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RURAL NEBRASKA ELEMENTARY STUDENTS' ASPIRATIONS TO ATTEND
INSTITUTIONS OF HIGHER EDUCATION

by

Brock Taylor Rezny

A THESIS

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Rural Nebraska Elementary Students' Aspirations to Attend Institutions of Higher Education

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Numerous studies exist on college and career readiness in the middle and high school grades, but these studies often exclude the elementary grades. Even less research has been done regarding this topic in rural education. With more research indicating a need for college readiness beginning in elementary school, this study adds to the literature by seeing if rural elementary students in Nebraska have aspirations for continued education and who influences those aspirations. The sample population of this quantitative study were fourth graders in five rural schools in an athletic conference in Nebraska. The survey was created with collaboration from two practicing elementary education professors and distributed to the schools in the mail. Seventy-one of the 152 fourth graders completed the survey with parental permission and the students' teachers returned the surveys. Various SPSS tests were performed to look at a student's aspirations and overall confidence in regards to institutions of higher education and how external factors including: parents, guardians, teachers, school counselors, peers and siblings influence those aspirations and a student's overall confidence of higher education. The results of this study indicated that parents and guardians have the greatest influence on aspirations to attend an institution of higher education and only siblings significantly influenced overall confidence of higher education. Further discussion of these results and recommendations for future research are also discussed.

Dedication

Without the help of my faith and those around me this thesis would not have been possible. I first need to thank Jesus Christ for the strength and guidance I have received throughout this process. God has made it apparent that my time can truly be multiplied if I first give it to Him and give Him my yes.

Second, I dedicate this to my fiancé and future wife, Kelsey. Through all of the wedding planning, thesis writing and other hurdles we have faced this year, you have challenged me and taught me patience, cooperation and how to love even more. I will forever be thankful for you bringing me coffee, snacks or just sitting in a coffee shop with me as I write. I am so blessed to have you in my life and cannot wait to see what God has in store for us.

Finally, I dedicate this to my dad, mom and sisters, Russ, Lori, Kessa and McKenna Rezny. Mom and Dad, I contribute all of my success and achievement in college to you. I know you will not accept it, but without you instilling the value of education in me, challenging me to achieve in everything aspect of life and providing me with the resources and knowledge to do so I never would have gotten to this point. Your constant love, encouragement and support is something I will be forever grateful for. Kessa and McKenna, you both inspire me and are a huge source of joy in my life. As I get older I appreciate our relationships even more and cannot wait to see what God has in store for you two. I love you all.

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Chapter 1

Introduction

“You can’t become what you don’t know, what you have absolutely no sense of” (Topps, 2005 p. 6D). This quote by Rick Dalton, the President of the Foundation for Excellent Schools (FES), refers to students in the American school system and the issues some students face concerning college and career readiness (Topps, 2005). College and career preparedness is one of the most important issues facing our nation’s educational systems.

Students who are not academically prepared for college cost the government over \$1.4 billion a year on remedial education and an additional \$2.3 billion a year because they are less likely to complete their college degrees, and ultimately need financial assistance (Davis, 2006). These realities, paired with President Obama’s goal of “graduating all students from high school prepared for college or advanced career training” (Balfanz, 2009, p. 3), increase the significance of making sure students are achieving academically and developing ambitions for future success whether in higher education or professional training. To help reach this goal our nation needs to focus on starting college and career readiness in kindergarten and continuing development through high school (College Board Advocacy & Policy Center, 2012). To do this, Kindergarten through 12th grade (K-12) educational systems need to continuously adapt to make sure students are prepared for institutions of higher education. Though some indicate that readiness needs to start in elementary school, Woodard and Kaszubowski (2008) state that elementary students receive very little readiness assistance (p. 431). This impact compounds as the lack of preparedness continues to accumulate and to affect each future

year. Therefore, more students are needing remedial education to get on track for college courses.

College achievement and aspirations become increasingly important as the demand for individuals with degrees in the job market is projected to increase by 2018 (Zumeta, Breneman, Callan, & Finney, 2012). This problem is accentuated as our nation is currently facing the highest tuition rates in higher education history (National Center for Education Statistics, 2013). Helping students achieve academically can help them obtain higher grade point averages and hopefully higher ACT scores that will allow for higher acceptance rates in colleges and more tuition assistance through academic scholarships. Higher test scores and financial assistance make achieving a college degree more feasible, especially for students from lower socioeconomic backgrounds. With our workforce demanding higher education degrees, more students need access into higher education, and this calls for more preparedness and awareness of higher education opportunities available to students. If students are not exposed to different opportunities or given the chance to discover their full potential, the impact does not only affect their personal lives, but can also affect their communities and our nation.

Educators need to address deficiencies at an early age so students can continue to achieve and meet state standards. Students are first exposed to state academic tests as third graders. These academic tests, especially reading, have been shown to be an indicator of future academic success (College Board Advocacy & Policy Center, 2012) and show the importance of making sure students are academically prepared for the future. Giving them the tools to be successful will allow them to set high aspirations for themselves, to achieve access into institutions of higher education, and to accomplish

their goals. Since third grade is in the middle of a student's elementary career it is important they are achieving state standards so they are academically prepared for middle school, creating a ripple effect propelling them on to success in high school and beyond. Therefore, since educators measure academic success starting in third grade they should make grade level adjustments so students can be challenged in the middle and high school grades.

College or career preparedness becomes even more crucial in rural communities as 19.3% of rural students in the country are Title I eligible, which seeks to give students fair and equal rights at high-quality education (U.S. Department of Education, 2004), and even more, 46.6%, are eligible for subsidized meals (Johnson, Klein, & Lester, 2014). Rural communities are among the poorest in the nation (United States Department of Agriculture, 2013) and this adds to other disadvantages including geographical isolation (Meece et al., 2011c). Formal education needs to be able to prepare students to obtain a degree from an institution of higher education in order to help increase their earning potential and make them more financially stable. Rural communities also face greater deficiencies in college aspirations as students often desire staying in their hometowns, especially students who have positive perceptions of their hometown (Meece et al., 2011d) or want to maintain connections with family and community (as cited by Irvin et al., 2011).

Underprepared students are costing the government and the taxpayers in our communities billions of dollars. The economy is requiring a more educated workforce, but there are many challenges our youth face in obtaining an advanced degree, especially in rural communities. Rural educators need to better understand what influences the

aspirations of their students so they can provide support to develop a college driven mindset while addressing deficits in academic achievement. Helping the youth in rural communities develop higher education aspirations may help them reach their full potential and support the economy of their communities and our nation.

Purpose Statement

The purpose of this study was to look at rural Nebraska fourth-grade students' aspirations of attending an institution of higher education and the individuals that influence those aspirations. Understanding what influences these students' aspirations can provide rural schools with information about how to help students develop a college-driven mindset, starting in elementary school. The results reveal the students' aspirations to attend higher education and the individuals who influence those aspirations.

Fourth-grade students were chosen because they have just completed the first state standard tests in their educational careers. If future educational success can be predicted based on third grade state standards, then the author's assumptions are that students should also be developing aspirations for their future and be exposed to grade appropriate interventions about attending college. Survey results from rural fourth grade students determined if parents, teachers, school counselors, peers or siblings influenced the aspirations of these students to attend institutions of higher education.

Significance of Study

The findings of this study are valuable because they provide insight into rural communities, which makes up the largest total number of schools in the United States, but is understudied and under researched. In fact, according to Provasnik et al. (2007) rural public schools make up 31.3% of all public schools in the United States at 29,977

schools with suburban schools being the next largest at 27.8% with 26,589 schools (p. 8). Rural schools also make up 7,873 of the total 14,076 districts, 55.9% of all districts, in the United States which is substantially higher than the 831 suburban districts, which make up only 5.9% of the total districts. Even though rural schools encompass the largest number of schools and districts they fall third in the number of total students educated in the United States at ten million of the total 48 million students. Suburban schools educate the largest number of students at 17 million students, and city schools educate 14 million students (Provasnik et al., 2007). Providing adequate education to all students is important and may prove even more so for rural schools. Even though rural schools educate fewer people than suburban and city schools, they encompass the largest number of schools and districts. With a larger number of districts controlling the academic standards for the schools under their umbrella, rural schools have a higher likelihood of variation among district policies, practices, and resources making it more difficult to generalize success and academic achievement among schools.

The limited research on rural schools, and even less on rural elementary schools, the importance of this study becomes more relevant. Studying rural students from all areas of the country will allow educators to have more knowledge about the students they teach. The study focused on rural students in an area of Nebraska. The results contribute to the literature around the aspirations of students to attend institutions of higher education and who is influencing those aspirations.

Study Design

After IRB approval, the researcher used quantitative methods to gather data from 71 fourth grade students in five rural schools from one athletic conference in Nebraska.

Using survey research to gather information from the students allowed for data analysis of college ambitions and possible factors that may be influencing those ambitions. To help remove researcher bias, the parental permission forms, the ten question surveys, and instructions were mailed to the school superintendents to keep the environment as unchanged as possible. The parent and student permission data were collected in classrooms under teacher supervision. Eight of the ten questions were based on a modified four point Likert scale and the other two were polar questions, also known as yes or no questions. The surveys were then returned via mail and analyzed using SPSS software.

Research Questions

The central research question of this study was: “What influences the aspirations of attending an institution of higher education of rural fourth grade students?” Sub-questions included:

1. Have rural fourth grade students in Nebraska considered attending an institution of higher education?
2. Do rural fourth grade students in Nebraska want to go to an institution of higher education?
3. Do rural fourth grade students in Nebraska think they can attend an institution of higher education?
4. Do rural fourth grade students in Nebraska think going to an institution of higher education is important?
5. Do parents influence the aspirations of attending institutions of higher education of rural fourth grade students in Nebraska?

6. Do teachers influence the aspirations of attending institutions of higher education of rural fourth grade students in Nebraska?
7. Do peers influence the aspirations of attending institutions of higher education of rural fourth grade students in Nebraska?
8. Do student counselors influence the aspirations of attending institutions of higher education of rural fourth grade students in Nebraska?
9. Does having one or more parents or guardians who went to an institution of higher education influence the aspirations of attending institutions of higher education of rural fourth grade students in Nebraska?
10. Does having a sibling attend an institution of higher education influence the aspirations of attending institutions of higher education of rural fourth grade students in Nebraska?

Rural students often seek multiple sources of information about their future career and educational goals (Meece et al., 2011d). Given that students are exposed to many stimuli, exploring the relationships children have may provide insight into what may be influencing their future ambitions. Understanding the importance those relationships play in students' future decisions can allow educators, family members and community members to provide avenues to stimulate discussions around postsecondary education. It will be important to think about this question throughout the paper: In what ways are younger elementary students exposed to college?

Chapter 2

Literature Review

Introduction

The age at which college readiness becomes a key topic is widely disputed in the literature. “ACT defines readiness for college as acquisition of the knowledge and skills a student needs to enroll and succeed in credit-bearing, first-year courses at a postsecondary institution, such as a two- or four-year college, trade school, or technical school. Simply stated, readiness for college means not needing to take remedial courses in college” (ACT, 2008, p. 1). ACT (2008), also refers to college readiness as career readiness (p. 1) since almost all of the careers in our economy require some sort of degree, whether that be a high school diploma or higher level college degrees. For this study these definitions of college and career readiness will be used and the terms will be considered interchangeable.

The following literature focused on college readiness as a K-12 issue and on college and career readiness in the middle grades, defined as fifth through eighth grade (Balfanz, 2009). The literature review begins with a discussion of the important benefit college graduation has on rural communities and its students. The review continues by discussing and defining brain drain, a current issue many rural communities are facing, and ways this can be combated through proper preparatory programs, descriptions of different preparatory programs and their findings. Finally, the review focuses on the factors that affect rural youths’ aspirations of college and the recommendations made for schools to ensure youth are prepared.

Importance of College Education on Youth and their Rural Communities

Research has shown that college graduates accrue a number of benefits from college graduation. Graduates generally have a higher income (Ng, Wolf-Wendel, & Lombardi, 2014) and report greater satisfaction with their lives (as cited by Ng, Wolf-Wendel, & Lombardi, 2014). College graduates also have an impact on their community and positively influence the lives of their offspring (as cited by Ng, Wolf-Wendel, & Lombardi, 2014). In 2013, according to the American Community Survey, the national poverty rate for rural communities was 18.2% and only 15.4% in metro communities (United States Department of Agriculture (USDA), 2014). An increase in the percent of high school graduates from rural communities that are college or career ready could potentially mean a decrease in the national poverty rate. These students could help stimulate the economy and potentially bring new job opportunities to rural communities as rural students feel a commitment to supporting their families (Meece et al., 2011b) and give back to their communities (Petrin, Farmer, Meece, & Byun, 2011). Though there is a sense of commitment or obligation to their communities. These communities are challenged with limited jobs, low pay or poor living conditions causing degree holders to seek out more affluent economies which often lie in urban communities, this phenomenon is known as brain drain (brain drain, 2015). Before college and career preparation in rural communities is discussed it is important to note this current epidemic within these communities.

Brain Drain

“Many young adults leave rural areas to attend college, and many of these people remain in urban areas after college due to the higher earnings available to them in those

areas” (USDA, 2014, p. 5). Brain drain is a problem rural communities have been facing for decades. A majority of educated young people are moving to more affluent areas that provide them with more opportunities for schooling, more amenities, better-paying jobs, and big-city living (Artz, 2003). This epidemic “poses a serious threat to the social and economic vitality of rural America” (Artz, 2003, p. 11). Gallardo’s (2010) findings support this claim and show that even though the nation’s population has grown 9.1% between 2000 and 2009, rural communities have only increased 2.9%, with the Midwest losing the most population in this time frame (para. 2-3). Artz’s (2003) research supports her claim, finding that the West North Central region: North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, and Missouri, has decreased in competitive share, defined as: “the region’s ability to capture an increasing share of a particular sector’s employment growth,” by 5.2% (p. 11-12). Communities in these states are unable to attract the college-educated citizens and are losing them to more populated urban states. These young people are necessary in these areas and are needed to continue the survival by being “parents, workers, homeowners, voters, and taxpayers” (Carr & Kefalas, 2009, p. B7). However, rural communities are playing into their own demise by investing in the brightest students who leave for higher education and never return. They are not placing enough emphasis on those who stay or return to provide more service businesses and who could address the lack of teachers, physicians and other general workers needed to help rural communities thrive (Low, 2009).

Rural communities, much like any community, represent a variety of student types. Types that have been recognized include: achievers, those who go to college and never return; stayers, those who do not leave their community because they feel attached

and go into the working class; seekers, military going individuals who rely on the military for support, and returners, who receive some sort of education and then return to their community (Low, 2009). Rural communities, parents, and the schools these students attend often focus on the achievers, pushing them to succeed, but not investing in the other students who stay or return to their communities (Low, 2009). Carr and Kefalas (2009) found that these communities need to invest in all students, not just pushing them into colleges, but preparing them for career paths that enhance the community (p. B8). Students who do not attend college or even drop out of high school, are often seen as high-risk individuals who do not find the rural life style appealing and tend to leave communities because they see limited opportunities (Petrin, Farmer, Meece & Byun, 2011). By providing “vocational education,” communities can, “provide an important component in better preparing these students [stayers] for future success, more so than taking college prep courses with attention-getting achievers” (Low, 2009, p. 340). In addition to vocational training, Woodland and Kaszowski (2008) suggest finding role models that represent careers students may not have previously discerned:

Students in rural schools are not always exposed to the multitude of career options available to them. Because students in rural areas sometimes lack direct exposure to careers in science and technology, educators should find role models or key figures that represent a broad range of careers (p. 442).

This lack of exposure, can be a reason why students do not leave for advanced degrees in these areas which could provide new economic opportunities for these communities if students returned. Helping all students learn about these opportunities provides more opportunities for return on investments for the community; even if the most-educated

youth leave their communities, the students who remain or return are still educated. Petrin, Farmer, Meece and Byun (2011) found supporting evidence for this claim discovering that individuals with “high levels of academic, behavioral, and social competence are likely to perceive their community in favorable light” and find ways to support their communities even from afar, compared to those who are seen as more high-risk (p. 1103). Therefore, investing in all students and providing them with vocational and educational support can help those who are previously lacking career readiness, but choose to stay in the community, be more successful and contribute to the survival of rural communities.

Providing students with just the tools to achieve certain vocational skills does nothing if the community cannot support their field. Communities and the governments need to focus on providing younger generations with “more economic opportunities” or entrepreneurial education to help retain the well-educated (Low, 2009). Carr and Kefalas (2009) suggest governments need to entice the college educated to return to rural communities with incentives like "free land programs," "student-loan-forgiveness programs," and continuing to develop employment opportunities that meet the needs of globalization like: training people to work in wind and solar energy, continuing to develop the food production industry, and other post-industrial opportunities to help increase the economic capital of a community (p. B9). Artz (2003) suggests incentives such as tax breaks for science and technology graduates returning to their home communities (p. 13). All of these initiatives lead to the same goal, boosting the rural economy so these communities do not succumb to larger urban cities.

Rural economic concerns often take a back seat to urban concerns (Carr & Kefalas, 2009). Carr and Kefalas (2009) found that rural individuals make 80% less than individuals from metropolitan areas (p. B6). The individuals raised in rural communities may, as adults, move to areas with higher earning potential and may never return. These findings suggest that rural communities need to continue to focus on providing links to continued education (Carr & Kefalas, 2009) and programs that teach students the importance of continued education (Alleman & Holly, 2014); the focus should be on achievers as well as all youth in the communities to help them feel valued in the community.

However, despite the negative effects of brain drain rural communities are not completely at a loss.

Brain drain is an important economic development concern. Higher levels of human capital are associated with higher levels of income, increased productivity, and economic growth. Although the majority of rural counties have fallen behind in attracting and retaining college-educated workers, other rural counties have not. This suggests that brain drain is not an inherent problem for rural counties, but something that might be overcome with properly designed, well-informed policies (Artz, 2003, p. 14).

Researchers state that much more research needs to be done, especially with individuals a few years into their profession (Artz, 2003; Petrin, Farmer, Meece & Byun, 2011). The current debate is that individuals often relocate after spending time in an urban community; they seek quality-of-life factors (Artz, 2003; USDA, 2014), to raise a family (Artz, 2003; Low, 2009; USDA, 2014), low-cost housing (Low, 2009; USDA, 2014), or

some type of connection with the community they were raised in (Low, 2009; Petrin, Farmer, Meece & Byun, 2011; USDA, 2014). This means that though the newly educated may move away, there still may be hope for communities to draw them back in with incentives and economic development. Brain drain affects what educators, educational institutions, and communities do to prepare rural youth for college and career readiness.

College and Career Readiness

When looking at the status of education in America and the amount of students graduating high school college-prepared, it seems that our nation has an educational crisis on our hands. According the ACT (2008), “Only one in five ACT-tested 2008 high school graduates are prepared for entry-level college courses in English Composition, College Algebra, social science, and Biology, while one in four are not prepared for college-level coursework in any of the four subject areas (p. 1).” ACT (2008) also revealed that eight out of ten eighth graders are not prepared academically to go to high school, therefore, getting them off track academically and hindering their ability to be prepared for college (p. 5). Students who exhibit off-track academic indicators early, and do not receive support, continue to fall further away from academic standards. Therefore, research by ACT (2008) indicates that “college and career readiness is not a high school issue—it’s a K-12 issue” (p. 3). Educators and administrators need to continue to look at their academic curriculum from a K-12 perspective and see what they are doing to prepare their students to make them college or career ready as it is becoming more relevant in rural education. Meece (2011b) found that more rural youth are aspiring to continue their education after high school than ever before (p. 1). In fact, most students

choose to not continue their education for personal reasons, not because they face significant barriers that would hinder their ability to attend an institution of higher education (Meece, 2001b). Researchers need to continue to explore the status of rural education and students' aspirations of higher education. Such inquiry may assist in preparing students for collegiate rigor and providing them with needed support. This would require rural schools and districts to look at all levels of education to make sure there is consistency between desired educational outcomes and curriculum.

Middle grades are an important transition period for students. Research has revealed that at this age students often make the decision to go to college or begin to develop career paths for their future (Huerta, Watt, & Butcher, 2013; Breakthrough Collaborative, 2010; Camblin, 2003). They also begin to develop a self-concept and deem themselves worthy of a challenging academic path in college or one more suited for non-college careers (Camblin, 2003; College Board Advocacy & Policy Center, 2012). Educators must be intentional in the middle grades because they are crucial for academic development and seen as a turning point for a student's success or failure (ACT, 2008; Balfanz, 2009). ACT (2008) also discovered that, "the level of academic achievement that students attain by eighth grade has a larger impact on their college and career readiness by the time they graduate from high school than anything that happens academically in high school" (p. 2). Investing in students early creates a ripple effect that can build aspirations and have a lasting impact on development throughout the middle grades, high school, and college.

Huerta, Watt and Butcher's (2013) findings support this claim. They reported the longer students were enrolled in *Advancement Via Individual Determination (AVID)*, a

college preparatory program, the more ready students were for high school and the more likely they were to complete four-year college entrance requirements (p. 33-34). While AVID did not have an effect on a student's ACT or SAT score, there was a statically significant difference in the students' overall GPA if a student was enrolled throughout middle school and high school and rather than just participating in AVID in high school (Huerta, Watt & Butcher, 2013). These students also completed college entrance requirements at a higher rate and took more challenging classes including Advanced Placement (AP) courses (Huerta, Watt & Butcher, 2013). Beginning preparatory programs early, like AVID, seems to have a positive effect on preparing students for college entrance requirements and college rigor.

Studies on programs like AVID, and most of the other research addressing college and career preparatory programs, focus on middle and high school aged students (Huerta, Watt, & Butcher, 2013; Breakthrough Collaborative, 2010; ACT, 2008; Camblin, 2003; Roderick, Nagaoka, & Coca, 2009; & Balfanz, 2009). However, there are researchers who mention that college and career preparatory programs should begin as early as possible, with some saying as early as kindergarten (Ng, Wolf-Wendel, & Lombardi, 2014; ACT, 2008; Wilson, 2007; Wagner, 2006; Auger, Blackhurst, & Wahl, 2005; Huerta, Watt, & Butcher, 2013; Woodand & Kaszubowski, 2008; College Board Advocacy & Policy Center, 2012). Studies have found that the early onset of preparatory programs can be beneficial as children's career aspirations begin to develop as early as age five (as cited by Auger, Blackhurst, & Wahl, 2005). Various research has determined it is in these early elementary years that students begin to develop their aspirations and begin to solidify their academic and career path (Auger, Blackhurst, & Wahl, 2005;

Breakthrough Collaborative, 2010; Woodand & Kaszubowski, 2008). However, while there is widespread agreement about the value of preparatory programs there is not agreement on when to start them.

The Assistant Dean at the University of Wisconsin-Madison and Pre-College Enrichment Opportunity Program for Learning Excellence (PEOPLE) Director, Walter Lane was quoted saying, “It is never too early to start with children and to think about their future and what they need to do to prepare” (Wagner, 2006, p. 12). Others in a Pathways focus group, a focus group of participants in a week-long summer program for low income, racial and linguistic minority middle school students, agreed with Lane sharing that they think preparation should start in elementary school so students have a foundation when they come to middle school (Ng, Wolf-Wendel, & Lombardi, 2014). Individuals in that same focus group, however, thought that focusing on college would take away students’ childhood, and it should not be done so early (Ng, Wolf-Wendel, & Lombardi, 2014). Though these opinions of the Pathways focus group vary, Woodand and Kaszubowsk (2008) determined through their research study “that career development should be included in the elementary school curriculum” (p. 442), allowing students the time to explore various career and educational paths. Though Woodland and Kaszubowski (2008) conclude career development should begin in elementary schools they also realize that much more research needs to be done on preparatory programs at the elementary levels (p. 441). By providing these college and career preparatory programs early in a student’s educational experience, educators may be able to help decrease the number of students who are not prepared for high school and keep students on track for continued education.

In high-poverty areas, there is even a larger disparity for success or failure for students (Balfanz, 2009). Knowing academic success starts at an early age, and rural communities face some of the highest poverty rates, academic investment in these areas becomes important. These areas are often disadvantaged in many facets and face lower levels of support and funding. The United States Department of Agriculture (2014) found that rural communities fall on the lower end of the income spectrum and into the lower socioeconomic classes (p. 3). Johnson, Showalter, Klein and Lester (2014) used a Socioeconomic Challenges Gauge to show that the number of degree holders in rural communities, or lack thereof, significantly affected one's socioeconomic status (p. 17). The lack of degree holders in these communities affect the socioeconomic status of the area, which potentially decreases the amount of support adults show to the schools (Johnson, Showalter, Klein & Lester, 2014). This lack of support tasks elementary and middle school educators with the duty of focusing on educational achievement and college readiness to make sure students are getting the experience they need to be high school and college ready. Therefore, educators need to get students on track in English, Math, writing and science by the eighth grade because that is the biggest indicator for future ACT scores and college readiness (ACT, 2008). By preparing students to be successful in these areas, and providing them with age appropriate academic interventions when students show off-track indicators, educators can help prepare rural students for future success.

Preparatory programs.

There are multiple preparatory programs that provide age appropriate college and career readiness. AVID, as mentioned in the previous section, is a preparatory program

that prepares typically underrepresented first-generation students, from sixth grade through high school, for institutions of higher education (Huerta, Watt, & Butcher, 2013). Another example of a college preparatory program is University of Wisconsin-Madison's PEOPLE. This program focuses on reaching out to elementary-school children, specifically from first to fourth grade, to make sure they do not fall behind in math, writing or reading (People prep, 2006). THINK COLLEGE NOW, submerges California kindergarteners into college by taking them to college campuses, using college student tutors, and college language (Wilson, 2007). Pathways is a week-long summer preparatory program that helps students see their ability to be in higher education (Ng, Wolf-Wendel, & Lombardi, 2014). All four of these programs take a little different approach to help prepare students of different ages for college. These are just four of the many preparatory programs that help students become more college and career ready. Research on these programs indicated positive impacts on a student's ability to succeed. Preparatory programs have also been known to make students more optimistic about eventually attending a college (Ng, Wolf-Wendel, & Lombardi, 2014). The more students can experience quality and challenging coursework the more likely they will align with higher education expectations (Kirst & Venezia, 2006). College preparatory programs such as these can offer academic rigor through advanced coursework that students need to be college ready.

Within rural communities, research has shown preparatory programs have a positive impact in both high- and low-poverty communities (Irvin, Meece, Byun, Farmer, & Hutchins, 2011) and become more important with the increase in degree seeking students. In fact, Meece et al. (2011) found that 90% of rural youth aspire to obtain a

degree from an institution of higher education (p. 1) and these preparatory programs provide students with the chance of obtaining higher test scores, better grades and more chances for rigorous course work. These elements have proven to be indicators for college enrollment and completion (Roderick, Nagaoka, & Coca, 2009). Providing students with equal opportunities in these programs can increase a student's educational aspirations and their desire to obtain a college degree despite their family background.

Continuous preparation for the rigor of high school and college is important to help students prepare for future careers as rural communities continue to face higher unemployment rates, 6.6% (Johnson, Showalter, Klein, & Lester, 2014), than the national average, 6.1% (United States Department of Labor, 2014). These unemployment rates are due to the decline in rural employment opportunities, farming, manufacturing, etc., that are no longer available to individuals with only a high school diploma (Meece et al., 2011a). Students, especially in rural environments, need to be provided with resources about college and vocational opportunities so they can obtain the necessary education for employment within their community or to support it from afar; both contribute to the economic revitalization of rural America.

If educators can support and guide students through the elementary to eighth grade, it is more likely that students will be college and career ready by the time they graduate high school (ACT, 2008). Preparing students for high school in the middle grades can make the transition from middle school to high school more successful; a transition just as important as from high school to college (ACT, 2008). Providing preparedness programs for all rural students can close the education deficit and provide students with an equal opportunity to obtain the college or career education they need.

“Ultimately, we must reduce the number of students who are seriously underprepared by the end of middle school, which will require interventions well before grade 8” (ACT, 2008, p. 36).

Factors Influencing Aspirations of Higher Education

Many factors contribute to how individuals, including youth, see the world around them. Students are exposed to a number of situations that influence their aspirations of higher education. Meece et al. (2011c) indicated that rural students get their information about their future from parents, friends, teachers and school counselors (p. 1). These external influences are fairly prevalent in students’ lives, but others such as geographical influences are more difficult to address. This can hinder or aid students’ perceptions of college just as much. External factors and information they receive starts to mold their perceptions of everything they do, including their future aspirations and career choices. In another study, Meece et al. (2011b) found that less than one third of our rural youth are hindered from going to college because of significant barriers (p. 1). In fact, the researchers determined the three most influential factors were personal, such as: “getting married, having to support the family, and having to move away” (Meece et al., 2011b, p. 1). These internal influences impact a student’s future aspirations. By providing students with the proper preparation and external information, students can consider various career paths. These are just a handful of the influences that impact a youths’ perceptions and future aspirations.

A major impact on rural youth’s college aspirations and knowledge about college is location. Though students in rural communities may have more school, family and community support, geographical isolation can limit students’ access to career and

college information (Meece et al., 2011d). Geographical isolation serves as a barrier to students in rural communities, because they may be less likely to strive for higher paying or prestigious jobs if they are not accustomed to seeing people in them. Often students' educational aspirations are lowered because they do not need a degree to have a career in their community (Irvin, Meece, Byun, Farmer, & Hutchins, 2011). To help students realize their potential, schools should find ways to expose students to careers that may not be represented in their community (Woodand & Kaszubowski, 2008). This may challenge their previous aspirations and increase students' desire to obtain a college degree.

Rural schools' geographical locations are also affecting their ability to hire and retain teachers capable of teaching advanced courses (as cited by Irvin, Meece, Byun, Farmer, & Hutchins, 2011). These teachers may not want to come to rural areas for a variety of reasons, and the resulting educational deficiency can have negative influences on students' aspirations of higher education. Larger schools are also often able to provide their students with more advanced courses and college preparatory programs (Meece et al., 2011d). The lack of teachers able to teach advanced courses, and provide students with college and career prep programs in rural communities, is affecting the aspirations for higher education in these communities. Regardless of students are underprepared or not sure of their options, "studies indicate that rural youth are less likely than their metropolitan counterparts to achieve their educational goals" (Irvin, Meece, Byun, Farmer, & Hutchins, 2011, p. 13). Students in more remote rural areas are even less likely to attend or desire to attend an institution of higher education (Meece et al., 2011d). This means that educators in rural communities need to do more than before to

increase the quality of education for rural students to help decrease the effects of geographical barriers and prepare them for continued education past high school. However, this does not mean that all of the responsibility lies in the hands of the educators.

Research has proven that parental or guardian expectations play into students' aspirations of higher education. Multiple studies have indicated this correlation between students' aspirations for higher education and parental influence (Meece et al., 2011d; Ng, Wolf-Wendel, & Lombardi, 2014; Woodand & Kaszubowski, 2008). In fact, 72% of rural high school students talked to their parents or guardians about future plans (Griffin, Hutchins, & Meece, 2011). Knowing parents and guardians play such crucial role, schools need make sure they are supporting parents and providing them with resources about higher education, especially to parents who have not obtained a college degree. Providing financial information to families will allow them to see how they can support their child and help families begin saving money (Camblin, 2003). Students from families who have not had a family member go through college, referred to as first-generation students, need this extra guidance to make sure they are considering college and know the steps of preparing for and applying to college (Breakthrough Collaborative, 2010). Schools are tasked with not only supporting the students, but showing the families how to contribute to their students' education. Saenz, Hurtado, Barrera, Wolf and Yeung (2007) discovered first-generation students are encouraged to go to college now more than ever by their parents (p. 2). This student parent/guardian relationship can play a vital role in a child's future success. Parents and guardians play a major role in the development of their children and parents may need support, especially if they have never

attended college themselves. If parents and guardians can influence their child's aspirations, they will be more likely to aspire to attend an institution of higher education and be successful (Camblin, 2003). Their first-generation student may need additional support to aspire and succeed in college.

First-generation students face many different challenges including lower aspirations due to a lack of knowledge about college and financial difficulties (Ellison, Wohn, & Greenhow, 2014; Gibbons & Borders, 2010). These students generally have lower perceptions and aspirations for themselves and are less likely to attend an institution of higher education compared to individuals with a parent or guardian who attended college. Ellison, Wohn and Greenhow (2014) suggest increasing social capital of first-generation students, meaning individuals need to cultivate ties with others that affect their development (p. 518). Studying the influence that social media has on increasing social capital of first-generation students they conclude that developing diverse connections helps create new aspirations (p. 529). Helping first-generation students develop relationships outside of their worldview can help them see different opportunities and build college aspirations.

Though they may develop college aspirations they may need help selecting colleges that fit their needs. First-generation students place institutional financial factors, distance from home, institution size, academic standards, and preparation for graduate or professional school in high regard when selecting a college (Saenz et al., 2007). Since these students are the first in their family to attend college they may come from a lower socioeconomic class and choose to attend a private college for more financial assistance. They also feel more comfortable being close to home or in smaller institutions. This may

limit their educational and vocational choices, and may even hinder their ability or aspiration to attend college depending on where they are located, even if they desire continued education.

These first-generation students can receive extra support from teachers and school counselors. Teachers and counselors play a major role in providing students with the resources they need to feel prepared for college and succeed and provide students with various extracurricular and enrichment activities that provide them with opportunities to prepare for future aspirations (College Board Advocacy & Policy Center, 2012).

Preparing students early can provide them with a positive self-concept and help them boost their self-esteem. Research indicates a potential drop in self-esteem happens around sixth grade (Mullins & Irvin, 2000) making it even more critical for teachers to continue working on this issue. Building students' self-esteem can provide them with better work habits and help them realize their work habits are related to their ability to succeed (Balfanz, 2009). Students also place more importance on school if they believe that they can set and reach goals (Ng, Wolf-Wendel, & Lombardi, 2014). Teachers and counselors need to make sure they are focusing on not only academic development, but students' internal perceptions and other non-cognitive skills that can benefit a student's ability to succeed. Non-cognitive skills include social problem-solving skills, help-seeking behavior and time management (Roderick, Nagaoka, & Coca, 2009). Rural schools can be especially influential in this area with their smaller teacher-student ratios and their ability to build relationships and understand what students need to achieve, laying the foundation for further exploration of interests and students' abilities.

“Students' early planning can grow into habits that are critical for success in college and

career readiness” (College Board Advocacy & Policy Center, 2012, p. 12). Knowing that student habits are influenced early makes educators’ roles important from day one.

Research also indicates other factors affect the aspirations of youth in rural communities. Peers play an important role in influencing each other to attend college (Breakthrough Collaborative, 2010). Research done by Meece et al. (2011b) indicated that not wanting to leave friends was a major reason for why rural students did not want to attend college (p. 1). Students have a higher chance of attending college if they have peers that desire college attainment as well. This research also indicated that getting married and needing to support the family play a role in rural students decision to attend higher education as well (Meece et al., 2011b). Cultural and academic expectations based around race, poverty, family situations and family education levels directly influence a student’s aspirations of higher education and their ability to succeed (Cooney, 2001). Even though these factors may be more difficult to address, they can still be compensated for with proper education and support.

As the literature points out, rural communities often face barriers in providing students with college preparation. Researcher results also indicate there are positives with rural education. Rural schools can offer a small, closely connected atmosphere that contributes positively to youth development (Meece et al., 2011c). They are also able to increase educational achievement and aspirations by increasing the perceptions of students’ abilities, making the students feel valued, and providing students with college preparation (Irvin, Meece, Byun, Farmer, & Hutchins, 2011). Irvin, et al. (2011) indicate that school size is not a direct predictor of educational aspirations (p. 1236). However, rural schools are generally smaller schools associated with lower student-teacher ratios,

which can help increase student achievement (Irvin, Meece, Byun, Farmer, & Hutchins, 2011). Rural communities may lack the necessary resources to provide all students with an equal opportunity for college preparatory programs, but they do have some advantages that, if they capitalize on them, can help prepare rural students for college and future careers.

Current Recommendations for Schools

Many factors impacting students' aspirations of higher education cannot be directly influenced. Schools provide an area where each student should have an equal opportunity to learn and to develop the life skills that they need to be successful in this world. Schools that have teachers with low expectations, less effective instructional strategies, less counseling contact, and fewer college preparatory classes often face issues with college and career readiness (Camblin, 2003). Schools need to evaluate the areas in which they are not meeting standards for college and career readiness to decrease the achievement gap with the resources available. This also means that college readiness standards need to be developed to ensure high school courses are teaching students skills needed for college (Conley, 2007).

Specifically, rural communities need to focus on working career development into the curriculum (Woodand & Kaszubowski, 2008) and have teachers and counselors encourage students to continuously discuss future careers (Meece et al., 2011a).

Teachers can start these conversations early as studies indicate "career development should be included in the elementary school curriculum" (Woodand & Kaszubowski, 2008, p. 442). Getting students on the college-driven mindset early is difficult in rural communities that lack the necessary resources, but these communities need to view

education as an investment. Many communities thrive from and rely on the education of their youth to make the community sustainable (Meece et al., 2011d). If communities and educators work together to set educational priorities and goals, they can help diminish some of the gaps in education and help provide a positive outlook for their community. Collaboration with other schools around the communities can engage parents and students in educational opportunities that can expand their visions of the future (College Board Advocacy & Policy Center, 2012).

Rural education is especially important in Nebraska as 30.4% of Nebraska's population attends a rural school (National Center for Education Statistics, 2012). Starting to focus on grade level proficiency in math and reading can help increase the standards of education in Nebraska and increase the chances of obtaining access into institutions of higher education (College Board Advocacy & Policy Center, 2012). The College Board Advocacy and Policy Center (2012) also suggests providing "developmentally appropriate college interventions for grades K-2 and 3-5" (p. 3). Continuous interventions with elementary students can keep them on appropriate grade-level performance and prepare them for the rigors of middle school, high school and higher education even if these students face barriers.

As the research shows, rural communities and families face geographic isolation (Meece et al., 2011d), high poverty rates (USDA, 2014) and low visibility to institutions of higher education as institutions are generally in the larger metropolitan areas. Rural communities do provide a supportive and communal atmosphere where parents, teachers, peers and community members all play an important role in the perceptions students' have about higher education (Meece et al., 2011c). Positive influence from all these

individuals can help promote the college, driven mindset and create a culture around higher education that begins in kindergarten and continues through high school. Endorsing future education is especially important for rural communities as they face issues with poverty and rely on their youth for community development (Meece et al., 2011a). Many of the jobs now require some form of higher education. Trends indicate that, by the year 2018, only 36% of the 46.8 million jobs the American economy is supposed to create or turnover will require only a high school diploma or less, with the remaining 63% requiring some sort of college education (Carnevale, Smith, & Strohl, 2010). Carnevale, Smith, and Strohl (2010) also point out that “only 42 percent of Americans currently earn an associate degree or higher by the age of 25” (p. 2). These facts should concern educators as the students who pass through their doors are the future of our economic systems. Schools need to continue to look at how they are preparing students for the future and provide the appropriate college and career preparation needed to contribute to society. Rural communities especially need to focus on their youth being prepared for careers and higher education because these communities rely on them to sustain the rural lifestyle (Meece et al., 2011a). This means starting to develop a college or career-driven mindset in students early and not just in high school, while taking into consideration the implications brain drain may have on the community. The middle years of a child’s life have a large impact on their future aspirations and is the start of academic preparation for college (Camblin, 2003), but many rural communities often do not have the resources available to provide preparatory classes for rural students. How rural schools use the communities’ resources will play a major role in the aspirations of higher education and achieve academic success.

Summary

As indicated in the current literature, there are many different factors that influence the aspirations of higher education. Internal factors, such as an obligation to their family or marriage (Meece et al., 2011b), and external factors, including geographic isolation (Meece et al., 2011d), interactions with peers, parents or guardians, educators, and school counselors (Meece et al., 2011c) affect the aspirations and possibility of continued education. Many of the nation's students are not fully prepared to go to college and therefore they are not enrolling in higher education or they are needing remedial education to bridge the gap between high school and higher education. This is a problem for the government as remedial education is costing the government over a billion dollars a year (Davis, 2006). This is due partially to the fact that some schools are not able to provide appropriate course work or college preparatory courses due to a lack of resources and ability to hire more educated teachers who accept employment at more affluent schools in larger communities (as cited by Irvin, Meece, Byun, Farmer, & Hutchins, 2011). These effects are especially seen in rural communities as they are among some of the poorest in the nation and students from these impoverished communities are dropping out at more than twice the national average (Provasnik et al., 2007). Students dropping out of school has a major impact on the status of rural communities as they rely on the youth to stimulate the economy and preserve the culture of the community. These communities have a lower number of degree holders which is correlated with lower community support for academics (Johnson, Showalter, Klein & Lester, 2014). This lack of support is contributing to brain drain in many of these areas as the higher achieving students are pursuing advanced degrees, while the lower

achieving student may not be ready for continued vocational training or education.

Proper investment helps bridge educational gaps while helping them feel more connected to the community, making them more willing and able to contribute positively to the economy (Pettrin, Farmer, Meece & Byun, 2011).

To help rural communities preserve their heritage and keep their community stimulated, rural education needs to make sure they are focusing on college and career readiness. College and vocational preparatory programs can help close the educational gap within rural schools and provide students with the opportunity to explore career or educational paths they may not have considered. Especially, as continual economic changes require more advanced training and degree holders. With 90% of rural youth aspiring to obtain a degree (Meece et al., 2011) rural communities need to continue to invest in all of their youth to make sure all are academically prepared to seek out continued education and contribute to society, including professions in the postindustrial, alternate energy or food production labor force. The current research shows that providing preparatory programs for students early can be beneficial to meeting educational and career goals. Though some of the literature incorporates starting college preparatory programs in elementary schools, much more research needs to be done in this area, especially with rural students. Most of the literature reports on research done around college and career readiness in the middle or high school grades. This research excludes a very valuable time in the lives of these students as those grades are directly influenced by experiences in elementary schools. Being aware that the literature suggests starting to develop college and career aspirations in youth, this research adds to the literature by looking at rural Nebraska fourth grade students to see if they have even

begun to developing aspirations to attend college or if they know what college is and the factors that could be influencing those decisions.

Chapter 3

Methodology

Hypotheses

This study examined rural elementary student's aspirations of higher education and what may be influencing their aspirations. By testing the hypotheses, assumptions may be able to be made about the factors influencing the students' aspirations of access to higher education. The null hypotheses being tested are (each number correlates with the numbers associated with the research questions in chapter 1):

1. Rural fourth grade students in Nebraska have not considered attending an institution of higher education.
2. Rural fourth grade students in Nebraska do not want to go to an institution of higher education.
3. Rural fourth grade students in Nebraska do not think they can attend an institution of higher education.
4. Rural fourth grade students in Nebraska do not think going to an institution of higher education is important.
5. Parents do not influence the aspirations of attending higher education of rural fourth grade students in Nebraska.
6. Teachers do not influence the aspirations of attending higher education of rural fourth grade students in Nebraska.
7. School counselors do not influence the aspirations of attending higher education of rural fourth grade students in Nebraska.

8. Peers do not influence the aspirations of attending higher education of rural fourth grade students in Nebraska.
9. Having a parent or guardian who went to an institution of higher education does not influence the aspirations of attending higher education of rural fourth grade students in Nebraska.
10. Having a sibling attend an institution of higher education does not influence the aspirations of attending higher education of rural fourth grade students in Nebraska.

Survey Research

Research with children can be difficult as many factors need to be considered including: cognitive ability, literacy, parental and peer influences, research setting, and many other factors, all which can influence the research process (Barker & Weller, 2003). This study used quantitative survey methods to gather data from a large number of participants. Surveys allow for collection of information from a broad number of participants and “rely on individuals’ self-reports of their knowledge, attitudes, or behaviors” (Mertens, 2010, pp. 173). These self-reports can be skewed or misleading based on one’s perception of the question being asked.

With any research instrument there are positives and negatives associated with the data collection methods. One positive is that surveys and large-scale data collection allow children to be compared to others in a broad perspective (as cited in Barker & Weller, 2003). Children may also associate surveys with tests, which can increase attention to the questions helping provide more accurate data (Scott, 1999). However, Barker and Weller (2003) would argue that surveys are often seen as not being child

friendly and boring to students (p. 48). Surveys also do not allow for students voices to be heard (Barker & Weller, 2003). All of these perspectives should be considered when choosing a data collection method.

The research participants were fourth grade students who are generally nine or ten years old. Scott (1999) indicates that by the time students are eleven they are able to articulate their thoughts and perceptions much like adults (pp. 102). Before this, children at the age of seven begin gaining control of their responses to questions and decide what they want to reveal (Scott, 1999). By the time students are eleven they are also able to use standardized questionnaires and respond accurately as long as the questions are age appropriate (Scott, 1999). Understanding that the participants of this study are under the age of eleven, the survey was reviewed by two practicing elementary education professors to help standardize the survey and make it age appropriate. With their assistance the questions were made valid. Understanding what age the participants are and what is appropriate to their age range makes survey research an acceptable method of research. This data gathering method was chosen for convenience as time was a factor, and it allowed for a larger sample size to make the results more generalizable. The results of this study help provide baseline data on students' aspirations that can be further investigated in other studies.

The survey also used ordinal data, which, are data that are in an ordered sequence in terms of size or magnitude (Gravetter & Wallnau, 2013). This type of data allows the researcher to determine the direction of the difference if there is a difference (Gravetter & Wallnau, 2013). Though the researcher is able to see the difference they cannot accurately “determine the size of the difference between two individuals” (Gravetter &

Wallnau, 2013, p. 24). The study used a four point Likert-scale that has assigned literal phrases for each value (outlined in the *Instrument* section of this chapter). Though the phrases have an assigned value this scale is completely arbitrary. Each value may mean something completely different to each individual. For example, “once in awhile” may mean something completely different to two students. The weight of this scale completely relies on one individual’s perception of the values. If two participants answer a question the same it cannot be stated with complete certainty that an answer is equal. Though ordinal data relies on an individual’s perception of the scale it is appropriate for trying to gather baseline data to order students into a hierarchy from high to low (Coaley, 2010). In this study, an example of a hierarchy would be if students were placed in an order regarding their aspirations of going to college from those who think they will go to those who do not think they will go.

Participants

Rural communities can be classified in many different ways, since there is no set definition of rural. The United States Census Bureau (2010) defines rural as encompassing what urban areas do not, meaning having less than 2,500 people in a community (pp. 1). This report utilized this classification of rural communities to gather data.

Study participants were drawn from ten fourth grade classrooms in five rural schools in Nebraska. Each school’s superintendent in the academic conference was contacted via email and asked to allow the fourth graders to participate in this research. Schools either confirmed their participation by sending a letter of support from the superintendent or elementary school principal. These schools were all part of the same

conference and located in rural communities as defined above. The student population is primarily Caucasian, which matches the demographics of Nebraska as 89.7% of the population identifies as White (United States Census Bureau, 2014).

There are a total of 152 fourth graders in the surveyed schools. Each student was given a letter to take home to receive parental or guardian permission before taking the survey, 71 out of 152 students (47%) participated in this survey.

Instrument

The survey consisted of ten questions based on the themes in the literature review. Eight of the ten items were based on a modified four point Likert scale where 1 was either listed as “Never,” “No,” or “Not at all important;” 2 was either “Not very much,” “Probably not,” or “Not very important;” 3 was either “Once in awhile,” “Probably yes,” or “Probably important;” and 4 was either “Often,” “Yes,” or “Yes it is important.” Two of the ten items were Polar questions which allowed the students to answer “yes” or “no” with a third option if they were unable to answer the question.

Procedure

After Institutional Review Board (IRB) and school approval from the superintendent, a packet was mailed to each school. This packet contained instructions for the superintendent or principal, instructions for each teacher, 50 parental permission forms, including a copy for the parents to keep, 50 surveys for each school and a return envelope for the permission forms and surveys. The superintendents or principals were the main point of contact for each school and handled the communication between the teachers and the researcher. The teachers were however given the researcher’s email and phone number if any questions arose. The superintendents or principals were instructed

to give the surveys and parental permission forms to the teachers. The teachers sent out the parental permission forms, along with a copy, to the parents or legal guardians of the children and collected the forms as they returned.

Once the parental permission forms were returned, the teachers chose a time convenient for them to give the 15-minute survey to the students. If there were non-participant students in the classroom, they were allowed to read or do whatever assignment the teacher gave them. For consistency, the teachers were instructed to read a provided statement of instructions for the students before administering the survey. After the survey was completed, the teacher collected the surveys and returned them along with the parental permission forms to the school superintendent or principal. The superintendent or principal then placed all the parental permission forms and surveys in the return envelope and dropped them in the mail. After the surveys were received, the scores were entered into a database and analysis was run using SPSS.

Factors were then compared with each other to see if there was any correlation between aspirations of college and influence coming from the students' parents, guardians, teachers, school counselors, or peers. The factors also looked at if the student's parents or guardian had attended college or if they had siblings who attended college.

Limitations

Limitations to this study include the convenience sampling of the population. The sample population is only one area of the Midwest and only encompasses a small portion of rural America. It also only consists of five rural schools all from the same athletic conference. These schools are all made up of similar demographics that limits

experiences from different backgrounds and cultural influences, potentially producing similar survey responses. The other limitation stems from doing quantitative analysis. Using survey research can be intimidating to students and requires high literacy skills. If students associate a survey to a test they could answer in a way that does not accurately portray their opinions, but instead reflects what they perceive as the “correct” answer. Surveys also require literacy skills to understand and properly interpret the prompt or question. Students may incorrectly answer a question based on their understanding of it.

Delimitations

The research study included students who were the fourth grade students and had the survey administered to them by their teachers, which may have created a climate of authority between the teacher and the child, thus creating perceived desirable answers. The teachers administered the survey because the teachers already had a relationship with the students, and this provided the least amount of change to the environment as opposed to having the researcher administer the survey. Another delimitation was that only one athletic conference in Nebraska was included in the research. Other schools were not provided the opportunity to participate. This was done to keep the demographics of the population similar. The students were also surveyed towards the end of the calendar year, often associated with testing. This could have been beneficial as students are in test taking mode or detrimental if students are tired of test taking.

Personal Narrative

Being from a rural community, I never really understood how fortunate I was to be given the opportunity to attend an institution of higher education. My parents had never had the opportunity to attend college but had always preached attending college

since they saw the importance of it; anything else was never really an option. I began studying elementary education and developed a passion for education. As I continued into my Master's program and became aware of issues surrounding higher education, I started recognizing that many of the peers I went to high school with did not attend an institution of higher education or did not realize the importance until later in their life. Many of my peers went into the workforce and stuck around our community working jobs that did not require a college education. Recently becoming aware of this has led me to be interested in educational issues surrounding rural communities, especially issues surrounding college aspirations. This background could affect my assumptions and perceptions of the data collected.

Chapter 4

Results

Descriptive Findings

The data collected via paper surveys were imputed into SPSS and the NEAR Center, the University of Nebraska Evaluation and Research Center, was consulted during the analysis stage to ensure accuracy of the statistical analysis regarding the hypotheses. Since the survey was based on a four point Likert scale, a score of three was used as a baseline for rejecting or failing to reject the null hypotheses.

Before multiple regression tests were conducted, a correlation test was performed on the first four items that related to the first four questions on the survey. They are Thought@College, defined as looking at if the student has thought about college, GoToCollege, defined as looking at if the student desires going to college, OverallConfidence, defined as looking at if the student thinks they have the ability to go to college, and Important, defined as if the student thinks college is important. Looking at the inter-item correlation matrix (See Table 1) the correlation the four items, including OverallConfidence, yielded a Cronbach's Alpha of .591 (See Table 2). After removing item 3 the correlation yielded a Cronbach's Alpha of .671 (See Table 3), an increase of eight percent internal reliability between items. De Vaus suggests that a Cronbach's Alpha score below a .3 is weak (as cited in Griffin, 2005). Therefore, these three items were paired into one item, Aspirations, as they most closely measured the aspirations of the sample. OverallConfidence was later run as a separate regression tests. The Corrected Item-Total Correlation, which shows the strength of the correlation for each item compared to OverallConfidence, can be found in Table 4.

Table 1
Inter-Item Correlation Matrix

Factor	Thought@College	GoToCollege	OverallConfidence	Importance
Thought@College	1.00	.473	.105	.377
GoToCollege	.473	1.000	.090	.489
OverallConfidence	.105	.090	1.00	.149
Importance	.377	.489	.149	1.000

Table 2
Reliability Statistics including OverallConfidence

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.591	.609	4

Table 3
Reliability Statistics after removing OverallConfidence

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.671	.707	3

Table 4
Item-Total Statistics after removing OverallConfidence

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Thought@College	7.70	.726	.500	.252	.620
GoToCollege	7.30	.954	.563	.336	.469
Important	7.14	1.351	.495	.266	.628

A summary of each statistical test for the hypotheses can be found below an explanation of the statistics can be found in Chapter 5. In the following results 1, 2, 3 and 4 will be used to represent the four point Likert scale used in the analysis and on the survey. One indicates the lowest possible score and four indicates the highest possible score for a question.

Statistical test for hypothesis 1. The first null hypothesis was that rural fourth grade students in Nebraska have not considered attending an institution of higher education. To test this hypothesis an independent samples t-test was performed. The analysis found that the mean score for item 1, Thought@College, was 3.37 (See Table 5). This mean was significantly higher than the student answering 1, 2 or 3 (See Tables 6, 7 and 8), but was significantly lower than the student answering 4 (See Table 9). These results yield a statistically significant score above 3 rejecting the null hypothesis, $t(70)=4.058$, $p<.05$, $MD=3.66$ (See Table 8).

Statistical test for hypothesis 2. The second null hypothesis was that rural fourth grade students in Nebraska do not want to go to an institution of higher education. To test this hypothesis an independent samples t-test was performed. The analysis found that the mean score for item 2, GoToCollege, was 3.77 (See Table 5). This mean was significantly higher than the student answering 1, 2 or 3 (See Tables 6, 7, and 8), but was significantly lower than the student answering 4 (See Table 9). These results yield a statistically significant score above 3 rejecting the null hypothesis, $t(70)=11.057$, $p<.05$, $MD=.775$ (See Table 8).

Statistical test for hypothesis 3. The third null hypothesis was that rural fourth grade students in Nebraska do not think they can attend an institution of higher education. To test this hypothesis an independent samples t-test was performed. The analysis found that the mean score for item 3, OverallConfidence, was 3.62 (See Table 5). This mean was significantly higher than the student answering 1, 2 or 3 (See Tables 6, 7, and 8), but was significantly lower than the student answering 4 (See Table 9). These results yield a

statistically significant score above 3 rejecting the null hypothesis, $t(70)=10.094$, $p<.05$, $MD=.620$ (See Table 8).

Statistical test for hypothesis 4. The fourth null hypothesis was that rural fourth grade students in Nebraska do not think going to an institution of higher education is important. To test this hypothesis an independent samples t-test was performed. The analysis found that the mean score for item 4, Important, was 3.93 (See Table 5). This mean was significantly higher than the student answering 1, 2 or 3 (See Tables 6, 7, and 8), and was not significantly lower than 4, $t(70)= -1.521$, 2-tailed, $p>.05$, $MD=-.070$ (See Table 9). This indicates the students found college to be important as the mean was close to 4 ($M=3.93$). These results yield a statistically significant score above 3 rejecting the null hypothesis, $t(70)=20.083$, $p<.05$, $MD=.930$ (See Table 8).

Table 5
One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Thought@College	71	3.37	.760	.090
GoToCollege	71	3.77	.590	.070
OverallConfidence	71	3.62	.517	.061
Important	71	3.93	.390	.046

Table 6
One-Sample Test 1

	Likert Score Indicated = 1					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Thought@College	26.219	70	.000	2.366	2.19	2.55
GoToCollege	39.604	70	.000	2.775	2.63	2.91
OverallConfidence	42.671	70	.000	2.620	2.50	2.74
Important	63.292	70	.000	2.930	2.84	3.02

Table 7
One-Sample Test 2

	Likert Score Indicated = 2					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of Difference	
					Lower	Upper
Thought@College	15.138	70	.000	1.366	1.19	1.55
GoToCollege	25.331	70	.000	1.775	1.63	1.91
OverallConfidence	26.383	70	.000	1.620	1.50	1.74
Important	41.688	70	.000	1.930	1.84	2.02

Table 8
One-Sample Test 3

	Likert Score Indicated = 3					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Thought@College	4.058	70	.000	.366	.19	.55
GoToCollege	11.057	70	.000	.775	.63	.91
OverallConfidence	10.094	70	.000	.620	.50	.74
Important	20.083	70	.000	.930	.84	1.02

Table 9
One-Sample Test 4

	Likert Score Indicated = 4					
	T	Df	Sig (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Thought@College	-7.023	70	.000	-.634	-.81	-.45
GoToCollege	-3.217	70	.002	-.225	-.37	-.09
OverallConfidence	-6.194	70	.000	-.380	-.50	-.26
Important	-1.521	70	.133	-.070	-.16	.02

Statistical test for hypothesis 5. The fifth null hypothesis was that parents do not influence the aspirations of attending higher education of rural fourth grade students in Nebraska. To test this hypothesis a multiple regression test was performed looking at how students answered question number five on the survey, “My parents or guardians talk to me about going to college,” and their answers for the Aspirations items, which included Thought@College, GoToCollege and Important, holding everything else constant. The statistical analysis indicated that question number five, labeled ParentsGuardians, was statistically significant, rejecting the null hypothesis, $F(1, 69)=20.625$, $b=.298$, $p<.05$ (See Table 10 and 11). Table 12 shows the correlation between these factors.

Statistical test for hypothesis 6. The sixth null hypothesis was that teachers do not influence the aspirations of attending higher education of rural fourth grade students in Nebraska. To test this hypothesis a multiple regression test was performed looking at how students answered question number six on the survey, “My teachers talk to me about going to college,” and their answers for the Aspirations items holding everything else constant. The statistical analysis indicated that question number six, labeled Teachers, was not statistically significant, which fails to reject the null hypothesis, $F(1, 69)=.640$, $b=.058$, $p>.05$ (See Table 10 and 11). Table 12 shows the correlation between these factors.

Statistical test for hypothesis 7. The seventh null hypothesis was that school counselors do not influence the aspirations of attending higher education of rural fourth grade students in Nebraska. To test this hypothesis a multiple regression test was performed looking at how students answered question number seven on the survey, “The

school counselor talks about college,” and their answers for the Aspirations items holding everything else constant. The statistical analysis indicated that question number seven, labeled Counselor, was not statistically significant, which fails to reject the null hypothesis, $F(1, 69)=.091$, $b=.020$, $p>.05$ (See Table 10 and 11). Table 12 shows the correlation between these factors.

Statistical test for hypothesis 8. The eight null hypothesis was that peers do not influence the aspirations of attending higher education of rural fourth grade students in Nebraska. To test this hypothesis a multiple regression test was performed looking how students answered number eight on the survey, “My friends talk about going to college,” and their answers for the Aspirations items holding everything else constant. The statistical analysis indicated that question number eight, labeled Friends, was not statistically significant, which fails to reject the null hypothesis, $F(1, 69)=1.617$, $b=-.088$, $p>.05$ (See Table 10 and 11). Table 12 shows the correlation between these factors.

Statistical test for hypothesis 9. The ninth item on the survey, “One or both of my parents or guardians went to college,” was dismissed. Using the Likert scale, the responses from the student sample only answered “Yes,” associated with a Likert score of 2, or “I don’t know,” associated with a Likert score of 3, on the survey (See Table 13). None of the participants answered “No,” associated with a Likert score of 1. Therefore, analysis could not be run because there was only a constant, 2, as the variable does not change between 1 and 2. The students who answered “I don’t know” could not be used because it is too vague. There can be many different reasons why students circled this answer.

Statistical test for hypothesis 10. The tenth null hypothesis was that having a sibling attend an institution of higher education does not influence the aspirations of attending higher education of rural fourth grade students in Nebraska. To test this hypothesis a multiple regression test was performed looking at how students answered number ten on the survey, “My brother or sister went to college or is in college,” and their answers for the Aspirations items holding everything else constant. The statistical analysis indicated that question number ten, labeled BroSis, was not statistically significant, which fails to reject the null hypothesis, $F(2, 69)=.273$, $p>.05$ (See Table 10 and 11).

Though only one of these items was statistically significant individually, ParentsGuardians, when all the items are looked at as a whole and combined into one factor (See the Corrected Model) they all work together to have a significant influence on aspirations, $F(6, 69)=4.812$, $p<.05$ (See Table 10).

Table 10
Tests of Between-Subjects Effects

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4.793 ^a	6	.799	4.812	.000
Intercept	34.745	1	34.745	209.301	.000
ParentsGuardians	3.424	1	3.424	20.625	.000
Teachers	.106	1	.106	.640	.427
Counselor	.015	1	.015	.091	.764
Friends	.268	1	.268	1.617	.208
BroSis	.091	2	.045	.273	.762
Error	10.292	62	.166		
Total	952.556	69			
Corrected Total	15.085	68			

a. R Squared = .318 (Adjusted R Squared = .252)

Table 11
Parameter Estimates Aspirations

Dependent Variable:	Aspirations				95% Confidence Interval	
	Parameter	<i>b</i>	Std. Error	t	Sig.	Lower Bound
Intercept	3.039	.226	13.465	.000	2.588	3.490
ParentsGuardians	.298	.066	4.542	.000	.167	.429
Teachers	.058	.072	.800	.427	-.086	.202
Counselor	.020	.067	.302	.764	-.114	.154
Friends	-.088	.069	-1.271	.208	-.226	.050
[BroSis=1]	-.094	.141	-.664	.509	-.375	.188
[BroSis=2]	-.112	.169	-.662	.510	-.450	.226
[BroSis=3]	0 ^a					

a. This parameter is set to zero because it is redundant.

Table 12
Correlations Aspirations

		Aspirations	ParentsGuardians	Teachers	Counselor	Friends
Aspirations	Pearson Correlation	1	.521**	.272*	.193	.121
	Sig. (2-tailed)		.000	.023	.106	.314
	N	71	70	70	71	71
ParentsGuardians	Pearson Correlation	.521**	1	.380**	.259*	.482**
	Sig. (2-tailed)	.000		.001	.031	.000
	N	70	70	69	70	70
Teachers	Pearson Correlation	.272*	.380**	1	.503**	.369**
	Sig. (2-tailed)	.023	.001		.000	.002
	N	70	69	70	70	70
Counselor	Pearson Correlation	.193	.259*	.503**	1	.170
	Sig. (2-tailed)	.106	.031	.000		.157
	N	71	70	70	71	71
Friends	Pearson Correlation	.121	.482**	.369**	.170	1
	Sig. (2-tailed)	.314	.000	.002	.157	
	N	71	70	70	71	71

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 13
First Generation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	57	80.3	80.3	80.3
	3	14	19.7	19.7	100.0
Total		71	100.0	100.0	

OverallConfidence Results

Further analysis was run on the third survey item, labeled OverallConfidence, as an independent factor. This item on the survey was separated from Aspirations as it was not correlated with the other items, Thought@College, GoToCollege. or Important. The correlation ran indicated that OverallConfidence is not significantly correlated with the other items; ParentsGuardians; $r=-.001$, Teachers; $r=.058$, Counselor; $r=.163$, or Friends; $r=-.086$ (See Table 14).

A multiple-regression test was run looking at how the different items, ParentsGuardians, Teachers, Counselors, Friends and BroSis, influence OverallConfidence when they are held constant. The test generated results showing that only BroSis, item number ten on the survey, was statistically significant, $\text{Sig}=.001$ (See Table 15). For this item students were able to answer “No,” “Yes,” or “I do not have a brother or sister,” labeled 1, 2 and 3 in the study. Looking at how students answered BroSis yielded interesting results. There was only a statistical significance between OverallConfidence and those who indicated 2, or “Yes,” they do have a brother or sister who went to college or is in college, $F(2, 69)=7.508$, $p<.05$ (See Table 15 and 16). However, this item was negatively correlated, meaning there is a decrease in OverallConfidence for student who have a brother or sister who went to or is in college. Students who answered no had a similar effect, but not statistically significant.

Table 14
Correlations OverallConfidence

		OverallConfidence	ParentsGuardians	Teachers	Counselor	Friends
OverallConfidence	Pearson Correlation	1	-.001	.058	.163	-.086
	Sig. (2-tailed)		.994	.632	.176	.475
	N	71	70	70	71	71
ParentsGuardians	Pearson Correlation	-.001	1	.380**	.259*	.482**
	Sig. (2-tailed)	.994		.001	.031	.000
	N	70	70	69	70	70
Teachers	Pearson Correlation	.058	.380**	1	.503**	.369**
	Sig. (2-tailed)	.632	.001		.000	.002
	N	70	69	70	70	70
Counselor	Pearson Correlation	.163	.259*	.503**	1	.170
	Sig. (2-tailed)	.176	.031	.000		.157
	N	71	70	70	71	71
Friends	Pearson Correlation	-.086	.482**	.369**	.170	1
	Sig. (2-tailed)	.475	.000	.002	.157	
	N	71	70	70	71	71

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 15
Tests of Between-Subjects Effects

Dependent Variable:	OverallConfidence				
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4.121 ^a	6	.687	2.975	.013
Intercept	42.252	1	42.252	183.015	.000
ParentsGuardians	.010	1	.010	.042	.839
Teachers	.027	1	.027	.117	.734
Counselor	.622	1	.622	2.693	.106
Friends	.038	1	.038	.167	.684
BroSis	3.467	2	1.733	7.508	.001
Error	14.314	62	.231		
Total	917.000	69			
Corrected Total	18.435	68			

a. R Squared = .224 (Adjusted R Squared = .148)

Table 16
Parameter Estimates OverallConfidence

Dependent Variable:	OverallConfidence					95% Confidence Interval	
	Parameter	<i>b</i>	Std. Error	T	Sig.	Lower Bound	Upper Bound
Intercept	3.593	.266	13.500	.000	3.061	4.125	
ParentsGuardians	.016	.077	.204	.839	-.139	.170	
Teachers	-.029	.085	-.342	.734	-.199	.141	
Counselor	.130	.079	1.641	.106	-.028	.288	
Friends	.033	.081	.408	.684	-.130	.196	
[BroSis=1]	-.217	.166	-1.302	.198	-.549	.116	
[BroSis=2]	-.736	.200	-3.686	.000	-1.135	-.337	
[BroSis=3]	0 ^a						

a. This parameter is set to zero because it is redundant.

Table 17
Sibling Estimates

BroSis	OverallConfidence			95% Confidence Interval	
	Mean	Std. Error		Lower Bound	Upper Bound
1	3.680 ^a	.075		3.529	3.830
2	3.160 ^a	.139		2.883	3.438
3	3.896 ^a	.147		3.603	4.189

a. Covariates appearing in the model are evaluated at the following values: ParentsGuardians = 2.64, Teachers = 2.14, Counselor = 1.86, Friends = 2.48.

Looking at a comparison between how students answered “My brother or sister went to college or is in college” and OverallConfidence revealed two statistically significant results. First, it shows that there is a significant difference in OverallConfidence depending on if students answered “No” they do not have a sibling in college or “Yes” they do have a sibling in college, $p < .05$ (See Table 18). Secondly, the most significant result yielded that there is a difference in OverallConfidence depending on if students answered “I do not have a brother or sister” or “Yes” they do have a sibling

in college, $p < .05$ (See Table 18). There was no significant comparison between students answering 1 (No) or 3 (I do not have a brother or sister) (See Table 18).

Table 18
Pairwise Comparisons

Dependent Variable:		Overall Confidence	95% Confidence Interval for Difference ^b			
(I) BroSis		Mean Difference (I-J)	Std. Error	Sig. ^b	Lower Bound	Upper Bound
1	2	.519*	.164	.007	.115	.923
	3	-.217	.166	.593	-.626	.193
2	1	-.519*	.164	.007	-.923	-.115
	3	-.736*	.200	.001	-1.227	-.245
3	1	.217	.166	.593	-.193	.626
	2	.736*	.200	.001	.245	1.227

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Table 19
Between-Subjects Factors

BroSis	N
1	44
2	14
3	11

Summary of Findings

Within this quantitative study of rural fourth grade students in Nebraska several key results are discovered. First, using the base score of three to indicate statistical significance on a four point Likert scale, the results indicated the participants have thought about going to college, they want to go to college, they think they will be able to go to college, and they think college is important. Statistically this group of students has been introduced to, at the very least, the idea or concept of college and believe it to be important.

In addition after combining several questions into one grouping, Aspirations, to look at the aspirations of the participants to attend institutions of higher education the results show that the most influential factor, and only statistically significant factor in this study on Aspirations, is the parents or guardians of the students. No other factor, Teachers, Counselor, Friends, or having a brother or sister in college or one who attended college, BroSis, significantly affected aspirations. This finding demonstrates the importance of making sure parents and guardians have the proper resources and information needed to assist in helping their children build a mindset for continued education past high school. However, if all of these items, ParentsGuardians, Teachers, Counselors, Friends, and BroSis, are combined into one factor they do have an effect on aspirations, $p < .05$ (See Corrected Model under Source Column, Table 10).

When looking at OverallConfidence as an independent factor the results show that only the participants' answer to the statement regarding their siblings had a significant effect. When dividing these respondents into their perspective categories based on their response the results show that if a student answered "No," they do not have a brother or sister who went to college or is in college, indicated higher scores for OverallConfidence than those students who answered "Yes," they do have a brother or sister who went to college or is in college. In fact, students who answered "Yes," had the lowest scores for OverallConfidence, even to those students who indicated they do not have a brother or sister.

This chapter was a summary of the tests run in SPSS and the results those tests yielded researching the aspirations and overall confidence of rural Nebraska fourth

graders to attend institutions of higher education. The following chapter provides a discussion of the results and implications for future research.

Chapter 5

Discussion

Surveying rural fourth grade students in Nebraska provided insight on the factors that influence their aspirations of attending an institution of higher education. While many different factors can influence these students' aspirations or confidence, this study focused on the individuals students are exposed to the most, including: parents or guardians, teachers, school counselors, friends and siblings. As a fourth grader these individuals are the most prevalent influences in their life. These individuals influence their thoughts, actions, and even control events in the student's life. In this chapter, the researcher places the results of the study within the larger context of a fourth grade student's life and looks at how others affect aspirations of a rural Nebraska fourth grader.

Aspirations

When considering the aspirations of the participants to attend an institution of higher education, respondents indicated: they have considered attending an institution of higher education, they want to go, and they think it is important. This finding matches Meece's (2011b) finding that more rural youth are aspiring to continue their education after high school than ever before (p. 1). Understanding this dynamic is important for educators as they need to make sure they are properly preparing students for future education and are teaching a K-12 curriculum that prepares all students for college and career success. Preparing students for continued education could have several implications for rural communities, depending on the commitment to investment and the resources the communities are able to provide.

More students aspiring to go to college could negatively affect the economic stability of a community, as students may move to more affluent areas and further contribute to the rural brain drain. Taking away a community's tax payers, voters, and contributing members does not allow for economic growth and development within rural communities. This means the more educated citizens leave, while the less educated citizens are charged with the responsibility of investing in future youth. If more students desire higher-paying jobs and more affluent areas, communities will have to rely on those individuals who stay within the community or return to the community. This makes investing in all students, not just the high-achieving ones, imperative. The advantage of students having high aspirations for continued education is that students are striving for knowledge, communities need to find ways to put it in the hands of all students.

As previous research suggested, rural communities need to provide students with not only college preparatory programs, but also "vocational education" (Low, 2009, p. 340). This provides students who may not desire attending an institution of higher education with a different type of educational support to obtain professional training in skills relevant to a community's needs. By providing students with vocational or educational support to match their skills, abilities, or goals, communities can help make students feel more connected with the community, which in turn can increase support for the community whether the students stay in the community or relocate (Petrin, Farmer, Meece & Byun, 2011). This also has implications for rural community job diversity. If students are relocating to use their degrees, rural communities need to continue to look for alternative employment like Carr and Kefalas (2009) mention, in alternative energy, food production and other postindustrial opportunities (p. B9). Not only will investing in

these types of professions provide alternate sources of revenue, it can provide communities with incentives for individuals to return to their communities. Providing new job opportunities and using government incentives like tax breaks, loan forgiveness programs, and other economic programs can help begin the revitalization of rural communities (Carr & Kefalas, 2009; Artz, 2003).

When looking at the individuals that most influence the aspirations of students attending an institution of higher education, this study found that parents and guardians have the greatest impact. These findings are supported by previous research that indicates aspirations for higher education are influenced by parents and guardians (Meece et al., 2011d; Ng, Wolf-Wendel, & Lombardi, 2014; Woodand & Kaszubowski, 2008). The influence parents and guardians have on students is understandable. With an average school day lasting approximately seven hours, the majority of a child's life is spent at home or around caretakers. It makes sense that students are influenced by those they are around the most. If these students' aspirations are influenced by their parents or guardians, who would generally influence the external factors these students are subject to, they need to understand the important role they play into these aspirations and place their students in situations or conversations with education at the core.

Though other factors may have an influence on aspirations, this study does not indicate any are significant individually. However, the tests prove that when looking at all the external factors as a whole, ParentsGuardians, Teachers, Counselors, Friends, and BroSis, the tests indicated they significantly affect aspirations. These results indicate that all of these individuals have some level of impact on a student's aspirations to attend an institution of higher education. Members of rural communities should find this result

important, especially since rural communities face higher poverty rates (USDA, 2014) and often lower numbers of individuals with degrees (Johnson, Showalter, Klein & Lester, 2014). Many of these students' parents or guardians may fall into one or both of these categories. Parents may have to work multiple jobs to support their families. Families may also not have the resources or knowledge to know about future educational opportunities. With limited time and resources, students may not be exposed to conversations around higher education. This could have negative ramifications for students if parents are in fact the most influential individuals when it comes to aspirations. Those families that can educationally invest in their children are more likely to have students that strive for educational achievement and set goals of continued education. They are more likely to see the importance of education and desire future education.

Even though teachers and school counselors do not have a significant influence on students' aspirations in this study, they can still play an influential role in developing those aspirations. If parents are not encouraging future educational opportunities due to lack of experience or time, an argument can be made that it becomes the role of the educator to have a positive educational impact on their students. Educators can provide resources to families to fill the gap in knowledge and help assist with the conversations parents or guardians may be struggling to have. Providing resources can combat the geographical isolation these rural communities might be facing, which limits students' knowledge and access to college and career information (Meece et al., 2011d).

In addition to providing families with resources, educators play a major role in the lives of these students, as they see them for a portion of the day and invest in students'

educational skills. It becomes the role of the educator to make sure students are achieving grade-level work and to help supplement learning if students do fall behind. The College Board Advocacy and Policy Center's (2012) research corroborates this as they found that reading at grade level in the third grade is a predictor of future success (p. 3). If educators can help students meet academic standards throughout their educational journey, the students will be more prepared for continued education past high school. Research has found that meeting academic standards also indicates future ACT scores and college readiness (ACT, 2008). More research needs to be done around teachers' influences on the aspirations of rural elementary students to attend institutions of higher education to be more generalizable across rural communities. Further research could also focus on specific practices that influence aspirations and provide suggestions for educators.

Overall Confidence

The second part of this study looked at the overall confidence the participants indicated to be able to go to college. While the parents, guardians, teachers, counselors and friends did not yield a significant result, having a brother or sister in college or who went to college had interesting implications. Participants who indicated the highest overall confidence were students with no siblings. These students had the highest overall mean confidence score, yielding a significantly higher confidence than those who indicated that they have a brother or sister in college or who went to college. Those that have a brother or sister not in college still scored lower in overall confidence, but the results were not significant compared to students that were the only child in their family. Students without siblings in college had the second highest overall confidence. They

indicated a score significantly higher than students with siblings in college, but not only children. Thus, students with a sibling in college yielded the lowest overall confidence. Though this study's findings cannot pinpoint the factors influencing overall confidence, various assumptions can be made.

As an only child the student has no other sibling to compete with for attention, time and resources. This child is the sole focus of the parents or guardians and does not have to split parental attention. Parents are probably more able to help with homework and studying, which could provide the student with an academic advantage in the classroom. Students with this extra attention could receive higher test and homework scores, which gives them the confidence to succeed. Also, conversations within the home could be more student-focused and lead to topics such as college, and the family could potentially be able to provide more financial resources to their child.

For the students who do have siblings, these results also have potential justifications. Students who have a brother or sister in college indicated the lowest overall confidence in this study. While this may seem odd keep in mind the age difference between a fourth grader and a sibling that would be in college. These participants could reason that they will never be as smart as their sibling who is in college. Hearing the sibling talk about college could seem intimidating or seem unachievable for these participants. Participants could also have a sibling struggling academically or financially in college. Conversations regarding the sibling's academic difficulties could influence the confidence of these participants. Also, parental conversations around financial difficulties could be overheard within the home, impeding the development of aspirations or confidence to attend an institution of higher education.

With research indicating rural communities face high levels of poverty (USDA, 2014), conversations about financial difficulties are plausible. Students may see their parents working two jobs to support the family. Hearing or observing these difficulties may lower a student's confidence level.

Families may also relocate for career advancement or to meet the needs of an employer. Moving children around to different schools removes them from a major support system and creates new challenges for them to create new trusting relationships. Lacking stable support systems and curriculum changes, especially in mid-semester moves, could have ramifications on a student's overall confidence. Many different factors influence a student's overall confidence to attend an institution of higher education. More research that needs to be done with rural communities and should focus on what needs to be done to increase confidence in students and make the results more generalizable.

The roles of teachers, counselors, friends and siblings did not significantly influence the aspirations of the participants in this study, but still impact a student's life. While parents and guardians play the largest perceived role in these students' lives, having other support systems is important for students as they all play some role in aspirations of higher education. These individuals are crucial when parents or guardians do not have a large influence or when students come from unsupportive households. In these situations, elementary teachers and school counselors may not be playing the role of the individual discussing future education, but may be filling other emotional and developmental support needs. While elementary teachers and school counselors are available to support the students holistically, the role of discussing higher education

generally lies with the high school counselor. While these individuals may be major influences on the student's life, in this study they are not significantly influencing the aspirations of rural elementary students to attend institutions of higher education.

Also, at this age many of the participants may not have friends and siblings that speak about college. Though Meece et al. (2011b) indicate peers play a major role in aspirations of college attainment, the role of a fourth grade peer is more than likely not to talk about college. It is realistic to assume that fourth grade students are probably not talking about colleges and their future plans other than what they want to be when they grow up. A similar theory could be applied to the siblings of rural fourth grade students. While some participants indicated having a brother or sister in college or who went to college, this means that there is at least a nine year gap between siblings. This happens, but may be uncommon, as most students this age have siblings closer to them in age.

It is clear that there is still ambiguity to exactly how the individuals in a fourth grade students' lives influence their aspirations. In this study the results indicated that as a whole these individuals influence the aspirations of students, $p < .05$. Students are exposed to many different external influences that effect their aspirations and how they view the role of college in their life. This also means taking into account that college may not be for everyone. To more accurately comprehend the individuals' roles in these students' aspirations for future education, more research needs to be done looking at how the individuals influence students.

Conclusion

The purpose of this study was to look at rural Nebraska fourth grade students' aspirations of access into higher education and the individuals that influence those

aspirations. While there has not been a significant amount of research on this topic, there have been many research studies conducted regarding elementary students. This research sought to add information from one convenience sample of a defined elementary student population. This information addressed aspirations of the students about going to college, and individuals that influenced their decisions regarding higher education. Rural youth needs to become a main focus of rural communities, as these young individuals will be vital to the future economy of these communities. If these communities continue to fall on the lower end of the socioeconomic scale and into poverty (USDA, 2014), there will be fewer people to support local businesses or pay taxes, which can affect employment opportunities and ultimately lead to the demise of rural communities. To help combat this issue, investment in rural youth may benefit all students, not just with the high-achieving students. Creating and providing more vocational and educational support for all students can help meet each student where they are at in their journey. If college is not for everyone and individuals are needed to work physical labor jobs within the communities, educators and community members must continue to support these vocations to help students feel more connected to the community and not desire relocation (Petrin, Farmer, Meece & Byun, 2011). However, communities also need to bolster the job market if they desire students with advanced training to return to the community. These initiatives can help combat rural brain drain and help positively influence the aspirations of rural elementary students.

Communities and educators also need to call on the educated within the community to be role models and examples of successful educational advancement (Woodland & Kaszowski, 2008). These individuals need to help support families who

may not have advanced education to provide students with the opportunity to learn about higher education or vocations they may not have considered. With geographical isolation also playing into the equation; the result maybe students might know very little about college. Little or no exposure to college could make it seem as though it is out of reach, especially first generation students who may have very little parental guidance.

In regards to rural education, the results of this study supports that all individuals, even peers, can influence the aspirations of education past high school. Bringing everyone into the conversation around advanced education attainment could have many positive effects on rural communities. If more students are academically prepared, aspire higher education, are confident in their abilities and feel connected to their community, communities could see a revitalization of the economy and a reduction in the amount of poverty.

The results of this study found that families, parents or guardians and siblings, have the greatest influence on the aspirations and confidence of rural elementary students, $p < .05$. These results indicate that educators need to make sure they are including family members in the conversation around college and career preparation. Educators also need to encourage these types of conversations and provide support to families that do not have experience with or the knowledge of higher education. Schools, districts and communities need to find ways to creatively expose students to the opportunities available to them and make it a main point of discussion as rural communities will rely on youth to sustain their future.

This study also opens up the doors for future research. A more in-depth look needs to be conducted on each group of individuals, parents or guardians, teachers,

school counselors, peers, and siblings, to see how they exactly influence a student's aspirations or confidence. Taking a more in-depth look can provide more suggestions and recommendations for these individuals and could look at the dynamics of the relationship that positively and negatively influence students. Another area for future research is looking at socioeconomic status and the implications it has on student interest or disinterest in higher education. Finally, vocational education needs to be evaluated in rural communities to see the effects it could have and how to best implement the process into the current educational structure.

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Appendix A

Recruitment Email

Dear (*Superintendent Name*),

My name is Brock Rezny and I am a graduate student in the Higher Education Administration program at the University of Nebraska – Lincoln. In 2009 I graduated from Wilber-Clatonia High School and went to the University of Nebraska – Lincoln to pursue a degree in Elementary Education, obtaining my degree in the spring of 2013. The culminating project for my Master’s Degree is a thesis which I have begun to work on. The focus of my thesis is Nebraska’s rural elementary students’ perceptions of access into higher education. I am reaching out to you for assistance. I need to get surveys into the hands of the fourth grade students willing to participate, with parent permission. Your commitment will be minimal and the study will provide beneficial knowledge on rural elementary students and their perceptions of college. Please see the attached one page document for more information on my study and let me know if you have any questions! You can contact me via email at si-brezny@unl.edu or brock.rezny@gmail.com or via phone at 402.821.7612. I appreciate your time and hope to hear from you soon!

Brock Rezny
Make Today Great!

Appendix B

Letter to Administrators for Support

Dear (*Superintendent Name*),

My name is Brock Rezny and I am a graduate student in the Higher Education Administration program at the University of Nebraska – Lincoln. In 2009 I graduated from the Wilber-Clatonia Public School System and went to the University of Nebraska – Lincoln to pursue a degree in Elementary Education, obtaining my degree in the spring of 2013.

The culminating project for my Master's Degree is a thesis which I have begun to work on. The focus of my thesis is Nebraska's rural elementary students' perceptions of access into higher education. Specifically, I want to focus on fourth grade students within the Southern Nebraska Conference (SNC) and their perceptions of going to college. My passion for education, especially for the youth in Nebraska, has led me to want to further the research and literature on this topic. However, this study cannot be done without the support of schools in the SNC.

Currently, I am working on getting my study approved by the Institutional Review Board (IRB) at the University of Nebraska – Lincoln. To do this I need letters of support from the schools within the SNC. I am contacting all eleven schools in the SNC to ask for a letter of support from you, the superintendent. After I have received these letters of support I will be able to further my IRB process and hopefully continue my research.

With IRB approval I will distribute surveys to the fourth grade classrooms in the SNC. This survey will be between ten to fifteen Likert scale questions written at a fourth grade level looking at a student's perceptions of higher education. Your letter of support would show approval for me to distribute surveys to fourth grade students in your school, with parent permission, to the IRB at the University of Nebraska – Lincoln. If you would like to support my research efforts please return your letter to me via email by Friday October 10th.

As college becomes a more important role in the future of our youth researchers need to continue to discover student perceptions on higher education. My research will be important as the literature surrounding rural youth is still underdeveloped. Please contact me at si-brezny@unl.edu, brock.rezny@gmail.com, or call me at 402.821.7612 with any questions you may have.

Sincerely,

Brock Rezny
Principal Investigator

Debra Mullen
Secondary Investigator
Advisor

Appendix C

Formal Administrator Letter

Dear (*Superintendents name*),

Thank you so much for allowing your students to participate in my thesis research. My hope is that this research will provide valuable information to the field on rural education in Nebraska and help educators see what is affecting the perceptions of college in rural Nebraska elementary students. Hopefully, this research can then be applied to classrooms and adapted by teachers to help develop a college driven mindset in rural Nebraska students, especially in your schools.

As the school administrator I need you to communicate with the fourth grade teachers for me. I have included 50 parental permission forms and 50 student surveys, if this is not enough please let me know and I can send you more if you do not want to copy them. Please make sure the parental permission forms, but not the surveys, get sent home with the students and returned to the teachers. The teachers are asked to wait one week for students to return forms. Once the forms are returned please have the teachers keep the permission forms and distribute the surveys to all of the students at the same time.

Also included in this packet is a formal letter to the teachers. Please make sure this get to the teachers as it provides information for the teacher and verbatim instructions for the students so they all hear the same instructions across schools.

After the teachers give out the surveys they are instructed to collect all the surveys and turn in the surveys and parental permission letters to you. I have provided you a prepaid, addressed envelope to return the surveys and permission letters to me. Please collect all the surveys and permission letters and put them in the mail.

The teachers are provided with my email in case they have any questions. Feel free to have them or yourself contact me at any time. The one thing I ask is that you do not tell students about the topic of the survey beforehand as it could affect the results of the survey.

As always, please let myself, si-brezny@unl.edu -- 402.821.7612, or my advisor, Deb Mullen at dmullen1@unl.edu, know if you have any questions or concerns.

Thank you,

Brock Rezny
Principal Investigator

Deb Mullen
Secondary Investigator

Appendix D

Formal Teacher Letter

Dear Educator,

My name is Brock Rezny and I have been in contact with your school's administration about my research study. The focus of my research is Nebraska's rural elementary students' perceptions of access into higher education. Specifically, I am focusing on fourth grade students within the Southern Nebraska Conference (SNC) and their perceptions of going to college.

The administration in your school should have given you or your colleague 50 parental permission forms and 50 surveys to be distributed. Please send the parental permission forms home the week of Nov. 17 and have the students return them to you the week of Nov. 24th. Please wait about one week so students have time to return the forms and then distribute the survey at the same time (pick a time convenient to you that does not affect the students' learning). If there are students not participating please allow them to read or work on other assignments based on your discretion.

Before giving the survey please read the following:

Dear Students,

My name is Brock and I am a student at the University of Nebraska – Lincoln. This survey is ten questions long and will help me complete an assignment I am working on. If your parents have returned the permission letter and you want to take this survey I would greatly appreciate it. If you do not want to take this survey it will not affect you in any way you can just let your teacher know. Please answer the questions to the best of your ability by circling the choice you want to make and be honest as there are no wrong answers. Once your teacher hands out the survey you can begin. DO NOT put your name on this survey.

Thank you all, and I hope you're having a great year!

After reading this have the students take the survey and then collect all of the surveys and give them back to the administrator along with the permission forms. You can help answer any questions students have about definitions of words or what the questions mean, but please do not provide them with any other guidance as I want them to answer the questions based on their perceptions. Also, please do not tell them what the survey is about beforehand as it could influence their responses.

I cannot express how much I appreciate your help and I am excited to see what your students say. Please let myself, si-brezny@unl.edu -- 402.821.7612, or my advisor, Deb Mullen at dmullen1@unl.edu, know if you have any questions or concerns.

Thank you,

Brock Rezny
Principal Investigator

Dr. Debra Mullen
Secondary Investigator

Appendix E

Consent Form

Dear Parent or Guardian,

My name is Brock Rezny and I am a graduate student in the Higher Education Administration program at the University of Nebraska – Lincoln. The culminating project for my Master’s Degree is a thesis. To complete my thesis I need to collect data that your child/legal ward can help provide. Your school administrators have approved my research efforts and the findings could provide valuable insight to rural education.

Purpose: The purpose of my study is to look at the perceptions of college of rural elementary students in Nebraska. Your child/legal ward is invited to participate in this study because they are attending school in a rural location in Nebraska.

Procedures: I will be asking your child to fill out a ten-question survey. The survey will take no longer than fifteen minutes to complete, and will be conducted in their classroom and distributed by their teacher.

Benefits: There are no direct benefits to them as a research participant.

Risks and/or Discomforts: There are no known risks of discomforts associated with this research.

Confidentiality: No demographic or personal information will be collected on your child/legal ward. Any information obtained during this study which could identify them will be kept strictly confidential. The data will be stored in a cabinet in the investigator’s house and will be destroyed after the completion of the study. The information obtained in this study will be published in my thesis and may be published in scientific journals or presented, but the data will be reported as aggregated data.

Compensation: Your child/legal ward will receive no compensation for participating in the project.

Opportunity to Ask Questions: You and your child/legal ward may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. Or you may contact the investigator(s) at the phone numbers below. Please contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 to voice concerns about the research or if you have any questions about your child’s/legal ward’s rights as a research participant.

Freedom to Withdraw: Participation in this study is voluntary. You and your child/legal ward can refuse to participate or withdraw at any time without harming your and their relationship with the researchers, their teachers, the school in which has provided permission for the research to be conducted, the University of Nebraska-Lincoln, or in any other way receive a penalty or loss of benefits to which you or they are otherwise entitled. Also, their grades will not be affected by their participation or withdrawal from the research.

Consent, Right to Receive a Copy: You are voluntarily making a decision whether or not to allow your child/legal ward participate in this research study. Your child/legal ward will also agree to be included within the study by providing assent if they are above the age of seven years old. Your signature certifies that you have decided to allow them to participate having read and understood the information presented. You will be given a copy of this parental/legal guardian consent form to keep.

Name of Child to be Included:

(Name of Child: Please Print)

Name & Signature of Parent/Legal Guardian:

(Name of Parent/Legal Guardian: Please Print)

(Signature of Parent/Legal Guardian)

Date

Name and Phone number of investigator(s):

Brock Rezny, Principal Investigator Office: (402) 472-8157
Email: si-brezny@unl.edu

Debra Mullen, Ph.D., Secondary Investigator Office: (402) 472-5426
Email: dmullen1@unl.edu

Appendix F

Survey

4th Grade Survey:

Please circle the answer you choose.

1. I think about going to college.

Never Not very much Once in awhile Often

2. I want to go to college.

No Probably not Probably yes Yes

3. I think I will be able go to college.

No Probably not Probably yes Yes

4. I think college is important.

Not at all important Not very important Probably important Yes it is important

5. My parents or guardians talk to me about going to college.

Never Not very much Once in awhile Often

6. My teachers talk to me about going to college.

Never Not very much Once in awhile Often

7. The school counselor talks about college.

Never Not very much Once in awhile Often

8. My friends talk about going to college.

Never Not very much Once in awhile Often

9. One or both of my parents or guardians went to college.

No Yes I don't know

10. My brother or sister went to college or is in college.

No Yes I do not have a brother or sister

Appendix G

Tables

Table 1
Inter-Item Correlation Matrix

Factor	Thought@College	GoToCollege	OverallConfidence	Importance
Thought@College	1.00	.473	.105	.377
GoToCollege	.473	1.000	.090	.489
OverallConfidence	.105	.090	1.00	.149
Importance	.377	.489	.149	1.000

Table 2
Reliability Statistics including OverallConfidence

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.591	.609	4

Table 3
Reliability Statistics after removing OverallConfidence

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.671	.707	3

Table 4
Item-Total Statistics after removing OverallConfidence

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Thought@College	7.70	.726	.500	.252	.620
GoToCollege	7.30	.954	.563	.336	.469
Important	7.14	1.351	.495	.266	.628

Table 5
One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Thought@College	71	3.37	.760	.090
GoToCollege	71	3.77	.590	.070
OverallConfidence	71	3.62	.517	.061
Important	71	3.93	.390	.046

Table 6
One-Sample Test 1

	Likert Score Indicated = 1					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Thought@College	26.219	70	.000	2.366	2.19	2.55
GoToCollege	39.604	70	.000	2.775	2.63	2.91
OverallConfidence	42.671	70	.000	2.620	2.50	2.74
Important	63.292	70	.000	2.930	2.84	3.02

Table 7
One-Sample Test 2

	Likert Score Indicated = 2					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of Difference	
					Lower	Upper
Thought@College	15.138	70	.000	1.366	1.19	1.55
GoToCollege	25.331	70	.000	1.775	1.63	1.91
OverallConfidence	26.383	70	.000	1.620	1.50	1.74
Important	41.688	70	.000	1.930	1.84	2.02

Table 8
One-Sample Test 3

	Likert Score Indicated = 3					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Thought@College	4.058	70	.000	.366	.19	.55
GoToCollege	11.057	70	.000	.775	.63	.91
OverallConfidence	10.094	70	.000	.620	.50	.74
Important	20.083	70	.000	.930	.84	1.02

Table 9
One-Sample Test 4

	Likert Score Indicated = 4					
	T	Df	Sig (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Thought@College	-7.023	70	.000	-.634	-.81	-.45
GoToCollege	-3.217	70	.002	-.225	-.37	-.09
OverallConfidence	-6.194	70	.000	-.380	-.50	-.26
Important	-1.521	70	.133	-.070	-.16	.02

Table 10
Tests of Between-Subjects Effects

Dependent Variable:	Aspirations				
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4.793 ^a	6	.799	4.812	.000
Intercept	34.745	1	34.745	209.301	.000
ParentsGuardians	3.424	1	3.424	20.625	.000
Teachers	.106	1	.106	.640	.427
Counselor	.015	1	.015	.091	.764
Friends	.268	1	.268	1.617	.208
BroSis	.091	2	.045	.273	.762
Error	10.292	62	.166		
Total	952.556	69			
Corrected Total	15.085	68			

a. R Squared = .318 (Adjusted R Squared = .252)

Table 11
Parameter Estimates Aspirations

Dependent Variable:	Aspirations		95% Confidence Interval				
	Parameter	<i>b</i>	Std. Error	t	Sig.	Lower Bound	Upper Bound
	Intercept	3.039	.226	13.465	.000	2.588	3.490
	ParentsGuardians	.298	.066	4.542	.000	.167	.429
	Teachers	.058	.072	.800	.427	-.086	.202
	Counselor	.020	.067	.302	.764	-.114	.154
	Friends	-.088	.069	-1.271	.208	-.226	.050
	[BroSis=1]	-.094	.141	-.664	.509	-.375	.188
	[BroSis=2]	-.112	.169	-.662	.510	-.450	.226
	[BroSis=3]	0 ^a					

a. This parameter is set to zero because it is redundant.

Table 12
Correlations Aspirations

		Aspirations	ParentsGuardians	Teachers	Counselor	Friends
Aspirations	Pearson Correlation	1	.521**	.272*	.193	.121
	Sig. (2-tailed)		.000	.023	.106	.314
	N	71	70	70	71	71
ParentsGuardians	Pearson Correlation	.521**	1	.380**	.259*	.482**
	Sig. (2-tailed)	.000		.001	.031	.000
	N	70	70	69	70	70
Teachers	Pearson Correlation	.272*	.380**	1	.503**	.369**
	Sig. (2-tailed)	.023	.001		.000	.002
	N	70	69	70	70	70
Counselor	Pearson Correlation	.193	.259*	.503**	1	.170
	Sig. (2-tailed)	.106	.031	.000		.157
	N	71	70	70	71	71
Friends	Pearson Correlation	.121	.482**	.369**	.170	1
	Sig. (2-tailed)	.314	.000	.002	.157	
	N	71	70	70	71	71

** . Correlation is significant at the 0.01 level (2-tailed).
* . Correlation is significant at the 0.05 level (2-tailed).

Table 13
First Generation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	57	80.3	80.3	80.3
	3	14	19.7	19.7	100.0
	Total	71	100.0	100.0	

Table 14
Correlations OverallConfidence

		OverallConfidence	ParentsGuardians	Teachers	Counselor	Friends
OverallConfidence	Pearson Correlation	1	-.001	.058	.163	-.086
	Sig. (2-tailed)		.994	.632	.176	.475
	N	71	70	70	71	71
ParentsGuardians	Pearson Correlation	-.001	1	.380**	.259*	.482**
	Sig. (2-tailed)	.994		.001	.031	.000
	N	70	70	69	70	70
Teachers	Pearson Correlation	.058	.380**	1	.503**	.369**
	Sig. (2-tailed)	.632	.001		.000	.002
	N	70	69	70	70	70
Counselor	Pearson Correlation	.163	.259*	.503**	1	.170
	Sig. (2-tailed)	.176	.031	.000		.157
	N	71	70	70	71	71
Friends	Pearson Correlation	-.086	.482**	.369**	.170	1
	Sig. (2-tailed)	.475	.000	.002	.157	
	N	71	70	70	71	71

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 15
Tests of Between-Subjects Effects

Dependent Variable:	OverallConfidence				
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4.121 ^a	6	.687	2.975	.013
Intercept	42.252	1	42.252	183.015	.000
ParentsGuardians	.010	1	.010	.042	.839
Teachers	.027	1	.027	.117	.734
Counselor	.622	1	.622	2.693	.106
Friends	.038	1	.038	.167	.684
BroSis	3.467	2	1.733	7.508	.001
Error	14.314	62	.231		
Total	917.000	69			
Corrected Total	18.435	68			

a. R Squared = .224 (Adjusted R Squared = .148)

Table 16
Parameter Estimates Overall Confidence

Dependent Variable:	Overall Confidence						
	Parameter	<i>b</i>	Std. Error	T	Sig.	95% Confidence Interval	
Lower Bound						Upper Bound	
	Intercept	3.593	.266	13.500	.000	3.061	4.125
	ParentsGuardians	.016	.077	.204	.839	-.139	.170
	Teachers	-.029	.085	-.342	.734	-.199	.141
	Counselor	.130	.079	1.641	.106	-.028	.288
	Friends	.033	.081	.408	.684	-.130	.196
	[BroSis=1]	-.217	.166	-1.302	.198	-.549	.116
	[BroSis=2]	-.736	.200	-3.686	.000	-1.135	-.337
	[BroSis=3]	0 ^a					

a. This parameter is set to zero because it is redundant.

Table 17
Sibling Estimates

Dependent Variable:	Overall Confidence				
	BroSis	Mean	Std. Error	95% Confidence Interval	
Lower Bound				Upper Bound	
	1	3.680 ^a	.075	3.529	3.830
	2	3.160 ^a	.139	2.883	3.438
	3	3.896 ^a	.147	3.603	4.189

a. Covariates appearing in the model are evaluated at the following values: ParentsGuardians = 2.64, Teachers = 2.14, Counselor = 1.86, Friends = 2.48.

Table 18
Pairwise Comparisons

Dependent Variable:		Overall Confidence	95% Confidence Interval for Difference ^b			
(I) BroSis		Mean Difference (I-J)	Std. Error	Sig. ^b	Lower Bound	Upper Bound
1	2	.519*	.164	.007	.115	.923
	3	-.217	.166	.593	-.626	.193
2	1	-.519*	.164	.007	-.923	-.115
	3	-.736*	.200	.001	-1.227	-.245
3	1	.217	.166	.593	-.193	.626
	2	.736*	.200	.001	.245	1.227

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Table 19
Between-Subjects Factors

BroSis	N
1	44
2	14
3	11