TRIO UPWARD BOUND AND ITS RELATIONSHIP WITH COLLEGE READINESS FOR LOW-INCOME STUDENTS

by

KRISTALYN M. LEE

NATHANIEL BRAY, COMMITTEE CHAIR
ARLEENE BREAUX
OVERTOUN JENDA
FRANKIE SANTOS LAANAN
CLAIREE MAJOR

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ABSTRACT

The purpose of this study was to assess the relationship between TRIO Upward Bound and low-income students’ perception of the program. The study evaluated the significance of certain aspects of TRIO Upward Bound programming in preparing low-income students for high school graduation and enrollment in college. The findings of the study sought to display the connection between preparation for high school graduation, students’ self-perception of knowledge of the college application process, and college enrollment for low-income students and their participation in TRIO Upward Bound. Data concerning background characteristics and low-income students’ experiences in TRIO Upward Bound were collected via a survey. A quantitative research design was used to describe the data collected from the survey. Study results support the notion that TRIO Upward Bound is a viable option for closing the achievement gap and improving access to higher education for low-income students. Additionally, the results of the study will be helpful to college access practitioners and higher education administrators as they advocate for the importance of college preparation programs like TRIO Upward Bound.
DEDICATION

This work is dedicated to my wonderful family. To my daughters, Kassidy and Kennadi, you are my inspiration for everything I do. I thank God daily for the privilege of being your mama. It is an honor to watch you both grow into confident, capable, and compassionate little ladies. Know that you were created to fulfill a great purpose. Always put God first. Give your best effort in everything you do. Listen and respond as the Holy Spirit guides you. Do not be afraid of failure. Some of life’s best lessons that lead to success are learned from failing. Enjoy life, and always leave things better than you found them.

My parents, Sylvester and Angenetta Scott, have been an amazing example of love, commitment, and perseverance for so many. Mama, I remember you telling me as a child to be the rabbit that they chase. Those words stuck with me, and have been my inspiration on the days when I wanted to quit. Daddy, you have always been one of my biggest supporters. Thank you both for your unwavering support and for always being there. I am extremely appreciative for all of your help with the girls. I could not have done this without you. Most importantly, I thank you for raising me to never quit.

When I needed a break during this process my sissy, Michele, was a constant presence to provide balance and remind me to take time to appreciate this season of my life. Thank you for all the prayers, trips to Wetumpka, and laughs along the way. I am blessed to call you my sister.

To my girls’ grandparents, Jerome, Sr. and Earnestine Lee, I thank you for selflessly stepping in and helping to care for the girls to make this possible. Your commitment to family and sacrifice has not gone unnoticed and is greatly appreciated.
To my best girlfriends, I could not have done this without you. Theresa, Rikki, Toya, Dayna, Kim, and Charmaine: I thank you for the countless conversations that encouraged me to keep going, the prayers along the way, and the trips that allowed me to get away and refresh. We are the epitome of #squadgoals and Black Girl Magic.

I cannot imagine having gone through this experience without my Cohort X family. The never-ending encouragement and genuine desire for us all to succeed has been refreshing in a world where supporting others is not always the norm. Thirteen in, thirteen out!
ACKNOWLEDGEMENTS

Thank you Lord for giving me strength to complete this process. All of this is because of you. “The God of heaven will help us succeed”. Nehemiah 2:20

To my committee chair and members, Drs. Bray, Major, Breaux, Laanan, and Jenda: Thank you all for your wisdom and guidance. I appreciate your willingness to offer feedback while challenging me to achieve at a higher level.

To Ms. Sharon Gilbert and the study site staff: Thank you for granting me access to your students. This was possible because of your steadfast support.
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INTRODUCTION

Obtaining a college degree is a goal that many have, but few achieve. Of the students who enter four-year institutions, only 55.5% receive a bachelor’s degree within six years. For students attending two-year institutions, this percentage decreases to 29.2% (Arnold et al., 2012). Students who have a goal of obtaining a college degree are frequently unprepared or underprepared for the college-going process and the rigor of postsecondary academics as evidenced by the number of students entering college in developmental courses. Sixty percent of students entering college enroll in at least one remedial course. Of this percentage, less than half will enroll in a college-level course (Michaels et al., 2011).

Conley (2007) defined college readiness as “the level of preparation a student needs to enroll and succeed-without remediation-in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program” (p. 5). While it is an aspiration of most students to pursue postsecondary education after high school graduation, researchers have demonstrated that not all high school graduates are prepared for higher education (Arnold et al., 2012). This is particularly true for high school students from low-socioeconomic backgrounds.

The following is a review of the connection between low-income students and first-generation students and an overview of the academic and social struggles these students face in their quest to graduate from high school and pursue postsecondary education. These struggles will highlight the need for college preparation programs and include a history of TRIO Upward Bound. The gap in the literature as well as the purpose and significance of the study are also
discussed. The overall purpose of this study, presented in a three-paper format, was to better understand how student participation in a college readiness program, which includes components to increase participants’ social and cultural capital, improves the number of low-income students applying to and enrolling in postsecondary institutions. In each article, the relationship between different measures of college readiness were quantitatively evaluated, based on study participants’ involvement in TRIO Upward Bound.

Connection between First-Generation and Low-income Students

To evaluate the effectiveness of a college preparation program on economically disadvantaged students, an understanding is needed of the connection between first-generation and low-socioeconomic status. Engle et al. (2006) defined first-generation as a student whose parents have not completed a bachelor’s degree, whereas traditional students come from families in which one or more parent has completed a college degree. First-generation students and students from low-socioeconomic families share several similarities. Additionally, many first-generation students come from low-socioeconomic backgrounds (Engle et al., 2006). Both groups are frequently poorly informed of the college experience and perceive that their postsecondary aspirations are not supported by their families (Grimand & Maddaus, 2004).

With family backgrounds where there is limited institutionalized cultural capital, particularly academic degrees and professional credentials, both low-income and first-generation students have limited firsthand knowledge of the college choice and application processes (Dumais & Ward, 2010). Being the first in their family to attend college, first-generation students also struggle with living in two different worlds, and must manage the tension that could result from their relationships at college and at home (Grimand & Maddaus, 2004). First-generation and low-income students who attend college often encounter environments that are
less than welcoming once they arrive on campus (Terenzini et al., 1996). Because of these similarities between first-generation and low-income students, many college preparation programs strive to serve students from both of these populations.

**Need for College Preparation Programs**

Most jobs opportunities currently require some education beyond high school, as the economy becomes more global and technology driven (Perna, 2015). Carnevale et al. (2013) projected that by 2020, 65% of jobs will require postsecondary education, compared to only 28% in 1973. With the current rate of degree completion, the demand for employees who have earned at least an associate’s degree will surpass demand by 1 million employees by 2020 (Carnevale et al., 2013). College degree attainment is important for the nation’s global economic competitiveness as well as for the upward social mobility of students. The benefits of degree completion include lower rates of unemployment, higher earning potential, better health and quality of life, as well as better working conditions (Perna, 2015). Despite these established benefits, college access and degree completion for low-income students is an issue with which our nation has struggled for decades.

After graduating from high school, many first-time freshmen enter college academically underprepared for college coursework in basic reading, writing, and mathematics (Michaels et al., 2011). As presented in the *Hechinger Report*, 569,751 students enrolled in remedial courses during the 2014-2015 academic year (Butrymowicz, 2017). Adjusting to the increased level of academic difficulty of college courses is an arduous task for students who are not properly prepared at the secondary level and is often cited as a reason that students do not pursue postsecondary education. One purpose of college preparation programs is to better prepare high school students for the increased rigor of postsecondary academic work (Donham, 2014).
According to Donham (2014), upon college entrance, students should be prepared to “engage in learning experiences that involve them seeking, evaluating, and integrating information as well as developing reading and writing skills that contribute to construction of ideas and insights” (p. 6). This statement highlights the expectations of college faculty (Donham, 2014). Therefore, in terms of college preparation initiatives, the programming must include components that address these expectations and academically prepare students for college work. The efforts of college preparation programs to academically prepare students for postsecondary education narrows the college enrollment gap for underrepresented populations, increases college-track course enrollment, prepares students for standardized tests, and improves students’ college plans and expectations (Cates & Schaefle, 2011).

**History of TRIO Upward Bound**

Of the existing college preparation programs, the longest-standing programs include those created by President Lyndon Johnson’s War on Poverty and the Economic Opportunity Act of 1964. These three federally-funded programs were designed to increase college enrollment and improve completion rates for traditionally underrepresented students, including those from economically disadvantaged backgrounds. Commonly known as TRIO, these programs include Upward Bound, Educational Talent Search, and Student Support Services (Cowan-Pitre & Pitre, 2009).

Since its creation in 1965, the federal TRIO programs have expanded to eight programs, including Upward Bound Math-Science and Veterans Upward Bound. During the 2016 federal fiscal year, 810 Upward Bound project sites provided services to 61,747 students (U.S. Department of Education, 2017). Upward Bound services typically begin in grades 9 and 10 of high school and continue through high school graduation. Upward Bound programs are typically
housed in two- and four-year institutions of higher education. However, some are housed in social services and educational agencies, where students receive the same Upward Bound services as they would on a college or university campus (Cowan-Pitre & Pitre, 2009).

Eligibility for participation in Upward Bound includes students from low-income families and/or students who are first-generation status. The program requires that two-thirds of participants be both low-income and first-generation. The remaining one-third can be students from economically disadvantaged backgrounds, first-generation students, or students at risk of academic failure (U.S. Department of Education, 2017). Participants of Upward Bound programs receive academic and social support during the school year as well as during the summer. During the academic year, program participants attend weekly meetings with Upward Bound staff, where they receive academic instruction in mathematics, sciences, language arts, and foreign languages, as well as individual tutoring and support provided through study skills workshops.

Federal policy mandates that Upward Bound participants receive services to support their transition through the college application process, including college entrance exam preparation (Vega et al., 2015). Students also participate in community service projects, and visit colleges for exposure to postsecondary institutions. During the Summer Institute component of the program, students participate in academic courses on campus, while learning about available institutional resources for student. Participants receive a small monthly stipend for their participation in the program (Vega et al., 2015).

**Gap in the Literature**

Since the Great Recession of 2008, the overall percentage of high school students enrolling in college immediately following high school graduation has declined from 68.6% to 65.9% in 2013. For low-income students, this rate dropped more than 10 percentage points from 55.9% to 45.5%, compared to only a 3% decline for America’s most affluent students, from
81.9% to 78.5% (Brown, 2013). Additionally, the 2018 budget proposal released in March 2017 by the Trump administration outlined a 10% decrease in funding for TRIO programs, which translates to a cut of $193 million (Bombardieri et al., 2017). Imposing these cuts would further inhibit access to higher education for some of the nation’s most vulnerable populations, thereby widening the gap in degree attainment between those from socioeconomically disadvantaged backgrounds and their more affluent peers.

With the decline in college enrollment for low-income students, college preparation programs like TRIO Upward Bound must effectively articulate the importance of their existence. As TRIO Upward Bound advocates for continued support, an in-depth investigation of program components is needed to assess the benefits of different aspects of students’ transition to higher education. This could lead to a program redesign to better meet the needs of students the program strives to serve. The potential budget cuts also beg the question of which TRIO Upward Bound program components are most impactful for program participants and thus crucial to TRIO Upward Bound’s continued existence.

Statement of the Problem

According to the National Center for Education Statistics, the immediate college enrollment rate of students from high-income families was 83% in 2016, compared to 67% of students from low-income families. The immediate college enrollment rate is based on the number of high school graduates who enter a two- or four-year institution during the fall immediately following their high school graduation. As jobs increasingly require education beyond high school, college access for low-income students must be improved, for the benefit of the students and the nation as a whole. Although there is significant research highlighting the overall positive influence of TRIO Upward Bound on its participants, this research specifically
addressed the degree to which students’ participation in TRIO Upward Bound improved their chances of graduating from high school, understanding the college application process, and ultimately enrolling in college.

**Purpose of the Study**

The purpose of this quantitative study was to investigate, via three articles, the relationship, if any, between students’ participation in the TRIO Upward Bound program and specific outcomes. The first article examined the relationship between students’ preparation for high school graduation and their perception of their knowledge of the college application process, as a result of their participation in TRIO Upward Bound. The second article examined participation in TRIO Upward Bound and the relationship between students’ preparation for high school graduation and college enrollment. The third article examined participation in TRIO Upward Bound and the relationship between students’ knowledge of the college application process and their college enrollment. Data were collected and analyzed regarding the program experience of former TRIO Upward Bound participants as related to the three outcomes.

The grantee TRIO Upward Bound site currently receives a total of $633,450 through two federal grants from the U.S. Department of Education Office of Postsecondary Education to provide services for students from a tri-county area in Central Alabama. Of this amount, $369,512 is used to serve 78 high school students from two of the counties, and $263,938 to serve 50 students from the other county. Program requirements stipulate that two-thirds of program participants be both low-income and first-generation students. The remaining cohort members must be either low-income students, first-generation students, or students at risk of experiencing academic failure. Since 2008, 413 high school seniors have participated in TRIO Upward Bound at the grantee site, with 25% of students enrolling in the grantee institution after
graduation. The racial composition of these students is 45% Caucasian, 45% African-American, and 10% other.

**Significance of the Study**

This research adds to the extensive scholarship on college readiness programming by examining program components that focus on improving students’ academic competence and scholastic aspirations, increasing students’ cultural and social capital, along with programming aimed at academic preparation. This study demonstrates how participation in college readiness programs narrows the college enrollment gap between low-socioeconomic students and their more affluent counterparts.

The first article, *Low-income Students’ Preparation for High School Graduation and Perception of Knowledge of the College Application Process Based on Participation in TRIO Upward Bound*, considered different aspects of TRIO Upward Bound’s programming and its influence on participants’ preparation for high school graduation and their self-perception of knowledge of the college application process, as these factors are components of college preparation. As Upward Bound participants, students are required to attend academic sessions at the Upward Bound grantee site as well as individual tutoring sessions, cultural programming, and a summer bridge program. This study assessed the impact of students’ participation in the program components on the relationship between participants’ preparation for high school graduation and their self-perception of their knowledge of the college application process.

In each article, study data were collected from an online survey of alumni from the study site’s TRIO Upward Bound program. Program alumni were encouraged to complete the survey with a post-survey lottery incentive for an opportunity to receive one of the five $25 Visa gift cards. In the context of higher education, the use of lotteries as a web-based survey incentive is a
common practice to improve the survey response rate of students (Laguilles et al., 2010; Porter & Whitcomb, 2003). The theory related to lottery incentives posits that incentives influence response rates by affecting the respondents’ opinion of survey participation, whether positive or negative (Porter & Whitcomb, 2003). Using Conley’s (2007) college readiness theory as the theoretical framework, survey questions for article one addressed TRIO Upward Bound’s ability to instill in program participants the necessary skills to transition from high school to college.

The target journal for the first article was The Rural Educator. Article topics for this journal focus on issues related to rural schools, rural populations, and the impact of federal and state policy reforms on these entities. This journal was an appropriate choice for this article due to the location of the TRIO Upward Bound study site. Students who received services from the program of interest come from rural counties within the state of Alabama, and the study site has had a history of recruiting and enrolling students from these rural areas.

Although their aspirations for college degree attainment are similar, low-income students have limited knowledge of the college application process as compared to their more affluent counterparts. The second article, Low-income Students’ Preparation for High School Graduation and College Enrollment Based on Participation in TRIO Upward Bound, focused on TRIO Upward Bound’s influence on participants’ decision to persevere to high school graduation and ultimately enroll in higher education. This study addressed several key influencers of students’ ability to successfully transition from secondary to postsecondary education, including cultural capital and parental involvement, which are critical during students’ college choice process.

Due to the influence of cultural capital and parental involvement, the study site’s TRIO Upward Bound program has incorporated program components intended to expand participants’ level of cultural capital and encourage parental involvement. Bourdieu’s (1986) cultural and
social capital theory, which includes the concept of cultural reproduction, was the theoretical framework for this study. This topic is of particular importance for low-socioeconomic students in light of their parents’ limited cultural capital. The target journal for second article was The Journal of Diversity in Higher Education. Articles in this journal focus on research and practices related to inclusiveness on college campuses. TRIO Upward Bound student populations include first-generation students, students from low-socioeconomic backgrounds, and students with disabilities. This journal is an appropriate choice considering all of these populations bring diversity to institutions of higher education.

One goal of college preparation programs is to improve college enrollment of program participants. The third article, Low-income Students’ Perception of Knowledge of the College Application Process and College Enrollment Based on Participation in TRIO Upward Bound, examined the relationship between students’ perception of their knowledge of the college application process and their enrollment in institutions of higher education based on their participation in TRIO Upward Bound. TRIO Upward Bound’s programming is designed to prepare students for success at the postsecondary level. This study evaluated how students’ participation in different components of TRIO Upward Bound influenced low-income students’ thoughts on their ability to successfully navigate the college admissions process to enroll in college. Conley’s (2007) college readiness theory served as the conceptual framework for this article.

The target journal for this article is the Journal of College Student Development. Articles for this journal focus on a variety of topics related to higher education, including creative strategies to better serve students. TRIO Upward Bound participants are often students who require unique student support services in order to be successful at the postsecondary level. This
journal is appropriate for this article because the content of college preparatory programs like TRIO Upward Bound offers college administrators knowledge concerning best practices to support low-income students.

More specific information on the selected journals for the article submissions is provided below at the beginning of each article. This information includes the article’s tentative working title and completion date, rationale for the selected journal, analysis, and an outline of similar articles featured in the selected journal.
Table 1.1
Outline of Dissertation Articles

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<tr>
<th>Tentative Working Title</th>
<th>Analysis</th>
<th>Target Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income Students’ Preparation for High School Graduation and Perception of Knowledge of the College Application Process Based on Participation in TRIO Upward Bound</td>
<td>Quantitative Research Design</td>
<td>The Rural Educator</td>
</tr>
<tr>
<td>Low-income Students’ Preparation for High School Graduation and College Enrollment Based on Participation in TRIO Upward Bound</td>
<td>Quantitative Research Design</td>
<td>Journal of Diversity in Higher Education</td>
</tr>
<tr>
<td>Low-income Students’ Perception of Knowledge of the College Application Process and College Enrollment Based on Participation in TRIO Upward Bound</td>
<td>Quantitative Research Design</td>
<td>Journal of College Student Development</td>
</tr>
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Article Completion Date: June 2019

Conclusion

Preparing for the college application process and the academic rigors of college coursework are critically important to students’ ability to successfully complete their postsecondary education. This preparation is particularly important for low-socioeconomic students, who are often categorized as academically and socially underprepared for college compared to their middle- and upper-income peers. The number of students beginning their college careers in remedial courses highlights the need for programming designed for adequately preparing students to successfully transition from high school to college. Since its inception in 1965, TRIO Upward Bound has been an effective program in providing college preparation services to traditionally underrepresented student populations, including low-income students.
However, as low-income students continue to experience difficulty in successfully navigating college completion, an evaluation of the current effectiveness of TRIO Upward Bound’s programming is needed. This evaluation is of particular importance considering the current administration’s proposed budget cuts for federally-funded TRIO programs.
LOW-INCOME STUDENTS’ PREPARATION FOR HIGH SCHOOL GRADUATION AND PERCEPTION OF KNOWLEDGE OF THE COLLEGE APPLICATION PROCESS BASED ON THEIR PARTICIPATION IN TRIO UPWARD BOUND

Article One Completion Date: June 2019


**Rationale:** *The Rural Educator* focuses on topics related to rural schools, particularly the impact of federal and state reform policies, issues related to funding and finances, and issues related to rural populations. The population for this study represents TRIO Upward Bound participants from rural high schools in central Alabama. The study’s TRIO Upward Bound host institution is located in a rural setting in central Alabama, and has a well-established history of recruiting and enrolling students from rural areas. *Manuscripts are typically between 20-25 pages including references, tables, and figures.*
Table 2.1  
*Similar Topics that Support Submitting to This Journal*

<table>
<thead>
<tr>
<th>Title</th>
<th>Pub. Year</th>
<th>Author(s)</th>
<th>Figures/Table in Article</th>
<th>Section Detail</th>
</tr>
</thead>
</table>
| Overcoming Obstacles to Preparing for College: Perspectives from a Rural Upward Bound Program | 2004 | Grimard, A. & Maddaus, J. | 0 figures/0 tables | Introduction/Literature Review: 3 pages  
Methodology: 1 page  
Mixed method  
Conclusions/Implications: 4 pages |
| Increasing College-Going Rate, Parent Involvement, and Community Participation in Rural Communities | 2012 | King, S. | 0 figures/0 tables | Introduction/Literature Review: 3  
Methodology: 1 page  
Qualitative Discussion/Implications: 4 pages |
| Pursuing Higher Education in Rural Pennsylvania Schools: Shaping the College Path | 2018 | Kryst, E.L., Kotok, S., & Hagedorn, A. | 0 figures/2 tables | Introduction/Literature Review: 4  
Methodology: 1 page  
Qualitative Discussion/Conclusion: 6 pages |
| Multiple Points of Contact: Promoting Rural Postsecondary Preparation through School-Community Partnerships | 2013 | Alleman, N. & Holly, L.N. | 0 figures/0 tables | Introduction/Literature Review: 2 pages  
Methodology: 1 page  
Mixed method  
Discussion/Conclusion: 6 pages |
| The Relationship between Students’ Preparation for High School Graduation Rate and Perception of Knowledge of the College Application Process Based on Participation in TRIO Upward Bound | 2019 | Lee, K. | 0 figures/7 tables | Introduction/Literature Review: 9 pages  
Methodology: 7 pages  
Quantitative Discussion/Conclusion: 9 pages |
**Proposed Abstract**

The purpose of this study was to examine the relationship, if any, between students’ preparation for high school graduation and their self-perception knowledge of the college application process based on their participation in TRIO Upward Bound. Data were collected from an online survey administered to 2008-2017 alumni of the study site’s TRIO Upward Bound program. The alumni attended high school in rural areas of the three counties served by the program, and participated in all aspects of TRIO Upward Bound programming, including the tutoring session, cultural enrichment, and on campus summer component. The study’s results suggest that participation in TRIO Upward Bound established a positive relationship between students’ preparation for high school graduation and their perceived knowledge of the college application process.

**Introduction and Review of Literature**

The benefits of completing high school and pursuing postsecondary education are well documented in the literature. Possessing a college degree translates into higher earning potential, which results in higher tax revenue and more economic activity. An educated citizenry also poses less of a burden on social services, and uses less funding from the federal and state governments (Blackboard Institute, 2011). An additional benefit of earning a postsecondary degree is the protection it provides against unemployment (Royster et al., 2015). Despite these benefits, three out of 10 students enrolled in public high school will not graduate.

Each year, 1.3 million students drop out of high school (Blackboard Institute, 2011). With an historical high school graduation rate of 70%, the nation has experienced an improvement in its overall high school graduation rate in recent years. For example, the U.S. high school graduation rate for the class of 2014 was 82%. This rate was an all-time high for the
nation, with the rate improving a full percentage point from the previous year, and three points from the class of 2011 (Diploma’s Count, 2016). However, minority students, students from low socioeconomic backgrounds, students who speak English as a second language, and students with disabilities typically fare worse than white, and Asian/Pacific Islander students (Robinson et al., 2016).

High school graduates’ lack of college readiness is particularly troublesome considering the changing dynamic in the nation’s workforce. Increasingly more jobs in the United States require postsecondary education. In 1973, 72% of jobs required a high school diploma or less, compared to an anticipated 38% by 2018 (Royster et al., 2015). It is for these reasons that many college preparation programs are aimed at improving the high school completion rate of these students.

Although research shows that future job opportunities in the United State will require some form of college or career training, 60% to 70% of students who take the ACT are not well prepared for college level work, particularly in language arts and mathematics. Only 25% of students who took the ACT in 2011 demonstrated a level of college readiness in all four subject matters (Royster et al., 2015). The lack of preparation at the secondary level has created a remediation crisis for higher education institutions, particularly community colleges, with spending approaching $1.4 billion per year to remediate students.

According to national statistics, 42% of community college freshmen and 20% of freshmen at four-year institutions enroll in one remediation course. In terms of the economic impact caused by students’ lack of preparation, the United States loses $3.7 billion each year as a result of students’ lack of knowledge related to the basic skills needed to succeed in higher education and careers (Blackboard Institute, 2011). Many students, especially those who have
recently completed high school, who enroll in remedial courses, are taken aback by the idea of needing remediation, considering they have met the requirements and completed the curricula to graduate from high school (Michael et al., 2011).

Beginning college in remedial courses has a negative effect on students’ likelihood of earning a degree (Michaels et al., 2011). Therefore, improving students’ college readiness is dependent upon improving high school graduation requirements and graduation rates to reduce the number of students academically underprepared for college coursework. However, the higher education system in the United States cannot afford to wait until high school graduation requirements improve to meet the standard of college readiness. Improving college readiness will require determining the definition of college readiness, as it relates to the essential skills students should learn prior to furthering their education or entering the work force. It is also critical to begin the process of college readiness prior to a student’s senior year in high school. The Forgotten Middle reported that students who do not show readiness in the eighth grade are less likely to demonstrate college readiness by graduation (Royster et al., 2015).

Numerous studies have concluded that the academic performance of students from low socioeconomic backgrounds is lower than their upper- and middle-class counterparts (Yampolskaya et al., 2006). There is an established link between students’ family social background and their academic performance and achievement. Students from more affluent families outperform their less affluent counterparts in every measure of academic achievement and engagement (Benner et al., 2016). According to experts, approximately one-third of all public high school students drop out of school each year (Ecker-Lyster & Niilesela, 2016). This statistic is worse for students from disadvantaged backgrounds, as a gap in graduation rates
continues to exist between these students and their more advantaged counterparts (Dansby & Dansby-Giles, 2011).

Additionally, low-income students are more likely to be placed on non-college bound tracks while in high school, more likely to repeat a grade and drop out of school, and have lower aspirations for continuing their education after high school (Yampolskaya et al., 2006). Knaggs et al. (2015) defined educational aspiration as “the desire to set personal goals that direct behavior” (p. 9). Research related to the aspirations of low socioeconomic students shows that student aspirations often do not coincide with their scholastic ability. As a result of the disconnect between low-income students’ aspirations and academic achievement, they often fail to meet the minimum requirements needed to transition into higher education (Knaggs et al., 2015). For the reasons discussed above, students from low socioeconomic backgrounds graduate from high school at a lower rate than their counterparts from middle- and upper-socioeconomic backgrounds.

**Low-income Students and Dropping Out of High School**

There is abundant research on the negative effects of dropping out of high school, and the impact this decision has on students, their families, and society as a whole. From an economic standpoint, students who drop out of high school will earn $630,000 less than students who graduate from high school over their lifetime (Rouse, 2007). The likelihood of students dropping out of high school is directly related to the extent to which they possess at least one of the following five factors: (1) prior poor academic performance during middle school, (2) family history of dropping out of high school, (3) repeating a grade, (4) living in a single-parent household, or (5) having schools more than twice. All five of these factors are connected to low-
income students at a more substantial rate than students from other socioeconomic groups (Cabrera & LaNasa, 2000).

Ecker-Lyster and Niilesela (2016) theorized a framework that highlights three different ways that students leave high school. According to this framework, students are either pushed, pulled, or fall out of school. With the pull-out theory, it is assumed that school is only one portion of a student’s life that overlaps with other external aspects of the student’s life, including family, friends, and economic pressures. The pressure of these external factors pulls students out of school if the student weighs that pressure as more important than the benefits of remaining in school. However, with the push out method, internal factors of the school influence a student’s decision of whether or not to remain in school. The push out theory focuses on factors such as poor academic infrastructure, school policies, and transportation issues that may push a student out of school. Lastly, students fall out of school when they do not progress academically and get off track (Ecker-Lyster & Niilesela, 2016).

For the betterment of the nation’s citizenry, improving the high school completion rate of students from low socioeconomic backgrounds must be a priority, as there is an established connection between educational attainment and earning potential. Without completing high school, students’ probability of economic success is reduced, and they are more likely to be a part of the nation’s institutionalized population (Morgan et al., 2015). Due to the benefits associated with high school graduation, it is important to articulate the factors that contribute to students’ chances of obtaining their high school diploma. Poverty is the main contributing factor in determining the likelihood of a student graduating from high school and attending college.

Grimard and Maddaus (2004) referenced the National Educational Longitudinal Study of 1988 (NELS: 88) in highlighting that students from low-income backgrounds and from families
in which the parents did not graduate from high school were less likely to graduate from high school themselves. In a follow up study to NELS: 88, conducted in 2000, 76.5% of the nation’s poorest students had completed high school or earned a GED, compared to 95.7% of middle-income students and 98.8% of affluent students. Since the Great Recession of 2008, all student demographics have experienced a decline in college enrollment. However, for low-income students, the decline has been more substantial than for other economic groups. The percentage of low-income high school graduates enrolling in college dropped from 55.9% in 2008 to 45.5% in 2013 (Brown, 2015).

College preparation programs serve an important role in providing these students with the necessary skills to overcome their impoverished circumstances and persist to high school graduation. For these programs to have the greatest impact, it is imperative that they begin their dropout prevention efforts prior to academic issues arising, in order to minimize risk factors while improving on factors that will contribute to students’ academic success (Ecker-Lyster & Niilesela, 2016). With the increased focus on students being able to compete in a global society, college preparation programs must implement programming that fosters students’ preparation for high school graduation through a variety of programs offered both in- and out-of-school, in partnership with parents and the community (Morgan et al., 2015). For example, TRIO college preparation programs use a student-centered approach to support students’ successful completion of high school through various initiatives including academic tutoring, academic and social counseling, financial literacy, and mentoring (Dansby & Dansby-Giles, 2011).

**Programs Designed to Address the Academic Shortcomings of Underprepared Students**

Bourdieu (1985) contended that the difference in academic success between affluent and low-income students is based on the generational transfer of cultural capital in wealthy families
as well as the value associated with this cultural capital in school (Strick, 2012). The academic ills of students from lower socioeconomic and underrepresented backgrounds has led to the creation of several programs and services created to assist these students with their academic and social preparation for college. The goals of these programs is to improve students’ high school graduation rate and increase their likelihood of beginning and completing college (Glennie et al., 2015). Many of these programs achieve this goal by introducing students to college preparatory curriculum, honors, and Advanced Placement courses. This exposure improves students’ academic ability (Mayer, 2008). For students to succeed at the postsecondary level, they must be adequately prepared for the academic rigor of college coursework and motivated to attend. Some of the most effective strategies of college preparation programs include: “(a) close monitoring of students’ personal and academic growth; (b) providing access to high-quality curriculum; (c) providing appropriate scaffolding to ensure academic success (tutoring, supplemental coursework, more time on task); and (d) providing academically oriented supportive peer groups” (Mayer, 2008, p. 209). The idea of scaffolding encompasses providing academic and social support that improves academic achievement for underachieving students (Mayer, 2008).

Of all college preparation programs, TRIO Upward Bound has the longest history of preparing students for success after high school. As a part of the 1964 Economic Opportunity Act, Upward Bound provides college preparation services to low-income students and first-generation students. The Talent Search program was implemented a year later through the Higher Education Act of 1965. The TRIO Talent Search program works with disadvantaged students who show promise of success at the postsecondary level. Talent Search differs from Upward Bound in that it works with students who have dropped out of secondary or postsecondary institutions as well as students currently enrolled in these institutions (Glennie et
Student support services is also a TRIO program. Despite its reach through multiple programs, TRIO programs are only able to serve about 10% of the eligible student population in the United States (Cabrera et al., 2000).

In 1990, academic success became a national goal for the Bush administration. As a result of this goal, the U.S. Department of Education established the Gaining Early Awareness and Readiness Program (GEAR UP) in 1998 to address the academic challenges and low, high school graduation rate for students from low socioeconomic backgrounds (Yampolskaya et al., 2006). Congress authorized GEAR UP as part of the Higher Education Amendments of 1998 to target cohorts of students from low socioeconomic backgrounds. The overarching goal of GEAR UP is to increase the number of low-income students who enroll and succeed in higher education. At a more immediate level, the program aims to improve program participants’ grades and standardized test scores and decrease behavioral problems and truancy (Yampolskaya et al., 2006).

For these programs to achieve their goal of preparing minority and low socioeconomic students for postsecondary education, certain elements must be present. Tierney, Corwin, and Colyar (2005) articulated a framework for effective programs by highlighting nine characteristics that typify successful college preparation programs:

- an emphasis on the culture of the student; family engagement; incorporation of peer groups; early, structured intervention with consistent structure; counselors who exhibit knowledge and are available to students; access to college preparation curricula; little to no emphasis on co-curricular activities; mentoring; and results that can be achieved at a reasonable cost. (p. 3)
Conceptual Framework

Conley (2007) described college readiness as “the level of preparation a student needs in order to enroll and succeed-without remediation-in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program” (p. 24). Conley’s college readiness theory includes four aspects of college readiness including key: cognitive strategies, content knowledge, learning skills and techniques, and transition knowledge and skills (Hungerford-Kresser & Amaro-Jimenez, 2012). Conley (2007) articulated that these four aspects “interact with and affect one another extensively” (p. 8), which signifies the importance of the notion that college readiness is integrated and relational.

Key cognitive strategies include the pre-existing intellectual behaviors necessary for college work, including “problem formulation, research, interpretation, communication, and verification” (An & Taylor, 2015, p. 6). Key content knowledge involves a foundational understanding of the core content subjects as well as students’ interaction with knowledge from content areas, theirs views on the value of knowledge in content areas, and their willingness to acquire knowledge in content areas.

Conley’s third concept, key learning skills and techniques, includes students’ interest in learning and learning techniques. Lastly, key transition knowledge and skills incorporates critical information students need for an understanding of how college works. This concept includes information that will assist students in a successful transition from high school, including an awareness of the college admissions process, college expectations, and the costs associated with attending college (An & Taylor, 2015).

This conceptual framework is applicable to this study because of Conley’s first three concepts. Ideally, as a student progresses towards high school graduation, he or she should be
developing the key cognitive strategies, gaining key content knowledge, and learning skills and techniques needed for success at the postsecondary level (Conley, 2008). In evaluating TRIO Upward Bound’s influence on the relationship between participants’ preparation for high school graduation and their perception of their knowledge of the college application process, it is necessary to determine whether participants developed the qualities outlined by Conley through their participation in the program.

Method

In researching this issue, a quantitative study was conducted to determine program participants’ perception of the relationship between the two variables analyzed: preparation for high school graduation and students’ perception of knowledge of the college application process based on students’ participation in TRIO Upward Bound. Since 2008, 413 seniors from high schools in three counties of Central Alabama have participated in the study site’s TRIO Upward Bound program. During those years, senior class sizes have ranged from 28 in 2015 to 58 in 2017. The high school graduation rate for program participants was 100%, with the exception of the 2017 cohort whose rate was 96.55%. Of the 413 TRIO Upward Bound participants from 2008 to 2017, 339 students enrolled in some type of postsecondary education after high school graduation.

To determine TRIO Upward Bound’s influence on students’ preparation for high school graduation and their perceived knowledge of the college application process, data acquired from an online survey of TRIO Upward alumni was used for the statistical analysis. The researcher chose survey data for this quantitative study because no archived institutional data exist related to alumni experience in TRIO Upward Bound, and how that experience influenced their postsecondary choices. Currently, no exit survey is given to seniors at the conclusion of their
time in TRIO Upward Bound. The study’s survey was designed with, and reviewed by, the TRIO Upward Bound Director with the hopes of it becoming the program’s exit survey for future participants. According to Creswell (2014), a quantitative study’s purpose is “to generalize from a sample to a population so that inferences can be made about some characteristic, attitude, or behavior of this population” (p. 157). From the results of this quantitative study, inferences were made regarding low-income students’ tendency to persist to high school graduation and their knowledge of the college application process based on their experience in TRIO Upward Bound.

The research question that guided this study was:

*What is the relationship between low-income students' participation in TRIO Upward Bound and their: (a) preparation for high school graduation and (b) perception of their knowledge of the college application process?*

The study data for this exploratory study were collected from an online survey distributed to alumni of the study site’s TRIO Upward Bound program. The goal of the survey was to understand low-income students’ perception of the program’s influence on their level of college readiness for the variables tested. Construction of the survey instrument occurred after consultation with the program director to determine what type of information the study site staff desired from program alumni related to the three variables tested. The framework for the study guided the development of the questions. The survey questions sought to determine program alumni’s perception of TRIO Upward Bound’s overall influence on students’ preparation for high school graduation, knowledge of the college application process, and the college enrollment experience, as well as their perception of the individual program components and the influence of other key influencers including parents and guidance counselors. Prior to administering the
survey to program alumni, face validity was established by giving the survey to graduating high school seniors in the TRIO Upward Bound program.

The survey began by collecting background information on the respondents. This background information included what they are currently doing: attending a two-year or four-year institution; working full-time; or serving in the United States Armed Force, as well as the level of educational attainment of respondents’ parent(s), the respondents’ education aspirations, and the respondents’ estimated total household income during high school. The survey was divided into three sections: Preparation for high school graduation, preparation for the college application process, and the college enrollment experience. Each section consisted of Likert-type scale questions, where a highly favorable survey response in terms of the respondents’ experience in TRIO Upward Bound translated into a 1 in the dataset. Each respondent received a score based on the sum of their responses to each section of the survey.

This study was conducted at a small, public liberal arts institution in the southeast. The institution was selected because of its status as a grantee of the TRIO Upward Bound program; approximately 43% of its students are eligible to receive federal Pell grant funding, which is typically awarded to students whose families earn less than $30,000 per year (U.S. Department of Education, 2017). With low-income students being one of the target populations of Upward Bound’s programming, selecting an institution with a large population of low-income students was a natural choice, since a significant portion of the institution’s student population could benefit from the resources of TRIO Upward Bound’s programming. As a grantee, the institution provides services to low-income and potential first-generation students, starting in grades 9 and 10. Services are divided into two components: the academic component and the on-campus summer component. During the academic component, students meet 16 times during the school
year to participate in academic classes and attend field trips and cultural enrichment activities. During the summer component, students benefit from living and learning in a college setting. This two-component approach to providing services takes a more holistic approach to preparing participants for postsecondary education.

Students selected to participate in the study were graduates of the institution’s Upward Bound program, in order to determine Upward Bound’s impact on college readiness when participants take advantage of the programming offered. Participants were randomly selected for this study. According to Creswell (2014), a representative sample of the population that is selected through randomization allows generalizations about the population to be made. The study population consisted of the site’s Upward Bound program graduates over the last 10 years. Stratification of the population occurred before the sample was selected. Stratification ensured that certain characteristics of the population were represented in the sample, and that the sample “reflects the true proportion in the population of individuals with certain characteristics” (Creswell, 2014, p. 158).

In evaluating the survey data to determine TRIO Upward Bound’s influence on the relationship between students’ preparation for high school graduation and their perception of their knowledge of the college application process, quantitative analysis was conducted via several statistical tests including correlation, a one-way ANOVA, and paired samples t-test. Correlation is a statistical test that “describes the linear relationship between pairs of variables for quantitative data” (Witte, R., & Witte, J., 2015, p. 137). The relationship between the two variables is described by the correlation coefficient, $r$, which ranges from -1 to 1. Whether the sign of the correlation coefficient is positive or negative signifies the type of relationship between the two variables. The strength of the linear relationship between the two variables is
indicated by the numerical value of the correlation coefficient, regardless of the sign (Witte & Witte, 2015). Cohen (1988) indicated a weak relationship between two variables is represented by a correlation coefficient near .10 or less; a correlation coefficient near .30 suggests a moderate relationship; and a value close to .50 or higher reflects a strong relationship.

Following the correlation analysis of TRIO Upward Bound’s influence on low-income students’ preparation for high school graduation and knowledge of the college application process, a one-way ANOVA was utilized to determine if a relationship exists between certain demographic characteristics of the students and the program’s influence on their preparation for high school graduation, as well as their perception of their knowledge of the college application process. This was an appropriate test considering a one-way ANOVA analyzes whether a difference in population means is caused by one independent variable (Witte & Witte, 2015). The variables considered in the one-way ANOVA were highest intended academic pursuit, gender, household income while in high school, and ethnicity. The levels for highest intended academic pursuit listed on the survey included the following degrees: bachelor’s, master’s, doctorate, medical and law. The scale for household income began at less than $25,000 per year. It then progressed to $25,000-$34,999, and continued to increase at intervals of $10,000 up to $75,000 or more. For ethnic background, survey respondents had the option of selected at least one of the ethnicities: African American or black, Asian-American/Pacific Islander, Hispanic or Latino/a, Native American or Alaskan Native, white (non-Hispanic) and other.

The determination of whether a significant difference exists between low-income students’ preparation for high school graduation and knowledge of the college application process based on their participation in TRIO Upward Bound was conducted by a paired samples t-test. Since each sample is related to the individuals who provided the information needed to
calculate the scores for the variables tested in the survey’s sections, the paired samples t-test was an appropriate choice. The forthcoming Results section provides an explanation of how the variables’ scores were tabulated.

Data concerning the high school graduation rate for participants were collected from the grantee’s annual report for the Upward Bound program. Additionally, data related to participants’ level of participation in different aspects of Upward Bound geared towards improving participants’ likelihood of graduating from high school were collected via a survey. The survey was administered online, because of the low cost associated with online surveys. In administering an online survey, it was imperative to consider the drawback of a possible high non-response rate, which can interfere with making generalizations regarding survey results. Literature related to survey research has recorded a continuous decline in survey response rates over the past forty years (Dey, 1997; Porter & Whitcomb, 2003; Rossi et al., 2013; Tourangeau, 2004). Approximately 61% of TRIO Upward Bound alumni who received the survey responded. If there had been a high non-response rate for the survey, there may have been a need to increase the number of Upward Bound participants receiving the survey.

Study findings were limited to those who participated in an Upward Bound program in a rural area in central Alabama. Therefore, study results cannot be used to make generalized assumptions regarding TRIO Upward Bound programs in urban areas or other states. Even if the study findings have implications that are applicable to TRIO Upward Bound students in urban areas or other states, results are only intended to be applied in the particular context of the study. Study participants were graduates of the TRIO Upward Bound program, some of whom completed the program as many as 10 years ago. Therefore, the study is delimited because it
excluded current TRIO Upward Bound students and their perspective of TRIO Upward Bound’s influence on their decision to remain in high school.

**Results**

With the information obtained from the survey, a bivariate correlation was performed to determine the strength of the relationship between students’ preparation for high school graduation and their perceived knowledge of the college application process based on their participation in TRIO Upward Bound. SPSS version 24 was used to perform the analysis. Surveys were sent to 72 alumni of the study site’s TRIO Upward Bound program. Of those alumni, 44 completed the survey. Those who responded included 23 African Americans, 19 Caucasians, one Hispanic, and one who identified as other. The majority of the respondents’ parents were high school graduates, including 16 mothers and 23 fathers. Four of the respondents’ mothers had completed graduate education, while none of the respondents’ fathers had obtained degrees past the bachelor’s level. Most respondents estimated their parents’ annual income during their time in high school at under $44,999. Eleven respondents estimated their parents’ income at less than $25,000 per year, eight estimated an income ranging from $25,000-$34,999, and nine estimated an annual income of $35,000-$44,999. At the other end of the spectrum, only three respondents estimated their parents’ annual income of more than $75,000 while they were in high school.

After questions related to demographic information, the survey was divided into three sections: Preparation for high school graduation, preparation for the college application process, and preparation for the college enrollment experience. Sections one and two both had 15 questions. Each survey respondent was given a score for each section based on their responses to
the survey questions. For sections one and two, scores could range from 0-60, with a lower score being more favorable of their experience in the TRIO Upward Bound program.

The Cronbach alpha technique was used to determine the reliability of the three-item scale utilized to determine TRIO Upward Bound’s influence on certain aspects of low-income students’ transition into postsecondary education. The alpha for the scale was .815. However, if knowledge of the college application process is removed the internal reliability would increase. This removal is fitting because of its low correlation with the test. Repeating the Cronbach alpha test without knowledge of the college application process produced an alpha of .861, which is more acceptable for a scale (Gliem, J., & Gliem, R., 2003). Tables 2.2 and 2.3 reflect the internal reliability of the three-item scale. The variable excluded from consideration in this research question was omitted from Table 2.3.

Table 2.2
Alpha Reliability

<table>
<thead>
<tr>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.815</td>
<td>.824</td>
</tr>
<tr>
<td>.815</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 2.3
Reliability Statistics

<table>
<thead>
<tr>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation for HS Graduation</td>
<td>21.29</td>
<td>286.262</td>
<td>.681</td>
<td>.609</td>
</tr>
<tr>
<td>Knowledge of the College Application Process</td>
<td>20.95</td>
<td>388.448</td>
<td>.544</td>
<td>.359</td>
</tr>
</tbody>
</table>
Scores for the survey questions related to high school graduation ranged from 0-41. These questions covered a variety of topics including TRIO Upward Bound’s influence on students’ understanding of the requirements for high school graduation, their preparation for high school graduation, and students’ realization of their potential for high school graduation and postsecondary education. This section also contained questions related to students’ participation in certain aspects of TRIO Upward Bound programming including its summer bridge, cultural enrichment, tutoring, and bi-weekly meetings. The survey questions related to knowledge of the college application process ranged from 0-49. This section comprised questions concerning TRIO Upward Bound’s influence on students’ timing and preparation for taking college entrance exams, the impact of its sessions on the college application and financial aid processes, as well as questions regarding how students communicated with key influencers (parents, teachers, guidance counselor, Upward Bound personnel) about the college application process. The mean score for the high school graduation section was 10.85, and the mean for the section on college application process knowledge was 11.64.

The dataset was analyzed to evaluate TRIO Upward Bound’s influence on program participants’ decisions related to certain aspects of pursuing postsecondary education. The strength of the relationship between students’ preparation of high school graduation and students’ perception of their knowledge of the college application process based on their enrollment in TRIO Upward Bound was compared using a Pearson correlation. The following table illustrates the relationship between the two variables. The data in Table 2.4, a bivariate correlation, reflected a strong relationship between students’ preparation for high school graduation and their perception of their knowledge of the college application process based on their participation in TRIO Upward Bound.
Table 2.4
*Correlation Illustrating the Relationship between Students’ Preparation for High School Graduation and Knowledge of the College Application Process Based on TRIO Upward Bound*

<table>
<thead>
<tr>
<th>HS Graduation</th>
<th>High School Graduation</th>
<th>Knowledge of College Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.462**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.002</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>5745.909</td>
<td>2180.000</td>
</tr>
<tr>
<td>Covariance</td>
<td>133.626</td>
<td>53.171</td>
</tr>
<tr>
<td>N</td>
<td>44</td>
<td>42</td>
</tr>
</tbody>
</table>

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

The Pearson correlation coefficient of .462 signifies a strong, positive relationship between the two variables. The relationship was statistically significant at the .01 level, meaning students who participated in TRIO Upward Bound are more likely to be prepared to graduate from high school, and more likely to have a higher self-perception of knowledge of the college application process than those students who do not participate in TRIO Upward Bound.

Depicted below in Tables 2.5 and 2.6 are the results of the one-way ANOVA. Both tables reflect that there was no statistically significant difference in TRIO Upward Bound’s influence on students’ decisions to persist to high school graduation and their knowledge of the college application process as a result of the respondents’ highest intended academic pursuit, gender, family household income, and ethnicity.
Table 2.5
Preparation for High School Graduation ANOVA

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Intended</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Pursuit</td>
<td>Between Groups</td>
<td>14.833</td>
<td>23</td>
<td>.645</td>
<td>.376</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>29.167</td>
<td>17</td>
<td>1.716</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>44.000</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between Groups</td>
<td>2.658</td>
<td>24</td>
<td>.111</td>
<td>.652</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>3.229</td>
<td>19</td>
<td>.170</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.886</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between Groups</td>
<td>64.261</td>
<td>24</td>
<td>2.678</td>
<td>.578</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>83.367</td>
<td>18</td>
<td>4.631</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>147.628</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between Groups</td>
<td>82.470</td>
<td>24</td>
<td>3.436</td>
<td>.695</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>93.962</td>
<td>19</td>
<td>4.945</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>176.432</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the one-way ANOVA analysis for preparation for high school graduation reflect no significant difference based on students’ highest intended academic pursuit, F = .376, p = .985. There was no statistical significant difference based on the other characteristics tested: gender (F = .652, p = .840), household income (F = .578, p = .896), and ethnicity F = .695, p = .802, respectively.
Table 2.6  
*College Knowledge ANOVA*

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Intended Academic Pursuit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>16.231</td>
<td>18</td>
<td>.902</td>
<td>1.021</td>
<td>.479</td>
</tr>
<tr>
<td>Within Groups</td>
<td>17.667</td>
<td>20</td>
<td>.883</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>33.897</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.810</td>
<td>19</td>
<td>.095</td>
<td>.629</td>
<td>.845</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3.333</td>
<td>22</td>
<td>.152</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5.143</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>53.902</td>
<td>19</td>
<td>2.837</td>
<td>.709</td>
<td>.772</td>
</tr>
<tr>
<td>Within Groups</td>
<td>84.000</td>
<td>21</td>
<td>4.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>137.902</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>78.226</td>
<td>19</td>
<td>4.117</td>
<td>.998</td>
<td>.497</td>
</tr>
<tr>
<td>Within Groups</td>
<td>90.750</td>
<td>22</td>
<td>4.125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>168.976</td>
<td>41</td>
<td></td>
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</table>

According to the ANOVA analysis of TRIO Upward Bound’s influence on low-income students’ perceived knowledge of the college application process, there was also no significant difference between the groups based on students’ highest intended academic pursuit, $F = 1.021$, $p = .479$. There was no statistical significant difference based on gender ($F = .629$, $p = .845$), household income ($F = .709$, $p = .772$), or ethnicity ($F = .998$, $p = .497$). Since the results of the ANOVA analysis showed no significance, there was no need to run post hoc tests to determine which particular means were different (Kao & Green, 2008).

A paired samples t-test was conducted to evaluate whether there was a significant difference between student’s preparation for high school graduation and knowledge of the college application process based on their participation in TRIO Upward Bound. The mean scores between the preparation for high school graduation and knowledge of the college application process did not differ significantly ($t = -.178$, $df = 41$, $p = .860$). The calculated effect size was .028, indicating a small effect size. The results of the paired samples t-test for preparation for high school graduation and college knowledge are depicted as Pair 1 in Table 2.7.
Table 2.7

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Paired Samples T-Test</th>
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<tbody>
<tr>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Pair 1 Preparation for HS Graduation – Perceived Knowledge of Process</td>
<td>-.310</td>
</tr>
<tr>
<td>Pair 2 Preparation for HS Graduation - Enrollment</td>
<td>1.930</td>
</tr>
<tr>
<td>Pair 3 Perceived Knowledge of Process - Enrollment</td>
<td>2.561</td>
</tr>
</tbody>
</table>

A p-value of .860 translates into .430 for a 2-tailed paired samples t-test, putting it within the range for an alpha of .05. We are highly confidently in failing to reject the null hypothesis due to the p-value’s position on the scale. As a result, those with a high level of preparation for high school graduation also perceived to have a high level of knowledge regarding the college application process.

The findings of this study reveal that further research related to TRIO Upward Bound programming is necessary. Specifically, research on the effectiveness of the individual Upward Bound program components is needed to determine which components have the greatest influence on participants’ ability to overcome certain factors that typically inhibit low-income students’ graduation from high school and pursuit of postsecondary education. Obtaining this information can be beneficial to program administrators as they craft programming to adequately
fulfill TRIO Upward Bound’s mission of preparing low-income and first generation students for enrollment in postsecondary education.

The study’s findings also highlighted that most alumni of the study site’s TRIO Upward Bound program recalled never talking to the key influencers (parents, teachers, guidance counselors, and Upward Bound personnel) about the college application process, or talking to them very infrequently. Even though the alumni did not communicate frequently with Upward Bound personnel regarding the college application process, an overwhelming majority of them felt that the program equipped them with the skills to successfully navigate the college application process. With poor high school academic performance and the high school dropout rate being two factors working against low-income students in their pursuit of postsecondary education, further research is needed on how to improve communication between TRIO Upward Bound participants and key influencers, particularly TRIO personnel, considering the guidance they provide to students during their time in high school and in their transition to postsecondary education.

The study’s finding uphold that program participants view TRIO Upward Bound as helpful in their transition into postsecondary education, considering the strong, positive correlation between participants’ preparation for high school graduation and their perceived knowledge of the college application process gained during their time in TRIO Upward Bound. As a result of this finding, an implication for practice is for higher education administrators to support TRIO Upward Bound programming by providing adequate funding and resources for the program to run efficiently as it strives to fulfill its mission of preparing low-income and first generation students for enrollment in institutions of higher education. Additionally, once low-income students’ transition to postsecondary education, higher administrators could benefit from
implementing some components of TRIO Upward Bound programming, specifically the individual tutoring and bi-weekly sessions, to assist with the retention of this vulnerable population of students, especially considering the number of students who begin their college careers by enrolling in at least one remedial course.

**Conclusion**

This study examined if a relationship existed between low-income students’ preparation for high school graduation and their perceived knowledge of the college application process based on their time in TRIO Upward Bound. This study suggests that a strong, positive relationship exists between these two variables as a result of students’ participation in TRIO Upward Bound. The survey data implied that TRIO Upward Bound alumni perceive the programming as effective in preparing them to graduate from high school, and successfully navigate the college application process by influencing students to persist to high school graduation and realize their potential for achievement at the postsecondary level. TRIO Upward Bound’s alumni’s perception of the program reflects their belief that participation in TRIO Upward Bound equipped them with the necessary skills to academically excel and overcome the challenges and external pressures that often contribute to the high school dropout rate for this demographic of students. College preparation programs like TRIO Upward Bound are perceived as important to inspire students to look past their circumstances, and believe in their ability for postsecondary success. The inspiration that programs like TRIO Upward Bound provide impacts not only the program participants, but all those who are connected to them, which in turn creates a college going culture for their families.
REFERENCES


Schuddle, L. (2016). The interplay of family income, campus residency, and student retention (What practitioners should know about cultural mismatch). *Journal of College & University Student Housing, 43*(1), 10-27.


LOW-INCOME STUDENTS’ PREPARATION FOR HIGH SCHOOL GRADUATION AND COLLEGE ENROLLMENT BASED ON THEIR PARTICIPATION IN TRIO UPWARD BOUND

Article Two Completion Date: June 2019


Rationale: *The Journal of Diversity in Higher Education* focuses on research findings, theory, and practices related to higher education institutions’ efforts toward excellence in inclusiveness. The population for this study represents TRIO Upward Bound participants, who are characterized as first-generation students, students from low-income households, or students with disabilities. These three populations of students add to institutions’ diversity. *Manuscripts are typically 10-25 pages including references, tables, and figures.*
<table>
<thead>
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<th>Title</th>
<th>Pub. Year</th>
<th>Author(s)</th>
<th>Figures/Tables in Article</th>
<th>Section Detail</th>
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<td>2009</td>
<td>King, K.</td>
<td>0 figures/1 table</td>
<td>Introduction/Literature Review: 2 pages Methodology: 2 pages Conclusions/Implications: 4 pages</td>
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<td>2012</td>
<td>Griffin, K., et al.</td>
<td>0 figures/1 table</td>
<td>Introduction/Literature Review: 3 pages Methodology: 1 page Qualitative Discussion/Implications: 4 pages</td>
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<td>2010</td>
<td>Holland, N.</td>
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<td>2013</td>
<td>Kim, D. &amp; Nunez, A.</td>
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<td>Lee, K.</td>
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The literature on college preparation programs like TRIO Upward Bound highlights the importance of these initiatives as they work to close the achievement gap, as well as improve access to postsecondary education for some of the nation’s most vulnerable students. Additionally, the literature illustrates college preparation programs’ ability to increase students’ social and cultural capital, which are critical components during the transition from high school to higher education.

Proposed Abstract

Historically, low-income students have graduated from high school and enrolled in postsecondary education at a lower rate than their more affluent peers. College preparation programs like TRIO Upward Bound were created to adequately prepare students for the academic rigor of postsecondary education. With support at both the federal and state levels, these programs have been instrumental in equipping these students for academic and social success after high school. This quantitative study was designed to evaluate the relationship, if any, between students’ preparation for high school graduation and college enrollment, based on their participation in TRIO Upward Bound. Study participants were alumni of a TRIO Upward Bound program in central Alabama. The findings suggested that program alumni perceived a positive relationship between their preparation for high school graduation and subsequent enrollment in postsecondary education, as a result of their experience in TRIO Upward Bound.

Introduction and Review of Literature

Students’ decision to pursue postsecondary education is based on a variety of factors, including academic preparation, scholastic aspirations, financial resources, and the influences of family and high school guidance counselors. Research demonstrates the importance of interaction during the college application process. This process needs to be personalized to meet
the individual needs of the student, which is the most effective way to establish the best fit between student and institution. As students make life-changing decisions as they transition from high school to college, guidance and emotional support is needed from both higher education admissions professionals as well as those connected to the students’ high schools (Hugo, 2012). This is particularly true for low-socioeconomic students who graduate from high school and enter postsecondary education at a lower rate than their middle- and upper-socioeconomic counterparts.

According to data from the 2007-2008 academic year, 68% of low-income students graduated from high school compared to 91% of students from low-poverty areas. Following high school graduation, 52% of students from low-poverty areas enter four-year institutions compared to only 28% of students from high-poverty areas (Venezia & Jaeger, 2013). The role of guidance counselors is crucial in that they provide access to higher education and knowledge of the college-going process by providing resources and information to support students’ decision to attend college and complete the application and enrollment process (Pham & Keenan, 2011). To further support the important role guidance counselors play in the college enrollment process for low-income students, research shows that students who attend higher quality institutions as defined by certain characteristics including six-year graduation rates, are more likely to graduate from college. However, as many as 50% of low-income students do not apply to or attend the type of institutions for which they qualify for admission based on their scholastic qualifications (Avery & Hoxby, 2014; Hoxby & Turner, 2013; Smith, Pender, & Howell, 2013).

According to the U.S. Department of Education (2014), the national ratio of students-to-school counselors is 476:1. Students from high poverty areas are less likely to have access to school counselors in comparison to students from wealthier areas. This information is
particularly troubling considering low-income students are more likely to seek college advice from their school counselors and be influenced by that information than their more affluent counterparts (Malone, 2013). Nevertheless, many counselors in low-socioeconomic areas are not given an opportunity to participate in college preparatory events and conferences. Many of these counselors focus solely on assisting students as they work towards meeting the graduation requirements of the local school system (Mayer, 2008). Evaluating the impact of guidance counselors is a difficult task because of the correlation that exists between the quality and quantity of guidance available to a student and the many other factors that influence college enrollment, including the student’s personal aspirations, parental support, and the quality of their high school (Castleman & Goodman, 2014). Minority students and students from low-socioeconomic backgrounds typically receive less support and college application information from high school counselors, while experiencing challenges in other areas that lead to college enrollment. Minority students often view guidance counselors as the gatekeepers of college information who are inaccessible to them and who have low expectations of their ability to succeed academically (Martinez & Welton, 2014).

For first-generation students, the availability of a counselor is connected to an increased opportunity for qualified students to enroll in four-year institutions. If first-generation or low-income students have positive connections with their guidance counselor, that relationship can help students overcome external pressures and institutional barriers that interfere with academic success at the secondary level, while encouraging students to pursue postsecondary education. To support vulnerable populations like first-generation college students and low-income students, guidance counselors must ensure that these students have the opportunity, access, and information needed to successfully pursue higher education (Land et al., 2013).
Research also shows that navigating the complexities of the college admissions process and the associated financial aid applications requires more interaction with school counselors (Pham & Keenan, 2011). Information regarding the financial aid process is important to students’ ability to advance through the college admissions process. Students frequently mention a lack of financial resources, as well as a lack of information related to the financial aid process, as key considerations in their decisions to attend college (King, 2012). Parents of low-income and minority students often do not provide estimates related to the cost of tuition. When estimates are provided by these parents, there is not always a true understanding of the actual cost of attendance, and which therefore leads to be more substantial estimate errors compared to estimates provided by other parents (King, 2012). As a result of the challenges mentioned above, college application rates for low-income students were 26% lower than students from more affluent backgrounds (Rowan-Kenyon et al., 2008).

Low-income students do not always receive the same information related to the college application process, as a result of a lack of attention from high school counselors and their parents’ lack of knowledge regarding the college admissions process. Therefore, to effectively prepare students for the college admissions process, college preparation programs must provide students the necessary knowledge related to the college-going process. This is particularly true for low-income students who tend to start gathering college information later in high school; rely heavily on family, school counselors, and their peers for the majority of college information they receive; and do not have the same college preparation experiences as their upper-income peers (Malone, 2013). These programs fill the void often left by guidance counselors by providing students with information about colleges and careers, which allows students to establish realistic
goals. These programs also use community partnerships to broaden students’ awareness of the world around them and their role in the world (Knaggs et al., 2015).

As a result of the confidence students gain from exposure through the program, participants of college preparation programs are more likely to seek information related to postsecondary education, begin the college application process, and apply for financial aid (Glennie et al., 2015). The knowledge and skills that students gain of the college-going process from their participation in college preparation programs empowers traditionally underrepresented students to apply to college and persist at the postsecondary level (Knaggs et al., 2015).

**Challenges of Low-income Students**

Low-income students face an uphill battle in transitioning from secondary to postsecondary education. In addition to being less able to afford the costs associated with college, they are also less likely to have experienced college preparatory courses while in high school, and less familiar with the college admissions process (Cox, 2016). Despite the best efforts of secondary and postsecondary institutions, there are still many first-generation students who do not know how to navigate the college admissions process (Hugo, 2012). Their lack of familiarity with the college admissions process is the result of limited access to information about higher education. In spite of institutional efforts to reach students through social media and other online options, research suggests that low-income students may lack the digital literacy needed to apply the online information to their personal situation (Brown et al., 2016).

Low-income students attend two-year schools at a much higher rate than four-year schools (Cox, 2016). Students’ decisions of where to attend school is based largely on the influence of their family. The background and characteristics of a student’s family are major contributing factors in determining a student’s enrollment decisions. Specifically, parental
income and education levels are aspects of students’ family background that influence students’ educational goals (Bergerson, 2009). For students with family incomes at or below $35,000, this influence is especially significant in determining students’ college enrollment plans (Engberg & Allen, 2011).

The influence of parental expectations for low-income students’ educational aspirations has the greatest impact on students’ predisposition towards higher education. A component of parental expectations is parental encouragement, which includes emotional support and supportive behavior. However, due to their lack of higher education, low-income parents are often ill-equipped to provide the necessary support and encouragement needed to inspire their students to pursue their educational goals (Bergerson, 2009).

Due to the historical plight of low-income students, various college readiness initiatives have been implemented. Despite the academic preparation and access to information provided by these programs, there is no guarantee that low-income students will pursue higher education. For example, even with the assistance of such programs designed specifically for low-income students, 70% of students admitted into four year institutions reconsidered their decision to attend, attended a less selective institution, or decided not to attend college at all (Cox, 2016). For low-income students who do choose to attend college, the likelihood of a successful outcome is slim. Researchers have demonstrated that many students from this demographic either drop out of college without receiving a degree, take a limited number of course resulting in an extended amount of time to graduation, or attend institutions that are lacking in resources and therefore may earn less upon graduation (Hoxby & Avery, 2013).

**Parental Involvement**
A component that is frequently missing from college readiness programs designed specifically for low-income students is parental education on applying to and matriculating through college. This curriculum designed for parents should focus on the importance of parental involvement in students’ academic pursuits while in high school. This program component is valuable in helping working-class and low-income parents engage and grasp an understanding of their students’ academic endeavors in a manner similar to parents of high socioeconomic students, despite their children’s ability to and their desire to see their students (Land et al., 2013). The importance for the parent-student relationship is well documented in literature.

According to the Institute for Higher Education Policy, 43% of low-income parents from various racial backgrounds were unfamiliar with the college application process, and therefore did not collect information related to different institutions, attend campus tours with their students, or discuss the college application process with their students’ school counselor (Malone, 2013). Research has shown the benefits students receive regarding college choice when their parents are involved (Smith, 2009). There are many positive correlations between parental involvement and productive student outcomes. For example, high school students’ “willingness to undertake academic work, quantity of parent and student interaction, student grades, aspirations for higher education, and parent satisfaction with teachers have all been linked to the level of their parents’ involvement in their high school career” (McCoy, 2010, p. 1). Research further shows that college preparation programs that include parental involvement as a key component provide emotional guidance and financial support and improve program enrollment (Leonard, 2013).
Although high school is typically a time when students assert their individuality and autonomy, the established benefits of parental involvement on high school students’ academic achievement necessitates the inclusion of programming designed to promote parents’ ability to support their students as they make educational decisions that will impact the future course of their lives (Benner et al., 2016). There is also research that outlines the importance of community support in preparing students for postsecondary education.

In a meta-synthesis, Mwangi (2015) concluded that community members serve multiple supporting roles in students’ college choice process, which is consistent with Conley’s (2007) four concepts of college readiness, key transition knowledge and skills. There is a reciprocal nature to the relationship between students and non-family community members. When community members were actively involved in students’ college readiness process, students in return felt compelled to support their community during this process as well as during their time in college by serving as role models for their younger siblings and the community. This was especially true for minority and low-income students (Mwangi, 2015). Researchers have shown that because of the services, activities, and social influence of community partners, college readiness is impacted in five areas: supporting schools’ academic and career success efforts, providing information, developing postsecondary aspirations and socialization, creating an economy of support, and establishing a sense of commitment to the value of higher education (Alleman & Holly, 2013).

These advantages are applicable to all students. However, in the case of low-income students and minority students, in particular, parental involvement in schooling greatly increases students’ chances of being admitted into a four-year institution (Smith, 2009). Despite these established benefits, low-income parents who have not had an opportunity to attend college
themselves are ill-equipped to assist their students as they transition from high school to college (McCoy, 2010). Although these parents may have high expectations for their students’ academic endeavors, they often lack the necessary information to help their students navigate the college admissions process (McCoy, 2010).

**Theoretical Framework**

The theoretical framework for this study was Bourdieu’s cultural and social capital theory. As outlined by Bourdieu and Passeron (1977), an individual’s most promising hope of escaping poverty and dependence upon government assistance is obtaining a quality education at the secondary level followed by postsecondary education. Bourdieu further noted that the culture of the more dominant class is oftentimes rewarded in the educational system. According to Bourdieu (1973), the acquisition of cultural capital is based on an individual’s ability to internalize the capital.

Bourdieu (1986) defined cultural capital as “that which is convertible, on certain conditions, into economic or social capital and may be institutionalized in the form of educational qualifications” (p. 243). The transmission of cultural capital is referred to as cultural reproduction. Bourdieu’s concept of cultural reproduction is important to the discussion on college readiness because parents’ level of education, as well as level of professional and social success, are key factors in the level of their students’ academic success (Barnes & Slate, 2010). Low-income students are at a disadvantage academically in comparison to their middle- and upper-class counterparts as a result of their parents’ lack of cultural capital (Bourdieu & Passeron, 1977).
Method

To determine TRIO Upward Bound’s effect on the relationship between its participants’ preparation for high school graduation and enroll in postsecondary education, a quantitative research design was implemented. The data for this exploratory study of low-income students’ perspective on TRIO Upward Bound’s influence on their college readiness was collected exclusively via an online survey administered to a group of alumni from the study site’s program. The alumni selected to participate in the study completed the program from 2008 to 2017.

Currently, the study site’s TRIO Upward Bound does not disseminate an exit survey as students transition out of the program. Therefore, the survey was developed with the assistance of the program’s director with the hopes of it becoming the program’s exit survey as students move on to pursue their postsecondary goals. A determination was made, with the director, of the college readiness information desired to fulfill the intended purpose of using the instrument as an exit survey. Following that process, the theoretical framework guided the development of the survey questions. The purpose of the questions was to understand participants’ overall impression of TRIO Upward Bound’s influence on their college readiness, as well as to understand their perception of the individual program components’ influence on their college readiness. Once the survey was constructed, it was administered to outgoing high school senior program participants prior to being sent to program alumni, which established face validity for the instrument.

From 2008-2017, the 413 participants graduated from Alabama high schools in the counties serviced by the study site’s TRIO Upward Bound program, with an average of 41 students completing the program each year. During this 10-year timeframe, the participants
graduated at a rate of 100% for the first nine cohorts. There was a decrease in the graduation rate in 2017 to 96.55%, which the program director ascribed to students moving out of the program’s service area prior to graduation. After completing high school, 339 program alumni enrolled in postsecondary education.

As described by Creswell (2014), a quantitative study is designed to “generalize from a sample to a population so that inferences can be made about some characteristic, attitude, or behavior of this population” (p. 157). The study sample’s survey responses were evaluated in order to make inferences related to the population’s behavior related to preparation for high school graduation and enrollment in postsecondary education based on their participation in TRIO Upward Bound.

The research question guiding this study was:

*What is the relationship between low-income students' participation in TRIO Upward Bound and their: (a) preparation for high school graduation and (b) college enrollment?*

After data collection, a quantitative research design was implemented to evaluate the relationship between program participants’ preparation for high school graduation and their college enrollment based on their participation in TRIO Upward Bound. The survey collected background data on each respondent, including what they are currently doing in terms of academic and professional pursuits, what they ultimate academic aspirations are, the educational achievement of the respondents’ parents, and estimations of their families’ average income during their time in high school as a TRIO Upward Bound student. After collecting this background information, the survey is divided into three sections related to the alumni’s participation in TRIO Upward Bound and its effect on participants’ preparation for high school graduation and the college application process, as well as its effect on participants’ ultimate
decision to enroll in postsecondary education. The sections included Likert-scale type questions, where a favorable experience in TRIO Upward Bound was denoted by a score of one out of five in the dataset. The sum of each section was calculated in order to determine the relationships between the sections based on the alumni’s participation in TRIO Upward Bound.

A small public liberal arts institution in the Southeast was selected as the study site. The institution was selected because of its status as a grantee of the TRIO Upward Bound program. As an Upward Bound grantee, the institution provides services to low-income and potential first-generation high school students, starting in grades 9 and 10. Services are divided into two components: the academic component and the on-campus summer component. During the academic component, students meet 16 times during the school year to participate in academic classes as well as attend field trips and cultural enrichment activities. During the summer component, students benefit from living and learning in a college setting. This two-component approach to providing services takes a more holistic approach to preparing participants for postsecondary education.

In this study the researcher’s goal was to determine whether students’ perceived participation in TRIO Upward Bound as influential to the relationship between participants’ preparation for high school graduation and college enrollment. Data were gathered via an online survey administered to alumni of the study site’s TRIO Upward Bound program. This population was selected to study to evaluate the college preparation program’s effect on participants’ navigation through the process of graduating from high school, and entering postsecondary education. The survey was divided into three sections. Each section related to a particular aspect of the transition from high school into college. The purpose of the survey section on high school graduation was to comprehend TRIO Upward Bound’s function in academically preparing
program participants to persist to high school graduation. The primary focus of the survey section on college enrollment experience was to understand TRIO Upward Bound’s role in helping students decide to pursue postsecondary education. The survey was developed with the assistance of the study site’s TRIO Upward Bound director, to ensure the validity of the survey’s content. The survey was also reviewed by experts in secondary and postsecondary education, including a high school principal, several enrollment management professionals, and TRIO Upward Bound professionals. The study survey can be found in Appendix B.

After the survey concluded, the data gathered from the survey were evaluated using SPSS version 24. TRIO Upward Bound’s influence on the relationship between program participants’ preparation for high school graduation and college enrollment was assessed by quantitative analysis, including correlation, paired samples t test, and analysis of variance (ANOVA). Correlation analysis was an appropriate statistical test to assess the relationship between two quantitative variables (Bewick et al., 2003). The strength of the relationship between the two variables is indicated by the correlation coefficient. This value can range from -1 to +1, with the positive or negative sign signifying the direction of the relationship between the variables (Zou et al., 2003).

According to Witte and Witte (2015), correlation “describes the linear relationship between pairs of variables for quantitative data” (p. 137). The numerical value associated with the relationship between the variables is illustrated by the correlation coefficient, $r$, which can range between -1 and 1. The sign associated with the correlation coefficient describes whether the relationship between the two variables is positive or negative. In regard to the strength of the variables’ relationship, the numerical value of the correlation coefficient reveals the magnitude of the relationship’s strength (Witte & Witte, 2015). A weak relationship between variables is
reflected by a correlation coefficient near .10 or less; numerical values near .30 indicate a moderate relationship; and coefficients near .50 or higher reveal a strong relationship between the two variables (Cohen, 1988).

In addition to determining the correlation between students’ preparation for high school graduation and college enrollment, a one-way ANOVA was used to explore if there was a relationship between students’ background characteristics and TRIO Upward Bound’s influence on low-income students’ preparation for high school graduation and college enrollment. A one-way ANOVA examines whether there are differences in population means based on one independent variable (Witte & Witte, 2015). Some of the background demographic information obtained from the survey were the variables analyzed in the one-way ANOVA. The demographics used were highest intended academic pursuit, household income while in high school, gender, and ethnicity. Survey respondents could select from the following degrees as their highest intended academic pursuit: bachelor’s, master’s doctorate, medical, or law. The survey options for average annual household income started at less than $25,000. The next option was $25,000-$34,999. The levels increased at an increment of $10,000 up to $75,000 or more. The survey choices from ethnic background included African American or black, Asian-American/Pacific Islander, Hispanic or Latino/a, Native American or Alaskan Native, white, and other. Survey respondents had the option of selecting more than one ethnicity.

A paired samples t-test was also conducted to evaluate whether there was a significant difference between students’ preparation for high school graduation and college enrollment based on their participation in TRIO Upward Bound. This is an appropriate statistical test considering the samples are related to the respondents who provided the answers used to tabulate
the scores for the three variables tested. An explanation of how each variable’s score was tabulated is discussed in the Results section below.

Decisions related to the study’s methodology resulted in several delimitations for the study. First, this study was based solely on information concerning students’ participation in TRIO Upward Bound and its influence of their preparation to graduate from high school and pursue postsecondary education, without consideration of any other potential factors. As a result, this study was delimited because no other factors were considered in determining the relationship between students’ preparation to graduate from high school, and subsequently enroll in college. Additionally, study participants included only TRIO Upward Bound alumni from a rural area in central Alabama. As a result, generalizations regarding the study findings cannot be applied to TRIO Upward Bound programs in urban areas or other states. Although implications from the study findings may be applicable to TRIO Upward Bound students in urban areas or other states, study results are only meant to be used in the study’s specific setting. Furthermore, the study excluded current participants and focused only on alumni of the TRIO Upward Bound program in evaluating the program’s influence on the relationship with participants’ preparation for high school graduation and subsequent enrollment in postsecondary education. Therefore, this study was delimited to program alumni; current TRIO Upward Bound students were not included in the study.

Results

To determine the strength of the relationship between students’ preparation to graduate from high school and enroll in postsecondary education based on their participation in TRIO Upward Bound, SPSS version 24 was used to conduct a bivariate correlation analysis of the data obtained from the survey results. The survey was sent to 72, 2008-2017 alumni of the study site’s
TRIO Uward Bound program. Sixty-one percent of the alumni who received the survey completed it. Before the survey sections on different aspects on the transition from high school to college, demographic information was obtained from the respondents. An overwhelming majority of survey respondents were females, 37 of the 44 respondents, and half of the survey respondents identified as a racial minority, 24 of the 44 respondents. Of those who completed the survey, 16 remarked their highest educational goal was completing a bachelor’s degree, while 13 remarked their highest educational goal was obtaining a master’s degree. This speaks to the strength of the mission of college preparation programs like TRIO Upward Bound in preparing low-income, first-generation students for postsecondary education, considering most of the survey respondents’ parents had only completed middle school, some high school or graduated from high school. Additionally, most survey respondents recalled their family’s income at under $44,999, including 11 alumni who estimated their family’s income at less than $25,000.

Following the background information, the survey was divided into three sections: preparation for high school graduation, preparation for the college application process, and preparation for the college enrollment experience. Each section was designed to understand students’ views on their participation in TRIO Upward Bound as it relates to three key components of the move from high school to college. Respondents received a score for each section, based on their responses to the survey questions. Sections one and two both had 15 questions, while section three had 12 questions. Scores in section one on preparation for high school graduation ranged from 0-60, and scores in section three on the college enrollment experience ranged from 0-48. The lower the score the more evidence of a positive experience during the student’s time in TRIO Upward Bound.
Internal reliability of the three-item scale developed to determine TRIO Upward Bound’s influence on low-income students’ transition from high school to college was assessed using the Cronbach alpha technique. The scale produced an alpha of .815. Inspection of the table suggested that removing either of the variables would decrease internal reliability. A repeat Cronbach alpha test minus preparation for high school graduation produces an alpha of .748, while removing college enrollment produces an alpha of .612. The results of the internal reliability of the three-item scale are depicted below in Tables 3.2 and 3.3. The variable not considered in this research question was eliminated from Table 3.3.

Table 3.2

*Alpha Reliability*

<table>
<thead>
<tr>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.815</td>
<td>.824</td>
</tr>
</tbody>
</table>

Table 3.3

*Reliability Statistics*

<table>
<thead>
<tr>
<th></th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation for HS Graduation</td>
<td>21.29</td>
<td>286.262</td>
<td>.681</td>
<td>.609</td>
<td>.748</td>
</tr>
<tr>
<td>College Enrollment</td>
<td>23.51</td>
<td>336.156</td>
<td>.818</td>
<td>.686</td>
<td>.612</td>
</tr>
</tbody>
</table>

The scores for the section on preparation for high school graduation ranged from 0-41. This section’s questions focused on TRIO’s role in preparing students for high school
graduation, including its influence on students’ understanding of what is required to graduate, as well as its influence on helping students realize their potential to persist to high school graduation and pursue postsecondary education. The scores for the section on the college enrollment process ranged from 0-28. The focus of this section’s questions was on TRIO Upward Bound’s role in preparing its participants for acceptance into postsecondary education. The mean score for the section on preparation for high school graduation was 10.85, and the mean score for the section on the college enrollment process was 9.26.

The dataset obtained from the survey was used to conduct statistical analysis in order to determine TRIO Upward Bound’s influence on its participants’ decision to pursue postsecondary education. Specifically, bivariate correlation was utilized to determine the strength of the relationship between program participants’ preparation for high school graduation and consequent enroll in postsecondary education. This relationship is described below in Table 3.4. Based on the results of the correlation analysis, a very strong relationship existed between students’ graduation from high school and their enrollment in college, based on their experience in the TRIO Upward Bound program.
Table 3.4
Correlation Illustrating the Relationship between Students’ Preparation for High School Graduation and Their Decision to Enroll in College Based on TRIO Upward Bound Participation

<table>
<thead>
<tr>
<th>High School Graduation</th>
<th>High School Graduation</th>
<th>College Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.778**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>5745.909</td>
<td>3384.953</td>
</tr>
<tr>
<td>Covariance</td>
<td>133.626</td>
<td>80.594</td>
</tr>
<tr>
<td>N</td>
<td>44</td>
<td>43</td>
</tr>
</tbody>
</table>

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

A strong, positive relationship exists between the two variables as indicated by the Pearson correlation coefficient of .778. The relationship between the two variable was significant at the 0.01 level, meaning that students who participated in TRIO Upward Bound were more likely to graduate from high school and enroll in postsecondary education.

The results of the one-way ANOVA, depicted in Tables 3.5 and 3.6, showed that there was no significant statistical difference in TRIO Upward Bound’s influence on students’ decisions to persist to high school graduation and enroll in college based on the respondents’ highest intended academic pursuit, gender, family household income, and ethnicity.
Table 3.5
Preparation for High School Graduation ANOVA

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Intended</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Pursuit</td>
<td>Between Groups</td>
<td>14.833</td>
<td>23</td>
<td>.645</td>
<td>.376</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>29.167</td>
<td>17</td>
<td>1.716</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>44.000</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between Groups</td>
<td>2.658</td>
<td>24</td>
<td>.111</td>
<td>.652</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>3.229</td>
<td>19</td>
<td>.170</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.886</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between Groups</td>
<td>64.261</td>
<td>24</td>
<td>2.678</td>
<td>.578</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>83.367</td>
<td>18</td>
<td>4.631</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>147.628</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between Groups</td>
<td>82.470</td>
<td>24</td>
<td>3.436</td>
<td>.695</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>93.962</td>
<td>19</td>
<td>4.945</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>176.432</td>
<td>43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the ANOVA analysis on preparation for high school graduation, there was no significant difference based on highest intended academic pursuit, $F = .376$, $p = .985$.

There was no statistical significant difference based on gender ($F = .652$, $p = .840$) and household income ($F = .578$, $p = .896$). There was also no statistical significant difference based on ethnicity $F = .695$, $p = .802$. 

65
Table 3.6  
*College Enrollment ANOVA*

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highest Intended</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Pursuit</td>
<td>Between Groups</td>
<td>17.075</td>
<td>22</td>
<td>.776</td>
<td>.509</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>25.900</td>
<td>17</td>
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<tr>
<td></td>
<td>Total</td>
<td>42.975</td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between Groups</td>
<td>2.627</td>
<td>23</td>
<td>.114</td>
<td>.671</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>3.233</td>
<td>19</td>
<td>.170</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.860</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Household Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between Groups</td>
<td>60.910</td>
<td>23</td>
<td>2.648</td>
<td>.580</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>82.233</td>
<td>18</td>
<td>4.569</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>143.143</td>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Between Groups</td>
<td>79.891</td>
<td>23</td>
<td>3.474</td>
<td>.710</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>92.900</td>
<td>19</td>
<td>4.889</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>172.791</td>
<td>42</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The ANOVA analysis on college enrollment shows that there is no statistically significant difference based on the demographics tested: highest intended academic pursuit, F= .509, p = .931; gender, F= .671, p = .820; high school household income, F= .580, p = .891; and ethnicity F= .710, p = .784. Post hoc analyses were not necessary considering there was no statistically significance between the means of the demographics tested in the ANOVA (Kao & Green, 2008).

A paired samples t-test was conducted to evaluate whether there was a significant difference between students’ preparation for high school graduation and college enrollment based on their participation in TRIO Upward Bound. The mean scores between the preparation for high school graduation and college enrollment did not differ significantly (t = 1.738, df = 42, p = .089). The calculated effect size was .265, indicating a small effect size. The results of the paired samples t-test are depicted as Pair 2 in Table 3.7.
A p-value of .089 correlates into .045 for a 2-tailed paired samples t-test, which is within the range for an alpha of .05. Based on the value .045’s position on the scale, we are confident in failing to reject the null hypothesis. Therefore, those with a high level of preparation for high school graduation were also highly likely to enroll in college.

While their external circumstances may not be ideal, low socioeconomic students can achieve academically and find success at the postsecondary level. College preparation programs like TRIO Upward Bound have been instrumental in preparing these students for the journey of completing high school and enrolling in higher education. The findings of this study further support TRIO Upward Bound’s positive influence on students’ from disadvantaged backgrounds perceptions related to postsecondary education. Based on the literature and these findings, additional research related to TRIO Upward Bound is needed. Given the external barriers that low-income students face, additional research is needed on the motivating factors that cause
TRIO Upward Bound alumni to persist to high school graduation, including the influence of community members in encouraging students to remain in high school and envision themselves in college. Concerning the role of parents in low-income students’ transition from high school to college, research should be conducted to understand parents’ views on postsecondary education and how those views relate to students’ views of postsecondary education, as well as students’ success in programs like TRIO Upward Bound.

The findings of this study indicate that low-income students perceive their participation in TRIO Upward Bound as a positive experience that contributed to their high school graduation and enrollment in college. Based on this positive perception of TRIO Upward Bound’s influence, there are several recommendations made for future practice related to the program. Secondary and postsecondary administrators should continue to support TRIO Upward Bound as a means to improve college enrollment for low-income students. The high school graduation and college enrollment rates of low-income students are directly impacted by the disadvantaged environment in which they are reared. Despite these circumstances, low-income students are capable of, and can experience academic success. The data on TRIO Upward Bound highlight the program’s impact on making a difference in its participants who complete the program. The literature on college preparation programs also highlights low-income students’ limited interactions with their high school guidance counselors. As a means to improve that relationship, guidance counselors should research TRIO Upward Bound and gain an understanding of the program’s benefits as a way to serve their students from low-socioeconomic backgrounds, by addressing the needs that are specific to these students.
TRIO Upward Bound administrators should leverage the achievements of program alumni who have completed college to inspire current program participants. Having a vision of success can motivate TRIO Upward Bound students to believe in their own success.

**Conclusion**

The focus of this study was to determine if low-income students’ participation in TRIO Upward Bound influenced the relationship between the students’ preparation for high school graduation, and ultimate enroll in postsecondary education. The results of the study highlighted a strong, positive relationship between the two variables, based on the students’ participation in TRIO Upward Bound. The data obtained from the survey emphasized the TRIO Upward Bound’s success at fulfilling its mission of assisting low-income students with completing secondary education and enrolling in higher education. The results demonstrate TRIO Upward Bound’s efficacy in closing the achievement gap by improving the social and cultural capital of its participants, and thereby preparing students for high school graduation and matriculation into higher education. With consideration of the unique needs of the students served, TRIO Upward Bound alumni perceive the program as effective in supplementing the academic instruction students receive in the classroom and the information they obtain from family members and school representatives to level the playing field between low-income students and their more affluent peers.
REFERENCES


Article Three Completion Date: June 2019


Rationale: *The Journal of College Student Development* features manuscripts that discuss several topics including student development, administrative concerns, and creative programs to improve student services. Manuscripts for this journal support one of the following three areas:

1. Support for the extension of knowledge in the area of developmental theory;
2. Support for practitioner efforts to apply theoretical developmental constructs to programs in the field; or
3. Support for increasing our knowledge of organizational behaviors so that effective tactics and strategies might be applied to the implementation of developmentally focused programs on the campus. https://www.press.jhu.edu/journals/journal-college-student-development

This journal is an appropriate choice for this article since college preparation programs like TRIO Upward provide insights regarding the most effective ways to continue the development of low-income, first-generation students once they transition into postsecondary education.

*Manuscripts are typically a maximum of 30 pages including references, tables, and figures.*
<table>
<thead>
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<th>Title</th>
<th>Pub. Year</th>
<th>Author(s)</th>
<th>Figures/Tables in Article</th>
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<td>Finding My Way: Perceptions of Institutional Support and Belonging in Low-Income, First-Generation, First-Year College Students</td>
<td>2017</td>
<td>Means, D. &amp; Pyne, K.</td>
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<td>Academic Preparedness of First-Generation College Students: Different Perspectives</td>
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<td>Atherton, M.</td>
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<td>Mattanah, J. et al.</td>
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<td>2019</td>
<td>Lee, K.</td>
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Proposed Abstract

For decades, college preparation programs like TRIO Upward Bound have been useful in improving college access for underrepresented student populations, including low-income students. However, in recent years, several factors, including increasing tuition costs coupled with decreasing federal funding for grant programs, have contributed to a reduction in access to higher education for these students. This study sought to understand the relationship, if any, between students’ perception of their knowledge of the college application process and their college enrollment based on their participation in TRIO Upward Bound. An online survey was used to gather data from TRIO Upward Bound alumni who completed the program between 2018-2017. Findings suggested that participation in TRIO Upward Bound was a positive influence on the relationship between students’ perception of knowledge of the college application process and their college enrollment.

Introduction and Review of the Literature

At its inception, higher education in the United States was reserved for elite, white males to the exclusion of all others. Despite higher education’s elite beginning, there is a well-documented record of its efforts to improve access to education for individuals who historically did not have opportunities to attend. From the Morrill Land Grant Act of 1862, which led to the creation of land-grant institutions (Thelin, 2012) to Title V of the Higher Education Act (1998), which improved institutional services of higher education for Hispanic and low-income students (Nunez et al., 2016), access has been a key principle of the higher education system in the United States. Access to higher education is critically important because of the many benefits associated with obtaining a college degree. Research findings have shown that earning a college degree
increases a student’s chances of moving up socioeconomically, earning a higher income, and having a better quality of life (Ma et al., 2016).

Higher education is also connected with triumphing over underprivileged conditions (Scott et al., 2016). Between 2000 and 2008, 31% of adults who grew up in middle class families before attending college and obtaining a bachelor’s degree moved up to the high-income bracket, compared to only 12% of adults with the same family background but without a four-year degree (McNair et al., 2016). Degree attainment also has an impact on individuals’ level of civic engagement. In 2012, 42% of those with a bachelor’s degree volunteered for nonprofit organizations compared to 17% of high school graduates. (Baum, Ma, & Payea, 2013). The percentage of civic involvement by college graduates highlights one of the benefits of an educated citizenry. For low-income students, however, the odds of obtaining a four-year degree are stacked against them. Low-income students are 50% less likely to complete a bachelor’s degree, despite the known likelihood of improving one’s financial situation (McNair et al., 2016).

With the rising costs of college tuition, along with the reduced funding for federal grant programs and weakening of admissions decisions based on affirmative action policies, access to higher education for low-income and first-generation college students has been drastically reduced (Land et al., 2013). The definition of low-income students includes students whose family incomes is 125% below the federal poverty level guideline for their particular family size (Scott et al., 2016). Only 40% of low-income students pursue higher education immediately following high school, compared to 84% of students from families whose annual income exceeds $100,000 (Engberg & Allen, 2011).
The plight of low-income students has been discussed extensively in the literature. For example, research has demonstrated that low-income students have lower expectations for attaining a college degree and take college entrance exams at lower rates than their affluent counterparts (Engberg & Allen, 2011). Consequently, poor students attend community colleges at significantly higher rates, which has a negative correlation to four-year degree attainment, with these students being 13% less likely to complete a baccalaureate program (Bastedo & Jaquette, 2011).

Students who are socioeconomically disadvantaged face challenges in pursuing postsecondary education due to a lack of (a) academic preparation, (b) social and cultural capital, and (c) knowledge of the college-going process. Although college enrollment for low-income students has increased during this century, the percentage of the most socioeconomically disadvantaged students enrolling in college still lags substantially behind enrollment rates of the most affluent students. There are a myriad of reasons that prevent these students from pursuing postsecondary education or selecting institutions that are not the greatest match for their abilities and personal situation, including financial barriers and barriers related to access to information. Some of these barriers include low-income families overestimating the overall cost associated with attending college, having limited knowledge of all institutions for which they are academically eligible for acceptance, and a limited understanding of the dynamics of quality and affordability among different institutions (Castleman & Goodman, 2014).

Research supports a connection between the quality of an institution and persistence and graduation rates of its students, with quality of institutions based on an institution’s six-year graduation rate (Castleman & Goodman, 2014). Despite this, approximately 50% of low-income students do not apply to nor enroll in high quality institutions for which they are eligible for
acceptance based on their secondary academic performance (Castleman & Goodman, 2014). It is also critical to acknowledge the economic factors that inhibit low-income students from enrolling in college, such as the ability to postpone employment to pursue higher education, costs associated with failure at the postsecondary level, and willingness to incur the risks associated with student loan debt (Strick, 2012). For various reasons, including a lack of academic preparation, low-socioeconomic students enroll in postsecondary institutions at lower rates than their middle- and upper-class counterparts.

**Purpose of College Preparation Programs**

Adjusting to the increased level of academic difficulty of college courses is a difficult task for students who are not adequately prepared at the secondary level; this is also a reason that many students do not pursue postsecondary education. One purpose of college preparation programs is to better prepare high school students for the increased rigor of postsecondary academic work (Donham, 2014). Donham (2014) suggested that upon entering college, students should be prepared to “engage in learning experiences that involve them seeking, evaluating, and integrating information as well as developing reading and writing skills that contribute to construction of ideas and insights” (p. 6). This statement highlights the expectations of college faculty. In terms of college preparation initiatives, programming must include components that address these expectations and academically prepare students for college work.

College preparation program efforts to academically prepare students for postsecondary education narrows the college enrollment gap for underrepresented populations, improves college-track course enrollment, prepares students for standardized tests, and improves students’ college plans and expectations (Cates & Schaefle, 2011). It is imperative that college preparation programs expose students to higher education as early as possible. Literature on college access
notes that students who begin searching for higher education earlier in their secondary school experience are more likely to persist to postsecondary education. Programs that foster students’ ability to begin this search process earlier assist students in understanding what is required to access higher education and succeed at that level (Malone, 2013). College preparation programs provided by secondary and postsecondary institutions offer students the support needed to transition from high school to college. Once enrolled in college, students’ experiences from these programs enable them to access the academic and social supports needed to maintain a college-going identity (Land et al., 2013).

**Types of College Preparation Programs**

The needs of high school students are varied in terms of the support for postsecondary success. These needs include academic competencies, knowledge of the college application process, time management skills, critical thinking skills, and healthy coping skills (Malone, 2009). For these reasons, there are a variety of college preparation programs, including the ones listed in the previous section, that work with students to adequately prepare them to enroll in and graduate from higher education institutions.

College immersion programs are one example of college preparation program. In these programs, middle and high school students are exposed to college life through specifically designed programming that allows them to attend college classes and attend activities for short period of times and gives students an opportunity to experience the academic and social aspects of college life. According to Schaefer (2014), students establish positive feelings towards college by participating in these type of programs. One possible concern with these programs is whether they are productive to students’ college readiness for them to view college as fun, based on their experience in the college immersion program (Schaefer, 2014).
Some college preparation programs focus on the partnerships between the surrounding community and schools as a way to impact students’ level of college readiness. School-community partnerships are described as “formal and informal mechanisms of support delivered by local persons or entities to promote schools’ educational goals for student achievement and postsecondary aspirations” (Alleman & Holly, 2013, p. 4). These partnerships can be formed in various ways and serve many purposes based on several factors including the available resources of partnering groups, aspirations of the school, and the nature of the relationship between the school and the community entity (Sanders, 2005).

The community serves an important role in supporting schools’ initiatives to academically prepare students for success in higher education. The services, activities, and influence of community-school partnerships influence students’ college readiness in five areas: supporting schools’ academic and career success efforts, providing information, developing postsecondary aspirations and socialization, creating an economy of support, and establishing a sense of commitment to the value of higher education (Alleman & Holly, 2013). The collaboration of students, school, and communities in these partnerships advance student success by improving student academic achievement and social competence (Morgan et al., 2015).

Advancement Via Individual Determination (AVID), a program first started at a high school in California in the 1980s, has expanded to over 4,000 schools across the country, servings over 3,000 students. The focus of AVID is to prepare minority students and students from low-socioeconomic backgrounds for the academic rigor of postsecondary education. This goal is achieved by enrolling program participants in Advanced Placement and other college preparatory courses at their high schools. Program participants also participate in an AVID class
weekly, where they learn the necessary skills needed to handle the higher expectations associated with taking college preparation courses (Bergerson, 2009).

Dual-enrollment initiatives are another example of college preparation programming. In these programs, high school students take college courses to earn college credit as well as credit towards their high school graduation requirements. Proponents of dual enrollment programs proclaim that these accelerated programs improve student participants’ level of college readiness. For example, research shows that students who earn dual enrollment credit are less likely to require developmental courses once they enter college than students who do not take these courses (An & Taylor, 2015). Students in dual enrollment programs have more knowledge of college, and therefore a better understanding of what it means to be a college student. Additionally, these students are typically better equipped to navigate a college campus compared to non-dual enrollees (Karp, 2012).

**Conceptual Framework**

Conley (2008) described college readiness as “the level of preparation a student needs in order to enroll and succeed-without remediation-in a credit-bearing general education course at a postsecondary institution that offers a baccalaureate degree or transfer to a baccalaureate program” (p. 24). According to Conley’s college readiness theory, there are four aspects of college readiness including key cognitive strategies, key content knowledge, key learning skills and techniques, and key transition knowledge and skills (Hungerford-Kresser & Amaro-Jimenez, 2012). The interaction of these four aspects, as well as the way they affect one another, emphasizes the integrated and relational nature of college readiness (Conley, 2007).

The key cognitive strategies outlined by Conley are the required intellectual skills needed for readiness at the postsecondary level, including “problem formulation, research, interpretation,
communication, and verification” (An & Taylor, 2015, p. 6). Conley’s concept of key content knowledge encompasses an understanding of the core content area. This concept also includes students’ perceptions of different content areas, including their level of interaction with knowledge from specific areas, their thoughts on the value of the knowledge gained from the content area, and their willingness to engage in learning the content area. Students’ interest in learning and particular techniques of learning are discussed in Conley’s third concept, key learning skills and techniques. The fourth concept, key transition knowledge and skills, includes critical knowledge and skills students need as they transition into postsecondary education. This information includes information and an understanding of the admissions process and college expectations as well as knowledge related to the cost of attending college (An & Taylor, 2015).

Conley’s fourth concept made this framework appropriate for this study. College knowledge includes the information required to successfully navigate the process of applying to college and securing the needed financial assistance for matriculation into postsecondary education, along with an understanding of how colleges operate from a cultural standpoint (Conley, 2008). The researcher used college readiness as the conceptual framework of this study to explore the relationship, if any, between students’ perception of their knowledge of the college application process and their college enrollment based on their participation in TRIO Upward Bound.

**Method**

A quantitative research approach was used to determine TRIO Upward Bound’s influence on the relationship between students’ perception of knowledge of the college application process and their subsequent college enrollment. In the absence of archived institutional data on alumni program participants’ experience during their time in TRIO Upward Bound.
Bound, data for this study were collected via an online survey administered to a select group of TRIO Upward Bound program alumni who completed the program between 2008 and 2017. At this particular program site, there is currently no exit survey to capture students’ perspective on their time in the program. This study’s survey will likely become the program site’s exit survey for TRIO Upward Bound participants as they transition out of secondary education.

The online survey was developed with, and reviewed by, the TRIO Upward Bound program director. Communicating with the director helped determine the key information TRIO Upward Bound staff wanted to gather from the program’s alumni. The survey questions were developed using the parameters of college readiness outlined in article’s conceptual framework. In addition to determining the alumni’s perception of TRIO Upward Bound’s overall influence on the variables tested, the survey questions also sought to gauge the alumni’s perception of the particular program component’s influence on their college readiness. The survey was tested with current high school seniors in the program, prior to being sent to the program alumni, which established face validity for the survey instrument.

During the 2008-2017 timeframe, 413 program participants graduated from high schools in the three counties serviced by the program. The average cohort size during those years was 41 seniors. From 2008 to 2016, each cohort had a 100% high school graduation rate. In 2017, the graduation rate was 96.55%. The program director attributes the reduction in the 2017 graduation rate to participants moving out of the service area prior to completing high school. An overwhelming majority of program participants, 339 of the 413 alumni, pursued postsecondary education following their high school graduation.

Creswell (2014) noted that the purpose of a quantitative study is to “generalize from a sample to a population so that inferences can be made about some characteristic, attitude, or
behavior of this population” (p. 157). The results of this quantitative study were used to make generalizations about TRIO Upward Bound participants’ behavior related to knowledge of the college application process and college enrollment based on their time in the program.

The research question for this article was:

*What is the relationship between low-income students' participation in TRIO Upward Bound and their: (a) perception of knowledge of the college application process and (b) college enrollment?*

The purpose of this quantitative study was to gauge TRIO Upward Bound’s impression on the relationship between program participants’ perception of their knowledge of the college application process and their decision to pursue postsecondary education. The data for this study were gathered via an online survey administered to alumni of the study site’s TRIO Upward Bound program. Since the survey respondents were alumni of the college preparation program, background information was collected related to their time in the TRIO Upward Bound program, as well as background information concerning their current aspirations. Specifically, the background information from their time in the program dealt with the students’ socioeconomic status while in high school and their parents’ highest grade or degree completion, while the background information concerning the alumni’s current plans focused on what they are presently doing: attending a two-year or four-year institution, serving in the military, or working full-time, as well as alumni’s highest educational aspiration.

In order to look at TRIO Upward Bound’s influence on participants’ preparation for the transition from high school to higher education, the survey was divided into three different sections: Preparation for high school graduation, preparation for the college application process, and the college enrollment experience. The sections’ questions were Likert-type scale questions.
A survey response reflecting a highly favorable experience during their time as a TRIO Upward Bound participants was denoted by a 1 in the dataset. For each section of the survey, respondents received an overall score based on the sum of their answers to the section’s questions. The sums for the sections on participants’ preparation for the college application process and the college enrollment experience were used to evaluate TRIO Upward Bound’s influence on the alumni’s perception of their knowledge of the college application process, and ultimately their decision to enroll in postsecondary education.

A regional public liberal arts university in the Southeast was selected for this study. This was an appropriate choice considering the institution is a TRIO Upward Bound grantee. Being a grantee allows the institution to provide college preparation services to high school students who meet the program’s qualifications, beginning as early as ninth grade. There are two components of the program: the academic component and the on-campus summer intensive. The academic component includes students meeting 16 times during the academic year in academic classes on campus in addition to attending college campus visits and cultural enrichment opportunities. Students gain first-hand experience of college culture during the summer component which gives them an opportunity to live and learn in a college setting. Program participants receive more holistic college preparation assistance through this two-component approach to the Upward Bound program.

Additionally, 43% of the institution’s student population qualify for federal Pell grant funding based on their status as low-income students. These funds are awarded to students whose families earn less than $30,000 per year (U.S. Department of Education, 2017). Included in the institution’s 43% of Pell eligible students are many alumni of the study site’s TRIO Upward Bound program. Since a sizable number of the institution’s students are categorized within this
demographic serviced by TRIO Upward Bound, this setting was an appropriate choice for this study.

Study participants were alumni of the study site’s TRIO Upward Bound program. Studying this population allowed the researcher to evaluate Upward Bound’s effect on students’ transition from secondary to postsecondary education when students fully participate in the college preparation training offered by TRIO Upward Bound. Study participants were randomly selected. Randomization was used to create a representative sample of the population to establish generalizations concerning the population (Creswell, 2014). To ensure that certain characteristics of the population were included in the sample, and that the sample “reflects the true proportion in the population of individuals with certain characteristics”, stratification of the population occurred prior to the sample being selected (Creswell, 2014, p. 158).

Data related to TRIO Upward Bound’s influence on participants’ perception of their knowledge of the college application process and their decisions to enroll in college were collected via an online survey. The survey was cross-sectional with information collected at one time (Creswell, 2014). Understanding TRIO Upward Bound’s role in equipping students with the necessary information to successfully navigate the college application process was the primary purpose of the survey’s section on preparation for the college application process. The purpose of the section on the college enrollment experience was to comprehend TRIO Upward Bound’s role in assisting students in their decision to enroll in postsecondary education. To ensure the appropriateness of questions as well as the survey’s content validity, the survey was reviewed by experts in both secondary and postsecondary education. Experts included a high school administrator, college enrollment management professionals, a TRIO Upward Bound director, and an Upward Bound counselor. The study survey is included in Appendix B.
Data collected from the survey were evaluated using a statistical software program, SPSS version 24. Since this study considered the influence of TRIO Upward Bound on participants’ knowledge of the college application process and decision to enroll in college, correlation was used to evaluate the relationship between the two. This commonly used technique examines the relationship between two quantitative variables (Bewick et al., 2003). Correlation analysis determines the strength between the two variables, which is indicated by the value of the correlation coefficient. The value of the correlation coefficient can range from -1 to +1. The positive or negative value of the correlation coefficient determines the direction of the relationship (Zou et al., 2003).

A descriptive correlation research design, which “describes the linear relationship between pairs of variables for quantitative data” was utilized to evaluate TRIO Upward Bound’s effect on the relationship between participants’ knowledge of the college application process and college enrollment (Witte & Witte, 2015, p. 137). The correlation coefficient, \( r \), is used to describe the relationship between the two variables as a value between -1 and 1. The sign of the correlation coefficient indicates the nature of the relationship, whether it is positive or negative. Irrespective of the sign, the strength of the relationship between the two variables is signified by the numerical value of the correlation coefficient (Witte & Witte, 2015). According to Cohen (1988), correlation coefficients near .10 or less suggest a weak relationship between the two variable; a moderate relationship is denoted by a numerical value near .30; and a strong relationship is represented by a numerical value close to .50 or higher.

Along with establishing the correlation between students’ perceived knowledge of the college application process and their decision to enroll in college, a one-way ANOVA was also used to evaluate whether there is a relationship between certain background characteristics.
collected from the survey data, and TRIO Upward Bound’s impact on low-income students’
knowledge of the college application process and college enrollment. Since a one-way ANOVA
is used to determine differences in population means caused by one independent variable, it is an
appropriate test for this analysis (Witte & Witte, 2015). The survey collected background
information about each respondent, some of which was used as the variables for the one-way
ANOVA analysis. These variables included highest intended academic pursuit, gender,
household income while in high school, and ethnicity. The possible survey responses for highest
intended academic pursuit were bachelor’s, master’s, doctorate, medical, and law degrees. For
average annual household income, survey response options started with less than $25,000. The
next option was $25,000-$34,999, and the choices increased at $10,000 increments up to $75,000
or more. The survey response choices for ethnic background included African American or
black, Asian-American/Pacific Islander, Hispanic or Latino/a, Native American or Alaskan
native, white (non-Hispanic), and other. Respondents were able to select more than one ethnicity.

An evaluation of whether there was a significant difference between students’ perceived
knowledge of the college application process and decision to enroll in college based on their
participation in TRIO Upward Bound was conducted via a paired samples t-test. The samples are
related to respondents’ answers to the survey questions. These responses were used to calculate
the scores of the three variables tested, making a paired samples t-test appropriate for this
analysis. How the variables’ scores were determined is discussed at length in the Results section.

Decisions related to the study’s methodology resulted in several delimitations for the
study. First, this study was based solely on information concerning students’ participation in
TRIO Upward Bound, and its influence of their knowledge of the college application process and
decision to pursue postsecondary education, without consideration of any other potential factors.
Additionally, study participants included only TRIO Upward Bound alumni from a rural area in central Alabama. As a result, generalizations regarding the study findings cannot be applied to TRIO Upward Bound programs in urban areas or other states. Although implications from the study findings may be applicable to TRIO Upward Bound students in urban areas or other states, study results are only meant to be used in the study’s specific setting. The study excluded current participants and focused only on alumni of the TRIO Upward Bound program in evaluating the program’s influence on the relationship between participants’ perception of knowledge of the college application process and their college enrollment. This represents a delimitation in that input from current TRIO Upward Bound students was not included in the study.

Results

A bivariate correlation analysis was performed with the data gathered from the survey using SPSS version 24 to establish the strength of the relationship between students’ perception of their knowledge of the college application process and their decision to pursue postsecondary education based on their participation in TRIO Upward Bound. Seventy-two TRIO Upward Bound alumni from 2008 and 2017 received the survey. Forty-four alumni completed the survey for a 61% completion rate. The demographics of those who completed the survey included seven males and 37 females, with 24 respondents identifying as an ethnic minority. In regard to the highest level of education completed by the respondents’ parents, 21 alumni responded their mothers completed middle school, some high school, or graduated from high school, and 33 alumni responded the same for their fathers, making a majority of the survey respondents first-generation college students, one of the populations serviced by TRIO Upward Bound. Concerning the educational aspirations of the survey respondents, 16 responded that their highest educational goals was to complete a bachelor’s degree, and 13 responded that their highest
educational goal was to complete a master’s degree. The survey also collected background information regarding the alumni’s total family income during their time as a TRIO Upward Bound participant. The majority of survey participants estimated their family income at under $44,999, with 11 students estimating their family’s income at less than $25,000.

The three sections of the survey: preparation for high school graduation, preparation for the college application process, and preparation for the college enrollment experience, were designed to gather information on the students’ perceptions on their participation in TRIO Upward Bound programming associated with different aspects of the transition into postsecondary education. The respondents were assigned a score for each section based on their responses. There were 15 questions in sections one and two and 12 questions in section three. Scores in section two, the college application process, ranged from 0-60, and scores for section three, the college enrollment experience, ranged from 0-48. A lower score was more indicative of the students having a positive experience during their time in TRIO Upward Bound.

The Cronbach alpha technique was used to determine the internal reliability of the three scores calculated from the survey’s sections to evaluate TRIO Upward Bound’s influence on the three aspects of college preparedness: preparation for high school graduation, knowledge of the college application process, and college enrollment. The Cronbach’s alpha value was .815. However, if knowledge of the college application process is eliminated, the internal reliability would increase. Repeating the Cronbach alpha test without knowledge of the college application process increased the alpha to .861. The results of the Cronbach’s reliability for the three-item scale are depicted below in Tables 4.2 and 4.3. The survey section not considered in this research questions was not included in Table 4.3.
Table 4.2

*Alpha Reliability*

<table>
<thead>
<tr>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.815</td>
<td>.824</td>
</tr>
<tr>
<td>.824</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 4.3

*Reliability Statistics*

<table>
<thead>
<tr>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of the College Application Process</td>
<td>20.95</td>
<td>388.448</td>
<td>.544</td>
<td>.359</td>
</tr>
<tr>
<td>College Enrollment</td>
<td>23.51</td>
<td>336.156</td>
<td>.818</td>
<td>.686</td>
</tr>
</tbody>
</table>

The scores from the section on the college application process ranged from 0 to 49. The questions in this section covered a variety of topics related to students’ preparation for the ACT and SAT exams, their engagement with TRIO Upward Bound staff during the college search and application processes, and their thoughts on the effectiveness of TRIO Upward Bound programming related to the college application process, including campus visits and sessions on the financial aid process. For the section on the college enrollment process, the scores ranged from 0 to 28. This section’s questions uncovered TRIO Upward Bound’s influence on empowering its alumni to confidently enroll in postsecondary education. The mean score for the section on the college application process was 11.64, and the mean for the section on the college enrollment experience was 9.26.
To understand TRIO Upward Bound’s effect on its participants’ decisions related to the transition from secondary to postsecondary education, statistical analysis was conducted using the dataset. In terms of the relationship between students’ perception of knowledge of the college application process and their decision to enroll in higher education based on their experience in TRIO Upward Bound, the strength of that relationship was determined via bivariate correlation. The relationship between those two variables is explained below in Table 4.4. The correlation analysis indicated a strong relationship between students’ knowledge of the college application process and their decision to pursue higher education, based on their time in the TRIO Upward Bound program.

Table 4.4
Correlation Illustrating the Relationship between Students’ Perception of Knowledge of the College Application Process and Their Decision to Enroll in College Based on TRIO Upward Bound

<table>
<thead>
<tr>
<th></th>
<th>College Enrollment</th>
<th>Knowledge of College Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>1</td>
<td>.598**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>3352.186</td>
<td>2140.098</td>
</tr>
<tr>
<td>Covariance</td>
<td>79.814</td>
<td>53.502</td>
</tr>
<tr>
<td>N</td>
<td>43</td>
<td>41</td>
</tr>
</tbody>
</table>

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

The Pearson correlation reflected that the relationship between students’ knowledge of the college application process and college enrollment is .598. This represents a strong, positive correlation between the two variables. Additionally, a strong level of significance at the .001 level was reflected from the analysis, meaning that students who participated in TRIO Upward Bound...
Bound are likely to be more knowledgeable of the college application process and ultimately enroll in college than their similarly situated peers who do not participate in the program.

Following the correlation analysis, a one-way ANOVA was used to determine whether a significant difference exists between TRIO Upward Bound’s influence on low-income students’ knowledge of the college application process and decision to enroll in postsecondary education based on certain demographic information: highest intended academic pursuit, gender, family household income, and ethnicity. Tables 4.5 and 4.6 depict the findings of the one-way ANOVA.

Table 4.5

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Intended Academic Pursuit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>16.231</td>
<td>18</td>
<td>.902</td>
<td>1.021</td>
<td>.479</td>
</tr>
<tr>
<td>Within Groups</td>
<td>17.667</td>
<td>20</td>
<td>.883</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>33.897</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.810</td>
<td>19</td>
<td>.095</td>
<td>.629</td>
<td>.845</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3.333</td>
<td>22</td>
<td>.152</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5.143</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>53.902</td>
<td>19</td>
<td>2.837</td>
<td>.709</td>
<td>.772</td>
</tr>
<tr>
<td>Within Groups</td>
<td>84.000</td>
<td>21</td>
<td>4.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>137.902</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>78.226</td>
<td>19</td>
<td>4.117</td>
<td>.998</td>
<td>.497</td>
</tr>
<tr>
<td>Within Groups</td>
<td>90.750</td>
<td>22</td>
<td>4.125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>168.976</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the ANOVA analysis of TRIO Upward Bound’s influence on low-income students’ knowledge of the college application process, there was no significant difference between the groups based on students’ highest intended academic pursuit, $F = 1.021$, $p = .479$. There was no statistical significant difference based on gender ($F = .629$, $p = .845$), household income ($F = .709$, $p = .772$), or ethnicity ($F = .998$, $p = .497$).
The ANOVA results for college enrollment also revealed no statistically significant difference based on the selected student demographics: highest intended academic pursuit, F = .509, p = .931; gender, F = .671, p = .820; high school household income, F = .580, p = .891; and ethnicity F = .710, p = .784. The lack of significance between the means of the demographics tests indicates that post hoc analyses was not needed. Post hoc analyses are typically done when ANOVA results signify statistical significance, in order to determine which means are different among the variables (Kao & Green, 2008).

A paired samples t-test was conducted to evaluate whether there was a significant difference between the students’ perceived knowledge of the college application process and college enrollment based on their participation in TRIO Upward Bound. The mean scores between students’ college knowledge and college enrollment did not differ significantly (t = 1.929, df = 40, p = .061). The calculated effect size was .301, indicating a small effect size. The

<table>
<thead>
<tr>
<th>Table 4.6</th>
<th>College Enrollment ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of Squares</td>
</tr>
<tr>
<td>Highest Intended Academic Pursuit</td>
<td>Between Groups</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Gender</td>
<td>Between Groups</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Household Income</td>
<td>Between Groups</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Between Groups</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>
findings of the paired samples t-test analysis for knowledge of the college application process and college enrollment are portrayed as Pair 3 in Table 4.7.

Table 4.7
*Paired Samples Test*

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval of the Difference</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation for HS Graduation – Perceived Knowledge of Process</td>
<td>-.310</td>
<td>11.285</td>
<td>1.741</td>
<td>-3.826 to 3.207</td>
<td>.860</td>
</tr>
<tr>
<td>Preparation for HS Graduation – Enrollment</td>
<td>1.930</td>
<td>7.281</td>
<td>1.110</td>
<td>-.311 to 4.171</td>
<td>.089</td>
</tr>
<tr>
<td>Perceived Knowledge of Process – Enrollment</td>
<td>2.561</td>
<td>8.500</td>
<td>1.327</td>
<td>-.122 to 5.244</td>
<td>.061</td>
</tr>
</tbody>
</table>

A p-value of .061 converts into .031 for a 2-tailed t-test, which is within the range for an alpha .05. Based on the value .031’s position on the scale, we are confident in failing to reject the null hypothesis. Consequently, those with a high value related to TRIO Upward Bound’s influence on their decision to enroll in college.

Based on the findings of the study, it appears as though participation in TRIO Upward Bound assisted program participants in developing a positive perception related to their preparation for the college application process and ultimate enrollment in college, thereby contributing to improved access to higher education for this population of students. The literature has documented at length the need to improve access to education for students from low socioeconomic backgrounds, based on the established benefits of receiving a postsecondary
degree, including upward social mobility and increased lifetime earning potential. However, the literature also highlights that low-income students face unique challenges in their quest to obtain a college degree, included limited social and cultural capital. Therefore, additional research is needed on TRIO Upward Bound programming, specifically related to its influence on aiding low-income students in overcoming the identified social barriers to higher education that are unique to this underrepresented population of students.

TRIO Upward Bound’s effect on low-income students’ academic preparation to graduate from high school and pursue postsecondary education is established in the literature on college preparation programs. There is not as much literature related to program’s influence on participants’ social development in their transition from high school to college. Therefore, if this study were conducted again, more emphasis should be placed on TRIO Upward Bound’s influence on developing low-income students’ social and cultural capital as they prepare for the transition into postsecondary education. Social and cultural capital are key to the college application process, particularly in terms of the college choice process. There is an established connection between the quality of the institutions students attend, and students’ preparation for graduation. Given the fact that half of low socioeconomic students do not attend high quality institutions for which they are qualified for acceptance based on their high school academic performance, more research is needed on TRIO Upward Bound’s effect on equipping low-income students with the social and cultural capital needed to successfully select the appropriate institution during the college application process.

All participants in this study decided to attend college after graduating from high school, as opposed to entering the work force or enlisting in the military. Therefore, TRIO Upward Bound administrators should leverage the successes of its alumni in articulating the program’s
ability to lead low socioeconomic students through the process of enrolling in college. However, if this study were conducted again by another researcher, comparing a group of TRIO Upward Bound alumni who attended college to a group of alumni who decided to pursue other opportunities is advised. Comparing these two groups may expose opportunities within the TRIO Upward Bound programming to better fulfill its mission of preparing low-income students for postsecondary education.

**Conclusion**

The purpose of this study was to evaluate if a relationship existed between students’ perception of their knowledge of the college application process, and decision to enroll in college as a result of their experience in TRIO Upward Bound. The study results depict that participation in TRIO Upward Bound created a strong, positive relationship between the two variables. The study data uphold that alumni believe TRIO Upward Bound is effective in equipping low socioeconomic students with the necessary skills to successfully progress through the college application process to college enrollment. Despite TRIO Upward Bound’s long history of preparing low socioeconomic students for their transition for secondary to postsecondary education, its effectiveness has at times been questioned in research. Based on the strong, positive relationship reflected between students’ perception of their knowledge of the college application process and college enrollment based on their experience in TRIO Upward Bound, this study’s results support program alumni’s perception that participation in TRIO Upward Bound was valuable in helping them transition from high school into college.
REFERENCES


OVERALL CONCLUSION

TRIO Upward Bound is an established college preparation program with the mission of preparing first-generation and low socioeconomic students for success at the postsecondary level, with the hope of increasing the number of college graduates among these students. The purpose of this study, via three articles, was to better understand TRIO Upward Bound’s influence on the relationship among three variables related to college readiness: preparation for high school graduation, students’ perception of knowledge of the college application process, and college enrollment, as it relates to low-income students.

The first article evaluated TRIO Upward Bound’s effect on the relationship between students’ preparation for high school graduation and their self-perception of knowledge of the college application process for low-income students. The goal of the second article was to better understand TRIO Upward Bound’s effect on the relationship between low-income students’ preparation for high school graduation and college enrollment, while the goal of the third article was to determine TRIO Upward Bound’s influence on the relationship between low-income students’ perceived knowledge of the college application process and college enrollment. Students recalled their involvement in TRIO Upward Bound’s bi-weekly meetings, individual tutoring sessions, and summer bridge program as being influential in their preparation for high school graduation, as well as in equipping them with the required knowledge base to successfully complete the application process and enroll in postsecondary education.

Becoming college ready while in high school is critical to students’ success in college, and ultimate graduation (Adelman, 1999; 2006; Conley, 2005). Conley’s (2007) explanation of
college knowledge highlights the various aspects of college preparation including key cognitive strategies, key content knowledge, key learning skills and techniques, and key transition knowledge and skills. TRIO Upward Bound’s alumni’s positive recollection of their time in the program supports the notion that the program was an important factor in alumni graduation from high school and enrollment in postsecondary education. Program alumni perceived that TRIO Upward Bound supplied them with the required college knowledge to transition into postsecondary education. Alumni beliefs that participation in TRIO Upward Bound was a worthwhile endeavor supports the idea that the program is helpful in closing the achievement gap and improving access to higher education for low-income students.

In each article there was a strong correlation between the two variables, as a result of the participants’ experience in TRIO Upward Bound. Therefore, the study’s findings indicated that low-income students’ perceived their level of college readiness was positively affected by TRIO Upward Bound’s programming. The study adds to the existing literature on the importance of college preparation programs like TRIO Upward Bound and their positive influence on the students assisted by their services, as it relates to their perception on transitioning into postsecondary education. However, there are limitations to the study, which are covered below.

One of the study’s limitations was that the quantitative survey data were self-reported by those who responded to the survey. Not all TRIO Upward Bound alumni chose to respond to the survey, and some who responded to the survey opted not to complete all of the questions. Therefore, study findings are limited to students who chose to respond to the online survey. Study findings were also limited by survey participants’ recollection of their time in the TRIO Upward Bound program. The gap in time since their involvement in TRIO Upward Bound may have interfered with their memory of their Upward Bound experience.
Another limitation of the study was the amount of contact information available from the study site. The contact information was gathered by the study site’s program director. Since alumni were not tracked prior to this study, the director was only able to locate contact information for 122 of the 413 TRIO Upward Bound alumni. However, not all of the email addresses were valid. The researcher requested additional contact information several times, but it was not provided. Considering 339 alumni enrolled in some form of higher education, having additional contact information likely would have increased the number of survey responses, and in turn, strengthened the results of the study.

Only alumni of the TRIO Upward Bound program were contacted to participate in the study. High school seniors currently experiencing the benefits of participating in TRIO Upward Bound, while actively involved in the college acceptance process, were not included, which is another limitation of the study. Having data from these students would have likely strengthened support of TRIO Upward Bound’s influence on the relationship among the three variables related to college readiness for low-income students, since their recollection of their experience in TRIO is more recent than the program’s alumni.

To deepen the understanding of TRIO Upward Bound’s influence on low-income students’ college preparation, additional quantitative data on the amount of time students were actively involved in TRIO Upward Bound programming is needed. These data would have likely strengthened the study’s findings and further contributed to the literature on college preparation programs. Additionally, parents and guidance counselors play an integral role in the college preparation process, considering they are often the main source of college knowledge for low-income students. Bearing this in mind, more information related to their interaction with students during their time in TRIO Upward Bound would have also strengthened the findings by
providing knowledge of the factors that caused students to persist to high school graduation and enroll in higher education.

The overall study results indicate TRIO Upward Bound’s positive influence on students’ perception of college preparation for low-income students, a population of students who are capable of success in postsecondary education despite their external circumstances. The data collected imply that students believe TRIO Upward Bound’s programming is helpful in academically preparing low-income students for high school graduation, while also equipping them with the social and cultural capital needed to navigate the college application process and transition into postsecondary education. Considering students perceived TRIO Upward Bound as helpful in improving access to higher education for low socioeconomic students, higher education administrators should support the efforts of college access practitioners as they implement on-campus college preparation programming like that offered by TRIO Upward Bound, so that more students are able to realize the dream of pursuing postsecondary education. This support of TRIO Upward Bound’s initiatives during the school year requires providing additional personnel when needed to support the program’s efforts, for example faculty to teach ACT preparation courses or staff to facilitate workshops related to the college application process, including representatives from Admissions and Financial Aid. Additionally, administrators can support TRIO Upward Bound efforts during the summer by offering adequate facilities to accommodate the program needs, including residence halls and classroom space.

Generally, the program’s alumni had a positive perception of their experience in TRIO Upward Bound and the program’s influence on their transition for high school into college. As the study site’s program director advocates for the program’s importance, implementing a better tracking system for alumni would be a useful endeavor. Doing so would allow TRIO Upward
Bound staff an opportunity to connect with successful alumni, and give those alumni an opportunity to give back to the program. An improved tracking system would also eliminate the issue with nonfunctioning email addresses associated with this study’s small sample. Approximately 40% (50 of 122) of the email addresses were nonfunctioning. This decreased the number of possible survey respondents.

Based on the high correlation between participants’ preparation for high school graduation and enrollment in postsecondary education, alumni perceived TRIO Upward Bound as helpful in their move from high school to college. The study site’s program director should consider completing a self-evaluation of the program with alumni every few years, as a way of monitoring whether positive perceptions of TRIO Upward Bound persists. Doing this would also allow program staff to highlight the academic successes of its alumni with current students, as a way to motivate those students to stay committed to TRIO Upward Bound’s programming.
I am a doctoral candidate at the University of Alabama who is interested in evaluating the effectiveness of TRIO Upward Bound. I plan to begin the data collection process during the spring of 2018.

In order to conduct my research, I am asking that student data obtained through your institution be available to me. This data may include: high school graduation rate, ethnicity, economic status, college enrollment rate, and other pertinent information.

I am requesting permission to administer a survey to all TRIO Upward Bound alumni for the past ten years.

I have described the project objectives below, as well as attached the consent form I plan to distribute to study participants.

Project Objective The intent of this study is to evaluate the effectiveness of TRIO Upward Bound programming for first-generation, low-income students.

The following research questions will guide the study:

1. For first-generation, low-income students, what is the relationship between participation in the TRIO Upward Bound program and high school graduation?

2. For first-generation, low-income students, what is the relationship between participation in the TRIO Upward Bound program and student’s level of knowledge regarding the college application process?

3. For first-generation, low-income students, what is the relationship between participation in the TRIO Upward Bound program and the college enrollment of participants?
If you agree to allow this study to be conducted at your institution, please sign and date below.

[Signature]

[Signature]

[Date: 02/23/18]

[Date: 2.23.18]

Kristyn Lee, Primary Investigator
APPENDIX B
SURVEY INSTRUMENT
TRIO UPWARD BOUND SURVEY

Background Information

What are you currently doing?

- Attending a 2-year college. Please indicate your goal at the 2-year college:
  - Complete a certificate program
  - Complete my general education and transfer to a 4-year college
  - Earn an Associate’s degree
- Attending a 4-year institution
- Working full-time
- Member of the U.S. Armed Forces
- Other (please specify)

What is the highest academic degree you intend to pursue?

- Bachelor (BA or BS)
- Master (MA or MS)
- Doctorate (Ph.D or Ed.D)
- Medical (MD, DDS, DO, or DVM)
- Law (JD or LLB)

What is your mother’s highest level of completed education?

- Middle school or less
- Some high school
- High school graduate
- Some college
- Associate’s degree
- Bachelor’s degree
- Some graduate school
- Graduate degree
- Do not know

What is your father’s highest level of completed education?

- Middle school or less
- Some high school
- High school graduate
• Some college
• Associate’s degree
• Bachelor’s degree
• Some graduate school
• Graduate degree
• Do not know

What is your best estimate of your parents’ average total household income while you were in high school?

• Less than $25,000
• $25,000-$34,999
• $35,000-$44,999
• $45,000-$54,999
• $55,000-$64,999
• $65,000-$74,999
• $75,000 or more

Gender

• Male
• Female

What is your ethnic background? (You may select more than one option)

• African-American or Black
• Asian American/Pacific Islander
• Hispanic or Latino/a
• Native American or Alaskan Native
• White (non-Hispanic)
• Other

Section One: Preparation for High School Graduation

1. My participation in TRIO Upward Bound’s programming influenced my persistence towards high school graduation
   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

2. Participating in TRIO Upward Bound helped me realize my potential to graduate from high school
3. Upward Bound programming prepared me to meet my high school graduation requirements

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

4. My participation in TRIO Upward Bound’s bi-weekly meetings influenced my persistence towards high school graduation

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

5. My participation in TRIO Upward Bound’s individual tutoring influenced my persistence towards high school graduation

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

6. My participation in TRIO Upward Bound’s Summer Bridge program influenced my persistence towards high school graduation.

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

7. How frequently did I attend TRIO Upward Bound’s bi-weekly meeting?

   a. Always
   b. Frequently
   c. Neutral
d. Sometimes
e. Never

8. How frequently did I attend TRIO Upward Bound’s individual tutoring?
   a. Always
   b. Frequently
   c. Neutral
d. Sometimes
e. Never

9. Attending TRIO Upward Bound cultural enrichment trips enriched my high school experience
   a. Strongly agree
   b. Agree
c. Undecided
d. Disagree
e. Strongly disagree

10. How frequently did I attend TRIO Upward Bound’s cultural development programming?
    a. Always
    b. Frequently
c. Neutral
d. Sometimes
e. Never

11. My participation in TRIO Upward Bound’s programming influenced my understanding of the core subjects required for high school graduation
    a. Strongly agree
    b. Agree
c. Undecided
d. Disagree
e. Strongly disagree

12. Participating in TRIO Upward Bound improved my overall academic performance in high school
    a. Strongly agree
    b. Agree
c. Undecided
d. Disagree
e. Strongly disagree
13. Participating in TRIO Upward Bound allowed me to visualize postsecondary education as a part of my life after high school

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

14. Participating in TRIO Upward Bound motivated me to persist towards high school graduation, despite personal setbacks

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

15. My participation in TRIO Upward Bound’s programming influenced my level of interest in learning the required material for high school graduation

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

Section Two: Preparation for the College Application Process

1. When did you take or plan to take the ACT or SAT for the first time?

   a. Sophomore year
   b. Fall of junior year
   c. Spring of junior year
   d. Fall of senior year
   e. Spring of senior year

2. How often did you speak to the following people about college?

   Parents: a) Never b) Once a year c) Twice a year d) Monthly e) Weekly

   HS Teachers: a) Never b) Once a year c) Twice a year d) Monthly e) Weekly

   HS Counselor: a) Never b) Once a year c) Twice a year d) Monthly e) Weekly

   Upward Bound personnel:
a) Never  b) Once a year  c) Twice a year  d) Monthly  e) Weekly

3. TRIO Upward Bound programming helped me prepare for the ACT or SAT
   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

4. Attending campus visits with TRIO Upward Bound staff increased my knowledge of college options
   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

5. Attending TRIO Upward Bound sessions on the college application process provided information I may not have received from my high school teachers or guidance counselor
   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

6. Attending TRIO Upward Bound sessions on applying for financial aid provided information I may not have received from my high school teachers or guidance counselor
   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

7. TRIO Upward Bound equipped me with the skills to successfully navigate the college application process
   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree
8. The college application process information I received from participating in TRIO Upward Bound was more helpful during my application process than the information I received from my high school teachers or guidance counselor
   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

9. The college application process information I received from participating in TRIO Upward Bound was more helpful during my application process than the information I received from my parent(s)
   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

10. Participating in TRIO Upward Bound made me feel comfortable with the college application process
    a. Strongly agree
    b. Agree
    c. Undecided
    d. Disagree
    e. Strongly disagree

11. My parent(s) became knowledgeable of the college application process as a result of my participation in TRIO Upward Bound
    a. Strongly agree
    b. Agree
    c. Undecided
    d. Disagree
    e. Strongly disagree

12. I consulted TRIO Upward Bound representatives regarding my questions about the college application process more than I did my parent(s)
    a. Strongly agree
    b. Agree
    c. Undecided
    d. Disagree
    e. Strongly disagree
13. I consulted TRIO Upward Bound representatives regarding my questions about the college application process more than I did my high school teachers or guidance counselor

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

14. Based on my academic ability and career aspirations, TRIO Upward Bound representatives helped me select and apply to appropriate colleges

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

15. Participating in TRIO Upward Bound expanded my view of possible college options after high school graduation

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

Section Three: College Enrollment Experience

1. Participating in TRIO Upward Bound made the idea of attending college a realistic goal for me

   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

2. My participation overall in TRIO Upward Bound programming influenced my decision to enroll in college.

   a. Strongly agree
   b. Agree
   c. Undecided
d. Disagree  
e. Strongly disagree

3. Participating in TRIO Upward Bound prepared me for the college enrollment process
   a. Strongly agree  
   b. Agree  
   c. Undecided  
   d. Disagree  
   e. Strongly disagree

4. TRIO Upward Bound programming prepared me to meet the necessary college entrance requirements
   a. Strongly agree  
   b. Agree  
   c. Undecided  
   d. Disagree  
   e. Strongly disagree

5. Visiting college campuses with TRIO Upward Bound representatives influenced my decision to enroll in college
   a. Strongly agree  
   b. Agree  
   c. Undecided  
   d. Disagree  
   e. Strongly disagree

6. The assistance I received during the college application process from TRIO Upward Bound representatives influenced my decision to enroll in college
   a. Strongly agree  
   b. Agree  
   c. Undecided  
   d. Disagree  
   e. Strongly disagree

7. Participating in TRIO Upward Bound’s Summer Bridge program influenced my decision to enroll in college
   a. Strongly agree  
   b. Agree  
   c. Undecided  
   d. Disagree  
   e. Strongly disagree
8. How frequently did you participate in TRIO Upward Bound programming?
   a. Always
   b. Frequently
   c. Neutral
   d. Sometimes
   e. Never

9. Participating in TRIO Upward Bound programming improved my chances of being admitted into a 4-year institution
   a. Strongly agree
   b. Agree
   c. Undecided
   d. Disagree
   e. Strongly disagree

10. I was confident to begin postsecondary education as a result of my participation in TRIO Upward Bound
    a. Strongly agree
    b. Agree
    c. Undecided
    d. Disagree
    e. Strongly disagree

11. My parent(s) supported my decision to enroll in college, as a result of what they learned during my participation in TRIO Upward Bound
    a. Strongly agree
    b. Agree
    c. Undecided
    d. Disagree
    e. Strongly disagree

12. My decision to pursue postsecondary education was influenced most by my participation in TRIO Upward Bound, as oppose to the influence of my high school teachers or guidance counselor
    a. Strongly agree
    b. Agree
    c. Undecided
    d. Disagree
    e. Strongly disagree
Dear TRIO Upward Bound Alumnus:

I am conducting a study on TRIO Upward Bound’s relationship to college readiness for low-income students. This research endeavor consists of an online survey that asked about different components of TRIO Upward Bound programming. The study’s objective is to understand TRIO Upward Bound’s relationship to the following outcomes for its program participants: high school graduation rate, level of college knowledge, and college enrollment rate.

As a graduate of a TRIO Upward Bound program, you have been selected to participate in this study. Please take approximately fifteen minutes to complete a web based survey on the effectiveness of TRIO Upward Bound programming. Your participation in this survey will help future TRIO Upward Bound participants, as well as inform TRIO Upward Bound program directors of the most effective program components.

As a thank you for your participation in this study, you will have a chance to receive one of five Visa gift cards. If your completed survey is submitted on or before April 19, 2018 you will automatically be entered for an opportunity to receive one of the five $25 Visa gift cards.

Participation in this study is voluntary. All responses will remain confidential, and your identity will not be associate with your survey responses. To ensure the confidentiality of the survey responses, all collected data will be maintained in a locked office on a password protect computer.

Click the following link to access the survey:

Once you click on the link, you will be automatically be logged into the survey. Participation in this survey is completely voluntary, and you may skip any questions you do not desire to answer. All survey responses will be reported publicly as group data.

At the conclusion of the study, all identifying information, including your email address will be permanently deleted. All survey responses will be stored in a computer file that is protected by a unique password.

Sincerely,

Kristalyn Lee
Doctoral Student
Dear TRIO Upward Bound Alumnus:

Please let this be a friendly reminder that I am conducting a study on TRIO Upward Bound’s relationship to college readiness for its participants. This research endeavor consists of an online survey that asks about different components of TRIO Upward Bound programming. The study’s objective is to understand TRIO Upward Bound’s relationship to the following outcomes for its program participants: high school graduation rate, level of college knowledge, and college enrollment rate.

As a graduate of a TRIO Upward Bound program, you have been selected to participate in this study. Please take approximately ten minutes to complete a web based survey on the effectiveness of TRIO Upward Bound programming. Your participation in this survey will help future TRIO Upward Bound participants, as well as inform TRIO Upward Bound program directors of the most effective program components.

Participation in this study is voluntary. All responses will remain confidential, and your identity will not be associate with your survey responses. To ensure the confidentiality of the survey responses, all collected data will be maintained in a locked office on a password protect computer.

Once you click on the link, you will be automatically be logged into the survey. Participation in this survey is completely voluntary, and you may skip any questions you do not desire to answer. All survey responses will be reported publicly as group data.

At the conclusion of the study, all identifying information, including your email address will be permanently deleted. All survey responses will be stored in a computer file that is protected by a unique password.

Please contact Kristalyn Lee at 205-965-2723 or scott035@crimson.ua.edu if you have difficulty completing this survey.

Sincerely,

Kristalyn Lee
Doctoral Student
APPENDIX E

APPROVAL FROM INSTITUTIONAL REVIEW BOARD
April 6, 2018

Kristalyn Lee
ELPTS
College of Education
Box 870302

Re: IRB # 18-OR-145, “TRIO Upward Bound and its Relationship with College Readiness for Low-Income Students”

Dear Ms. Lee:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of written documentation of informed consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Your application will expire on April 5, 2019. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure form.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,

[Signature]

[Redacted]
Director & Research Compliance Officer
Office for Research Compliance
March 21, 2019

Kristalyn Lee  
Department of ELPTS  
College of Education  
The University of Alabama  
Box 870302

Re: IRB # 18-OR-145-R1 “TRIO Upward Bound’s Relationship with College Readiness for Low-Income Students”

Dear Ms. Lee:

The University of Alabama Institutional Review Board has granted approval for your renewal application. Your renewal application has been given expedited approval according to 45 CFR part 46. You have also been granted the requested waiver of documentation of informed consent. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

The approval for your application will lapse on March 20, 2020. If your research will continue beyond this date, please submit a continuing review to the IRB as required by University policy before the lapse. Please note, any modifications made in research design, methodology, or procedures must be submitted to and approved by the IRB before implementation. Please submit a final report form when the study is complete.

Good luck with your research.

Sincerely,

Carpetano T. Myles, MSM, CCM, CIP  
Director & Research Compliance Officer