
3. What made you decide to attend a technical college instead of a two-year or four-year college?

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[1] Please note: Interviews will be semi-structured, meaning these questions may not be asked verbatim and conversation will be allowed to flow in a friendly style. The investigator will be led by the topic into areas that might not be stated here but will remain within the bounds of minimal risk.

4. What is your perspective of technical colleges being the easiest or most accessible path to college education?
5. How supportive were your friends and family of you attending a technical college?
   a. In what ways were you family and friends supportive?
6. Tell me about your experiences as a student once you enrolled at the college.
7. How impactful has your program of study been in preparing you for the workforce?
   a. In what ways has it been impactful?
8. How has living in a rural area made your college experience more challenging?
9. From your perspective, how has the institution helped first-generation, underrepresented students overcome any challenges they may face?
10. What have you relied upon the most to help you to be a successful college student?
11. What has been your biggest motivation to continue your education?
12. What extracurricular activities are you involved with or have been involved with on campus?
13. Has this involvement helped you to be successful as a student? If so, in what way?
    a. If none, what extracurricular activities do you feel would be beneficial to students?
14. What are the academic programs or social connections that have helped you as a student?
    a. If none, what academic programs or social connections do you feel would be beneficial to students?
15. What programs or support services do you feel would be beneficial for first-generation students attending a technical college?
16. What advice would you give to other first-generation students living in an a rural county?
17. At this time, is there any additional information you would like to add or feel would be relevant to this research?

This will conclude our interview. Thank you for your participation".

VITA

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