

**Barriers to Postsecondary Education for Western New York Rural High School Students**

By

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CERTIFICATION OF THESIS/PROJECT CAPSTONE WORK

We, the undersigned, certify that this project entitled BARRIERS TO POSTSECONDARY EDUCATION FOR WESTERN NEW YORK RURAL HIGH SCHOOL STUDENTS by Collin Mulcahy, Candidate for the Degree of Master of Science in Education, Curriculum and Instruction in Inclusive Education, is acceptable in form and content and demonstrates a satisfactory knowledge of the field covered by this project.

  
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## **Barriers to Postsecondary Education for Western New York Rural High School Students**

### **ABSTRACT**

Rural high school students in Western New York are faced with numerous challenges when deciding to enroll in postsecondary education. Rural students are faced with limited support, both inside and outside of school. Research has shown that faced with these barriers, rural students are less likely to enroll in higher education than are urban students. The purpose of this study was to the needs of rural high school students as well as to identify the supports in addressing their perceived lack of self-efficacy for their educational abilities in postsecondary education. This qualitative case study analyzed the viewpoints of three high school guidance counselors who provide crucial college admissions assistance to high school students in Western New York. The results of the study illustrated that rural high school students need further support in addressing their perceived lack of efficacy when deciding whether or not to pursue a college education after graduating from high school. Furthermore, many rural students and their parents/guardians are not informed about the costs of higher education. Positive perceptions of postsecondary education were identified as a motivator that helps students overcome the identified challenges in higher education. Higher education institutions can better aid rural students by addressing the challenges they face when making the decision to enroll in postsecondary education.

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## **Barriers to Postsecondary Education for Western New York Rural High School Students**

### **Introduction**

When considering enrolling in institutions of higher education, rural high school seniors are faced with numerous barriers, such as limited support, resources and a lack of parental involvement in this crucial decision making process (Provasnik et al., 2007). Faced with these obstacles, rural high school students are less likely to enroll in post-secondary education than are their urban colleagues (Alliance for Excellent Education, 2010). The Alliance for Excellent Education reported that in the United States, “only one third of students who enter the ninth grade each year can expect to graduate four years later with the knowledge they need for postsecondary education and the workforce” (p. 7). Both Balfanz and Legters (2006) and Alliance for Excellent Education, (2008) have identified high schools producing these results as an area of serious concern, where few of the nation’s high schools are educating all of their students sufficiently. In fact, a typical freshman class can shrink by 40% by its senior year. The country’s struggling schools are comprised of 2,000 high schools with more than 20% of these schools located in rural communities. While this crisis affects students of all races and socioeconomic statuses, low-income students are particularly hard hit. Specifically, almost half (45%) of public school students in remote rural areas attend a moderate-to-high-poverty school (Alliance for Excellent Education, 2010). Rural communities, particularly those that struggle with continual poverty, lack the necessary resources to ensure that their students feel prepared for college. In addition to persistent poverty limitations in rural parts of the country, Irvin, Byun, Meece, Farmer, and Hutchins (2012) identified geographic isolation that combined with social and cultural norms can prevent students from achieving their academic aspirations. According to the researchers, “If rural youth in isolated areas want to pursue postsecondary education they

often need to move because of fewer local educational opportunities. Strong preferences to stay near family and the supportive ties exemplifying many rural schools and communities can make moving stressful” (p. 77). Therefore, rural students may lower their educational wishes and pursue limited postsecondary opportunities in order to maintain these support systems. In other words, having to move away and not wanting to leave family, friends or other supports may be educational barriers for rural youth.

As college enrollments increase nationally, there are still restrictions for students to access postsecondary education (Bell, Rowan-Kenyon, & Perna, 2009). Rural high school students in particular continue to face barriers in accessing higher education. Compared with students from metropolitan areas, rural students face other obstacles such as limited access to career counseling, college preparatory courses, career academies, and work-related courses while in high school (Provasnik, KewalRamani, Coleman, Gilbertson, Herring, & Xie, 2007). Griffin, Hutchins, and Meece (2011) found that when postsecondary programs were limited in rural school districts, students tended to look to their parents, guardians, and high school guidance counselors for information about their futures. Courrégé (2011) cited that the lack of both parental and community support are one of the reasons rural students are less likely to go to college. Parents as well as guardians are limited in the guidance they can offer their children because oftentimes these parents and guardians lack the experience of having attended colleges and universities. In addition, Courrégé also found that low income, rural high school students have fewer opportunities than do their peers in larger school districts that can offer more resources and opportunities for youth to participate in meaningful extracurricular activities. With fewer resources, rural schools must rely on their staff members, such as guidance counselors, to play multiple roles, which restricts the amount of time they can invest in college preparation.

Although restricted, rural communities must understand that it's essential that students have the opportunity to have a place to learn, to grow, and to develop a sense of ambition for the future with others who share the same beliefs.

In recent years, a number of studies have investigated the perceived personal, social, and cultural factors that may create barriers for young rural adults seeking a post-secondary education. This interest may be largely due to its important influence in shaping educational outcomes. Friesen and Purcell (2016) documented the vital role of social capital on academic achievement. In addition to these poverty restrictions, Irvin, et al. (2012) found that geographic remoteness can also combine with social and cultural norms to prevent students from achieving their educational goals. Researchers found that, if rural students in geographically isolated areas wanted to pursue postsecondary education, they often needed to move because of the limited local educational opportunities. Lastly, rural students preferred to stay near their families and supportive ties in their isolated communities. Having to move away and not wanting to leave their support systems may be educational barriers for rural students (Irvin, et al.).

Rural students face unique challenges when considering higher education, including the resources at their disposal and the preparation that they receive while in high school (Scott, Miller, & Morris, 2016). These restrictions can be seen as barriers to higher education, but it's crucial to understand the way that rural students see these barriers, and, more importantly, to understand the ways in which they can be overcome. Students from rural communities face added challenges when transitioning to large colleges and universities compared with their urban colleagues. Guiffrida (2008), for example, illustrated that, when it comes to the most successful rural students, "choosing to attend a local college can feel like a failure on their part to expand themselves and become more economically and socially privileged" (p. 13). Many successful

rural high school students may feel pressured to attend college, either internally or externally from their support systems, even though they may be more content with attending a smaller, local college. Guiffrida contended that it is critical for high school counselors to help students evaluate the many influences on their decisions to apply to large universities and to help them explore other motivations, beyond reputation and pressure, for choosing to attend a large institution. He emphasized:

School counselors should take the time to thoroughly assess other reasons students have chosen to apply, including academic reasons (i.e., the right major, course offerings, strength of academic programs), and social reasons (i.e., appealing extracurricular activities, other friends attending, etc.) and to help students weigh these reasons against the potential challenges they will face in transitioning to these institutions. (p. 13)

Contemporary studies are limited in bridging the transitional gap between rural high schools and higher education. Additional research is required in order to target specific rural regions in order to recognize the geographic barriers that rural high school students face rather than using broad methods for the entire demographic population.

As a current teacher in a low-income rural school district, I understand that rural communities represent a unique culture of high poverty, geographic isolation, and limited educational resources. All of the challenges play a significant role in the decision-making process for rural high school students when considering college. The Alliance for Excellent Education (2010) concluded that nearly 21% of rural students nationwide are at or below the poverty line, compared with 18% in urban regions. This poverty severely limits the resources available for students to achieve their educational goals. Additionally, the Alliance for Excellent Education comments:

Due to the shortage of appropriately trained teachers, financial constraints, and geographic isolation, many rural high schools offer limited access to rigorous classes in basic academic subjects (e.g., math, science, and foreign languages), career and technical education programs, community college dual-credit options, and Advanced Placement coursework. These limitations have a direct impact on a high school's ability to prepare students for success in college and higher-paying careers. (p. 16)

A qualitative study focusing on a rural high school in Chautauqua County will seek to offer both secondary and postsecondary educational professionals an insight into the needs of rural high school students through the lenses of the students who require a precise level of guidance and assistance when considering higher education. I'm specifically interested in the documentation of the barriers rural high school students face in enrolling into higher education, as well as the current and missing support systems that can assist students in pursuing postsecondary education. The investigator of this study plans to interview a group of high school guidance counselors who provide crucial college admissions assistance to these students. An interview consisting of open-ended questions was selected to provide qualitative data. Questions were constructed in order to obtain in-depth information about each participant's thoughts, beliefs, knowledge, reasoning, and feelings about the barriers facing rural high school students in enrolling in higher education. Admitting more students into higher education from rural populations would help create an educated workforce for rural communities. The overall goal of the study is to specify the needs of rural high school students as well as to identify the supports in addressing their perceived lack of self-efficacy for their educational abilities in postsecondary education. In the next chapter, I will review the academic literature related to the challenges facing rural high school.

### **Literature Review**

The purpose of this study is to examine rural high school students in Western New York and the challenges they face when making the decision to enroll in higher education. This chapter is intended to review the literature that pertains to rural education, rural high school students, their transitional barriers into postsecondary education, and the current accommodations available in order to increase their college participation.

Researchers have investigated the barriers that rural high school students encounter in enrolling in postsecondary education. In a study conducted by Irvin, Byun, Meece, Farmer, and Hutchins (2011), the authors investigated the relation of several individual and contextual difference factors to perceived educational barriers among a diverse sample of rural high school students. The sample included more than 7,000 rural youth in 73 high schools across the United States. Research participants completed a self-report measure assessing their perceptions of several educational barriers. Measures of participating students' family backgrounds were collected in order to assess relevant contextual differences related to the family. Several important characteristics of participating students' schools and communities were gathered from various national databases and included as additional measures of contextual difference variables. The results showed that getting married was the barrier that rural youth most often indicated would make it difficult to complete their education beyond high school. Additionally, the next most difficult perceived educational barrier involved the need to help or support their families. Lastly, not wanting to leave their friends was the third most difficult barrier. According to Irvin, et al. (2011), "Overall, results suggest that a majority of rural youth did not perceive that any one educational barrier would make it difficult to complete their education" (p. 79). It is evident that family economic hardship was associated with perceived educational barriers. This

contextual difference factor was one of the variables that most strongly predicted barriers for rural students.

Rural communities in America face numerous challenges such as high poverty, geographic isolation, and limited educational resources. Impoverishment is common in rural communities and plays a notable role in both the geographical and psychological isolation rural students experience when considering higher education (Alliance for Excellent Education, 2010). According to the Alliance for Excellent Education, 21% of rural students in the United States are at or below the poverty line compared with 18% in urban areas (p. 10). This financial barrier significantly limits resources readily available for students to feel equipped to achieve their personal educational goals.

In addition to geographic isolation, Courrégé (2010) found that even rural students aspiring for a higher education may find little support from their parents as well as within their communities. Many rural educators say that the lack of parental support is among the main reasons students fail to take the next step into postsecondary education. According to Courrégé, “Rural areas have a 27 percent college-enrollment rate for 18-to-24 year olds, compared with the national average of 34 percent and that of cities and suburban areas of 37 percent” (p. 12). Many community members feel threatened by higher education because of their experiences with the brain drain (Courrégé). Courrégé defined brain drain as the phenomenon that happens when rural communities watch their best and most intelligent leave for college, never to return. Many students move away to more urban regions for jobs and other opportunities that their hometowns don’t have. One study estimated that only 16% of rural college graduates return and remain in their native community after college graduation, while 43% were drained for better opportunities elsewhere (Courrégé).

Rural communities across the country have especially found challenges in cultivating an educated workforce and in fostering college-bound high school graduates (United States Department of Agriculture, 2011). Every student in America deserves the opportunity to graduate from high school capable to succeed in higher education, the workforce, and life. This nationwide crisis is escalated when 90% of the fastest-growing high-wage jobs require postsecondary education (Alliance for Excellent Education, 2010). According to the Rural School and Community Trust (2017), “More than 8.9 million students attend rural schools—more than the enrollments of New York City, Los Angeles, Chicago, and incredibly, the next 75 largest school districts combined” (p. 1). Rural school districts are faced with a significant portion of the nation’s future workforce, but lack the adequate resources to provide a competitive education in comparison with urban school districts.

School districts are able to serve as a spark for change for our nation’s rural communities by offering individualized attention and providing the skills necessary for students’ career aspirations. Yet, there are far more rural school districts experiencing high drop-out rates. Currently, one in three rural freshmen is graduating in four years with the vital knowledge in order to continue into higher education and the workforce (Alliance for Excellent Education, 2010). Tucci (2010) has identified high schools producing these results as “dropout factories,” where these schools have 60% or fewer seniors than freshman (p. 1). According to the Alliance for Education (2010), the country’s dropout factories are composed of 2,000 high schools with 20% located in rural communities. Within these rural communities, only 17% of rural adults aged 25 and over have successfully completed college, which is half the college completion rate of urban adults (p. 7). The Alliance for Excellent Education identified, “In rural America today, the quality and performance of local high schools have a direct impact on their communities’

ability to attract new industries and achieve economic growth” (p. 8). Rural communities should place a high priority on graduation rates and college enrollment, as quality high schools directly impact their communities’ ability to achieve economic growth and attract new industries. A cultural shift must be placed into rural communities in order to elevate the educational aspirations of high school students.

Successful high schools have strong cultures of college and career in their schools and communities. With parent and community support, these schools encourage students to continue with higher education and promising careers as well as to connect them to beneficial college and career resources (Alliance for Excellent Education, 2010). Nevertheless, a current examination of the ways that rural high school students are gaining access into college is essential in order to develop strategies in strengthen high school and college enrollment.

Compared with public high school students in cities and suburbs, rural high school students have limited access to college preparatory courses, career counseling, and school-to-work programs (Provasnik, KewalRamani, Coleman, Gilbertson, Herring, & Xie, 2007). Having limited access creates challenges for students to gain the determination and confidence to view higher education as a realistic opportunity. Griffin, Hutchins, and Meece (2011) discovered that, when college preparatory resources were limited in rural school districts, students often looked to their parents, guardians, and high school guidance counselors for information. This outlet proved to be particularly challenging when parents as well as guardians were less likely to have attended postsecondary education, and counselors were limited in the aid they can provide in rural school districts. Courrégé (2011) stated that, “Guidance counselors, particularly in rural schools are taxed with so many responsibilities, from standardized testing to scheduling, that they have relatively little time to concentrate on getting students into college” (p. 13). Furthermore,

Courrégé identified both parents/guardians as restricted in the guidance and assistance they can offer their children due to lower educational fulfillment and the anxiety they experience when they send their children to college. As high school guidance counselors, parents, and guardians are limited in the resources they can provide, both geographic isolation and poverty also serve as barriers in students' routes to higher education (Irvin et al., 2011).

Rural school districts oftentimes lack the necessary resources for academic and career success of their students because of the limited funds available within their districts. The Rural School and Community Trust (2017) found that, "New York's rural schools provide educational services to over 290,000 children—the fifth largest rural school population in the nation" (p. 136). Diversity among students is limited, both in terms of racial minorities and English language learners. Rural teachers earn more than in any other state, except Alaska, and per pupil instructional spending is the second highest in the nation. New York's rural students score reasonably well on the National Assessment of Educational Progress assessments and eight out of every nine students who begin high school in a rural district go on to graduate (p. 136).

As supported by the review of the literature above, the overall success of rural high school students is greatly influenced by limited educational resources, geographic isolation, and high poverty. It is imperative for rural school districts and postsecondary education institutions that service these schools to create stronger collaborative efforts in order to assist rural high school students' enrolling in higher education. The review of the literature focused on the common characteristics of rural high school students, as well as identifying the current strategies utilized within schools to improve rural student college enrollment. The review of the literature indicates that while researchers have studied rural high school settings, they have not yet examined rural populations in Western New York. This study intends to add to the body of

research knowledge in the literature available on this topic. The primary research questions are: What barriers do high school counselors distinguish rural high school students in Western New York face when enrolling to higher education? What types of postsecondary education support systems do high school counselors recommend to increase the enrollment of rural high school students in Western New York to college? The next chapter will describe how the study was conducted, the participants, setting and a description of the data collection and analysis procedures.

### **Method**

My proposed study is based on identifying specific barriers rural high school students in Western New York face in enrolling in postsecondary education, as well as current support services that can assist rural high school students in pursuing higher education. Current empirical studies are limited in assisting rural high school students and higher education professionals in constructing a transitional bridge into postsecondary education. Griffin, Hutchins, and Meece (2011) concluded that, “Future research can explore the role school counselors can play to best help students get the information they need to make the best decisions about their educational and career aspirations” (p. 179). The goal of this study is to pinpoint specific rural regions in Western New York in order to understand the geographic difficulties rural high school students present rather than using broad practices for the whole demographic population. This qualitative study seeks to provide both secondary and postsecondary educational professionals with an understanding of the explicit needs of rural high school students through the lenses of high school counselors who provide crucial guidance to students enrolling in higher education programs. The examination of the students’ perceptions will be used to assess the needs of rural high school students as well as to offer specific strategies to assist both colleges and universities to enroll more rural students into postsecondary education. In the following chapter, I will detail the methodology related to this study of the barriers rural high school students face when enrolling in higher education.

### **Research Frameworks**

The research interests identified above call for a study design based on the fundamental principles of qualitative research. A case study approach was selected for this study in an effort to help the researcher develop a stronger “understanding of what causes the phenomenon”

described by the participants (Denzin & Lincoln, 2011, p. 314). A case study approach allows the researcher to take a more in-depth examination of the barriers rural high school students face when deciding to enroll in higher education, through the viewpoint of their high school guidance counselors. According to Creswell (2013), “Case studies are bounded by time and activity and researchers collect detailed information using a variety of data collection procedures over a sustained period of time” (p. 15).

In order to gain an insight into the phenomenon of rural high school students and the barriers they face, a collective case study was utilized. This particular type of case study allowed the researcher to analyze one specific issue by selecting various case studies to illustrate the issue while following the fundamentals of qualitative research (Creswell, 2013). Qualitative research uses a wide-angle approach to understand multiple dimensions and layers of reality. On the other hand, quantitative research uses a narrow-angle lens since the focus of the study is on only one or a few causal factors at the same time (Johnson Christensen). According to Johnson and Christensen, “In qualitative research, the researcher is said to be the “instrument of data collection” (p.36). The qualitative researcher constantly tries to understand the people he or she is observing from the participants’ or “natives” or “actors” viewpoints” (p. 36). It’s important to recognize that qualitative research is focused on understanding the participant’s perspective, which requires direct personal contact. This framework encourages researchers to get to know their objects of study through participant observation so that they can experience for themselves the subjective dimensions of the phenomena they’re studying.

### **Research Setting and Subjects**

Three high school counselors were selected to participate in this qualitative study. All participants interviewed for this research study were high school guidance counselors working

with rural high school students in Western New York. The participants met the following criteria:

- High school counselors working with rural high school students.
- Worked in a rural high school in Western New York.

The demographic overviews of the three participants were as follows:

One of the counselors is a white male who has worked as a high school counselor for over two decades. He currently works with a student population of 278 students with a predominantly White population (85%). Another participant is a high school counselor to 217 students with a significant White population (90%). Lastly, the final participant has been a high school counselor for the past 8 years. Similar to the other participants, this high school counselor works with a predominantly White student population. Of the 225 students she works with, almost 200 students are White and make up 88% of the student population.

### **Data Collection Procedures**

The primary data collection points for this proposed study was individual interviews with study participants. Johnson and Christensen (2016) commented: “Qualitative interviews are also called *depth interviews* because they can be used to obtain in-depth information about a participant’s thoughts, beliefs, knowledge, reasoning, motivations, and feelings about a topic” (Emphasis in original, p. 235). Qualitative interviewing allows the researcher to put themselves in the participant’s shoes and to gain an understanding of that person’s perspective. The purpose is to examine and analyze the participants’ perceptions in order to evaluate the needs of rural high school students. Thus, I have generated probes and prompts to use when greater clarity or depth is needed from the participants (see attached interview protocol). I expected follow-up questions would naturally emerge throughout the qualitative interview. Johnson and Christensen

stated that this approach to interviewing is known as an informal conversational interview, which is “the most spontaneous and loosely structured of the three types of qualitative interviews” (p. 236). The nature of this interview is loosely structured because the interviewer discusses the topics of interest and follows all themes that emerge during the conversation. After gaining the approval from Fredonia’s Human Subjects Review Committee, I distributed the informed consent form to those who have volunteered via handout (see attached informed consent form). The interview data will be collected from the middle of February to early March of 2018 after the course is more than two-thirds toward the end of the semester. The primary researcher will transcribe all interviews by hand. All interviews were conducted in person in the participants’ offices within their respective high schools. Each interview was different from the other because of the unique insight from each of the three rural high school counselors regarding the barriers rural high school students face when making decisions about enrolling to postsecondary education. In order to document informal communication, the primary researcher recorded his observations during the interviews. A common theme throughout each of the interviews was the interview being interrupted by students needing assistance regarding higher education. During one of the interviews, a student entered the office and asked for a letter of recommendation as he was applying to the State University of New York at Brockport. Additionally, during one of the interviews, a senior visited the counselor’s office and inquired about taking the ACT instead of the SAT in order to attend the University of Buffalo. The counselor noted that to attend the University of Buffalo, “You’ll need to score at least a 1200 on the SAT and a 22 on the ACT.” By documenting these interactions, the researcher was able to formulate his own perceptions during the data collection and analyses. Following the interviews, the researcher allowed the three participants to review the data collected during the interviews as well as for them to add

any additional information or edit any of the data collected. By reviewing the data with each participant, the researcher further established credibility in the qualitative study.

### **Data Analysis Procedures**

Johnson and Christensen (2016) insisted that, “Data analysis begins early in a qualitative research study, and during a single research study, qualitative researchers alternate between data collection (e.g., interviews observations, focus groups, documents, physical artifacts, field notes) and data analysis (creating meaning from raw data)” (p. 567). Qualitative researchers collect data over an extended time period and constantly learn more and more about the issues that they are studying are studying during this time frame. This is strength of qualitative research because by collecting data over an extended period of time, researchers are able to get data that help perfect their developing theories. In order to analyze my qualitative data, I transcribed most of the data by using audio recordings of interviews and field notes. This process is referred to coding, where the researcher marks segments of data with text, symbols, descriptive language, and category names (Johnson and Christensen). Miles and Huberman (1994) insisted:

Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study. Codes usually are attached to “chunks” of varying size—words, phrases, sentences, or whole paragraphs.... They can take the form of a straightforward category label or a more complex one. (p. 56)

As a visual learner, I drew diagrams to clarify the relationships between parts of my data. According to Johnson and Christensen, “Diagrams are very popular with visually oriented learners and can be used to demonstrate relationships effectively for readers of reports. The use of diagrams can also be helpful during data analysis when you are trying to make sense out of

your data” (p. 586). Diagramming allowed me to depict my thinking about potential causal relationships.

Detailed observations allowed the researcher to more accurately categorize characteristics, and common themes during the interviews. The researcher analyzed the data by comparing and contrasting the interactions with the participants as well as the themes that emerged during each of the interviews. Furthermore, in order to validate the data collected, the researcher analyzed interview transcripts, observations, and checked with the participants to ensure richness and credibility.

### **Alternative Approaches**

During the process of designing the proposed study, I had thought about using a variety of alternative approaches that might have further strengthened my research. For example, after reviewing our session on mixed methods, I considered this approach in order to collect multiple sets of data using different research methods. This approach helps improve research because the different research approaches offer different kinds of knowledge and they can have different strengths and weaknesses. Additionally, by combining both quantitative and qualitative methods in my research study, I could make it less likely that I’ll miss something or make a mistake. After careful consideration, discussions with my research group and Dr. Dahlgren, I decided that it was not practical to use more than one research method in a single research study. As Johnson and Christensen (2016) maintained, “A researcher should always select the appropriate research method on the basis of a consideration of the research question(s) of interest, the objective(s) of the research, time and cost constraints, available populations, the possibility (or not) of the manipulation of an independent variable, and the availability of data” (p. 52).

**Conclusions**

By utilizing these data collection and analysis strategies described in the Johnson and Christensen textbook (2016), I hope to gain a broader insight into the phenomena of rural high schools students in their environment. Through the use of qualitative methodology, this will help the research build a stronger understanding of the causes of the phenomenon described by the participants. This research method will allow a more in-depth investigation into the challenges rural high school students face when making the decision to enroll in postsecondary education. The following chapter will detail the findings of the study.

## **Results**

The following chapter presents the results of this qualitative study. The goal of this qualitative case study was to offer secondary as well as postsecondary educational professionals insights into the needs of rural high school students in Western New York through the lenses of high school guidance counselors who provide essential college admissions assistance, among their various other roles within their high schools. Of specific interest was the identification of the challenges rural high school students face when enrolling into postsecondary education, as well as current and missing support services that can aid rural high school students in pursuing higher education. The analyses of the participants' viewpoints were used to evaluate the specific needs of rural high school students. Enrolling more students into postsecondary education from rural populations helps create an educated workforce for rural communities in Western New York as well as increase access to higher education for all students. Analyses of the interviews and observations collected resulted in four developing themes: a lack of parental/guardian support, rural students' absence of self-efficacy, the rising costs of higher education, rural students' motivation to pursue postsecondary education.

### **Lack of Parental/Guardian Support**

The lack of support from students' parents/guardians component was apparent in the participants' interviews. This lack of support prevents many students from pursuing a higher education. Additionally, participants identified that participation and fear were factors that contributed to minimal support. One participant sympathized with parents/guardians, who for many believe that postsecondary education is associated with the fear of their child leaving home for the first time in their life. The participant noted that, "Parents have a hard time dropping the

first of their own children off on a college campus.” Furthermore, he found that as children leave home for their freshman year of college, oftentimes their parents struggle with feeling of loss and struggle adjusting to their new lives. One participant stated that parents are reluctant to make the necessary sacrifices for a higher education that their son or daughter cannot afford on their own. The participant went on to explain that not only are parents/guardians unwilling to make sacrifices for their child’s education, but they’re not willing to invest the time and money in their child’s education. On that note, she spoke to the importance of parental/guardian participation and her struggles in getting them involved with the school. Finally, she stated that, “Parents who are absent at school important school meetings aren’t going to make the time to go visit colleges with their child.” Each of the three participants spoke passionately about this theme and stressed the need for devoted parents/guardians in order to help their children thrive in a college environment.

### **Students’ Lack of Self-Efficacy**

All three counselors found their students’ lack of confidence in their academic abilities as a noteworthy challenge when considering a college education. One counselor went on to mention that, “A majority of our students don’t tend to picture themselves in a college environment.” Another participant added, “What our student’s lack the most is confidence.” The counselor told me that most of his students are first-generation kids who come from low-income families. Students think, “Higher education isn’t for a kid like me.” All three participants stated that, although there are support systems in place to help their students in enrolling in higher education, their students have a hard time overcoming the idea that postsecondary education is impossible.

When this theme was discussed with one of the participants, I could sense a certain level of frustration when he noted that a majority of his students will “go through the motions” when it came to applying to different colleges. The notion of rural students’ lack of self-efficacy when enrolling in higher education was a universal theme across each interview and participants found several contributing factors creating this obstacle. Each participant found that many of their students would be the first ones to attend college within their immediate family, and thus would not have the appropriate role models that have navigated similar paths and succeeded against the odds. A majority of the students that attend one particular counselor’s school have parents/guardians in career fields that do not require degrees. Another participant reiterated this notion by stating that, “Many of the families in the district have grown up here and stayed here” and have become “somewhat successful” without a formal college education. While postsecondary education may seem less valuable in rural communities in Western New York, one counselor believes that the low socioeconomic status within his district has also played a role in the lack of self-efficacy.

With two of the participants working in low-income school districts, the lack of resources also prevents students from perceiving college as a realistic possibility. In addition to the low socio-economic status of their students and minimal resources available, all three participants made mention of the sheer size off a college campus compared to the rural settings students are familiar with. This factor also plays a role in a students’ lack of self-efficacy when considering higher education.

### **Rising Cost of Higher Education**

With tuition consistently increasing, higher education finance and affordability were important issues within each of the three participants' interviews. According to one participant, "Questions regarding college affordability and student debt have weighed heavily on both students and their families." This raises an obvious question that one participant hears most often: "Is attending college worth the cost?" The answers are of particular interest to prospective students and their families. One participant passionately stated that, "Families don't see college as an investment in professional and personal development." The realization of the rising costs of higher education as well as the struggle to understand the long-term benefits creates a major challenge for these students. Additionally, subsidizing students' college education cost was another contributing element for each of the participants' rural students.

During the all three of the participants' interviews regarding the cost of higher education, the Free Application for Federal Student Aid (FAFSA) was discussed in considerable length. FAFSA is a form that prospective students can fill out in order to determine their eligibility for student financial aid. One participant stated, "Many of our students choose not to apply for FAFSA because they aren't willing to fill out all those forms or because they think that federal college aid won't be available to them." Another counselor noted: "A lot of parents feel as if they won't qualify." Federal student aid is available for prospective students living with a household income below \$250,000 a year. Furthermore, one participant added that the financial aid process deceptive for some of his students who are sometimes are drawn to colleges that are out of their reach from a monetary standpoint. He stated that, "Enticing rural students who often

live under the poverty line miles from the large college institutions—to leave their families is one of the enduring issues for postsecondary education.” Still, as the cost of college education continues to rise, each participant stated that their students are influenced by a wide range of factors when choosing to enroll in higher education.

### **Motivating Factors for Rural High School Students**

During the interview process, each participant spent substantial time discussing the factors that motivate their students to seek higher education. One universal theme that emerged during the interviews was the students’ positive perceptions of higher education. Discussions in each interview included community colleges, as they have served as a leader in providing higher education for a large majority of the participants’ high school students. Having a successful track record with community colleges has greatly influenced the positive perception students possess at the participants’ high schools. Former students often share their experiences with current high school students which contributes to this positive perception. As one participant stated, “A lot of our seniors attend Jamestown Community College (JCC). It provides students with a rural setting and is predominately a commuter campus. In addition, another participant echoed that JCC has developed a positive viewpoint of college because of the various JCC credit courses that are available to students in his high school. He stated that, “Students are able to go to high school and simultaneously get ahead in college. JCC offers programs like World History that allow you to earn college credit while you’re in high school.” He believes this is why JCC is continuing to draw more students because they are so familiar with it. Community colleges such as JCC have

created positive perceptions for higher education by offering college credits to students still in high school as well as develop successful academic settings for rural students.

### **Conclusions**

This chapter shows the results that emerged from my observations and interviews during the course of my investigation into the challenges rural high school students in Western New York face when considering higher education. The interviews provided me with several emerging themes, which included: a lack of parental/guardian support, rural students' absence of self-efficacy, the rising costs of higher education, rural students' motivation to pursue postsecondary education.

In the next chapter, I will analyze and discuss my results, as well as provide suggestions for further research. The interviews also gave me insights into the support systems that can be created in order to help rural students overcome the challenges they face when enrolling in higher education. I will also give disclaimers as to the limitations of my study and the factors that could have altered the results of my methods.

### Discussion

The goal of this qualitative study was to assess the needs of rural high schools students in Western New York as they prepare to enroll in higher education after completing high school. One of the research questions in this study addressed the perceptions of rural high school guidance counselors regarding the challenges that rural high school students face when enrolling in postsecondary education. Each participant noted that their students' lack a certain level of confidence in their academic abilities, which they found to be a noteworthy challenge for their students when considering a college education. All three participants in this study presented their own perceptions of where their students' lack of self-efficacy originates from. Several contributing factors were identified after analyzing the data: lack of support from parents/guardians, uneasiness about the college environment, and high poverty rates prompted a lack of self-efficacy. Two of the participants work in communities where a college education is perceived unnecessary to have a common standard of living as well as to acquire a job. The other participant found that the low socioeconomic status within his school district restricted students' chances of higher education. As a low income school district with 54% of the participant's student population identified as economically disadvantaged, this demographic is significantly higher than 21% of rural students identified as at or below the poverty line (Alliance for Excellent Education, 2010). This alarming statistic supports the Alliance for Excellent Education (2010) conclusion that high poverty rates limit the resources to allow rural students to enroll in higher education.

Additionally, all three of the participants discussed that students are hesitant about going from a rural school environment of only a couple hundred students to an environment where there will be thousands of other students. The counselors concluded that the students'

apprehension towards higher education led them to question their academic abilities in order to be successful in a college learning environment. Griffin, Hutchins, and Meece (2011) concluded that this fear of being unprepared for the college workload stems from the lack of college preparation courses available to students in rural school districts. Dual-credit courses provide students with the opportunity to earn college as well as prepare for college while still in high school. According to the participants, dual-credit courses tend to ease some of the anxiety that rural students have when considering postsecondary education. In order to develop the academic skills, build confidence in their academic abilities, and increase their self-efficacy, rural high school students must be presented with a college preparation curriculum.

A second perceived challenge for rural students identified in this study is the rising costs of higher education that students, as well as their families, face. The participants found that many of their students' families aren't able to understand the long-term benefits and investments they're making into their children's future by helping them pay for a college education. In addition, the participants identified affordability as one of the key factors students consider and is a major influence in their college decision-making process. Rural families' lack of knowledge about the cost of a college education puts students at a disadvantage when it comes to paying for college (Alliance for Excellent Education, 2010). One participant found that the overestimation of the cost of college and the lack of knowledge about the resources to pay for higher education prevents most rural students from pursuing higher education and broadening their career opportunities. Poverty is a common factor amid rural families and for some families there may be a desire to support their children's education, but these families may lack the additional income to provide their children's with the monetary support.

Another perceived challenge for rural students was the lack of parental/guardian support. Current literature also supports this prevalent theme among rural high school students (e.g., Courrégé, 2011; Griffin, Hutchins, & Meece, 2011). Each of the three participants identified marginal support from their students' parents/guardians. After analyzing the data, three factors contributed to this barrier: fear, lack of participation, and reluctance to sacrifice. A participant found that for many students their parents/guardians fear a college education because it correlates with losing their son or daughter to a distant institution. This could potentially lead to the permanent departure of their children from the home and community. This fear is supported by one study which estimates that only 16% of rural college graduates return and remain in their rural communities after graduation, while 43% of graduates move for better opportunities elsewhere (Courrégé, 2011). According to one participant, the possibility of a son or daughter not returning home causes significant apprehension with the family unit and may add to parents'/guardians unwillingness to sacrifice for their children's higher education.

Another factor contributing to the lack of parental/guardian support among rural students is their reluctance to sacrifice their current lifestyles. One participant stated that he struggles to get parents/guardians to comprehend the value of their investment into their children's future. While this participant shared stories of parents/guardians being reluctant to paying for their children's education, there is no current research supporting this notion about rural high school students.

Parents'/guardians' unwillingness to participate in their children's education is the final contributing factor. One participant found it extremely difficult to get parents/guardians to be present at school meetings and has little faith that these same parents/guardians are taking their child to visit colleges. Irvin, Byun, Meece, Farmer, and Hutchins (2012) found parents' level of

participation and expectations in their son or daughter's education as the most influential factor when considering higher education. Yet parents/guardians are often confused by the college application process and need further explanation or additional information in order to help their children (Irvin, et al.). When creating strategies to increase parent/guardian participation, steps should be implemented in order to help them overcome these obstacles, which may be preventing them from being more involved in their child's future. One participant stated that many parents/guardians work multiple jobs and their availability is limited. She explained that there needs to be more of an effort to get parents/guardians involved by being more flexible with the hours that they are available after school.

In addition to identifying challenges rural high school students face, the case study also identified a crucial motivator to increase enrollment into higher education which that the participants noted during their interviews. A positive outlook on college was found to be a major factor for many prospective students enrolling in higher education. Community colleges in the Western New York region have developed a successful reputation among the participants' students. This has been achieved through the availability of dual credit courses offered to rural high school students. These courses can help rural students overcome certain barriers by eliminating access problems and geographic isolation, and by allowing students to develop a positive college perception (Irvin et al., 2011). As challenges are identified for rural high school students, local college institutions must play a more active role in working with rural high schools to address and overcome these challenges. Additionally, rural high schools and postsecondary institutions must distinguish that rural students are motivated by different things and that access to higher education courses may be motivation enough to interest them to higher education.

The second research question addressed the types of higher education support systems that high school counselors have in place to increase the enrollment of rural high school students in colleges. Each of the participants offered several support areas that need to be addressed. Two of the participants noted that an annual or semi-annual college information night hosted at their high schools for parents to meet with financial aid advisors would help them increase the enrollment of their students into postsecondary education. These school functions would also help parents become more involved by providing information sessions at a date that parents are more likely to attend. This would provide rural families with opportunities to work one-on-one with higher education professionals.

In addition one participant identified that in order to assist parents/guardians understanding the impact of higher education, she needs to inform them about local two-and four-year colleges so that they can become more active in their children's college education. She perceives that hosting a parent night at her school would be beneficial. Various local colleges would be invited to the evening event. Her goal for this event would be to inform parents/guardians about the college application process and to have them become more supportive of higher education. This event could help address some of the barriers that lead to parents/guardians do not play an active role in their child's education.

There are different opportunities for future research related to the findings of this study as well as the specific needs of rural high school students. This study was limited to the Western New York Region and the insights of three rural high school counselors. The perceptions of the three participants may not be suitable for other rural high schools and the challenges they face when enrolling in postsecondary education. It is important for future research to use this study as a basis to conduct further research about the experiences and viewpoints of rural high school

students when deciding to enroll in higher education. Further research should be conducted in order to identify additional barriers rural high school students face and the strategies to increase college preparation within rural high schools. It was apparent from this study that each of the participants held various roles within their rural high schools. This is further supported in current research literature (e.g., Courrégé, 2011). Further research should be conducted regarding the use of additional support systems in rural high schools. The focus should be directed to understanding the impact that counselors and additional staff has on rural high school students' enrollment in higher education. This additional research will aid in assessing the findings of this study as well as identifying additional challenges rural high school students face. Future qualitative research should focus on capturing the experiences of both rural high school students and their parents/guardians through in-depth interviews in order to further comprehend the needs of this population.

The overall goal of this study was to identify the challenges rural high school students face when enrolling in postsecondary education and sought to identify the types of what types of higher education support systems that high school guidance counselors have in place to increase the enrollment of rural high school students in college institutions. This study evaluated and analyzed the perceptions of three rural high school counselors who work in rural high schools in the Western New York region. Participants participated in qualitative interviews. The interviews and observations collected resulted in four developing themes: a lack of parental/guardian support, rural students' absence of self-efficacy, the rising costs of higher education, rural students' motivation to pursue postsecondary education. The findings of this study indicated that rural high school students need further support in increasing their self-efficacy regarding college enrollment. Additionally, for many rural students and their parents/guardians they are not

informed about the costs of higher education is a significant barrier. Positive perceptions of postsecondary education were identified as a motivator that helps students overcome the identified challenges regarding higher education. Higher education institutions can better aid rural students by addressing the challenges they face when making the decision to enroll in postsecondary education.

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## Appendices

## Appendix A: Interview Protocol

1. Can you describe your high school and the local community?
2. How many students are currently in your graduating senior class?
3. How many do you believe will seek higher education post-graduation?
4. What value do you perceive the community places on higher education?
5. Explain your role as a counselor within your high school. What duties do you perform on a week-to-week basis? What efforts have you implemented to prepare students for higher education?
6. What factors do your students consider when choosing to seek higher education?
7. What do you perceive motivates them to seek higher education?
8. What barriers do you think students experience?
9. What barriers have you had students discuss with you about pursuing higher education?
10. Historically, what percentage of your senior class attends a college or university?
11. Of those choosing to seek higher education, what motivates them to attend?
12. What services, if any, do you believe local colleges provide to assist your students in enrolling in these institutions? How would you evaluate these services? Do you have any success stories?
13. What areas do you believe local colleges could improve to better serve your students?
14. Do you find other higher education institutions more successful in enrolling your students? If so, what practices have they implemented to better serve your students?
15. If resources and time were unlimited, what services would you recommend local colleges implement to increase the number of your students enrolling at the university?

16. What barrier would you focus on developing this new service around?

17. Who would be important stakeholders in implementing this new service?

## Appendix B: Informed Consent Form

**Informed Consent**

**Protocol Title:** Barriers to Postsecondary Education for Western New York Rural High School Students

*Please read this consent document carefully before you decide to participate in this study.*

**Purpose of the research study:**

My proposed study is based on identifying specific barriers rural high school students in Western New York face in enrolling in postsecondary education, as well as current support services that can assist rural high school students in pursuing higher education. The goal of this study is to pinpoint specific rural regions in Western New York in order to understand the geographic difficulties rural high school students present rather than using broad practices for the whole demographic population. This qualitative study seeks to provide both secondary and postsecondary educational professionals with an understanding of the explicit needs of rural high school students through the lenses of high school counselors.

**What you will be asked to do in the study:**

To respond to a series of interview questions that includes both open and close ended questions.

**Time Required:**

Each interview will take approximately 45-60 min. Interviews will be conducted at the earliest convenience of each participant.

**Compensation:**

There is no compensation for participating in the study.

**Confidentiality:**

Your identity will be kept confidential to the extent provided by the law. Participant comments and responses will not be associated with their respect school district.

**Voluntary participation:**

Your participation in this study is completely voluntary. There is no penalty for not participating.

**Right to withdraw from the study:**

You have the right to withdraw from the study at any time without consequence. You do not have to answer any questions you do not want to answer.

**Potential Benefits and Risks:**

This investigation will add to current research on the challenges and barriers rural high school students face when enrolling in higher education. It is possible that the interview could serve as a means of reflection on current support systems for students as well as perceived obstacles. Following this investigation, participants will be allowed to read the research and discover how fellow high school guidance counselors responded to the interview questions. Only interview responses relevant to the research questions will be used in the final research paper. Comments made about other school districts and students will not be a part of the final paper.

**Whom to contact if you have questions about the study:**

Collin Mulcahy- High School Social Studies Teacher Brocton Central School District

Mulc1170@fredonia.edu

cmulcahy@broctoncsd.org

**Whom to contact about your rights as a research participant in the study:**

Dr. Judith Horowitz

Associate Provost for Graduate Studies, Sponsored Research and Faculty Development

Maytum Hall 805

Judith.horowitz@fredonia.edu

(716) 673-4708

**I have read the procedure outlined above. I voluntarily agree to participate  
in this study and have received a copy of this description.**

\_\_\_\_\_  
*Participant's signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Principal investigator's signatures*

\_\_\_\_\_  
*Date*

|

## Appendix C: Recruitment Script

Dear Participant: I am a student in the Curriculum and Instruction Department at SUNY Fredonia. In preparation for my final thesis project, I am gathering data on the barriers rural high school students in Western New York face in enrolling in higher education. I would like to invite you to participate in an interview that will address questions on the challenges students face when enrolling in postsecondary education, as well as the types of postsecondary education support systems you'd recommend in order to increase the enrollment of rural high school students in Western New York to college. Interviews will be scheduled at your earliest convenience. Your participation is strictly voluntary and you can withdraw from the project at any time. Additionally, no form of compensation will be available. Your confidentiality during the project will be ensured.

## Appendix D: IRB Human Subjects Approval



19 December 2017

Collin Mulcahy  
c/o Robert Dahlgren, Ph.D.  
Curriculum and Instruction  
College of Education  
Thompson Hall  
The State University of New York at Fredonia

Re: Collin Mulcahy—Barriers to Postsecondary Education for Western New York Rural High School

Your research project using human subjects has been determined Category 1, Exempt, under the United States Department of Health and Human Services Code of Federal Regulations Title 45 Public Welfare, Part 46 Protection of Human Subjects, 46.101, Subpart A (b) (1) and/or (2). This document is your approval and your study titled "Barriers to Postsecondary Education for Western New York Rural High School" may proceed as described, beginning on **January 1, 2018 and ending on June 1, 2018**.

Thank you for keeping the high standards relating to research and the protection of human subjects under the auspices of the State University of New York at Fredonia.

Sincerely,

A handwritten signature in blue ink that reads "Judith M. Horowitz".

Judith M. Horowitz, Ph.D.  
Associate Provost, Graduate Studies, Sponsored Programs  
and Faculty Development  
Human Subjects Administrator

## Appendix E: Citi Human Subjects Training

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)**  
**COMPLETION REPORT - PART 1 OF 2**  
**COURSEWORK REQUIREMENTS\***

\* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

• **Name:** Collin Mulcahy (ID: 6183275)  
 • **Institution Affiliation:** SUNY - College at Fredonia (ID: 273)  
 • **Institution Email:** Mulc1170@fredonia.edu  
 • **Institution Unit:** Curriculum and Instruction  
 • **Phone:** (716) 673-3701

• **Curriculum Group:** Human Research  
 • **Course Learner Group:** Group 1.  
 • **Stage:** Stage 1 - Basic Course

• **Record ID:** 22674500  
 • **Completion Date:** 24-Mar-2017  
 • **Expiration Date:** 24-Mar-2019  
 • **Minimum Passing:** 80  
 • **Reported Score\*:** 86

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	24-Mar-2017	3/3 (100%)
Belmont Report and Its Principles (ID: 1127)	24-Mar-2017	3/3 (100%)
History and Ethical Principles - SBE (ID: 490)	24-Mar-2017	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	24-Mar-2017	5/5 (100%)
The Federal Regulations - SBE (ID: 502)	24-Mar-2017	5/5 (100%)
Assessing Risk - SBE (ID: 503)	24-Mar-2017	5/5 (100%)
Informed Consent - SBE (ID: 504)	24-Mar-2017	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	24-Mar-2017	5/5 (100%)
Research with Prisoners - SBE (ID: 506)	24-Mar-2017	4/5 (80%)
Research with Children - SBE (ID: 507)	24-Mar-2017	1/5 (20%)
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	24-Mar-2017	5/5 (100%)
International Research - SBE (ID: 509)	24-Mar-2017	1/5 (20%)
Internet-Based Research - SBE (ID: 510)	24-Mar-2017	4/5 (80%)
Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)	24-Mar-2017	4/4 (100%)
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	24-Mar-2017	5/5 (100%)
SUNY Fredonia State College (ID: 587)	24-Mar-2017	No Quiz

**For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.**

**Verify at:** [www.citiprogram.org/verify?k9296a1aa-4cd1-4d9b-be7d-b0614fa8ffe-22674500](http://www.citiprogram.org/verify?k9296a1aa-4cd1-4d9b-be7d-b0614fa8ffe-22674500)

**Collaborative Institutional Training Initiative (CITI Program)**  
 Email: [support@citiprogram.org](mailto:support@citiprogram.org)  
 Phone: 888-529-5929  
 Web: <https://www.citiprogram.org>

## COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

### COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT\*\*

\*\* NOTE: Scores on this [Transcript Report](#) reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Collin Mulcahy (ID: 6183275)
- **Institution Affiliation:** SUNY - College at Fredonia (ID: 273)
- **Institution Email:** Mulc1170@fredonia.edu
- **Institution Unit:** Curriculum and Instruction
- **Phone:** (716) 673-3701
- **Curriculum Group:** Human Research
- **Course Learner Group:** Group 1.
- **Stage:** Stage 1 - Basic Course
- **Record ID:** 22674500
- **Report Date:** 05-Dec-2018
- **Current Score\*\*:** 93

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
History and Ethical Principles - SBE (ID: 490)	24-Mar-2017	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	24-Mar-2017	5/5 (100%)
Belmont Report and Its Principles (ID: 1127)	24-Mar-2017	3/3 (100%)
SUNY Fredonia State College (ID: 587)	24-Mar-2017	No Quiz
The Federal Regulations - SBE (ID: 502)	24-Mar-2017	5/5 (100%)
Assessing Risk - SBE (ID: 503)	24-Mar-2017	5/5 (100%)
Informed Consent - SBE (ID: 504)	24-Mar-2017	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	24-Mar-2017	5/5 (100%)
Research with Prisoners - SBE (ID: 506)	24-Mar-2017	4/5 (80%)
Research with Children - SBE (ID: 507)	24-Mar-2017	2/5 (40%)
Research in Public Elementary and Secondary Schools - SBE (ID: 508)	24-Mar-2017	5/5 (100%)
International Research - SBE (ID: 509)	24-Mar-2017	5/5 (100%)
Internet-Based Research - SBE (ID: 510)	24-Mar-2017	4/5 (80%)
Vulnerable Subjects - Research Involving Workers/Employees (ID: 483)	24-Mar-2017	4/4 (100%)
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	24-Mar-2017	5/5 (100%)
Avoiding Group Harms - U.S. Research Perspectives (ID: 14080)	24-Mar-2017	3/3 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: [www.citiprogram.org/verify/?k4296e1aa-4cd1-4deb-be7d-bd514fa6ffe-22674500](http://www.citiprogram.org/verify/?k4296e1aa-4cd1-4deb-be7d-bd514fa6ffe-22674500)

Collaborative Institutional Training Initiative (CITI Program)  
 Email: [support@citi-program.org](mailto:support@citi-program.org)  
 Phone: 888-529-5929  
 Web: <https://www.citiprogram.org>

Collaborative Institutional