

BARRIERS TO HIGHER EDUCATION FOR
RURAL HIGH SCHOOL STUDENTS: A QUALITATIVE STUDY

by

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ABSTRACT

Rural high school students face many barriers when choosing to matriculate into higher education. With limited resources and support, rural students are less likely to enroll in college than their urban counterparts. This crisis is escalated when 90% of the fastest-growing high-wage jobs in the United States require not only a high school diploma, but demand higher education. The lack of college participation among rural high school students threatens to undermine an educated workforce and increased access to higher education for all populations.

The purpose of this study was to provide secondary and postsecondary educational professionals a view of the needs of rural high school students through the lenses of high school counselors who provide vital college admissions guidance to these students, among their many other roles within high schools. Of specific interest was the identification of the barriers rural high school students face in matriculating into higher education, as well as current and missing support services that can assist rural high school students in pursuing postsecondary education.

This qualitative collective case study analyzed the perceptions of three high school counselors who service rural high school students in the Texas High Plains region. A categorical aggregation analysis and open coding of the data collected in the study resulted in five emerging themes: 1) rural students' lack of self-efficacy in their own academic abilities, 2) the intimidating costs of higher education, 3) a lack of parental/guardian support, 4) rural students' motivations for matriculating to higher education, and 5) needed support services to address the barriers that rural students face when matriculating to higher education.

The overall findings of the study indicated that rural high school students need additional support in addressing their perceived lack of self-efficacy when determining whether to pursue a college education or not after high school graduation. In addition, many rural students and their parents are uneducated in financing the cost of higher education, and prematurely dismiss the opportunity based upon perceived costs. Parental or guardian involvement in their student's college decision-making process is also a prescribed need for rural students to make higher education a possible reality.

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CHAPTER I

INTRODUCTION

When considering rural students' matriculation into higher education, rural communities in America represent a unique culture of restricted educational resources, high poverty, and geographic isolation. Across the country, only one-third of entering rural high school freshmen are graduating in four years with the essential knowledge to continue into postsecondary education and the workforce (Alliance for Excellent Education, 2010). Balfanz and Legters (2006) have identified high schools producing these results as dropout factories, where a typical freshman class shrinks by 40% by its senior year. The nation's dropout factories are made up of 2,000 high schools with 20% located in rural communities. Additionally, almost half (45%) of public school students in rural areas attend a moderate-to-high-poverty school (Alliance for Excellent Education, 2010). This poverty gives way to limited resources for students to feel equipped to achieve their educational goals. In addition to poverty constraints in rural areas, Irvin, Byun, Meece, Farmer, and Hutchins (2012) found geographic isolation can also combine with social and cultural norms to prevent students from leaving their rural communities. The researchers found rural students prefer to stay near their family units and other supportive ties in their isolated communities. The thought of moving away for some rural students is too stressful and prevents them from pursuing their educational aspirations (Irvin et al., 2011).

In addition to the above, other restrictions are placed on rural high school students due to their limited access to career counseling, college preparatory courses, career academies, and school-to-work programs while in high school (Provasnik et al., 2007).

Griffin, Hutchins, and Meece (2011) found that when college preparatory resources were limited in rural communities, high school students often look to their parents/guardians and high school counselors for information. However, Courrégé (2011) found that rural counselors hold multiple roles within their high schools and are limited in the time they can invest in college preparation. In addition, parents/guardians are restricted in the assistance they can provide their children, oftentimes due to lower educational attainment themselves, and the anxiety they experience in sending their children away for college (Courrégé, 2011). As restricted as rural communities may be, they must understand the importance higher education plays in impacting their economic growth and the needs of an educated workforce to attract new potential industries to the communities (Alliance for Excellent Education, 2010).

Background of the Problem

According to the Alliance for Excellent Education, the country is experiencing a “national crisis” with one out of every four rural high school students failing to complete high school (2010, p. 1). This crisis is escalated when 90% of the fastest-growing high-wage jobs in the United States require not only a high school diploma, but demands additional higher education credentials (Alliance for Excellent Education, 2010). During the 2006-07 school year, 19% of public school students (approximately 10 million children) were enrolled in rural school districts, with 3.4 million of these students being in high school (Rural School and Community Trust, 2010). Rural school districts are charged with a significant portion of the country’s future workforce, but lack the resources to provide a competitive education in comparison to urban school districts (Rural School and Community Trust, 2010).

In response to this “national crisis,” current research has identified practices implemented to combat the barriers rural high school students face (Alliance for Excellent Education, 2010, p. 1). Poole and More (2001) found a strong need for community support in connecting employers of businesses to assist rural students in identifying career options within their companies. Parental/guardian support was also a strong indicator for matriculation into college when parents/guardians were well educated on how to make higher education possible for their children. Poole and More (2001) also support several strategies to assist students in being prepared for college, including having students visit colleges while in high school, and the hosting of informational workshops to familiarize students with the admissions processes and the demands of college.

There is limited research on rural students and their matriculation into higher education. In addition, college matriculation and degree attainment continues to lag and research currently points to services high schools should provide to support their students. There is a need to investigate the impact higher education institutions can have on rural student matriculation to college, through their implementation of better support services and the recruitment of rural high school students.

Statement of the Problem

Texas Tech University is a large, comprehensive research university with more than 33,000 students, located in the High Plains region of west Texas (Hoover, 2012a). Texas Tech University serves as the largest provider of higher education opportunities in the western two-thirds of the state (Texas Tech University, 2012b). More specifically, the university serves as a higher education source for the predominantly rural communities in

the west Texas region by providing a diverse array of degree programs from architecture to zoology (Smith, 2011). As west Texas has evolved and its population growth has shifted to the region's metropolitan areas, Texas Tech University must evaluate how the once regional university is continuing to assist and meet the needs of its rural high school students in the High Plains region.

Texas Tech University's Office of Undergraduate Admissions plays a vital role in developing and implementing strategies to enroll rural high school students into the institution. Undergraduate Admissions has four professional staff members that serve as admissions counselors for the west Texas recruitment area, which stretches across the High Plains region (T. Riley, personal communication, January 19, 2013). The staff constructs and implements several recruitment strategies each year to diminish anxiety and combat beliefs that higher education is not possible for rural students. These strategies include visits to the area's rural high schools and the delivering of college admissions presentations (e.g., application process, financial aid, college major exploration). In addition, Texas Tech University initiated a financial aid program called *Red Raider Guarantee* in the fall of 2007. It is available to full-time undergraduate Texas residents whose family's adjusted gross income is \$40,000 or less (Smith, 2011). The program guarantees qualified students' tuition and mandatory fees will be covered by a combination of federal, state, and institutional funds (Texas Tech University, 2012a). Although, not specific to the classification of rural students, low-income families are an identifiable characteristic for many students from these communities (Alliance for Excellent Education, 2010).

Historically, the concerted, strategic efforts from the Office of Undergraduate Admissions and the substantial financial guarantee Texas Tech University provides to low-income families has prompted students to enroll at the institution from the surrounding rural communities in the High Plains region. From fall 2005 to fall 2011, Texas Tech University saw a 35.7% increase in the number of freshmen enrolled at the institution from the High Plains region (544 to 738 students) (Texas Tech University, 2012c). However, the number of enrolling freshmen decreased by 18.5% in 2012 from within the High Plains region (738 to 601 students). This could be considered an anomaly in the field of undergraduate recruitment. However, the Texas State's Comptroller's office has published findings showing little growth in the High Plains region.

Texas' rural population has seen significant decreases over the last 20 years. It was estimated that rural Texas residents fell from 18.8% in 1990 to 17.5% in 2000 ("Texas in Focus," 2008). More recently, the "U.S. Census Bureau estimates that the portion of Texans living in rural areas has continued to fall to 14% in 2005" ("Texas in Focus," 2008, p. 7). In 2007, the Texas State Comptroller's office estimated an additional 50,000 residents would dwell in the High Plains region to bring the total population to 854,700 by 2012. Between 2002 and 2007, the predominantly rural region only grew by 2.7%, while the state's population rose by 9.8% ("Texas in Focus: High Plains," 2008a).

With the knowledge of the region's decreasing population and declining institutional enrollments, Texas Tech University must reconsider its previous student support and recruitment practices, investigate the current research, and develop new strategies to recruit the area's rural high school students. These refined efforts will assist the institution in continuing to meet the demands of the statewide mandate, *Closing the*

Gaps by 2015, to ensure an educated workforce and to increase access to higher education for all populations (Texas Higher Education Coordinating Board [THECB], 2010).

Purpose of the Study

Current empirical practices are limited in assisting rural high school counselors and higher education professionals in building a transitional bridge into postsecondary education for rural high schools students. Research is needed that targets specific rural regions to understand the geographic complexities rural high school students present rather than using broad practices for the entire demographic population. This qualitative study sought to provide secondary and postsecondary educational professionals a view of the needs of rural high school students through the lenses of high school counselors who provide vital college admissions guidance to these students, among their many other roles within high schools. Of specific interest was the identification of the barriers rural high school students face in matriculating into higher education, as well as current and missing support services that can assist rural high school students in pursuing postsecondary education. The analyses of the participants' perceptions were used to evaluate the needs of rural high school students, and provide targeted strategies to assist Texas Tech University, as well as other four-year colleges and universities, to enroll more rural students into higher education. Enrolling more students in higher education from rural populations helps create an educated workforce for rural communities, as well as helps address the goals of Texas' *Closing the Gaps by 2015* initiative, which seeks to increase access to higher education for all populations (THECB, 2010).

Research Questions

This study was guided by two research questions:

1. What barriers do high school counselors perceive rural high school students face when matriculating to college?
2. What types of higher education support systems do high school counselors recommend to increase the matriculation of rural high school students to college?

Significance of the Problem

In 2012, Texas Tech University's (TTU) Interim President Lawrence Schovanec identified the importance of enrolling west Texas students at the university. In a recent news article in the *Lubbock Avalanche Journal*, Schovanec spoke about steps the institution was taking to keep the region's best and brightest within west Texas (Hoover, 2012b). Schovanec noted that despite the institution's best efforts, the population loss in the area creates a barrier to increasing enrollment for the university. "Only about 22% of Tech's freshman class came from within a 200-mile radius. In 2011, 26% came from that distance," Schovanec disclosed (Hoover, 2012b, para. 12). New strategies are being discussed at Texas Tech University to guarantee the region's students are taking a closer look at the institution. The institution has increased its merit-based scholarships to include the top 25% of the class, and is currently sponsoring bus trips to transport prospective students to campus to decrease the perceived obstacles students may face when enrolling at Texas Tech University (e.g., geographical distance from home, costs of participating in higher education, among others). Interim President Schovanec is

committed to enrollment growth in the west Texas region. “We want the best students in west Texas to give very serious consideration to Texas Tech, and we want them to know that we want them, that they’re a priority to us,” said Schovanec (Hoover, 2012b, para. 14). Texas Tech University has begun allocating additional resources to departments within the University to enable them to make additional high school visits and to increase marketing efforts to better educate the area’s high school students of the opportunities the institution provides. These new aggressive efforts by the institution not only address its enrollment targets, but also contribute to the education of the workforce and directly answer the call by the state of Texas to increase college access to all populations (THECB, 2010).

Theoretical Framework

The theoretical framework that guided this study was the social cognitive career theory (SCCT). Social cognitive career theory (SCCT) examines “the processes through which people form interests, make choices, and achieve varying levels of success in educational and occupational pursuits” (Lent, Hackett, & Brown, 2000, p. 36). SCCT focuses on an individual’s cognitive-person variables, such as self-efficacy, outcome expectations, and goals, and how the characteristics of the student and the environment prepare him or her for future careers (Lent et al., 2000). This theory recognizes the importance of creating educational environments that foster self-confidence and realistic expectations when students are planning their educational and occupational careers. Through the use of practical applications, this theoretical approach can help educational professionals frame solutions to address the needs of rural high school students in their matriculation to higher education.

Summary of Methodology

This research study used a collective case study approach to identify the experiences rural high school students have when making the decision to matriculate to higher education. The participants of the study were three rural high school counselors who serve rural high school students in the High Plains of Texas. The study used collection techniques of semi-standardized interviews, observations, and reflective journaling. Data analysis was conducted using a categorical aggregation approach and open coding to discover categories and themes. To establish trustworthiness, triangulation was employed through interview transcriptions, member checking, persistent observations, and reflective journaling.

Assumptions

Several assumptions were made while conducting this study. First, an assumption was made that rural high school students from the High Plains region were less likely to enroll in postsecondary education due to the implications their geographic region provokes. In addition, it was assumed high school counselors would be the best resource to identify the barriers faced by rural students as well as identify the services needed by rural high school students to successfully matriculate into higher education. The final assumption was that the participants in this study answered all questions honestly.

Definition of Terms

The following definitions were used to guide this study:

Brain Drain: is experienced when rural communities have limited job opportunities for college graduates within their area and find their brightest moving away to more urban areas (Courrégé, 2010).

Closing the Gap by 2015:

Closing the Gaps by 2015 was adopted in October 2000 by the Texas Higher Education Coordinating Board with strong support from the state's educational, business and political communities. The plan is directed at closing educational gaps in Texas as well as between Texas and other states. It has four goals: to close the gaps in student participation, student success, excellence and research.

(THECB, n.d., para. 1)

College readiness: is the:

Level of preparation a student must attain in English language arts and mathematics courses to enroll and succeed, without remediation, in an entry-level general education course for credit in that same content area for a baccalaureate degree or associate degree program. (THECB, 2010, p. 2)

High Plains region: is a predominantly rural geographic region consisting of 41 counties in the northwest portion of Texas and represents 3.4% of the state's population ("Texas in Focus: High Plains," 2008a).

Low-resource school: is a public school associated with low academic achievement rates and socioeconomic status, which are typical characteristics of a rural high school (Rowan-Kenyon, Perna, & Swan, 2011).

Rural high school: is a secondary school located within a territory of 2,500 people or less and at least five miles away from territories with 2,500 people (United States Census Bureau, 2011; National Center for Education Statistics, n.d.).

Self-efficacy: is the measure of one's own capacity to reach goals and complete tasks (Brown & Lent, 1996).

Summary

Texas Tech University has long served the High Plains region of west Texas since the institution's inception in 1925, and has provided a quality education to incoming rural high school students. However, a shift in the region's demographics and college-bound population has prompted investigation into better practices that can be adopted to recruit and transition rural high school students into higher education. Chapter I detailed the rationale for the study by outlining the background to the problem, the purpose of the study, the significance of the problem that was addressed, the research questions that were addressed, and a brief introduction to social cognitive career theory, the theoretical framework for the study. Chapter II presents an overview of the research literature relative to rural high school students and their matriculation to higher education.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this study was to examine rural high school students and the barriers they face when making the decision to pursue higher education. Chapter II presents an overview of existing literature that pertains to rural America and rural education, rural high school students and their transitional challenges into higher education, the current services available to increase their college participation, and what Texas Tech University is currently doing to support these students in the High Plains region of Texas. In addition, the theoretical framework of social cognitive career theory will be further discussed.

Rural America

Defining Rural

Rural America can be referenced in a variety of contexts from the small, industrial towns of New England to the farming communities in the south. With this continuity, it can be difficult to define *rural* and the characteristics that derive from these areas. The ethnic make-up, proximity to urban areas, average income, and school districts can greatly differ depending on the geographic location of these rural communities.

The U.S. Census Bureau is one of many government entities that have attempted to define rural communities. The United States Census Bureau (2011a) classifies rural communities as those consisting of all territory, population, and housing units located outside of urbanized areas and urbanized clusters. This vague definition can only become clear after learning more about the Census Bureau's urbanized areas and urbanized clusters. Urbanized areas consist of "densely developed territory that contains 50,000 or

more people,” while urbanized clusters represent densely populated territories with at least 2,500 people but no more 50,000 people (United States Census Bureau, 2011a, para. 3). This allows for the conclusion that the government defines rural territories as those with a population of less than 2,500 people (United States Census Bureau, 2011a).

The White House’s Office of Management and Budget (OMB) also placed a designation of rural counties in the United States (United States Department of Health and Human Services, n.d.). OMB designates counties within three categories: Metropolitan (Metro), Micropolitan (Micro), or Neither. A Metro area, “contains a core urban area of 50,000 or more population,” while a Micro area, “contains an urban core of at least 10,000 (but less than 50,000) population” (United States Department of Health and Human Services, n.d., para. 4). Under the OMB definition of rural counties, Micropolitan counties as well as those counties classified as Neither Metro nor Micro are considered rural (less than 50,000) (United States Department of Health and Human Services, n.d.). As delineation is made between urban and rural communities, school districts are also placed within population specific categories.

The National Center for Education Statistics ([NCES], n.d.) utilized definitions from both entities, U.S. Census Bureau and OMB, to revise their school locale types in 2006, to more effectively recognize rural school districts. The system works to determine how close a school district is to an urban area and is broken up into a new classification system of four major locale categories: city, suburban, town, and rural. Within each category, there are three subcategories. Table 2.1 presents these subcategories, which define distance from urbanized areas and urban clusters, which serve as key indicators to determine how isolated a rural school district is from its urban counterparts.

Table 2.1: NCES Rural Locale Subcategories

Fringe	Census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster.
Distant	Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster.
Remote	Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster.

(National Center for Education Statistics, n.d.)

Rural communities and school districts are continuing to define themselves, and are recognizing the unique subcategories within their rural areas.

State of Rural Texas

According to *Texas in Focus* (2008), Texas has been identified as one of the fastest-growing states in the nation. The state has seen a 12.7% population increase since 2000, which is nearly double that of the nation’s growth (6.4%). With a state population of over 20 million in 2010, the state had the largest number of rural residents (3,847,522) than any other state in the nation (United States Census Bureau, 2012). However, the state’s rural population has seen significant decreases over the last 20 years. It was estimated that rural Texas residents fell from 18.8% in 1990 to 17.5% in 2000 (“Texas in Focus,” 2008). More recently, the “U.S. Census Bureau estimates that the portion of Texans living in rural areas has continued to fall to 14% in 2005” (“Texas in Focus,”

2008, p. 7). In addition, “11 of Texas’ ‘metro’ counties – counties with one or more urban areas – saw population increases of at least 20%, while 93 non-metro counties experienced losses” (“Texas in Focus,” 2008, p. 7). Over the next 40 years, the state is slated to grow to a population of 35.8 million residents, with urban populations increasing at a much faster rate than rural (“Texas in Focus,” 2008). The Texas High Plains region, within the northwest panhandle of the state, will be one area that will see limited growth in comparison to its urban counterparts.

High Plains Region

In 2007 the Texas State Comptroller’s office estimated an additional 50,000 residents would dwell in the High Plains region to bring the total population to 854,700 by 2012. The region consists of 41 counties and represents 3.4% of the state’s population. Between 2002 and 2007, the predominantly rural region only grew by 2.7%, while the state’s population rose by 9.8% (“Texas in Focus: High Plains,” 2008a). The area population is primarily concentrated in the region’s two largest cities, Amarillo (population 190,695 in 2010) and Lubbock (population 229,573 in 2010) (United States Census Bureau, 2011). The two cities are within the region’s metro counties that account for 62.5% of the population (“Texas in Focus: High Plains,” 2008a). Between 2002 to 2007, the metro county population grew by 3.7% while nonmetro counties only grew by 1.0%. The largest projected growth within the region will be in the Amarillo area with a projected 12.4% increase by 2012, while the Lubbock county area was projected to see more moderate growth at 5.2%.

The High Plains region services 3.3% (152,000 students) of Texas’ public elementary and secondary students (“Texas in Focus: High Plains,” 2008b). Of the

region's 110 public school districts, 77% of the districts are considered rural by the Texas Education Agency (TEA) ("Texas in Focus: High Plains," 2008a). The region's public school student population has become more diverse, seeing an increase in the Hispanic population from the 2001-02 to 2006-07 school years of 41.6 % to 45.4% ("Texas in Focus: High Plains," 2008b). In 2007, the Texas State Comptroller's office found the High Plains school districts exceeded the state average for the number of Exemplary (2.6% compared to 2.2%) and Recognized (22.8% compared to 17.8%) campuses ("Texas in Focus: High Plains," 2008b). This above average performance provides evidence to the area's potential to cultivate a more college-going culture.

High plains residents aged 25 or more fall behind the average years of education (12.8 years) compared to the state average (13.1 years) and the national average (13.5 years) ("Texas in Focus: High Plains," 2008a). The High Plains region is serviced by nine higher education institutions: two public universities, two private universities, one health-related institution, and four community colleges. In fall 2005, students from the High Plains region were far less likely to attend a Texas institution outside their region than students throughout the state (20.1% compared to 36.3%) ("Texas in Focus: High Plains," 2008b). In addition, the percentage of High Plains residents attending a Texas public two- or four-year institution was slightly higher than the state average (4.4% compared to 4.2%) ("Texas in Focus: High Plains," 2008b). The population within the predominantly rural region is proving to be diverse, educationally stable, and less likely to relocate for their higher education needs.

Rural Communities and Education

Rural communities in America represent a unique culture of high poverty, geographic isolation, and restricted educational resources. Poverty is prevalent in rural communities and plays a significant role in the psychological and geographical isolation rural students experience when considering college (Alliance for Excellent Education, 2010). Alliance for Excellent Education (2010) found that 21% of rural students nationally are at or below the poverty line compared to 18% in urban areas. In addition, almost half (45%) of public school students in rural areas attend a moderate-to-high-poverty school (Alliance for Excellent Education, 2010). This poverty gives way to limited resources for students to feel equipped to achieve their educational goals.

In addition to poverty constraints in rural areas, geographic isolation can also combine with the social and cultural norms to prevent students from leaving their rural communities (Irvin, Byun, Meece, Farmer, & Hutchins, 2011). Irvin et al. (2011) found rural students preferring to stay near their family units and other supportive ties in their isolated communities. However, the students recognize that in order to receive a postsecondary education, it will most likely mean a departure from this support network. The thought of moving away for some rural students may seem too stressful and prevent them from pursuing their educational aspirations (Irvin et al., 2011).

Along with geographic isolation, Courrégé (2010) found that even rural students aspiring for a postsecondary education may find little support within their communities. Many community members feel threatened by higher education due to their experiences with *brain drain* (Courrégé, 2010). Courrégé (2010) defined brain drain as what happens when there are limited job opportunities for college graduates within their native rural

areas and when these rural areas find their brightest moving away to more urban regions. One study estimated that only 16% of rural college graduates return and remain in their native community after college graduation, while the other 43% were drained for better opportunities elsewhere (Courrégé, 2010).

These communities have specifically found challenges in fostering an educated workforce and in developing college-bound high school graduates (United States Department of Agriculture, 2011). According to the Alliance for Excellent Education, “When one out of every four students fails to graduate from our rural high schools, it’s not just a ‘local’ issue: it’s a national crisis” (2010, p. 1). This crisis is escalated when 90% of the fastest-growing high-wage jobs in the United States require higher education (Alliance for Excellent Education, 2010). During the 2006-07 school year, 19% of public school students (approximately 10 million children) were enrolled in rural school districts, with 3.4 million of these students being in high school (Rural School and Community Trust, 2007). Rural school districts are charged with a significant portion of the country’s future workforce, but lack the resources to provide a competitive education in comparison to suburban and urban school districts.

School districts can serve as catalyst of change for America’s rural communities by offering personalized attention and providing the skills necessary for students’ career aspirations. However, there are far more rural high schools experiencing high drop-out rates. Across the country, only one-third of entering rural freshman are graduating in four years with the essential knowledge to continue into postsecondary education and the workforce (Alliance for Excellent Education, 2010). Balfanz and Legters (2006) have identified high schools producing these results as dropout factories, where a typical

freshman class shrinks by 40% by its senior year. The nation's dropout factories make up 2,000 high schools with 20% located in rural communities. Within these communities, adults 25 and over are tracking at half the rate of their urban peers in college completion (17% compared to 34%) (Alliance for Excellent Education, 2010). The Alliance for Excellent Education (2010) perceives that communities should place a high priority on graduation rates and college matriculation, as both directly impact the economic growth and needs of new potential industries in the community. A cultural shift must be inserted into rural communities to raise educational aspirations among high school students (Alliance for Excellent Education, 2010). However, a current look in how rural high school students are gaining access into college is imperative before developing strategies to increase high school and college matriculation ("Texas in Focus: High Plains," 2008b).

Rural students have limited access to career counseling, college preparatory courses, career academies, and school-to-work programs while in high school (Provasnik et al., 2007). This limited access creates barriers for students to gain the confidence and determination to see college as an option. Griffin, Hutchins, and Meece (2011) found that when college preparatory resources were limited in rural communities, high school students often look to their parents/guardians and high school counselors for information. This avenue is challenged when parents/guardians are less likely to have attended college, and high school counselors are limited in the resources they can provide in rural school districts. Courrégé (2011) described guidance counselors as holding multiple roles within high schools, from facilitating standardized testing to developing student course schedules. The multiple roles that school counselors perform limit their time in helping students learn about college, as well as what it takes to get enrolled. Courrégé (2011)

went on to identify parents/guardians as restricted in the assistance they can provide their children due to lower educational attainment, and the anxiety they experience in sending their children away for college. As guidance counselors and parents/guardians are limited in the assistance they can provide, poverty and geographic isolation also serve as roadblocks in students' paths to postsecondary education (Alliance for Excellent Education, 2010; Irvin et al., 2011).

As limited educational resources, high poverty rates, and isolation serve as main challenges for rural high school students, there are several other factors influencing these students' decisions to seek higher education. Poole and More (2001) underwent a comprehensive analyses of current books, documents, and research articles to identify a set of four factors that steer rural students' postsecondary education decisions: 1) system, 2) community, 3) family, and 4) personal. Table 2.2 below illustrates the multiple influencers rural high school students experience when making decisions about their postsecondary education aspirations. Systematically, many rural high school students are not equipped with the advanced education and monetary resources to see a college education as attainable. In addition, Poole and More (2001) found rural students were less likely to come into contact with college-educated adults in their community, making it difficult to picture themselves in an unfamiliar educational setting. Rural students' families and their upbringing also direct their postsecondary goals depending on their parents'/guardians' desire for them to attend college, as well as students' personal motivation to make college possible (Poole & More, 2001).

Table 2.2: Factors Steering Rural High School Postsecondary Education Decisions

System	Community	Family	Personal
Low SAT score and limited access to advanced preparatory courses deter from applying to competitive colleges.	Less likely to come in contact with college-educated role models within their community.	Some experts have identified parents/guardians expectations as the most influential factor when deciding to seek higher education	Little confidence in their ability to be successful in college; receive little encouragement to attend college from parents/guardians and high school counselors.
Limited high school course offerings and non-challenging coursework lead to poor college preparation.	Rural students were more likely to attend college if they have friends pursuing higher education as well.	When parents find higher education as beneficial, this usually encourages their children to attend.	When placed in non-collegiate tracks in high school, students exhibit little confidence in their ability to succeed.

Table 2.2: Continued

System	Community	Family	Personal
School personnel are not receiving adequate and timely information concerning college and career opportunities.	The presence of a higher education institution near a person's home increases the likelihood of one enrolling.	Even if the family lives in a poor community and parents/guardians never attended college, a parents/guardians encouragement still plays a positive role in the student's decision	"Tracking" sends message to a student that they are not intelligent enough for more challenging coursework and discourages them from applying to college.
Affordability was a major factor for students considering college.		Rural youth are less likely to have college-educated parents/guardians compared to urban students.	Have unrealistic career aspirations and are unaware of the educational requirements for different careers.

Table 2.2: Continued

System	Community	Family	Personal
		Parents/guardians are often confused by the application process and need additional information to support their children’s plans	Alienation and homesickness are factors that lower retention rates in college.
		College is frequently deemed not affordable by the overestimate of the cost of tuition.	4% of Black students & Hispanic students attend college compared to 11% of White students and 26% of Asian/Pacific Islanders.

(Poole & More, 2001, as cited in Jones, 2010)

As Table 2.2 above highlights, rural high school students are underserved and under-resourced compared to their urban and suburban peers, as they make decisions on their postsecondary education aspirations. Rural high schools need additional support to provide resources comparable to their urban counterparts. An investigation into how to

best transition rural students into considering higher education is necessary. However, the concept of *rural* must first be delineated before moving into current research and best practices in developing better transitions for rural high school students into higher education.

Rural Student College Participation

In relation to the four influencing areas (system, community, family, and personal) of rural students, Poole and More (2001) provided methods to combat the factors steering rural high school students away from higher education. Table 2.3 below references strategies that can be implemented systematically by prompting high schools to secure additional resources to prepare their rural students for postsecondary education. In addition, Poole and More (2001) found a strong need for community support in developing a culture that desires to see adolescents through to college. In addition, parental/guardian support is also a strong indicator for matriculation into college for rural high school students. Parents/guardians need to be well educated on how to make higher education possible for their children. Poole and More (2001) also supported several strategies to assist students in preparing for college, including having students visit colleges while in high school, and high schools hosting admissions workshops to familiarize students with the process for admissions and the demands of college. The researchers also recommend strategies that utilize parents and college-educated community members to influence students (Poole & More, 2001).

Table 2.3: Strategies to Limit/Eliminate Factors that Affect Rural Student College Participation/Retention

System	Community	Family	Personal
Provide advanced preparatory classes for college.	Pair rural youth with college-educated community members to mentor students through process.	Empower parents/guardians to be motivators and supporters of higher education.	Provide workshops and internships to familiarize youth with the need and accessibility of higher education.
Provide access to tutoring, academic advising, and preparation to college entrance exams, in addition to establishing college and career information centers.	Solicit community involvement by encouraging owners and employers of businesses to assist rural students in identifying career options within their companies.	Have consistent contact with parents/guardians in financial planning for higher education.	To prevent culture shock, introduce youth to college life early.

Table 2.3: Continued

System	Community	Family	Personal
Educate rural school faculty and administration on preparing students for higher education.	Create technology infrastructure support to link high schools and college campuses to deliver college courses.	Keep parents/guardians informed about the need for higher education and the steps that can make it possible for their child.	On college campuses, form support networks among rural students, provide intensive academic support, and get involved in campus activities.
Address rural youth's need for scholarships and financial aid to afford college through workshops and parent/guardian meetings.			

(Poole & More, 2001, as cited in Jones, 2010)

Advancement Via Individual Determination (AVID)

On a national scale, Advancement Via Individual Determination (AVID) appears to have taken several of Poole and More's (2001) proposed recommendations in

developing college ready students and placed an emphasis on starting at an early age. AVID was created more than 30 years ago by Mary Catherine Swanson, an English teacher from San Diego, California, to empower underrepresented students to achieve a college education. Today, the program services students from kindergarten to postsecondary education, and has impacted over 700,000 students in more than 4,900 schools within the United States and 16 other countries (AVID, n.d.). The program operates off a simple philosophy: “Hold students accountable to the highest standards, provide academic and social support, and they will rise to the challenge” (AVID, n.d., para. 4). At the high school level, the system equips teachers with curriculum that can be infused into students’ core curriculum (e.g., English, mathematics, among others), and in addition, students can opt to enroll in the AVID elective course for additional support. AVID students are provided resources to develop “organization and study skills, work on critical thinking and asking probing questions, get academic help from peers and college tutors, and participate in enrichment and motivational activities that make college seem attainable” (AVID, n.d., para. 1). As of 2011-2012, 90.8% of AVID high school seniors applied to four-year colleges or universities and 76% of those students were accepted. Of these high school seniors, 70.1% of them were economically disadvantaged (AVID, n.d.). This nationally recognized program has served as, “an essential strategy for closing the achievement gap and making the college accessible,” and has made great strides in assisting rural high school students (AVID, n.d., para. 7; Jacka & McCullough, 2011). The AVID curriculum and methods empower high school administration to create a more college-going culture and cultivate a stronger working relationship with postsecondary institutions (AVID, n.d.).

Rural Education in Texas

Rural school districts tend to lack necessary resources for academic success of their students due to the limited tax dollars available within the communities. The United States Census Bureau (2011b) identified that only 8% of rural Texas residents over the age of 25 held college degrees compared to 16% of residents in urban areas in the State. In October 2000, the Texas Higher Education Coordinating Board (THECB) developed and adopted a statewide mandate, *Closing the Gaps by 2015*, to widen the availability of higher education to all populations in the state. Since its inception, the plan has gone through several revisions to clarify and recalibrate mandates to ensure goals are met by 2015. One of the goals within *Closing the Gaps* is to increase enrollment to 630,000 by Texas students participating in higher education across the state. The THECB has implemented several strategies to foster college readiness within communities to help achieve the *Closing the Gaps* goals. The THECB (2010) defines college readiness as:

The level of preparation a student must attain in English language arts and mathematics courses to enroll and succeed, without remediation, in an entry-level general education course for credit in that same content area for a baccalaureate degree or associate degree program. (p. 2)

In 2004 the 77th Texas Legislature required all entering high school students to participate in more rigorous curriculum called the Recommended High School Program (RHSP), and later, the 80th Texas Legislature made it a prerequisite for admissions to a public university (THECB, 2008). The THECB has also worked to promote a college-going culture through a public information campaign that, “informs, inspires, and encourages all students in Texas to prepare for, pursue, and persist in post-secondary

education” (THECB, 2010). Through these mandates and others, the THECB has attempted to provide Texas students, through initiatives in public schools, colleges and universities, with the tools and communication needed to encourage and support them to matriculate to higher education after high school graduation.

An additional goal of *Closing the Gaps* is to increase the number of science, technology, engineering, and math (STEM) degree recipients within state universities within Texas. The goal is derived from current statistics identifying “over half of the 30 occupations projected to be the fastest growing through 2016 require significant math and science preparation” (THECB, 2010, p. 10). Cherie A. McCollough (2011) recognized the need to create a science learning community early in students’ educational careers, and recognized the importance of involving multiple parties if the *Closing the Gaps* mandate was to be met. As an assistant professor of science education at Texas A&M University in Corpus Christi (TAMU-CC), McCollough implemented Family Science events at local schools to connect current college, high school, and elementary school students, and their parents/guardians together. This connection was in response to finding that many parents/guardians were not playing an active role in encouraging college, much less STEM degree programs (McCollough, 2011). In 2009, McCollough (2011) hosted a Family Science event and reported high school students in attendance having a stronger interest in attending college (86% of attendees), and many expressed interest in making arrangements for a college campus visit (57% of attendees). In addition, parents/guardians of those who attended with their child also had positive feedback regarding the event and 82% said they would return to the event in the future (McCollough, 2011). Through the use of community-centered learning, McCollough

fused impactful learning methods and key members for higher education attainment into one room for a successful collaboration. This practice is an example of the recommendations Poole and More (2001) made to solicit parental/guardian involvement and begin familiarizing youth with the importance of college.

Texas Tech University

In 1925, Texas Technological College opened its doors to 914 students in Lubbock, Texas (Texas Tech University, 2012b). By 1969, the institution's name was changed to Texas Tech University to accommodate for the number of "colleges" within the institution that represented the respective academic areas (Texas Tech University, 2012b). Texas Tech University is a large comprehensive research university with more than 33,000 students located in the High Plains region of Texas (Hoover, 2012a). The university serves as a strong economic force for the city of Lubbock by recruiting highly educated individuals and bolstering the hospitality industry with many university events throughout the year. As west Texas has evolved and population growth has shifted to the region's metropolitan areas, TTU must evaluate how the once regional university is continuing to assist and meet the needs of the rural high school students in the High Plains region.

Texas Tech University serves as the largest provider of higher education opportunities in the western two-thirds of the state (Texas Tech University, 2012b). More specifically, the university serves as a higher education source for the predominantly rural communities in the west Texas region by providing a diverse array of degree programs from architecture to zoology (Smith, 2011). The university offers more than 40 undergraduate and 100 graduate degree programs not offered by any other institution in

the region (Smith, 2011). In the 2008-09 academic year, more than 15.5% of Texas Tech undergraduates disclosed coming from home counties with populations less than 50,000 residents (non-MSA communities) (Smith, 2011). Within the High Plains region, there are only two four-year state universities within 107 miles of each other. Along with two private universities, the region also has four two-year community college districts scattered across the region. Although options are available in the area, the vast 131,000 square miles of the western two-thirds of state serves as a geographic barrier for many local rural students that are unable to commute long distances (Smith, 2011). In addition, climatic conditions prevent many students the opportunity to commute due to the high elevation and the significant storms that characterize the High Plains region (Smith, 2011). Annually, Texas Tech University and other regional schools experience several days of ice and snow delays or close operations for a period of time. The large geographic region and weather conditions force many of the area's rural students to move to Lubbock County during the fall and spring semesters they are in college (Smith, 2011).

Regardless of these natural obstacles, Texas Tech University has been nationally recognized for their efforts in reaching rural high school student:

In December 2006, Texas Tech University was recognized for [their] outreach efforts by the Carnegie Foundation when it was distinguished as the only Texas public higher education institution to be recognized in Carnegie's 'Community Engagement' classification in recognition of its outreach and engagement activities in support of rural, west Texas. (Smith, 2011, p. 23)

The institution is committed to providing services that engage students from rural communities in postsecondary education, through a variety of recruitment strategies and student and academic support.

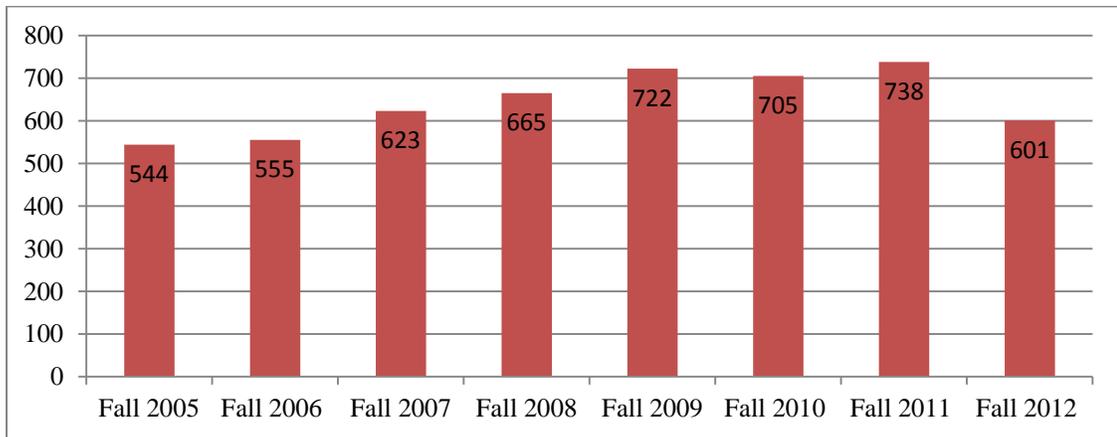
Texas Tech University's Commitment to Rural Students

Texas Tech University Office of Undergraduate Admissions plays a vital role in developing and implementing strategies to enroll rural high school students into the institution. Undergraduate Admissions has four professional staff members that serve as admissions counselors for the west Texas recruitment area, which stretches across the High Plains region (T. Riley, personal communication, January 19, 2013). The staff constructs and implements several recruitment strategies each year to diminish anxiety and combat beliefs that higher education is not possible for rural students. Staff hosts *Application Workshops* to provide unbiased information sessions in completing the state's Apply Texas common application for prospective college students (T. Riley, personal communication, January 19, 2013). In addition, the admission counseling team delivers presentations on completing the Free Application for Federal Student Aid (FAFSA). The team also works with potential students to identify degree programs of interest. Undergraduate Admissions also partners with high school AVID programs to target underrepresented student populations such as rural high school students (T. Riley, personal communication, January 19, 2013). In response to these targeted programming efforts, Texas Tech University has had a history of success in recruiting in the High Plains region.

Table 2.4 below illustrates the upward enrollment growth Texas Tech University has experienced for students from the High Plains region from 2005 to 2011. However,

the fall 2012 enrollment term yielded a smaller proportion of students from the High Plains region. In order to identify those students enrolling from the High Plains region, Undergraduate Admissions provided data for students that reside in the College Board’s *Enrollment Planning Service*® TX-01 geomarket. This geographic area is closely associated with the Texas State Comptroller’s definition for the High Plains region.

Table 2.4: Texas Tech University Freshmen Enrollment Data for the High Plains Region



(Texas Tech University, 2012c)

The above data shows a decline of 137 enrolled freshmen from fall 2011 to fall 2012 for the High Plains region. The recent decline has prompted TTU senior administration to relook at past recruitment strategies, such as *Red Raider Guarantee*, and critically analyze new practices to better target rural high school students (Hoover, 2012b).

In fall 2007, Texas Tech initiated a financial aid program called *Red Raider Guarantee*. It is available to full-time undergraduate Texas residents whose family’s adjusted gross income is \$40,000 or less (Smith, 2011). Although, not specific to the

classification of rural students, low-income families are identifiable characteristic for many students from these communities (Alliance for Excellent Education, 2010).

Students must complete the FAFSA to participate. The program guarantees qualified students' tuition and mandatory fees will be covered by a combination of federal, state, and institutional funds (Texas Tech University, 2012a). The institution's indicator for the program's success has been the amount of need-based federal Pell Grants awarded each year since all *Red Raider Guarantee* recipients receive Pell Grant funds. Almost 29% of Texas Tech University students were awarded a Pell Grant for fall 2011. From the *Red Raider Guarantee* program's inception in fall 2007, until fall 2011, the institution has enrolled an additional 2,502 Pell Grant recipients (Smith, 2011). Texas Tech University finds the award increase and the significant percentage of grant recipients at the institution a strong indicator of success in reaching the underserved students of Texas (Texas Tech University, 2012a).

Theoretical Framework

Social Cognitive Career Theory Supporting College Transitions

Lent, Hackett, and Brown (2000) provide a contextual theory that can be considered when developing programming for rural high school students and their matriculation to higher education. Social cognitive career theory (SCCT) examines "the processes through which people form interests, make choices, and achieve varying levels of success in educational and occupational pursuits" (Lent et al., 2000, p. 36). Bandura's (1986) general social cognitive theory serves as the basis for SCCT and how students shape the course of their career development. SCCT focuses on an individual's cognitive-person variables, such as self-efficacy, outcome expectations, and goals, and

how the characteristics of the student and the environment prepare him or her for future careers (Lent et al., 2000). These variables and characteristics all serve as influencers that can be used to assist and influence rural high school students in their matriculation to higher education.

Brown and Lent (1996) developed strategies grounded in SCCT for career counselors to assist students in extinguishing perceptual and cognitive distortions, overcoming perceived barriers, and modifying inaccurate self-efficacy beliefs to broaden students' occupational possibilities. The strategies were developed to combat past social experiences and perceived career limitations that influence students' vocational interests and their educational choices. Brown and Lent (1996) found that by identifying careers perceived to be unattainable, it was possible to uncover students' distorted perceptions regarding particular occupations. In addition, the researchers also found value in assisting students in identifying barriers that hinder occupational possibilities, and developing action plans to overcome these barriers. Another element necessary when maximizing students' career options are eliminating faulty self-efficacy beliefs and helping students' recognize their sufficient aptitude for certain careers they find beyond their reach (Brown & Lent, 1996). By addressing these three areas derived in SCCT, rural high schools and their counselors can develop programming to assist students in increasing their knowledge of occupational possibilities and help them recognize the importance of postsecondary education to their future.

Understanding the importance of career counseling, Rowan-Kenyon, Perna, and Swan (2011) identified the need in taking a closer look at the conditions within schools and how they influence students' occupational aspirations. Through a series of surveys

and focus groups, the researchers examined a range of schools based upon a variation of a number of demographic, economic, political, and educational characteristics to determine three tiers of school conditions: 1) high-resource school, 2) middle-resource school, and 3) low-resource school. In relation to rural high schools, many schools would fall into low-resource school category based upon the conditions of low academic achievement rates and socioeconomic status (Alliance for Excellent Education, 2010; Poole & More, 2001). Using SCCT as a model for this study, findings showed students attending low-resource schools shared at a higher rate than the other two categories, aspirations of being medical doctors and lawyers, but when interviewed, showed a lower level of understanding of the education needed for these desired fields (Rowan-Kenyon et al., 2011). In addition, an analysis was performed on the college programming available across the school resource levels. Middle-resource schools were identified as having the most formalized career exploration programs by infusing career decision making curriculum throughout a student's four-year high school education. While low-resource schools devoted time to career day programs, high-resource schools provided more hands-on exploration opportunities (e.g., internships and job shadowing opportunities) (Rowan-Kenyon et al., 2011).

SCCT can serve as a valuable framework when building a transitional bridge for rural students matriculation from rural high schools to college if focus is placed on developing realistic, well vetted processes that eliminate the barriers they face by focusing on their needs, interests, and how they make decisions. Developing services that can support the needs of rural students can help rural high schools and institutions of higher education be more effective in their support of these students.

Summary

As supported by the literature review of Chapter II, the success of rural high school students is influenced by restricted educational resources, high poverty, and geographic isolation. It is important for rural high schools and the higher education institutions that service these schools to develop stronger collaborative efforts to help rural high school students' matriculation into postsecondary education. The review of the literature addressed the common characteristics of rural high school students, defined *rural* populations, and discussed social cognitive career theory. In addition, it identified the current practices utilized within schools to improve rural student college participation, as well as provided a review of the current Texas climate for rural students, and the current services available to rural high school students at Texas Tech University. Chapter III will describe the methodology that was used for this study.

CHAPTER III

METHODOLOGY

Chapter III presents the methodology for this qualitative study. It consists of the following sections: restatement of the purpose of study, restatement of the research questions, context of the study, and the research design.

Restatement of Purpose of Study

Current empirical practices are limited in assisting rural high school counselors and higher education professionals in building a transitional bridge into postsecondary education for rural high schools students. Research is needed that targets specific rural regions to understand the geographic complexities rural high school students present rather than using broad practices for the entire demographic population. This qualitative study sought to provide secondary and postsecondary educational professionals a view of the needs of rural high school students through the lenses of high school counselors who provide vital college admissions guidance to students, among their many other roles within high schools. Of specific interest was the identification of the barriers rural high school students face in matriculating into higher education, as well as current and missing support services that can assist rural high school students in pursuing postsecondary education. The analyses of the participants' perceptions were used to evaluate the needs of rural high school students, and provide targeted strategies to assist Texas Tech University, as well as other four-year colleges and universities, to enroll more rural students into higher education. Enrolling more students in higher education from rural populations helps create an educated workforce for rural communities, as well as helps address the goals of Texas' *Closing the Gaps by 2015* initiative, which seeks to increase

access to higher education for all populations (Texas Higher Education Coordinating Board [THECB], 2010).

Restatement of Research Questions

This study was guided by two research questions:

1. What barriers do high school counselors perceive rural high school students face when matriculating to college?
2. What types of higher education support systems do high school counselors recommend to increase the matriculation of rural high school students to college?

Research Design

Through the use of qualitative methodology, a case study approach was chosen for this study in an effort to help the researcher develop a stronger “understanding of what causes [the] phenomenon” described by the participants (Denzin & Lincoln, 2011, p. 314). This approach allowed for a more in-depth investigation of the barriers rural high school students face when making the decision to enroll in higher education, through the lenses of their high school counselors. Case studies are “...bounded by time and activity and researchers collect detailed information using a variety of data collection procedures over a sustained period of time” (Creswell, 2013, p. 15). All participants interviewed for the study were high school counselors servicing rural high school students in the High Plains region of Texas. By studying three rural high school counselors from the same area and in the same roles, a bounded system was formed, which allowed comparisons of the participants’ experiences and perceptions of an environment they all shared while assisting rural high school students.

To gain a broader insight into the phenomena of rural high schools students in their environment, a collective case study was used. This type of case study allowed the researcher to analyze one issue by choosing multiple case studies to illustrate the issue (Creswell, 2013). This multiple case study design used the logic of replication by implementing standard procedures for each case study and identifying commonalities in the data collected (Creswell, 2013).

Participant Sample

Three rural high school counselors were purposefully selected to participate in this study. According to Lincoln and Guba (1985), “naturalistic inquiry relies on purposeful rather than representative sampling” (p. 102). The participants met the following inclusion criteria:

- High school counselor servicing rural high school students; and
- Worked in a rural high school in the High Plains region of west Texas.

The demographic profiles of the three participants were as follows:

Susan is a white female who has served as a high school counselor for the same school for the last 20 years, and has seen her local community dwindle from a population of 5,000 to 3,000 through her years in the profession. She currently works with a student body of 198 students with a predominant Hispanic population (77%). Prior to her current role, Susan was an elementary school counselor and a high school mathematics teacher for 19 years.

Debbie is in her second year as high school counselor to a student population of 286 with a significant White (47%) and Hispanic (47%) demographic. As a white female educator, she has spent the past 30 years coaching basketball, track, and cross country in

multiple rural school districts. Debbie's high school poses some unique challenges in that there is no associated town or community in close proximity to the school.

Elizabeth is a white female who has been a high school counselor for the last 5 years. She works with a student body of 131 high school students with a predominant Hispanic population (79%). Prior to her work at the district's high school, she worked with elementary school students as a teacher and was the assistant principal for the middle school in her rural school district. Elizabeth has seen many employers over the last 15 years leave her community of 1,900 citizens, and fears this trend will continue.

Instrument and Data Collection

Instrumentation

The data collection instrument used for this collective case study was a semi-standardized interview protocol. The interview questions were formulated based on findings from prior studies of rural high school students (e.g., Alliance for Excellent Education, 2010; Courrégé, 2011; Griffin, Hutchins, & Meece, 2011; Irvin, Byun, Meece, Farmer, & Hutchins, 2012; Poole & More, 2001). The expertise and guidance of the Texas Tech University Office of Undergraduate Admissions Executive Director and an Assistant Professor within the Higher Education Administration program at Texas Tech University, was also sought.

A 20-question semi-standardized interview structure (please see Appendix A) was used to allow the researcher to "ask a series of regularly structured questions, permitting comparisons across the interviews, and to pursue areas spontaneously initiated by the interviewee" (Berg, 2009, p. 109). The interview questions pertained to high school demographics, the role of high school counselors, and the participants' experiences and

perceptions regarding rural high school students' experiences with matriculating to higher education. The interviews questions were carefully designed to build upon each other to provide the participants with a clear flow of questioning.

Data Collection

Before data collection began, the researcher sought Texas Tech University Institutional Review Board approval (please see Appendix B) to conduct the study. Once approval was received, data collection began. The researcher obtained the potential participants' contact information through the Texas Tech University Office of Undergraduate Admissions internal database. The researcher sent a formal recruitment e-mail to six high school counselors working in the Texas High Plains region. The e-mail (please see Appendix C) provided information about the purpose of the study, a description of the study (please see Appendix D), the amount of time needed for the interview, and the researcher's contact information. It was clearly communicated to potential participants that participation in the study was strictly voluntary. Four high school counselors responded to the email in agreement to participate. Due to one high school counselor's limited availability, the remaining three counselors were selected by the researcher to participate in the study.

All interviews were conducted in-person in the participants' offices within their high schools and were digitally audio recorded. By collecting data in the participants' own closed environments, the researcher was able to observe and document informal communication during the interview (Creswell, 2013). As a means to document the informal communication, the researcher kept a journal of his observations during the interview process. The researcher used a reflective journal that was both "descriptive and

analytic” in nature (Glense, 2011, p. 73). The reflective journaling allowed the researcher to document emotions and non-verbal cues he observed during the interviews. In addition, the researcher had the ability to document his own perceptions during the collection of data and during the analyses.

All of the interviews were digitally audio recorded to ensure accuracy and were transcribed by a third-party transcriptionist. Member checking was a technique used by the researcher to allow the participants to review the data collected during the interviews, and for them to assess if any additional information needed to be added or if transcribed information needed to be edited. Member checking creates a more accurate representation of the participant’s voice (Lincoln & Guba, 1985). According to Lincoln and Guba (1985), using member checking is the “most critical technique for establishing credibility” in a qualitative study (p. 314).

Data Analysis

Data analysis for this collective case study was interpreted through the categorical aggregation approach (Creswell, 2013). Researchers conducting case studies must spend considerable time reviewing interview transcriptions, notes, and observations to identify themes and patterns (Creswell, 2007). The categorical aggregation approach was conducted by taking the collection of data and searching for any issue-relevant meanings that emerged. The researcher’s reflective journal was also used to review discoveries, themes, and observations throughout the data collection process.

In an effort to develop categories from the data collected, open coding was used to “aggregate[d] the text...into small categories of information,” and to draw descriptions for the study’s results (Creswell, 2013, p. 184). The researcher developed a list of codes

representing a series of categories, and associated the codes to the different findings within the data results. Coding helped the researcher identify various concepts and similar and dissimilar themes during the data analysis (Creswell, 2007).

Trustworthiness

Lincoln and Guba (1985) understood the importance of ensuring the trustworthiness and credibility of qualitative research. Two of their techniques, prolonged engagement and triangulation, were used in this study to strengthen the transferability of the research within the field. Prolonged engagement is the “investment of sufficient time to achieve certain purposes” (Lincoln & Guba, 1985, p. 301). Prolonged engagement occurred with the participants during their interviews. The researcher continued the established communication with the participants through the use of follow up questions and member checking. After reviewing the interview transcriptions, the researcher took the “data, analyses, interpretations, and conclusions back to the participants so that they [could] judge the accuracy and credibility of the account” (Creswell, 2013, p. 252). The researcher works closely with the participants year-round and makes visits to their high schools. This working relationship assisted the researcher in developing a deeper understanding of the environment the participants shared and instilled the confidence that “the context is thoroughly appreciated and understood” (Lincoln & Guba, 1985, p. 302).

Persistent observations allowed the researcher to identify “...characteristics and elements in the situation that are most relevant to the problem or issue being pursued and focusing on them [the participants] in detail” (Lincoln & Guba, 1985, p. 304). Persistent observation targeted common themes that emerged when interviewing and interacting with the participants during the study. Persistent observations continued after the initial

interview and while interview transcripts were being verified through member checking. By adopting these research practices, the researcher explored the “salient factors” and examined the elements of most importance (Lincoln & Guba, 1985, p. 304).

Triangulation is used to demonstrate credibility within research findings (Lincoln & Guba, 1985). The technique is satisfied by relying on multiple sources of data collection to uphold the conclusions within a study (Creswell, 2013). This collective case study compared and contrasted the experiences of rural high school counselors within the High Plains region of Texas. Triangulation was accomplished by comparing interview transcriptions, member checking, reflective journaling, and persistent observations to verify the validity of the findings of this study. According to Webb, Campbell, Schwartz, and Sechrest (1966), “once a proposition has been confirmed by two or more measurement processes, the uncertainty of its interpretation is greatly reduced” (p. 3).

The purpose of this study was to provide transferability within the research findings to allow application in multiple settings. This study focused on rural high school students and their school counselors’ perceptions of the barriers rural students face when making the decision whether to enroll in higher education or not. The research findings can only facilitate the reader to “reach a conclusion about whether transfer can be contemplated as a possibility” (Lincoln & Guba, 1985, p. 316). The participants’ narratives of their experiences and perceptions provide great depths of understanding of the barriers rural high school students face. Transferability of the results of this study must be determined by the reader.

Context of the Study

Contextual Framework of the Study

Griffin, Hutchins, and Meece (2011) found that when college preparatory resources were limited in rural communities, high school students often looked to their parents/guardians and high school counselors for information. This avenue is challenged when parents/guardians are less likely to have attended college and high school counselors are limited in the resources they can provide in rural school districts. Rural students have limited access to career counseling, college preparatory courses, career academies, and school-to-work programs while in high school (Provasnik et al., 2007). This limited access creates barriers for students to gain the confidence and determination to see college as an option.

This study solicited the participation of three rural high school counselors working within the Texas High Plains region to analyze the currently broad accusations regarding the challenges rural high school students face when making decisions about matriculating to higher education. Participants' narratives were used to compare current research against the field findings found within the study's three rural high schools. The high schools were chosen based on The National Center for Education Statistics ([NCES], n.d.) rural school district locales and each high school met either the *distant* or *remote* rural subcategory. The high schools were also chosen due to a steady decline in their students opting to seek higher education at Texas Tech University. Previously, all three high schools fed a much larger portion of their graduating senior class into the region's four-year university.

Texas Tech University serves as the largest provider of higher education opportunities than any other institution in the western two-thirds of the state (Texas Tech University, 2012b). More specifically, the university serves as a higher education source for the predominantly rural communities in the west Texas region (Smith, 2011). In the 2008-09 academic year, more than 15.5% of Texas Tech undergraduates disclosed coming from home counties with populations less than 50,000 residents (non-MSA communities) (Smith, 2011). As a prominent institution servicing the High Plains region of west Texas region, Texas Tech University has been nationally recognized for their efforts in reaching rural high school student:

In December 2006, Texas Tech University was recognized for [their] outreach efforts by the Carnegie Foundation when it was distinguished as the only Texas public higher education institution to be recognized in Carnegie's 'Community Engagement' classification in recognition of its outreach and engagement activities in support of rural, west Texas. (Smith, 2011, p. 23)

The institution is committed to providing services that engage students from rural communities through a variety of recruitment strategies and academic support.

Contextual Framework of the Researcher

Since the researcher is the instrument for this study, it is important for the reader to learn about the background of the researcher and why the topic was selected. The researcher is the manager for the west Texas region and Visitors Center within the Office of Undergraduate Admissions at Texas Tech University. The researcher has been actively involved in recruiting students within the west Texas region to Texas Tech University since spring 2008. Specific to his role in managing west Texas recruitment and the

Visitors Center, the researcher leads outreach efforts by gaining access to prospective students through high school visits, college fair attendance, and facilitating targeted events within the west Texas region. The researcher has also assisted the Office of Undergraduate Admissions in developing a reporting structure that allows recruitment efforts to be more targeted based upon historical year-to-date data. The researcher serves as a lead market analyst to identify recruitment trends, and also is charged with the development of a clear understanding of the nuances the west Texas region presents when recruiting high school students.

The researcher became interested in studying the barriers rural high school students face when choosing to enroll in postsecondary education while enrolled in a higher education graduate program through the Texas Tech University College of Education. Through the graduate program curriculum and experience in recruiting west Texas high school students, the researcher gained a greater understanding of the importance of diversity on college campuses and the need to continue to segment out recruitment strategies to better serve rural high school students. Recognizing the decline in the enrollment of students from the High Plains region of west Texas, and receiving the charge to combat this enrollment trend, the researcher identified the need for further study in the current obstacles and services needed for these students to be recruited and retained at Texas Tech University.

The familiarity the participants have with the researcher in working together to recruit their students to Texas Tech University should establish a sense of trust and comfort when being interviewed. A disadvantage to this established relationship is the

participants could choose to not expose any negative experiences or perceptions they have regarding Texas Tech University (Creswell, 2007)

Limitations of the Study

This study had the following limitations:

1. The study focused on only three high school counselors in rural high schools within the High Plains region of Texas.
2. The participants of the study were purposefully selected, which limited the opportunity for all rural high school counselors within the High Plains region to participate.
3. The perceptions gathered from the participants may not be transferrable to high school counselors servicing rural students in other regions of the State of Texas.

Ethical Considerations

The researcher did not begin the study until after receiving approval from the Institution Review Board of Human Subjects at Texas Tech University. Once approval was received, the researcher began the recruitment of participants by sending an e-mail invitation and a description of the study to potential participants. From those potential participants who confirmed their interest, the researcher provided each of them with the interview questions. By providing the questions prior to the interview, the researcher ensured a higher level of comfort with the topic and the opportunity for the participant to decline from participating in the study due to the nature of the subject matter.

Summary

This study used a collective case study approach to identify the experiences of rural high school students when making college matriculation decisions, through the lenses of their high school counselors. The study used collection techniques of semi-standardized interviews, observations, and reflective journaling. Data analysis was conducted using a categorical aggregation approach and open coding to discover categories and themes. To establish trustworthiness, triangulation was employed through interview transcriptions, member checking, persistent observations, and reflective journaling. Chapter IV will present the findings of the study, reported as emergent themes.

CHAPTER IV

RESULTS

Chapter IV presents the results of this qualitative collective case study. This qualitative study sought to provide secondary and postsecondary educational professionals a view of the needs of rural high school students through the lenses of high school counselors who provide vital college admissions guidance to students, among their many other roles within high schools. Of specific interest was the identification of the barriers rural high school students face in matriculating into higher education, as well as current and missing support services that can assist rural high school students in pursuing higher education. The analyses of the participants' perceptions were used to evaluate the needs of rural high school students and to identify targeted strategies to assist Texas Tech University, as well as other four-year colleges and universities, to enroll more rural students into higher education. Enrolling more students into higher education from rural populations helps create an educated workforce for rural communities, as well as helps address the goals of Texas' *Closing the Gaps by 2015* initiative, which seeks to increase access to higher education for all populations (Texas Higher Education Coordinating Board [THECB], 2010).

The study was guided by two research questions:

1. What barriers do high school counselors perceive rural high school students face when matriculating to college?
2. What types of higher education support systems do high school counselors recommend to increase the matriculation of rural high school students to college?

Summary of Data Collection Process

Upon Texas Tech University Institutional Review Board approval (please see Appendix B), data collection began for the study. Potential participants' contact information was obtained through the Texas Tech University Office of Undergraduate Admissions' internal database. A formal recruitment e-mail was sent to six high school counselors working in the High Plains region of Texas. Four high school counselors responded to the email, agreeing to participate. Due to one high school counselor's limited availability, the remaining three counselors were selected to participate in the study.

All three participants participated in semi-structured interviews (please see Appendix A for interview questions). All interviews were conducted in-person in the participants' offices within their high schools. By collecting data in the participants' own closed environments, the researcher was able to document his observations and informal communications that occurred during the interview process through his reflective journal. In addition, the reflective journal allowed the researcher to document his own perceptions during the collection of data and during the analyses.

All of the interviews were digitally recorded to ensure accuracy and were transcribed by a third-party transcriptionist. Member checking was conducted to allow the participants to review the data collected during the interviews, and for them to assess if any additional information needed to be added or if transcribed information needed to be edited.

Data Analysis

Data analysis for this collective case study was conducted through the categorical aggregation approach (Creswell, 2013). The researcher spent considerable time reviewing interview transcriptions, notes, and observations to identify themes and patterns (Creswell, 2007). The categorical aggregation approach was applied by taking the collection of data and searching for any issue-relevant meanings that emerged. The researcher's reflective journal was also used to review discoveries, themes, and observations throughout the data collection process.

In an effort to develop categories from the data collected, open coding was used to “aggregate[d] the text...into small categories of information,” and to draw descriptions for the study's results (Creswell, 2013, p. 184). The researcher developed a list of codes representing a series of categories and associated the codes to the different themes that emerged. Coding helped the researcher identify various concepts and similar and dissimilar themes during the data analysis (Creswell, 2007).

Participant Demographics

Three rural high school counselors were purposefully selected to participate in this study. All three counselors were females with over 15 years of experience in the education field. The interviews were conducted in each of the counselors' offices, which were all conveniently located by the high school's main office. The participants all seemed well equipped with desktop computers and adequate space to service their students. In addition, all three interviews were interrupted at least once by a student or staff member requesting something from the counselor. The three high school counselors were selected based on the researcher's perception they would be able to share a rich

narrative about their experiences, having each worked extensively with rural high school students.

Susan serves as the sole high school counselor to a student body of 198 students with a predominant Hispanic population (77%). Prior to her current role, Susan was an elementary school counselor and a high school mathematics teacher for 19 years. For 20 years, Susan has held the counselor role within her high school and has seen the school's residing town of once 5,000 dwindle down to 3,000 with many changes along the way. As computers were integrated within her school, she was selected to oversee the master scheduling for the entire high school and eventually inherited the scheduling for the junior high. The scheduling operations as well as the growing demands as the school's testing coordinator take a large portion of Susan's work day. As the testing coordinator, she facilitates all state-mandated assessments conducted within her school. Her evolving role could naturally drift her away from daily student interactions. However, Susan has found time to develop a thriving dual credit program in collaboration with a local community college, and facilitates an ACT testing site on multiple dates within her school. With 60% of Susan's students matriculating into college after high school, Texas Tech University has enrolled on average six students from this high school over the past three years. When asked what she enjoys most about her role, Susan finds great value in working in a small school environment where she can watch her students grow into the young adults they become upon graduation.

Debbie is currently in her second year as a high school counselor to a student population of 286 with a significant White (47%) and Hispanic (47%) population. Prior to her current role, she spent the past 30 years coaching basketball, track, and cross

country in multiple rural school districts. Debbie's high school poses some unique challenges in that there is no associated town or community in close proximity to the school. The high school services multiple small communities scattered across the 300 square miles the school district stretches. These communities are diverse by income and the students with college-educated parents/guardians. Debbie finds the majority of her time spent overseeing the school's state testing requirements and assisting the distinctively mobile student population in recovering credits from their previous high school. Debbie has found very little time to assist students in preparing for college, and is currently focused on ensuring students are graduating from high school. With only 30% of Debbie's students matriculating into college after high school, Texas Tech University has still managed to enroll eight students from this high school each year for past three years. When asked what she enjoys most about her role, Debbie stated that she enjoys the diversity of the students and providing support to students who may not be provided it at home.

Elizabeth has served as her high school's guidance counselor for the last five years and enjoys helping her students make plans for their future. Her school resides in a depleting community where Elizabeth has seen many employers move away. However, for the community members who have stayed, Elizabeth describes the town as close-knit and a school district with very high population of low socioeconomic students (80% of high school student body). Previous to her current role, she was an elementary school teacher for 15 years and later a Reading Coach at the same school for three years. Elizabeth has served in a more administrative role in the past, as the school district's middle school assistant principal for two years. She currently works with a student body

of 131 high school students (79% Hispanic) with primary duties focused on facilitating the school's state mandated tests. She also finds herself overseeing many clerical type duties with processing transcripts and making sure her students stay on track to graduate. With 50% of past graduating classes matriculating into higher education, Texas Tech University has only enrolled one of Elizabeth's students per year for past three years.

All three participants were eager to participate in this study and displayed an innate desire to analyze the needs of their students, and to develop stronger programming to ease their students' transition into college. Through the participants' open and candid narratives of the barriers rural high school students faced, the researcher was able to collect valuable data to answer the study's research questions.

Perceived Barriers for Rural High School Students

Research question one asked: What barriers do high school counselors perceive rural high school students face when matriculating to college? Analyses of the interview data collected resulted in four emerging themes: 1) rural students' lack of self-efficacy in their own academic abilities, 2) the intimidating costs of higher education, 3) a lack of parental/guardian support, and 4) rural students' motivation to seek higher education.

Students' Lack of Self-Efficacy

All three participants found their students' lack of confidence in their perceived academic abilities as a significant barrier when considering higher education. Elizabeth stated that even while support services are available to assist students in enrolling in college, "it's hard [for students] to picture themselves," in a college setting. Debbie found this to be true with her students as well, and struggles to dismantle the large notion that college is impossible for many of her students. When this topic was discussed with

Susan, the researcher could sense her frustration when she stated that many of her students will “go through the motions” of applying to college, but when it comes down to enrolling, “it’s gonna take a whole lot of pushing.” The idea of students’ lack of self-efficacy when choosing higher education was a common theme throughout each interview, and the participants identified several contributing factors creating this barrier.

All three participants identified that many of their students would be the first within their family to attend college, and do not have the appropriate role-models to instill college as a possibility. Many of the students that attend Susan’s school have parents/guardians in occupations not requiring degrees who have been defined as “successful” within their communities. Elizabeth echoed this notion when saying many of her students’ families have “grown up here and stayed here” and have become “relatively successful...in their minds” without a college education. As higher education may be perceived less valuable in these rural communities, Debbie also believes the high poverty rate within her school has also contributed to the lack of self-efficacy. With 68% of Debbie’s student population identified as low socioeconomic status, the lack of resources also prevent the cultivation of perceived college possibilities. In addition to the perceived lower value of education and minimal monetary resources, all three participants emphasized the vastness of a college campus compared to the rural environments rural students are accustomed to. This also contributes to a students’ lack of self-efficacy when considering college.

Cost of Higher Education

The affordability of a college education was also a prominent theme within all three of the participants’ interviews, and as Elizabeth identified, a “huge issue.” The

thought that a college education is worth the cost weighs heavy on the students and their families at Elizabeth's school. Elizabeth discouragingly stated, "[students'] families don't necessarily see that spending that money as an investment." In addition, students at Elizabeth's school struggle to understand the long-term benefits when a job immediately after high school will provide an instant cash flow. Elizabeth went on to say, "In their minds, they're thinking, 'I'm making money. I've never had any money. Now, I've got this job. I've actually got some money,' and it's hard for them to see that you could have so much more." The perception of the daunting costs of higher education and the disbelief of long-term benefits creates a major barrier for these students. In addition, the process in subsidizing students' higher education cost was a contributing factor for the participants' students.

The *Free Application for Federal Student Aid* (FAFSA) was discussed during all three of the participants' interviews, and all commented on the level of assistance each student needs to complete this application. When students choose to apply for financial aid, Debbie distastefully stated the process is like "wading through the masses of stuff and...being willing to fill out all those forms and write a little essay." Debbie also expressed some frustration with her students and finds many of them "literally want [her] to give them money to go to school" instead of taking the time to fill out scholarship applications. Susan has found the financial aid and scholarship process misleading for some of her students, and fears that it is drawing students to institutions that are monetarily out of their reach. Susan stated:

I have one kid wanting to go to Baylor, 'cause she got a \$35,000 scholarship at Baylor, which that's great, but I've told her...you still need to look at WT [West Texas A&M] or Tech [Texas Tech University], and look at the bottom line.

Susan went on to say the student has always been an avid fan of Texas Tech University, and believes that it would be the best fit for the student. However, as the cost of higher education continues to rise, the three participants found their students will be influenced by a variety of factors when considering attending college.

Minimal Parental/Guardian Support

The support from students' parental/guardian unit was also an evident theme in the participants' interviews, and the minimal support many students receive prevents access to a college education. The participants identified three contributing factors that lead to minimal support: 1) fear, 2) unwillingness to sacrifice, and 3) lack of participation. Susan empathized with parents/guardians, who for many a college education correlates to the fear of their child leaving home for the first time. She quoted parents from the past saying, "I'm afraid to let my child go, and put them in a car and let them drive that far." In addition, Elizabeth found parents are unwilling to make sacrifices for a college education that their student cannot afford of his or her own. Elizabeth went on to explain, "Even though they [parents] probably know that a college degree is important, I'm not sure they're to the point where they think, "Okay, we're gonna spend everything we've got. We're gonna do whatever we have to do." Debbie identified that not only are there many parents/guardians not willing to make sacrifices for their students' education, there are also many not willing to invest time in their students' education. Debbie passionately spoke about the importance of parent/guardian

involvement and identified her struggles in getting them to come to meetings at the school: “Particular parents are not gonna...come to the meetings up here that they’re supposed to go to, let alone go visit with their...kid to go to college somewhere.”

Parental/guardian support was an emotionally driven topic for all three participants as they all emphasized the need for a dedicated family unit to help their students succeed in a college setting.

Perceived Motivators for Rural High School Students

In analyzing the responses of the participants to address research question one, a natural dialog began with each of them that took the conversation beyond what prevents their students from seeking higher education and focused on what motivates them. Two factors were identified during the interviews that seem to have served to motivate rural high school students to enroll in higher education: 1) positive perceptions of college, and 2) additional staff to support college bound students.

Positive perceptions of college. A discussion in every interview was how South Plains College (SPC) in Levelland, Texas had positioned itself to serve as the leading higher education provider for all three of the participants’ high schools. Through the participants’ open narratives, the researcher identified two influencing attributes: 1) history of student success, and 2) their far reaching dual credit program that has infused a positive perception of college at the participants’ high school campuses. When asked what draws their students to enroll at SPC, all three made notion of the perceived student success their past students had experienced, and the sharing back of these experiences with their current high school students. Elizabeth explained: “A lot of our kids go to South Plains. They’ve had friends that have gone there. That’s...more of a comfort zone

for them. They see someone's gone there, and [say] "Oh, okay, they've done it and they've made it."

In addition, Susan noted that SPC has created a positive perception of college on the high school campus due to the college's collaboration with the high school to create a dual credit program. Susan stated that 26 of the senior class of 52 students will graduate with at least 3 hours of college credit. She went on to emphasize that, "a lot of [her] kids are going [off] to school with a year of college behind them." Susan attributes this success to the fact that students are able to take college courses without ever leaving their high school by using video conferencing and interacting via email with the SPC professors. Susan believes why SPC is drawing students to enroll post-high school is due to how "familiar" it is for so many of her students. Debbie and Elizabeth's schools do not have the same technology infrastructure to provide the same familiarity on their campuses. However, both noted SPC as the institution that enrolls the majority of their college-going students. Debbie and Elizabeth believe this is driven by their high school students' perceptions that their past peers attending SPC are successful there. SPC has developed a positive perception for higher education by cultivating a well-known successful academic environment for area students, and for one area high school, the institution has extended its reach by servicing future college students on their high school campuses.

Additional Staff to Support College Bound Students. Another attributing factor identified as a motivator for rural high school students is when their counselors are provided additional staff to assist in the students' college enrollment processes. Each participant noted at least one other person or entity beyond themselves who continually

worked with their students interested in attending college. Elizabeth is supported by a part-time retired educator of 30 years to assist students in going to college, Mrs. Peters:

I'm very, very lucky and blessed to have Mrs. Peters, a college coach...Her job is to get with kids and try to make sure they're getting applications filled out, and...going to visit schools, taking them places...to make them picture themselves on college campuses.

In addition, Elizabeth is grateful for the assistance the state-funded program through the THECB, GenTX, has provided. GenTX is led by current college students from Texas Tech University, who assist her students in completing the FAFSA application. Susan also receives support from LEARN, Inc. LEARN, Inc., has a federal TRiO grant to support college enrollment for socioeconomically disadvantaged students. Susan is assigned an associate from LEARN Inc., who visits her school frequently.

Susan discussed her experiences with working with LEARN, Inc.:

We are lucky we still have LEARN, and that saves me a ton of time,...because now she [LEARN, Inc. associate] comes nearly every two weeks...and does financial aid with the kids....She's done well as far as helping the kids get the financial aid done and it done right...If I lost her, that would be terrible. I am not the expert in that stuff.

The LEARN, Inc. associate schedules 30-minute slots throughout the school day and evening and both students and their parents/guardians are invited to attend the session.

Debbie identified Texas Tech University as a key partner in motivating her students to attend college. With the university being "right down the road" from Debbie's school, she encourages students to, "Go take a visit. You can get a college day...Go to

the financial aid office of the school you're going to. They are the experts." She also attributes the senior assembly that Texas Tech University hosts at her school each fall as a "really, really good thing," where students learn about the University's admissions processes and life as a college student.

The three participants were all apt to quickly point out the variety of support staff who share the responsibility of motivating their high school students to enroll in higher education. This support staff play a key role in ensuring rural students have access to someone who can help them with college information. As noted previously, school counselors serve in many roles within their rural schools, and may have a difficult time allocating sufficient time to address the needs of students who have questions about going to college.

Recommendations for Supporting Rural Students' Matriculation into Higher Education

Research question two asked: What types of higher education support systems do high school counselors recommend to increase the matriculation of rural high school students to college? The three participants all provided recommendations in line with what Texas Tech University could do to support their current efforts. Each recommendation was framed around the identified barriers and motivators discussed during the participants' interviews.

Debbie believes the largest barrier her students are currently facing is the cost of higher education, and believes a financial aid parent night hosted by Texas Tech University at her school would help combat this barrier. Debbie believes by putting this into place it would be "a huge, huge deal" for her community. This recommendation

stems from a previous effort made by Texas Tech University and Lubbock Christian University (LCU) to host a Saturday Financial Aid Workshop on the LCU campus.

However, Debbie, in aggravated tone, mentioned that the event fell on the day of a snow storm and was cancelled. This event was never rescheduled. In looking ahead, Debbie believes a greater number of families would attend if the event was held in a computer lab at her school versus having them travel to Lubbock.

Susan also thought a parent night at her school would be valuable by inviting area colleges to speak with parents/guardians individually about the opportunities their institutions can provide their student:

We might have a night where...those major colleges that our kids go to...would be here and available that the parents could come...Something we might do in the fall...have a [Spanish] interpreter...’cause we have some parents...they don’t speak English.

Susan believes that this recommendation is an answer to the question she constantly asks herself, “How can we [high school faculty] better collaborate with parents?” With the majority of her students potentially first generation college, she believes “we can empower the parents to feel like they have the information to keep their student accountable” by hosting a parent night event. She believes parents/guardians have to keep their students accountable on a variety of other responsibilities, and a college education should be no different.

Elizabeth believes her students’ lack of self-efficacy is the biggest barrier they face, and would like to ensure that in future campus visits to Texas Tech University, they are connected with current students that grew up in rural communities:

I think having...the tour guides be from rural [areas]. Having people like our kids. Someone they can relate with, and that would even...explain, "This is my situation. My family, we couldn't afford anything. I got the Pell grant. This how much money I [still] had to come up with. This is how I did it."

Elizabeth finds that the majority of her students are "apprehensive about a large university" and need "someone they can relate with" to help create a positive perception of attending Texas Tech University. Elizabeth believes this can happen by creating a campus visit experience that allows her students to shadow current college students with hopes of dispelling her students' apprehension about difficulties getting around campus and large class sizes.

All three participants were energized while explaining their recommendations, and the researcher discussed initial plans to help see these recommendations into fruition. Each participant agreed to play an active role in developing plans to ensure their recommendations were implemented.

Summary

Chapter IV presented the results of the analysis of data collected from the study's participants about their perceptions of the barriers rural high school students face when considering higher education. The emerging themes of this study were a lack of self-efficacy in students' own academic abilities, the intimidating costs of higher education, a lack of parental/guardian support, rural student motivations to attend higher education, and what support systems can be developed to help rural students overcome the barriers they face when matriculating to higher education. Chapter V will provide a discussion of

the findings, implications, recommendations, suggestions for further research, and the conclusion.

CHAPTER V

DISCUSSION AND CONCLUSIONS

The purpose of this study was to evaluate the needs of rural high schools students as they make their decisions on whether or not to matriculate to higher education after high school graduation. The study was guided by two research questions:

1. What barriers do high school counselors perceive rural high school students face when matriculating to college?
2. What types of higher education support systems do high school counselors recommend to increase the matriculation of rural high school students to college?

This qualitative study used a collective case study approach. Three rural high school counselors from within the High Plains region of Texas were purposefully selected to participate in this study. Susan is the high school counselor to a student body of 198 students with a predominant Hispanic population, and has more than 20 years of experience as a counselor. Debbie is currently in her second year as a high school counselor to a student population of 286. Previously, she coached in many rural school districts within the High Plains region. Elizabeth supports a student body of 131 students as their high school counselor, and has served in several administrative roles within her rural school district. The participants participated in semi-standardized interviews that were conducted in each of their offices. After transcription of the interviews, a categorical aggregation approach and open coding of the data collected were used to analyze the participants' responses, resulting in five emerging themes relative to the two research questions. These themes included: 1) rural students' lack of self-efficacy in their

own academic abilities, 2) the intimidating costs of higher education, 3) a lack of parental/guardian support, 4) rural students' motivation to matriculate to higher education, and 5) needed support services to address the barriers that rural students face when matriculating to higher education.

Discussion

In 2007, the Texas State Comptroller's office estimated an additional 50,000 residents would dwell in the High Plains region of Texas by 2012, which would bring the total population to 854,700. Between 2002 and 2007, the predominantly rural High Plains region only grew by 2.7%, while the state's population rose by 9.8% ("Texas in Focus: High Plains," 2008a). As the region's largest higher education provider, Texas Tech University also saw its number of enrolling freshmen from within the High Plains region decrease by 18.5% in 2012 (738 to 601 students) (Texas Tech University, 2012c).

With the knowledge of the region's decreasing population and declining institutional enrollments, Texas Tech University must analyze the region's barriers and increase their collaboration with area high schools to identify how to best reach student populations. These refined efforts will assist the institution in continuing to meet the demands of the statewide mandate, *Closing the Gaps by 2015*, to help ensure an educated workforce and to increase access to higher education for all populations (Texas Higher Education Coordinating Board, 2010).

Perceived Barriers for Rural High School Students

Research question 1 addressed the perceptions of rural high school counselors about the barriers that rural high school students face when matriculating to college. All three participants in this study find that their rural students' lack confidence in their

academic abilities, which they identified as a significant barrier for their students when considering higher education. Each of the participants provided their own account of their perceptions of where they perceive their students' lack of self efficacy stems from. Three contributing factors were derived from the analysis of the data: 1) minimal support with college plans from parents/guardians, 2) high poverty rates prompting a lack of self-efficacy, and 3) apprehension about the college environment. Susan and Elizabeth both reside in communities where success is relative to common standards of living in their towns, and a college education is perceived unnecessary to acquire a job. Poole and More (2001) found rural students less likely to come into contact with college-educated adults in their rural communities, which makes it difficult for these students to picture themselves in an unfamiliar educational setting. Debbie found the high poverty rates within her school place restrictions on students' higher education possibilities. With 68% of Debbie's student population identified as low socioeconomic, this demographic is dramatically higher than 21% of rural students nationally identified as at or below the poverty line (Alliance for Excellent Education, 2010). This staggering statistic only perpetuates the Alliance for Excellent Education (2010) finding that with high poverty comes limited resources to empower rural students to matriculate into higher education.

The three participants also discussed that students are apprehensive about going from a school environment of only a couple of hundred students to one where it is possible that there will be many thousands of students. The participants perceived that the students' apprehension led them to question their academic abilities to be successful in a larger learning environment. Griffin, Hutchins, and Meece (2011) found this apprehension of feeling unprepared for the rigor of college coursework derives from the

lack of college preparation courses available to rural students. Dual-credit courses offer the opportunity for high school students to prepare for college by enrolling in college coursework while still in high school. The participation in college-level coursework while a high school appears to alleviate some of the apprehension that rural students feel when considering matriculation into higher education.

The findings from this study regarding the perceptions of the participants that their students lacked self-efficacy can be directly tied to social cognitive career theory (SCCT) (Lent, Hackett, & Brown, 2000). SCCT focuses on an individual's cognitive-person variables, such as self-efficacy, to assist students in extinguishing perceptual and cognitive distortions, overcoming perceived barriers, and modifying inaccurate beliefs to broaden students' occupational possibilities (Brown & Lent, 1996). One participant feared her students would never leave their rural community due to available jobs within their community that would provide an enticing income for a graduating high school student that has grown up with very little. Rural high school students must be presented with curriculum within their schools, such as Advanced Via Individual Determination (AVID), to develop study skills and confidence in their academic abilities to increase their self-efficacy in pursuing educational and career possibilities.

Another perceived barrier for rural students identified through this study is the staggering costs of higher education that rural high school students and their families face. Elizabeth shared that many of her students' families are unable to recognize the long-term investment they are making into their students' future by assisting them with paying for a college education. Poole and More (2001) found affordability as a major factor for rural students considering college, and serves as a major influence in the

college decision making process. Susan has found her students drawn to particular colleges offering the largest financial aid packages rather than the school that will socially and academically be the best fit for the student. Susan went on to share that in her experience the schools offering the largest financial aid packages still tend to be the most expensive, and she fears that her students and families are not looking at the bottom line or the overall costs of the entire college experience. As prevalent as poverty and rural families' lack of knowledge of the cost of a college education are, rural students are at a major disadvantage when it comes to paying for higher education (Alliance for Excellent Education, 2010; Poole & More, 2001). The overestimation of higher education costs and the lack of knowledge of the resources to pay for college are preventing many rural high schools from seeking higher education and expanding their career possibilities. In addition, poverty is a common factor among rural families and for some parents/guardians there may be a strong desire to support their students' education. However, these families may have no additional income to pay for higher education and may only be able to provide their students with emotional support.

The lack of parental/guardian support was the third barrier identified in this study. Current research also reflects on this prevalent characteristic among rural high school students (e.g., Courrégé, 2011; Griffin, Hutchins, & Meece, 2011; Poole & More, 2001). All three of the participants identified minimal support from their students' parental/guardian units. The analysis of the data revealed three contributing factors cultivating this barrier: 1) fear, 2) unwillingness to sacrifice, and 3) lack of participation. Susan found that for many parents/guardians, the fear of promoting a college education within their home directly correlates to losing their child to a distant college education, which

could lead to the permanent departure of the child from the home and community. This fear is confirmed by one study estimating that only 16% of rural college graduates return and remain in their native community after college graduation, while the other 43% relocate for better opportunities elsewhere (Courrégé, 2011). The potential of a child not returning home prompts great anxiety within the family unit, and may contribute to parents'/guardians' unwillingness to sacrifice their current lifestyle for their student's postsecondary education.

A second contributing factor for the lack of parental/guardian support among rural high school students is their unwillingness to sacrifice. Elizabeth stated she struggles to get parents/guardians to understand the value of their investment in their student's education. Although Elizabeth passionately shared stories about parents'/guardians' opposition to sacrificing their monetary resources, there is no notion of this in the current research surrounding rural high school students. However, rural parents/guardians may be willing to sacrifice for their student's education, but due to their lack of knowledge surrounding a college education, may overestimate the costs and deem it impossible to afford (Poole & More, 2001).

The final contributing factor is parents'/guardians' reluctance to participate in their student's education. Debbie has found it incredibly difficult to get parents/guardians to attend school meetings and events, and has little confidence that the same parents/guardians are taking their students to visit colleges. Poole and More (2001) found parents' level of involvement and expectations in their student's education as the most influential factor when deciding to seek higher education. However, parents/guardians are often confused by the application process and need additional

information to assist their students (Poole & More, 2001). When developing strategies to increase parent/guardian involvement, steps should be taken to help them overcome barriers that may be preventing them from participating in their student's education. For example, parents/guardians may work multiple jobs and their availability may be limited. Efforts to get parents/guardians involved should surround the hours they are available, and assumptions should be limited that parents/guardians are available during the evening hours.

In addition to identifying the barriers rural high school students face, the study also discovered two motivators to increase higher education matriculation that the participants conveyed during their interviews. A positive perception of college was found to be a driving force for many rural students who enrolled in higher education and was a common reason why the participants' students enrolled at South Plains College. Institutions such as South Plains College have developed a reputation among the participants' students for helping students succeed. This has been accomplished through the availability of dual credit courses on the high school campus offered by the college. Dual credit programs on high school campuses can combat rural limitations such as eliminating geographic isolation and access issues, to allow high school students to cultivate a positive college perception by participating in college courses within their high school facility (Irvin et al., 2011). In addition, the participants identified having additional staff to support college bound students was also a strong motivator to promote matriculation into higher education. Courrégé (2010) described high school counselors as holding multiples responsibilities within their schools, and the research participants confirmed this research finding. As noted by the participants, rural high school students

are more motivated to matriculate into higher education when they have access to additional support such as college assistance staff in addition to their high school counselors, and innovative dual credit programs.

As barriers are identified for rural students, local higher education institutions must play an active part in collaborating with rural high schools to address these barriers. In addition, rural high schools and higher education institutions must recognize that rural students are motivated by different things, and that access to additional support and college courses may be motivation enough to attract them to higher education after high school graduation.

Recommended Support Services for Rural Student Matriculation into Higher Education

Research question 2 addressed what types of higher education support systems do high school counselors recommend to increase the matriculation of rural high school students to college. The participants provided several support areas that need to be addressed.

Debbie perceives an annual evening college information event hosted at her high school for parents to meet with financial aid professionals would assist her in increasing the matriculation of her students entering into higher education. She believes this event will help combat the lack of parent involvement by providing an information session at a time that parents are more able to attend. In addition, the event will increase the level of knowledge families have regarding financial aid. This recommendation is closely associated with Poole and More's (2001) advisement to provide parents/guardians consistent financial planning training and adequately address their affordability concerns

through workshops and parent/guardian meetings. This strategy would allow higher education institutions a unique opportunity to work directly with rural high school students' parents/guardians. However, the strategy may not draw as many parents/guardians as Debbie estimates if other barriers such as parents' evening responsibilities (i.e., providing a meal, child care, among others) are not addressed.

Susan perceives that to help parents/guardians understand the impact of a college education, she needs to connect them to area two- and four-year institutions so they can become more involved in their students' future education. She believes that hosting an evening parent night at her high school would be useful. She also suggested that a Spanish speaking interpreter should be available at this event to serve the needs of the large Hispanic population, whom many do not speak English, at her school. A variety of institutions would be invited to the event, including Texas Tech University, and it would be set up in a large room for families to visit with each college. Her goal is in line with Poole and More's (2001) strategy to empower parents/guardians to be motivators and supporters of higher education, and keeping parents/guardians informed about the steps necessary to make college possible for their student. This strategy falls in line with Debbie's recommendation, but may not address some of the more hidden barriers on why rural high school students' parents/guardians do not play an active role in their student's education. Some of the hidden barriers could be parents/guardians who perceive that if their child goes to college, he or she will not be able to help provide for the family or take care of younger siblings. There could also be situations where female students are not supported by their parents/guardians to attain an education, as their role is perceived to be a caretaker within the family. Other possible barriers can be parents/guardians who must

work multiple jobs or longer hours to provide for their families' needs, preventing them from being available for evening parent/guardian events.

Elizabeth believed that although parents/guardians are an instrumental piece to the college going process, her students must be able to perceive themselves in the role of a college student and have the confidence to venture into a world dissimilar to their own. Her recommendation was that during her high school's next campus visit to Texas Tech University, a current Texas Tech student who had attended a rural high school, could serve as the group's tour guide for the day. Elizabeth believed this would help combat her students' lack of self-efficacy about their academic abilities, by breaking down the barrier that no one from their background could be successful in college. This strategy compliments the strategies surrounding SCCT by addressing her rural high school students' perceived educational limitations and past social experiences that decrease students' self-efficacy (Brown & Lent, 1996).

The three participants' recommendations serve to address the primary barriers each of their high schools face by increasing the education and involvement of parents/guardians and increasing rural students' self-efficacy. This knowledge helps provide a basis of understanding of the needs of rural high school students. When reviewing these participants' findings and recommendations, there are several implications higher education institutions should consider when developing programming for rural high school students.

Implication for Practice

Many rural high school students are faced with the belief that higher education is not an option for them. A conglomerate of barriers forces the student population into

career paths with minimal earning potential and limited opportunities to expand their academic interests. This study provides findings and recommendations for secondary and postsecondary professionals to assist rural student populations in their matriculation into higher education. The increase in rural students' matriculation into higher education results in a more educated workforce that will meet demands for the future job market (Alliance for Excellent Education, 2010).

All three participants in this study found their students' lack of confidence in their abilities as a significant barrier when considering higher education. Rural students' lack of self-efficacy is generated from several contributing factors, one being high poverty rates. The Alliance for Excellent Education (2010) found poverty to be prevalent within rural communities. Poor school districts lack many of the resources available in suburban and urban school districts, to help support college preparation. If rural communities, school districts, and higher education institutions that serve these communities do not recognize the barriers that poverty presents to college matriculation, the number of rural students attending higher education will not increase. This could result in a less educated workforce not only in the rural communities, but in the U.S. overall.

Rural students' lack of self-efficacy combined with the staggering cost of high education make it difficult for students and their families to perceive college education as a reality. One participant in this study believes that parents/guardians struggle to understand the investment they are making in their student's future. It is difficult for them to understand how making sacrifices now to pay for their student's future college education will have long-term benefits. Poole and More (2001) found when parents'/guardians' believed college was beneficial, rural students were more motivated

to enroll in higher education compared to their counterparts with parents/guardians who did not understand the benefits of a college education. When parents/guardians recognize the impact and the investment they are making for their students' future career possibilities, the high costs of higher education will be less of a barrier for rural students' matriculation into college. If secondary and postsecondary professionals are not able to educate these parents/guardians on the long-term benefits of higher education, it will be difficult to increase the matriculation of these rural students into college.

Poole and More (2001) found the encouragement from parents/guardians, even those who never attended college, was vital for students' in the college decision making process. Parent/guardian involvement is essential for rural high school students, considering the rural school districts' limited resources and the amount of time personnel, specifically guidance counselors, have available to spend with the students to discuss college matriculation (Courrégé, 2010). If parents/guardians do not support and promote their rural students' higher education aspirations, more than likely these students will not matriculate to college after high school graduation, or they will stop out after a short period of time. This again leads to the impact that uneducated citizens result in communities that cannot attract future businesses that employ its citizens.

Rural high school students face many barriers when enrolling in higher education. However, the student population can be motivated by obtaining a positive perception of college and additional support from staff to promote their matriculation into higher education. The participants found students gravitating to particular higher education institutions that have a history of enrolling students from the students' rural high schools. However, additional strategies must be implemented to increase the positive perception

of college and the number of rural students enrolling in higher education. In addition to the positive perception of college access some institutions have portrayed to rural students, the student population is also motivated by receiving additional assistance by staff members beyond what their high school counselor can provide. A learning environment that motivates rural students to attend college is crucial within high schools (Poole & More, 2001). If high schools and higher education institutions do not provide the necessary support needed to guide rural students through the college process, these students may simply *drop through the cracks*, and will continue to be an underrepresented student population within higher education.

A parent information night was a recommendation made by the participants to increase parents'/guardians' knowledge and involvement in their students' higher education plans. Participants varied on what information should be presented at this event between financial aid and college admissions information. However, all agreed the crucial element within the event is to empower parents/guardians to play active roles in their student's higher education decisions, and to understand the increased educational and career possibilities higher education provides to their students. Parents/guardians must understand the importance of attending college to ensure their rural students are competitive in the future job market that require higher education as a pre-requisite (Alliance for Excellent Education, 2010). What appears to be an effective way to get parents/guardians to understand the impact an education has on future career possibilities for their students is to provide these information nights at a convenient time and location for parents/guardians to attend. Failure by secondary and postsecondary institutions to provide these information nights will result in parents/guardians who continue to lack the

knowledge to be able to support their students, which can result in the students continuing to not think college is for them, therefore, not matriculating to higher education after high school graduation.

Even as parents/guardians of rural high school students become more engaged in promoting their students' higher education possibilities, high school counselors have been longstanding partners in bridging the gap between high school and college. In conducting this study, the importance of an open dialog between college admissions professionals and high school guidance counselors was reinforced. A wealth of knowledge was obtained from spending an extended amount of time with the participants of this study. Courrégé (2011) described guidance counselors as holding multiple roles within high schools, from facilitating standardized testing to developing student course schedules. Although the participants' time is limited, many described creative ways they have continued to make college preparatory programs a top priority. If higher education institutions do not place a priority on investing time with rural high school counselors, their recruitment strategies will lack applicable feedback to ensure resources are meeting the needs of rural students and increasing their matriculation into higher education.

Ensuring recruitment strategies are meeting the needs of rural students will be especially important with limited rural growth in Texas. Over the next 40 years, Texas is slated to grow to a population of 35.8 million residents, with urban populations increasing at a much faster rate than rural ("Texas in Focus," 2008). However, the Texas High Plains region, within the northwest panhandle of the state, will be one area that will see limited growth in comparison to its urban counterparts. Staggering growth is inevitable in the High Plains region, but should not lead any higher education institution

to decrease its support in recruiting rural students from this area. In 2007, the Texas State Comptroller's office found the High Plains school districts exceeding the state average for the number of Exemplary (2.6% compared to 2.2%) and Recognized (22.8% compared to 17.8%) campuses ("Texas in Focus: High Plains," 2008b). This above average performance provides evidence to the area's potential to cultivate a more college-going culture. If Texas Tech University expects to increase their student enrollment with the students from the High Plains region, focus must turn to increasing the number of admitted students that enroll, regardless of the region's projected decline in growth.

Recommendations

The *Closing the Gaps by 2015* initiative for the state of Texas holds education professionals to a high standard by charging them with enrolling more students – from all populations - in the state's higher education institutions. A precedent must be placed in insisting secondary and postsecondary professionals develop better strategies to help rural students transition to higher education. On-campus programming should be developed to combat rural high school students' lack of self-efficacy of their academic abilities and lack of perceived educational and career possibilities. One participant in this study believed her students would be equipped to combat their own disbeliefs about their college possibilities if Texas Tech University would connect her high school students with a current college student who was previously from a rural community, during their annual campus visit. This strategy is firmly rooted in Brown and Lent's (1996) recommendation of pairing rural high school students with a college student from a similar community to affirm their educational preparation is sufficient for the college setting. In order to ensure the appropriate current college students are assigned to rural

high school campus visits, the university should keep accurate profiles on their student tour guides with identifying high school information. Tour guides should be trained on speaking openly during campus tours about their struggles in transitioning into college and articulating the steps they took and the support services they used to address the challenges. This candor can help provide a model of positive self-efficacy among rural high school students and cultivate a positive perception of their own academic abilities (Lent & Brown, 1996). In order to reach the broader student population, higher education admissions professionals should also empower tour guides to visit their previous high school when making visits home in their rural communities. Tour guides should be provided with admissions information handouts and a means to capture prospective student information for the institution's admission office to follow up with students. This information will allow the institution to follow-up with rural students to answer any questions they may have, and provide additional support for their matriculation into higher education.

In developing a smoother transition into higher education, Poole and More (2001) perceive the concept of affordability is a major factor for rural students considering college. In addition, they found that parents/guardians of rural high school students frequently deem college not affordable due to their overestimation of the cost of tuition (Poole & More, 2001). All three participants in this study found the cost of education and the process of applying for financial aid why many of their students hesitate to pursue a college education.

Texas Tech University's Office of Undergraduate Admissions needs to review their current financial aid curriculum delivered in their FAFSA presentations to ensure

the concept of affordability is addressed. College student testimonials that are identifiable to rural high school students should be included in the office's FAFSA presentations to promote the various avenues to pay for a college education. College admissions professionals also should be equipped in walking students through the entire FAFSA application and be able to field a variety of questions about the financial aid award process. This additional support will help increase the knowledge of financial aid among parents/guardians. This additional assistance can help alleviate their fears of the process, as well as provide them the information needed to support their students better.

The participants of this study recognized the value of incorporating their students' parents/guardians in the college decision making process, but all had an unsettling level of frustration in parents'/guardians' lack of involvement in their student's education. However, two of the three participants recommended parent/guardian night events, which have proven to be unsuccessful for them in the past. In order to see an increase in parent/guardian attendance at such events, it is recommended that event facilitators provide both meals and child care so that parents/guardians can focus on the information presented (Alliance for Excellent Education, 2010). Higher education institutions, such as Texas Tech University, should work to approve a budget that supports providing meals and child care at college information events at their partnering rural high schools. These additional efforts will indicate to parents/guardians that higher education institutions truly understand the multiple responsibilities that they have. In addition, this outreach can help build relationships among the rural high schools, the students and their parents/guardians, and the higher education institutions. Parents/guardians will be able to take away valuable information at these events that will help them support their rural student's

matriculation into higher education. Significant strides can be made in combating the barriers rural high school students face in the Texas High Plains region by increasing students' self-efficacy relative to college participation, providing discussions on ways to afford college, and targeting the needs of historically absent parents/guardians from the higher education discussion to motivate rural students to matriculate to higher education. Texas Tech University is positioned to implement these strategies to meet the demands of the statewide mandate, *Closing the Gaps by 2015*, to help ensure an educated workforce and to increase access to higher education for all populations (Texas Higher Education Coordinating Board, 2010).

Future Research

There are several opportunities for future research related to the findings of this study and the needs of rural high school students. This study was limited to the Texas High Plains region as well as the perceptions of three rural high school counselors. The experiences of the participants may not be transferrable to other rural high schools and the barriers they face in matriculating students into higher education. In qualitative research, transferability relies on the reader to determine transferability. Therefore, it is important to use this existing study as a foundation to conduct additional research about the experiences and perceptions of rural high school students facing the decision to enroll in college.

In the review of current literature, Poole and More (2001) called for an increased technology infrastructure in rural high schools to support a link between high schools and college campuses to deliver college coursework in rural high school settings. One high school in the study has implemented this practice within its high school, and currently

generates senior classes where half the students graduate with completed college coursework. In an effort to generate similar graduating classes, further research should be conducted to identify additional strategies to increase college preparation within rural high schools. In addition, the identified college preparation strategies should be compared to discover which has the highest rates of matriculating rural students into higher education.

It was evident from this study that rural high school counselors are overworked and hold a variety of roles within their respective schools. This is also supported in the research literature (e.g., Courrégé, 2011). However, this study's participants pointed to a variety of individuals and organizations assisting their students in making higher education possible. Further research should be conducted about the use of additional staff in rural high schools. The focus should be on college readiness as well as federal and state funded organizations, such as LEARN, Inc., to understand the impact they have on rural high school students' matriculation to college. In addition to identifying additional staff charged with supporting rural high school students, future research should focus on directly interviewing students and their parents/guardians to confirm their high school counselors' perceptions regarding the barriers rural students face when matriculating into higher education. This additional research will assist in evaluating the findings of this study, and identify hidden barriers rural students' high school counselors may not identify as problems.

Current research depicts the decline in population growth in the Texas High Plains region, and a growing demand for the state to see more students enrolled in higher education ("Texas in Focus," 2008; THECB, 2010). In addition, Texas Tech University

administration has noted their commitment to the High Plains region, and implemented new recruitment strategies to increase the area's college enrollment (Hoover, 2012b). With this increased support from university leadership, the Office of Undergraduate Admissions must generate positive enrollment results in the region. Future research must focus on qualitatively capturing the experiences of rural high school students and their parents/guardians through in-person interviews to further understand the needs of this student population and increase access to higher education for all populations and to create a more educated workforce.

Conclusion

The purpose of this study was to identify the barriers rural high schools students face when matriculating into higher education, and also sought to identify current and missing support services that can assist rural high school students in pursuing higher education. This qualitative collective case study analyzed the perceptions of three high school counselors who service rural high school students in the Texas High Plains region. Participants participated in semi-standardized interviews. A categorical aggregation analysis and open coding of the data collected in the study resulted in five emerging themes: 1) rural students' lack of self-efficacy in their own academic abilities, 2) the intimidating costs of higher education, 3) a lack of parental/guardian support, 4) rural students' motivation for matriculating to higher education, and 5) needed support services to address the barriers when matriculating into higher education.

The overall findings of the study indicated that rural high school students need additional support in addressing their perceived lack of self-efficacy for their academic abilities in higher education. In addition, many rural students and their parents/guardians

are not knowledgeable about the costs of higher education and how to fund it.

Parental/guardian involvement in their student's college decision making process is also a prescribed need for rural students to make higher education possible. Positive perceptions of higher education and additional staff to support rural students' college enrollment process were identified as two motivators that assist the student population in overcoming the identified barriers into higher education.

Higher education institutions are positioned to build a stronger transitional bridge between rural high schools and colleges for rural high school students. Texas Tech University, as well as other four-year colleges and universities, can better serve rural students by addressing the barriers they face when making the decision to matriculate to higher education. Enrolling more students in higher education from rural populations helps create an educated workforce for rural communities, as well as helps address the goals of Texas' *Closing the Gaps by 2015* initiative, which seeks to increase access to higher education for all populations (THECB, 2010).

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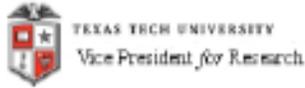
APPENDIX A

INTERVIEW QUESTIONS

1. Can you tell me about your high school and the local community?
2. How many students are currently in your graduating senior class?
3. How many do you believe will seek higher education post graduation?
4. What value do you perceive the community places on higher education?
5. Explain your role as a counselor within your high school. What duties do you perform on a week-to-week basis? What efforts have you implemented to prepare students for higher education?
6. What factors do your students consider when choosing to seek higher education?
7. What do you perceive motivates them to seek higher education?
8. What barriers do you think students experience?
9. What barriers have you had students discuss with you about pursuing higher education?
10. Historically, what percentage of your senior class attends a college or university?
11. Of those choosing to seek higher education, what motivates them to attend?
12. How many of your students attend TTU after graduation?
13. For those that choose to attend elsewhere, what prevented them from choosing Texas Tech?
14. Based on your perception, what is the perception of Texas Tech within your high school and community?
15. What services, if any, do you believe Texas Tech provides to assist your students in enrolling at the university? How would you evaluate these services? Do you have any success stories?
16. What areas do you believe Texas Tech could improve to better serve your students?
17. Do you find other higher education institutions more successful in enrolling your students? If so, what practices have they implemented to better serve your students?
18. If resources and time were unlimited, what services would you recommend Texas Tech implement to increase the number of your students enrolling at the university?
19. What barrier would you focus on developing this new service around?
20. Who would be important stakeholders in implementing this new service?

APPENDIX B

INSTITUTIONAL REVIEW BOARD APPROVAL



January 21, 2013

Dr. Stephanie Jones
Ed Psychology & Leadership
Mail Stop: 1071

Regarding: 503755 Barriers to Higher Education for Rural High School Students: A Qualitative Study

Dr. Stephanie Jones:

The Texas Tech University Protection of Human Subjects Committee approved your claim for an exemption for the protocol referenced above on January 21, 2013.

Exempt research is not subject to continuing review. However, any modifications that (a) change the research in a substantial way, (b) might change the basis for exemption, or (c) might introduce any additional risk to subjects must be reported to the Human Research Protection Program (HRPP) before they are implemented.

To report such changes, you must send a new claim for exemption or a proposal for expedited or full board review to the HRPP. Extension of exempt status for exempt protocols that have not changed is automatic.

The HRPP staff will send annual reminders that ask you to update the status of your research protocol. Once you have completed your research, you must inform the HRPP office by responding to the annual reminder so that the protocol file can be closed.

Sincerely,

Rosemary Cogan, Ph.D., ABPP
Protection of Human Subjects Committee

APPENDIX C

EMAIL SCRIPT TO PARTICIPANTS

Dear participant,

My name is Brandon Taylor, master's student within the Higher Education program at Texas Tech University, and I would like to request your assistance in a study I am conducting to develop a clearer understanding of the needs of rural high school students. Specifically, the qualitative study will focus on identifying barriers rural high school students face when deciding to pursue college.

In addition, based on the perceptions of high school counselors, the study seeks to identify current and missing support services that can assist rural high school students in enrolling at higher education institutions. I would like to gain your insight in these areas as a part of my study. I have attached a complete description of the study for your review.

Your participation in this study would involve an in-person interview at your high school, which will be captured via audiotape and note taking. I anticipate the interview to last no longer than one hour.

A summary of the findings of this study will be provided to you at the conclusion of the project.

If you have any questions in regards to this research study, you can contact me by telephone (806) 834-0716 or via e-mail me at brandon.taylor@ttu.edu. You may also contact Dr. Stephanie J. Jones, who is supervising this study, at (806) 742-1997, ext. 245 or via e-mail at stephanie.j.jones@ttu.edu.

TTU also has a Board that protects the rights of people who participate in research. You may contact them with questions at (806) 742-2064. You may also contact them by mailing them at: Institutional Review Board for the Protection of Human Subjects, Office of the Vice President for Research, Texas Tech University, Lubbock, Texas 79409.

If you would like to participate in this study, please respond to this email, stating your willingness to participate and your availability over the course of the next two weeks. Your consideration of participation in this study is greatly appreciated.

Brandon Taylor

APPENDIX D

STUDY DESCRIPTION

Title of Study: Barriers to Higher Education for Rural High School Students: A Qualitative Study

What is this research project about?

The purpose of this study is to explore the barriers rural high school students face in matriculating into a higher education setting, and seeks to identify current and missing support services that can assist rural high school students in pursuing higher education. As a college education becomes imperative to enter today's workforce, a greater understanding of rural high school students' constraints in seeking higher education is necessary to develop programming to breakdown any obstacles.

What would you do if you participate?

This study will involve your participation in an in-person interview session where you will be asked a series of questions about your experiences as a guidance counselor assisting rural high school students in their college decision making process.

How long will my participation take?

The interview should last no more than one hour.

Can I quit if I become uncomfortable?

Yes, without question. The researchers and the Texas Tech University Institutional Review Board have reviewed the questions included for the interview and believe you can answer them comfortably. However, participation is voluntary and strictly by your own choice. You are welcome to stop answering questions at any time and end the interview at any time you wish.

How are you protecting my privacy?

All participants will be given an opportunity to select a pseudonym to be used in the study. All study data will be held in secured, locked file storage. The only individuals privileged to view data will be the researchers and a third-party transcriber.

I have some questions about this study. Who can I ask?

1. If you have any questions about this research study, you can contact Brandon Taylor at (806) 834-0716 or e-mail him at brandon.taylor@ttu.edu.
2. You may also contact Dr. Stephanie Jones, who is supervising this study, at (806) 742-1997, ext. 245 or via e-mail at stephanie.j.jones@ttu.edu.
3. TTU also has a Board that protects the rights of people who participate in research. You may contact them with questions by calling (806) 742-2064. You may also contact them by mail at

Institutional Review Board for the Protection of Human Subjects, Office of the Vice President for Research, Texas Tech University, Lubbock, Texas 79409.

How will I benefit from participating in this study?

There is no financial compensation for your participation in this study. However, participants will benefit from the knowledge that they contributed to a study, which aims to broaden the understanding of rural high school students' needs to gain access into higher education.

How can I participate in the study?

If you would like to participate in this study, please reply by email to Brandon Taylor stating your willingness to participate (brandon.taylor@ttu.edu) or contact him at (806) 834-0716.