DIFFERENCES IN PUBLIC POSTSECONDARY ENROLLMENT RATES OF TEXAS PUBLIC HIGH SCHOOL GRADUATES AS A FUNCTION OF GENDER, ETHNICITY/RACE, AND ECONOMIC STATUS: A MULTIYEAR, STATEWIDE STUDY

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by

Deshonta Holmes

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DEDICATION

First I must thank God for his grace, mercy, and blessings on my life. None of this would be possible without him. I want to dedicate this dissertation to my favorite ladies. First my mom, who has always been there for me no matter where I was and what I did. We had some rough times growing up, but she continued to persevere and never gave up. As a child, I never knew the magnitude of the sacrifices she made as a single mother to care for my brother and I. I can never repay her for all she has done for us. She taught me hard work, that I was stronger than I thought, and most of all to trust God even when the situation looked less than promising. I thank her for always supporting me, believing in me, and loving me unconditionally.

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I dedicate this dissertation to my brother Ken, sister in love Renita, nephews Devonte and Keryan, and niece Olivia. I thank them for allowing me to pursue my dream while taking precious time and attention away from each of them. Without their love,

support, and a couple of times shelter, I would not have completed my coursework or dissertation.

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ABSTRACT

Holmes, Deshonta, *Differences in public postsecondary enrollment rates of Texas public high school graduates as a function of gender, ethnicity/race, and economic status: A multiyear, statewide study.* Doctor of Education (Educational Leadership), May 2018, Sam Houston State University, Huntsville, Texas.

Purpose

The purpose of this journal-ready dissertation was to examine the extent to which differences were present in gender, ethnicity/race, and economic status in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. The first purpose was to examine the degree to which gender differences were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. Specifically analyzed in the first investigation were the enrollment percentages of males and females for three academic years (i.e., 2012-2013 through 2014-2015) for Texas public high school graduates. A second purpose was to examine the extent to which ethnic/racial differences existed in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. In particular, the percentages of Texas Hispanic, Black, and White high school graduates who enrolled in 2-year public colleges and in 4-year public institutions were examined for three academic years (i.e., 2012-2013 through 2014-2015). Finally, a third purpose was to ascertain the extent to which economic differences were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities.

Method

A causal-comparative research design was used herein Archival data from the Texas Education Agency were downloaded and analyzed in each of the three empirical studies in this journal-ready dissertation. Specifically postsecondary enrollment rates at Texas 2-year public institutions and at Texas 4-year public institutions were obtained for the 2013-2014 through the 2014-2015 academic years.

Findings

Postsecondary enrollment rates of Texas public high school graduates in 2-year public institutions and in 4-year public institutions were statistically significantly different by gender, ethnicity/race, and economic status. Males had statistically significantly lower postsecondary enrollment rates than females. Moreover, Hispanic students had statistically significant lower postsecondary enrollment rates than both White and Black students. Students in poverty also enrolled in public postsecondary institutions at statistically significant lower rates than their counterparts who were not poor. Implications for policy and recommendations for research were provided.

KEYWORDS: Postsecondary enrollment, 2-year public institutions, 4-year public institutions, Gender, Ethnicity/Race, Economic Status, Texas

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CHAPTER I

INTRODUCTION

From 2000 to 2015, the National Center for Education Statistics (2017) reported an increase, from 63% to 69%, in the percentage of high school graduates who subsequently enrolled in higher education. Postsecondary education can change the trajectory of an individual's life and affect future earnings in ways that few other experiences can. Obtaining postsecondary experience is critical for individuals to find employment that will provide a livable wage. For the United States, a highly-educated workforce is important to remain competitive in a global economy (Allen, Robbins, & Sawyer, 2010; Hughes, 2013). Unfortunately, the United States has fallen behind many other nations in the education level of its citizens under 30 years of age (Bok, 2013).

As the benefits of higher education within today's global and competitive economy is becoming increasingly recognized, researchers, practitioners, and educators are working to document disparities, explore gaps in access and equity, and make policy recommendations to increase the participation of individuals in postsecondary education. Within the United States, disparities are present in college access within gender and among ethnic/racial lines. Educational equity requires all students have equal access to academic opportunities, including students in poverty and those from under-educated families who have limited education who tend to be overlooked and underserved in their educational pursuits.

Postsecondary Enrollment Rates by Gender

The literature on gender inequality in American education has undergone switchbacks over the last century: from concern about a "boy problem" in the

> early twentieth century to focus on "shortchanging" girls and women from the 1960s to the 1990s to fear about the "end of men" in the early twenty-first century. (Renshaw & Clark, 2017, p. 79)

Gender gaps in educational expectations and enrollment in postsecondary settings are well documented (McDaniel, 2010; Rudel, 2015; Seifert, Wells, Saunders, & Gopaul, 2013). With respect to educational expectations, McDaniel (2010) determined that high school students tend to be ambitious in setting educational goals. Family background, academic ability, and attitudes toward school of students' families were predictors of educational expectations for both males and females. The positive attitudes of females regarding the importance of schooling, compared to that of males, is an attribute that increases female educational expectations (McDaniel, 2010). Moreover, a decline in labor market discrimination may also be contributable to female educational aspirations (Neugebauer, Helbig, & Landmann, 2011).

In a recent investigation, Rudel (2015) analyzed the relationship of parental presence on postsecondary enrollment expectations of males and females. A father's presence in the house was related to the educational expectations of boys and girls. Boys with absentee fathers were more likely to attend college than boys from two parent households (Rudel, 2015). In Rudel's (2015) investigation, boys and girls were affected differentially by the presence of specific parents in single-family homes. That is, girls exhibited statistically significantly lower educational expectations in mother-only homes than did boys.

With respect to male and female levels of educational attainment and achievement (DiPrete & Buchmann, 2013; Riegle-Crumb, 2010; Wells et al., 2011), Riegle-Crumb

(2010) contended that males may fall behind female counterparts because female students earn higher grades in high school and express stronger postsecondary ambitions than do males. Similarly, Buchmann, DiPrete, and McDaniel (2008) reviewed the literature on gender inequalities in educational performance and academic attainment in elementary, secondary, and postsecondary schools. They reported that student academic achievement in elementary and secondary schools was related directly to the level of education students will ultimately achieve, including high school completion and beyond.

In the United States, the first step to accessing postsecondary education is the completion of high school. Of note is that gender disparities are not only present in postsecondary enrollment, they are also present in the graduation rates of high school students (National Center for Education Statistics, 2016a). For instance, in 2013, 8% of males dropped out of high school before obtaining a diploma, compared to only 5.6% of females (National Center for Education Statistics, 2016a). In 2016, female students in Texas had a higher 4-year high school graduation rate, 91.4%, than males, 86.9% (Texas Education Agency, 2016a). As a result, students who do not complete high school are excluded from the pool of eligible college students.

Participation in higher education increases the chance of moving up the socioeconomic ladder and reduces the need to depend on public assistance (Ma, Pender, & Welch, 2016). Without a high school diploma, students are less likely to earn an average income (Rampbell, 2014; Valletta, 2015). According to the National Center for Education Statistics (2016a), a person with only a high school diploma has an average salary of about $30,500, whereas the average salary of a person with a bachelor's degree

is $50,000. Consequently, education is paramount with regard to upward financial mobility (Domina, Conley, & Farkas, 2011).

In this century, the majority of higher education participants who receive bachelor degrees are women (Snyder & Dillow, 2010). This situation is in contrast to the past, where for centuries, males have exceeded females in educational expectations, enrollment, and degree attainment. This trend of male majority at postsecondary institutions changed within the last four decades, as the numbers of females began to exceed the numbers of males in the 1970s (Buchmann, 2009; King, 2010; Renshaw & Clark, 2017; Seifert et al., 2010). In 1945, American college and universities enrolled approximately equal percentages of male and female students (National Center for Education Statistics, 1993). The percentage of females who were enrolled in higher education began to increase in the late 1960s and early 1970s when women's expectations of their future no longer included following in their mother's footsteps as homemakers. Female participation in the workforce changed, and as a result, female college enrollment rates began to soar. Although this cultural phenomenon was a major step toward gender equality, the reversal in the gender gap did not occur until the late 20th century. Male total college enrollment decreased from 71% in 1947 to 43% in 2005 (Snyder, Dillow, & Hoffman, 2008).

From 2000 to 2015, the National Center for Education Statistics (2017) documented an increase from 63% to 69% in the percentages of high school graduates who subsequently enroll in higher education. In Fall of 2014, 17.3 million students in the United States enrolled in a postsecondary setting (National Center for Education Statistics, 2016b). Of those students, 10.6 million attended 4-year institutions and 6.7

million attended 2-year institutions. Fifty-six percent of this enrollment was female students. Hussar and Bailey (2011, 2016) projected women would continue to outpace men in postsecondary enrollment. Not only are females enrolling in institutions of higher learning at a higher rate, but females are also graduating at a higher rate than their male counterparts (National Center for Education Statistics, 2017).

With respect to Texas, higher percentages of females are enrolling in postsecondary settings. In 1997, Texas House Bill 588, commonly referred to as the "Top 10% Rule" was implemented. The mandate required public universities to admit in-state students who graduated in the top 10% of their high school graduating class. As a result, supporters of Texas House Bill 588 contributed to an ethnically/racially diverse pool of applicants. However, a unanticipated consequence of the mandate was an increase of female students in postsecondary institutions (Conger & Long, 2010).

Provided in decades of research are reasons why females were less likely to enroll in higher education than males. In recent years, the emphasis of the research studies has shifted to the decline in male enrollment. Other researchers (e.g., Conger & Long, 2010; Riegle-Crumb, 2010) indicated that high school females have an advantage in postsecondary enrollment because they engage in more rigorous coursework, earn better grades, and have higher postsecondary aspirations than do their male counterparts, which place females higher in academic merit during the college admissions process. Also, females are more responsive to and benefit more from interventions designed to increase educational attainment (Angriest, Lang, & Oreopoulos, 2009; Deming, Hastings, Kane, & Staiger, 2014).

In an investigation into gender gaps in education, Conger and Long (2013) examined how gender sorting, the distribution of males and females, across public high schools contributed to the growing gender gap in higher education enrollment. Using data from four cohorts of public school students in the state of Florida, they measured the degree of sorting between males and females across schools. Conger and Long (2013) established that the level of gender sorting across Florida public high schools was beyond what would be expected if students were randomly assigned to their schools. As such, they stated that males were more apt than were females to attend high schools with lower college-going rates. Another important finding was the degree to which males and females sort across Florida high schools, 5% of males or females, would need to change schools to achieve gender balance. Additionally noted across school gender sorting explained for the 12% and 16% increase of female enrollment among Hispanic and Black students, respectively. Conger and Long (2013) contended that gender sorting trends could be an influencing factor in educational outcomes and the female advantage in higher education enrollment.

Another topic related to gender gaps in postsecondary enrollment is that of social capital. Klevan, Weinberg, and Middleton (2016) examined how social capital explained differences in higher education enrollment. Utilizing data from the 2002 Educational Longitudinal Study, they analyzed social capital and its relationship to postsecondary enrollment. Klevan et al. (2016) contended that males were at a disadvantage with respect to postsecondary enrollment when considering certain social capital variables. After controlling for the following variables (a) race/ethnicity, (b) parent's education, (c) native language, (d) standardized test scores, (e) socioeconomic status, (f) region of

schools, and (g) number of siblings in the home, social capital was determined to be statistically significantly related to postsecondary enrollment. Klevan et al. (2016) documented that social capital reduces the odds of females enrolling in college compared to males from 1.63 to 1.41. When gender, social capital, and grade point average were examined, the enrollment odds decreased from 1.41 to 1.23. These findings are congruent with previous researchers (e.g., DiPrete & Buchmann, 2013) who established that academic performance was an excellent predictor of postsecondary enrollment and explained the gender gaps in higher education enrollment. In conclusion, Klevan et al. (2016) contended that gender interacts with social capital on postsecondary enrollment, which is consistent with females receiving different returns on social capital.

In a similar analysis for Black and White students, Davis and Otto (2016) examined factors influencing the gender gap in higher education enrollment. Data were obtained from the National Educational Longitudinal Study on the gender gap in higher education enrollment and factors that might influence college enrollment. Results were that Black male students were statistically significantly lower on all predictors of college enrollment than other race-gender groups. White females had higher academic, social, economic, and ecological predictors, meaning they had a higher likelihood of enrolling in postsecondary education. Davis and Otto's (2016) hypothesis that social, academic, and family economic characteristics differ along race-gender lines was supported by their research results.

In another study regarding the gender gap, Renshaw and Clark (2017) examined the educational degree achievements of birth cohorts from 1910 to 1979. Using the General Social Survey data, they analyzed changes in the attainment of secondary and

postsecondary degrees by gender. Findings were that an increase in male educational attainment was observed for cohorts born between 1910 and 1930. Renshaw and Clark (2017) contributed this increase to the establishment of programs, such as the Servicemen's Readjustment Act of 1944, commonly known as the GI Bill. Additionally documented was that female and male high school graduation rates were similar; however, male higher education attainment outpaced females for these cohorts. Another observation was that the reversal of the male advantage began in the birth cohorts of the 1940s and 1950s. A small female advantage was recognized in the cohort of the 1960s, but it was not until the 1970s cohort that a substantial female advantage was achieved. Renshaw and Clark (2017) concluded that changes in female opportunities and public critique were influential in creating change.

As demographics are changing in higher education, administrators are facing challenges because females are increasingly outnumbering male enrollments. The growing gender enrollment gap has been identified as a variable that could negatively influence academic selectivity by top applicants and the overall receipt of applications from academically competitive applicants (Jaschick, 2005; Tierney, 2006). Such concerns were validated by researchers (e.g., Ge, 2011; Williams, 2010) who described trends where females enrolled in college to increase their returns in the marriage market and expressed concerns that options are limited in institutions of higher education with low male enrollment.

Postsecondary Enrollment Rates by Race/Ethnicity

In the United States, earning a degree from a postsecondary institution is a primary factor to reduce economic inequality and increase social mobility (Bowen,

Chingos, & McPherson, 2009). Since 1975, the percentage of jobs requiring a postsecondary degree increased from 28% to 59% (Duncan, 2010). Today, more than 60% of jobs require postsecondary education and training and this number is expected to increase to 65% by 2020 (Carnevale, 2016; Carnevale, Smith, & Strohl, 2013; Perez & Slate, 2015). From 2000 to 2015, the National Center for Education Statistics (2017) reported an increase, from 63% to 69%, in the percentage of high school graduates who subsequently enrolled in higher education. Postsecondary education can change the trajectory of an individual's life and affect future earnings in ways that few other experiences can. Currently, obtaining a postsecondary credential is critical for individuals to find employment that will provide a livable wage.

Before 1980, middle-class status was achievable with a high school diploma (Carnevale, 2016). According to the U.S. Bureau of Labor Statistics (2017b), the median weekly earnings of full-time workers during the second quarter of 2017 was $1290 for individuals with a bachelor's degree compared to $718 for individuals with only a high school diploma. The U.S. Census Bureau (n.d.) reported that the premium for completing college or beyond is approximately $2,000 more per month upon entering the job market.

Numerous researchers (Alon & Gelbgiser, 2011; Beattie, 2002; Bowen & Bok, 1998; Carbonaro, Ellison, & Covay, 2011; Conger & Long, 2013; Davies & Guppy, 1997; Davis & Otto, 2016; Dickerson & Jacobs, 2006; DiPrete & Buchmann, 2013; Klevan, Weinberg, & Middleton, 2016; Renshaw & Clark, 2017) have documented educational inequalities in access by race/ethnicity. Since 1983, 80% of the growth in educational inequality has been caused by differences in college access and success (Carnevale, 2016). Educational inequalities have been documented to exist as a function

of the ethnicity/race of individuals. Since 1995, 82% of White students were enrolled in one of 476 selective colleges whereas 68% of Black students and 72% of Hispanic students were enrolled in institutions with open admissions policies (Carnavele, 2016). Hispanic students are the largest minority group enrolled on 4-year campuses (Fry & Lopez, 2012); however, Hispanic students continue to be overrepresented in 2-year colleges (Ryan, 2016). According to the Pew Research Center (2015), almost one half of Hispanic college students attend public 2-year colleges. Similarly, 43% of all Black undergraduate students in the United States were enrolled in community colleges in 2015 (American Association of Community Colleges, 2017). According to Bowen et al. (2009), this racial/ethnic disparity in higher education will perpetuate inequality into the next generation.

Modest increases in high school graduation and in college enrollment have been established in the United States in the past several decades (Chapman, Laird, & KewalRamani, 2010). In 1980, the percentage of Hispanic high school graduates and White high school graduates who immediately enrolled in postsecondary education was similar at 50%, though Black students enrolled at 44% (National Center for Education Statistics, 2010). From 1976 to 2008, enrollment rates increased for all three groups. However, the participation rate of White individuals was greater than the participation rates of Black and Hispanic individuals (National Center for Education Statistics, 2010). The participation rate of White students increased from 50% to 72%, whereas the participation rate of Hispanic students increased from 50% to 62%, and the participation rate of Black students increased from 44% to 56% (National Center for Education Statistics, 2010).

In fall of 2015, 17 million students were enrolled in higher education (National Center for Education Statistics, 2017). Of these students, 9.3 million were White, 3 million were Hispanic, 2.3 million were Black, and 1.2 million were other racial/ethnic groups (National Center for Education Statistics, 2017). Hispanic enrollment more than doubled between 2000 and 2015 from 1.4 million to 3 million students. During this same time, Black enrollment increased from 1.5 million to 2.7 million and White enrollment increased from 9 million to 10.9 million (National Center for Education Statistics, 2017).

Substantial gains in college enrollment have occurred and resulted in a more diverse demographic student body (National Center for Education Statistics, 2017). Black students and Hispanic students; however, continue to have lower levels of enrolling in and in completing a postsecondary degree than do their White counterparts. This lack of educational attainment for Black and Hispanic students is of concern to administrators and policymakers. Accordingly, administrators and policymakers have been examining ways to increase the postsecondary participation of students of color for years. As such, a considerable amount of research and policy aimed at expanding access to postsecondary education exists (Harvill, Maynard, Nguyen, Robertson-Kraft, & Tognatta, 2012). Although 90% of sophomore high school students expect to enroll in college, only 70% will likely enroll in a postsecondary setting (Snyder & Dillow, 2010). Of the students who do not enroll in a postsecondary setting, a disproportionate number of them are Black and Hispanic students (Deil-Amen & DeLuca, 2010).

In a postsecondary access investigation, Perna (2000), explored variations in the enrollment of Black, Hispanic, and White students at 4-year institutions. Using data from the National Educational Longitudinal Study, Perna (2000) analyzed the degree to which

social and cultural capital influenced enrollment and examined differences in students' decisions to enroll in a 4-year institution among Black students, Hispanic students, and White students. When differences in cost, benefits, ability, and social and cultural capital were controlled, Hispanic students and White students enrolled at comparable rates. According to Perna (2000), the lower enrollment rates of Hispanic students were linked to their low levels of social and cultural capital, test scores, curricular programs, and educational expectations. Another important finding was that after controlling for factors related to college enrollment, Black students were 11% more likely to enroll in postsecondary education immediately following high school graduation than were White students. This higher probability could be attributed to the affirmative action programs implemented during this time to increase the amount of information and interest in postsecondary education for Black students.

In 2005, Perna and Titus conducted another study using National Educational Longitudinal Study data in which they analyzed the relationship between parental involvement, used as a form of social capital, and postsecondary enrollment. Specifically, Perna and Titus (2005) were interested in examining how parental involvement in their children's decisions about postsecondary enrollment varied across racial/ethnic groups. Findings were that parental involvement and postsecondary enrollment varied by race/ethnicity. The odds at which students enrolled in a 2-year or 4-year institution increased with the frequency that discussions with parents occurred regarding education related topics. However, only 38% of Black students and 30% of Hispanic students enrolled in a 4-year institution after graduating high school compared

to 46% of White students. Approximately 32%, of Hispanic students, 25% White students, and 21% Black students were enrolled in 2-year institutions.

According to Perna (2007), the observed gaps among ethnic/racial group may be attributed to the knowledge that Black and Hispanic individuals lack of the social, economic, and other benefits of higher education. On the contrary, individuals who participate in postsecondary education understand the short-term benefits, such as: (a) the learning experience, (b) participation in social and cultural events, and (c) social status enhancement (Perna, 2007). In addition, Black and Hispanic participants are aware of the long-term benefits of; (a) improved working conditions, (b) investments and savings, (c) improved health, (d) participative citizenship, and (e) emotional and moral development (Perna, 2007).

Due to the increase in Black and Hispanic populations, the United States population continues to change as a result. This trend is apparent in Texas where the White population percentage decreased from 48.49% in 2000 to 39.91% in 2010 but the Hispanic population percentage increased from 28.63% in 2000 to 35.20% in 2010 (Murdock & Cline, 2011). Murdock and Cline (2011) projected the White population would continue to decline and the Hispanic population would make up 62% of the population by 2050. These shifts in racial/ethnic demographics will lead to similar changes in the student body at Texas public colleges and universities. Serrano (2017) posited,

> As a group, Latina/o students are more likely to experience a substandard K-12 education complete with under resourced schools, high teacher turnover, and fewer college-preparatory courses. It is this same inferior education that denies

> many Latina/o high school students the opportunity to engage in college-choice - leading to their disproportionate enrollment in community college over 4-year colleges or universities. (p. 239)

According to the U.S. Census Bureau (2016a), the Hispanic population is 55 million, making Hispanics one of the fastest growing groups in the United States. This increase in the Hispanic population is transforming student body demographics in education. Unfortunately, Hispanic educational inequality is present throughout the educational pipeline resulting in fewer Hispanic students progressing through the K-12 system and enrolling in postsecondary education (Covarrubias, 2011). However, Nunez and Kim (2012) concluded that in states with large Hispanic populations, students were more likely to enroll in 4-year Hispanic serving institutions.

To determine what factors attributed to Hispanic students enrolling in higher education, Cejda and Short (2008) analyzed three studies from which a number of common themes emerged. One theme was the barriers that Hispanic students face, which include (a) being first generation, (b) not speaking the English language at home, (c) and lower socioeconomic status. Of note Hispanic parents wanted their children to attend college and had a desire to assist their children with attending college; however, the parents lacked the knowledge to assist. Another theme was finances. Many of the students had no knowledge of cost and student loan repayment. Families were concerned about the affordability, but again, they lacked the knowledge of resources available to assist. According to Cejda and Short, family was an important influencer in Hispanic students' decision to enroll in postsecondary education. Cejda and Short concluded that it is important to create an environment that values and promote postsecondary education.

Additionally asserted was that college readiness programs that provide accurate information and assistance in the application process should be implemented. Further, programs in which students are helped to develop college-going strategies, abilities, and attitudes should be created and implemented.

In 2012, former-President Barack Obama, issued an executive order to improve educational outcomes for Black students, which included increasing access and student success for this group.

> Significantly improving the educational outcomes of African-Americans will provide substantial benefits for our country by, among other things, increasing college completion rates, productivity, employment rates, and the number of African-American teachers. Enhanced educational outcomes lead to more productive careers, improved economic opportunity, and greater social well-being for all Americans. (Obama, 2012, para 4)

According to DePaoli et al. (2015), substantial gains were made to support former-President Obama's mission. For example, tremendous gains in high school graduation rates of Black students occurred between 2012 and 2015, increasing to 71% (DePaoli et al., 2015). In 2014, Black high school graduates were more likely to enroll in college than their White peers, 71% and 67% respectively (U.S. Bureau of Labor Statistics, 2014). Projected by 2022 is that Black student enrollment in postsecondary institutions will increase by 26% (Hussar & Bailey, 2013).

Although these statistics are encouraging, obstacles continue to impede the progress of Black students. These obstacles include low academic achievement and the lack of challenging college preparatory coursework (Cokley, Obaseki, Moran-Jackson,

Jones, & Vohra-Gupta, 2016). According to the ACT and the United Negro College Fund (2014), Black high school graduates are less prepared for college-level coursework compared to other racial/ethnic groups.

Postsecondary Enrollment Rates by Economic Status

In 2015, 43.1 million people in the United States lived in poverty (U.S. Census Bureau, 2016b). This fact is important for this research article because education and poverty are directly correlated (Awan, Malik, Sarwar, & Waqas, 2011). Poverty has a direct influence on the quality and productivity of education. Hernandez (2011) wrote,

> Families in poverty are more likely to live in neighborhoods with low-performing schools. Consequently, children in poor families tend to develop weaker academic skills and to achieve less academic success. Many arrive at kindergarten without the language or social skills they need for learning. They miss school frequently because of health or family concerns. They slip behind in the summer with little access to stimulating educational programs or even regular meals. Consequently, the children in poor families are in double jeopardy: They are more likely to have low reading test scores and, at any reading-skill level, they are less likely to graduate from high school. (p. 7)

With respect to this article, poverty will be used to refer to students who are eligible for free or reduced-price meals under the National School Lunch and Child Nutrition Program. According to Burney and Beilke (2008),

> "Children whose families have an income of 130% or less of the federal poverty guide-line can receive free meals at school, and those whose families have

> incomes from 131% to 185% of the poverty guideline are eligible for reduced-price meals" (p. 173).

As DePaoli et al. (2015) noted, the majority of students in public schools in the United States meet the federal criteria for being in poverty. In 21 states, 50% or more of students were eligible for free and reduced-price lunch (DePaoli et al., 2015). Additionally, in 19 other states, 40% to 49% of public school enrollment is comprised of students in poverty (DePaoli et al., 2015).

Students who are economically disadvantaged are more likely to attend resource-poor schools, participate in less demanding high school curriculum, lack college-experienced role models, and struggle with issues of cultural and academic incongruity (Scott et al., 2013; Tavernise, 2012). Furthermore, students who live in poverty are more likely to drop out of high school than are their economically advantaged peers (Coley & Baker, 2013; Duncan & Murmane, 2014; Hartas, 2011; Lee & Slate, 2014). Scott et al. (2013) noted that being poor was a major factor that contributes to students dropping out of high school.

Failure to complete high school is associated with numerous negative outcomes. Not obtaining a high school diploma means that students who live in low-income households will be trapped in low-wage jobs perpetuating a cycle of poverty (Correa, Boatright, & Bonnesen, 2015). According to the National Center for Education Statistics (2017), the median average income of workers with less than a high school diploma was $25,000 in 2015. By comparison, the median income of individuals who obtained at least a high school diploma was $30,500. Similarly, the percentage of dropouts who are unemployed is less than the percentage of high school graduates who are unemployed

(U.S. Bureau of Labor Statistics, 2014). Pleis, Ward, and Lucas (2010) observed that individuals who drop out of high school have poorer health than their peers who complete high school. Additionally, students who drop out of high school cost the economy approximately $260,000 over their lifetime, considering their: (a) low tax contributions, (b) reliance on public assistance, and (c) rates of criminal activity (National Center for Education Statistics, 2016c).

To lessen the effects of poverty, education continues to be viewed as the equalizer (Coley & Baker, 2013). Education can equip citizens with knowledge and skills that will allow them to lead successful and productive lives (Coley & Baker, 2013). Students in poverty; however, are less likely than students from families who are not in poverty to earn a high school diploma and to enroll subsequently in college (Ou & Reynolds, 2014; Zwick & Himelfarb, 2011)

If students who live in poverty do graduate high school, their lack of information about the costs and benefits of postsecondary enrollment may influence their decision of attending college or not attending college. In addition, low-income students are typically the first individuals in their families to attend college; therefore, they lack the experience and direction from parents to navigate higher education roadblocks (Babcock, 2014). Students who live in poverty complete postsecondary education at lower rates than do students not living in poverty (Ma, Pender, & Welch, 2016).

With respect to the state of interest for this investigation, during the 2013-2014 academic year, 60.1% of students in Texas were eligible for free or reduced lunch (Texas Education Agency, 2017a). This change is 8.1% higher than the national average of 52% (Texas Education Agency, 2017a). Between 2006-2007 and 2016-2017, economically

disadvantaged in Texas increased by 24.1%. This increase was larger than the 16.6% increase of the total student population, (Texas Education Agency, 2017a).

In a recent investigation, Baydu, Kaplan, and Bayar (2013) examined the influence of poverty on graduation rates in public high schools in the United States. They established the presence of a negative relationship between graduation rates and poverty. As student poverty rates increased, high school graduation rates decreased. Findings from the Baydu et al. (2013) study were in agreement with Merten and Flowers (2003).

In an earlier investigation, Price and Reeves (2003) examined school characteristics, accountability, and student poverty that forecast postsecondary enrollment rates of high school graduates in the state of Kentucky. Data were acquired from the Kentucky Department of Education for the 1998 school year. Results were that school poverty and racial diversity accounted for 18% of the total difference in postsecondary enrollment. High school graduates in poverty enrolled into postsecondary institutions in smaller numbers. In addition, Price and Reeves (2003) noted that high schools with more than the average rate of both poor and minority students were unlikely to send students to postsecondary education. Students who attended high poverty high schools and performed well on the accountability test enrolled in postsecondary institutions in lesser numbers than did students from affluent high schools. Further, school poverty inhibits postsecondary enrollment even after controlling for geographic location and accountability test scores. According to Price and Reeves (2003), "focusing exclusively on school accountability measures is unlikely to generate equal educational opportunities for all of Kentucky's children due to the strong negative influence of school poverty on postsecondary enrollments" (p. 32).

The benefits of higher education are apparent but apprehensions about equity of access to and success in postsecondary educational opportunities for groups in poverty are of concern. As awareness of the benefits of higher education becomes more apparent within today's global and competitive economy, Texas researchers, practitioners, and educators should document economic and ethnic/racial disparities and develop strategies to close gaps in access and equity among all high school graduates. Facilitating access to postsecondary education for students who are economically disadvantaged should be a priority of educational administrators and policymakers. Educational equity requires that all students have equal access to academic opportunities; however, students who are economically disadvantaged and/or from under-educated families, whether intentionally or not, are disregarded and underserved in their educational pursuits (Mudge & Higgins, 2011). To overcome economic inequities, administrators of high schools and institutions of higher education should collaborate to examine and identify the inequities and implement programs to prepare all students for postsecondary access and success.

Mandela (2005) stated:

> Like slavery and Apartheid, poverty is not natural. It is man-made, and it can be overcome and eradicated by the actions of human beings. And overcoming poverty is not a gesture of charity. It is an act of justice. It is the protection of a fundamental human right, the right to dignity and a decent life. While poverty persists, there is no true freedom. (para 10-12)

Theoretical Framework

Numerous theoretical frameworks have been offered to explain the differences in postsecondary enrollment of high school students. For this journal-ready dissertation,

social capital (Bourdieu, 1986) is used as the theoretical framework. Social capital is a concept that refers to the connections within and between social networks. Bourdieu (1986) defined social capital as "being made up of social obligations (i.e., connections) which is convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility: (p. 243). Bourdieu (1986) further described social capital as:

> the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition; or in other words, to membership in a group, which provides each of its members with the backing of the collectivity-owned capital, a 'credential' which entitles them to credit, in the various senses of the word. These relationships may exist only in the practical state, in material and/or symbolic exchanges which help to maintain them. (p. 249)

Although Coleman (1988) defined social capital by its function, he concurred with Bourdieu (1986) in that social capital denotes social structure and membership in a specific group. Social capital "facilitates certain actions of actors—whether persons or corporate actors—within the structure" (Coleman, 1988, p. 98). In addition, Coleman (1988) revealed how relationships can promote change. Further, Coleman (1988) reported that social capital exists in relationships among people and can bring about better outcomes.

In an attempt to capture elements of both Bourdieu's and Coleman's work, social capital in this journal-ready dissertation will be used to refer to "individuals' capacity to gain access to valuable resources by virtue of their membership in groups and

participation in broader structures of society" (Ryan, 2016, p. 7). Both Coleman and Bourdieu's perspective on social capital provide insight into the association of parent resources; aligned actions, match between high expectations and college-going actions, and college enrollment.

In a recent publication, Ryan (2016) conducted a study on intergenerational transmission of resources for Hispanic students who were attempting to fulfill postsecondary ambitions. Of interest was the possibility that parents of these students faced barriers in guiding their children to align their educational aspirations in the appropriate sequence of actions to enroll in higher education. According to O'Conner et al. (2010) and Tienda (2011), parents of Hispanic students have limited access to resources in which the information needed is readily available. Results, however, were that neither parental resources nor parental social capital were associated with higher levels of enrollment among Hispanic students.

According to Fann, Jarsky, and McDonough (2009) Hispanic parents may rely more often on friends and family for information on education because of barriers at school, supposed or real, which prevent them from obtaining information and establishing resourceful relationships with school personnel. Additionally, Coleman (1988) discussed how Asian immigrant mothers purchased two sets of textbooks, one set for the child and the other set for the mother, to assist the student with their schoolwork. The mother having or obtaining the resources needed to assist her child, is an excellent example of high social capital within the family and its importance for a child's intellectual development.

Statement of the Problem

Although postsecondary education is linked to better life outcomes (Ma, Pender & Welch, 2016), no assurance exists that high school graduates will enroll and participate in postsecondary education. Of the 82% percent of high school students who graduated from high school (National Center for Education Statistics, 2015), only about two thirds of them will actually enrolled in an institution of higher education (Complete College America, 2012; National Center for Education Statistics, 2015; Scott-Clayton, Crosta, & Belfield, 2014). Access and completion of postsecondary education is often compared to the American dream (Cox, Joyner, & Slate, 2011). Carey (2004) stated, "Higher education, and the promise it represents, has long been one of the main drivers of opportunity, social mobility, and economic progress" (p. 1). Therefore, obtaining a high school diploma and enrolling in postsecondary education is paramount, for individuals, the economy of Texas and the economy of the United States.

Texas experienced an increase of 4% of public high school graduates who enrolled in a Texas public higher education institution following their high school graduation from 2003 to 2009 (Texas Higher Education Coordinating Board, n.d.). The number of Texas public high school graduates grew by 26,166 students, an 11% increase, from 2003 to 2009 (Texas Higher Education Coordinating Board, n.d.). In the Texas high school class of 2016, 89.1% of students graduated (Texas Education Agency, 2017a). Of the students who graduated, females had a higher graduation rate compared than males (Texas Education Agency, 2017a).

Concerning postsecondary enrollment, a larger percentage of women enrolled during this time, resulting in 7% difference in male and female college-going rates.

Similarly, during the fall of 2016, 51% of Texas high school graduates enrolled in postsecondary education in the state of Texas (Texas Higher Education Coordinating Board, 2016). Of those students enrolled, 53% were female (Texas Higher Education Coordinating Board, 2016). The National Center for Education Statistics (2012) projected female enrollment in postsecondary institutions would increase by 21% through 2019, whereas male enrollment would only increase by 12%. This growing gender gap in postsecondary enrollment is important because education is a predictor of many adult outcomes, such as income, health, and occupational attainment. Of concern in the first investigation are the enrollment rates of Texas public high school male and female graduates in postsecondary institutions.

Another concern in this investigation is the degree to which racial/ethnic disparities might be present in postsecondary enrollment. In an effort to improve the accessibility and quality of education for its people, the Texas Higher Education Coordinating Board approved the Closing the Gaps Higher Education Plan in October of 2000. Focused upon in this plan was closing the gap within the state in enrollment and success, in educational excellence, and funded research (Texas Higher Education Coordinating Board, n.d.). More recently, policymakers in Texas implemented the 60x30TX strategic plan, which has four broad goals to accomplish, but the overarching goal is that 60% of Texans age 25-34 will have a certificate or degree by the year 2030. (Texas Higher Education Coordinating Board, 2015).

In fall 2015, 17 million students in the U.S. enrolled in postsecondary institutions (National Center for Education Statistics, 2017). Of those high school graduates who enrolled in postsecondary institutions, 9.3 million were White, 3.0 million were Hispanic,

and 2.3 million were Black (National Center for Education Statistics, 2017). Because Black and Hispanic individuals have been traditionally underrepresented in Texas higher education institutions, these groups are critical to the success of the 60x30TX strategic plan (Texas Higher Education Coordinating Board, 2015).

A third concern in this investigation is economic status. Postsecondary education is a requisite to economic prosperity for individuals from economically disadvantaged backgrounds (Venezia & Jaeger, 2013). The lack of education has an inverse correlation to poverty (Awan, Malik, Sarwar, & Waqas, 2011). According to the Texas Education Agency (2015), 60.1% of students in Texas were living in poverty. Research has been conducted on socioeconomic status in regard to student achievement (Lee & Slate, 2014; Wright & Slate, 2015; Wright, Slate, & Moore, 2016) and college attainment rates (Ou & Reynolds, 2014). Texas students in poverty had lower college readiness skills on the reading college readiness indicator than their non-poverty counterparts. (Lee & Slate, 2014). Additionally, Texas public middle school students who were economically disadvantaged underperformed students who were not economically disadvantaged in critical thinking skills.

Of overall concern is that many careers today require some type of postsecondary education (Carnevale, 2016). As the demand for less skilled workers has declined, postsecondary education and training are essential for individuals seeking gainful employment (Carnevale, 2016). Increased earnings are typically associated with higher levels of education (Spotlight on Poverty, 2013). In addition, other benefits gained from a college education, include improved working conditions, better quality of life, and job security. Without some form of higher education experience, high school graduates,

particularly those students who are economically disadvantaged, may be unable to earn a decent income (Rampell, 2014).

Purpose of the Studies

The purpose of this journal-ready dissertation was to examine the extent to which differences were present in gender, ethnicity/race, and economic status in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. The first purpose was to examine the degree to which gender differences were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. Specifically analyzed in the first investigation were the enrollment percentages of males and females for three academic years (i.e., 2012-2013 through 2014-2015) for Texas public high school graduates. A second purpose was to examine the extent to which ethnic/racial differences existed in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. In particular, the percentages of Texas Hispanic, Black, and White high school graduates who enrolled in 2-year public colleges and in 4-year public institutions were examined for three academic years (i.e., 2012-2013 through 2014-2015). Finally, a third purpose was to certain the extent to which economic differences were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. Ascertained in this investigation was the degree to which postsecondary enrollment status of Texas public high school graduates differed between students who are economically disadvantaged and students who are not economically disadvantaged.

Significance of the Studies

Findings from these studies may provide insight to educational administrators and policymakers regarding the degree to which differences in gender, ethnicity/race, and economic status might be present in the postsecondary enrollment of Texas public high school students at 2-year public colleges and at 4-year public universities. With respect to gender differences, increased higher education enrollment among women has become a common occurrence across the United States and findings from this study will be important to identify the extent to which Texas enrollment rates might be in agreement with national enrollment trends. Knowing the demographic characteristics of students who completed high school and subsequently enroll in postsecondary education may be of value to higher education leaders and policymakers, as well as to K-12 educational leaders. Colleges and universities are now operating in an academic environment where occupational interests of women are replacing the occupational interests of men. Information obtained from analyzing nine years of data may be helpful in determining the degree to which inequities in postsecondary enrollment by student gender are present.

Despite the abundance of research that exists on ethnic/racial disparities in postsecondary enrollment, few researchers have focused their investigations on the postsecondary enrollment rates by the ethnicity/race of Texas public high school graduates. Examined in this study was the degree to which ethnic/racial differences might exist in the postsecondary enrollment of Texas public high school graduates at 2-year public colleges and 4- year public universities. The findings of this investigation may have practical applications for current practitioners who are engaged in the development and implementation of programs for high school and entering college

students. School district leaders, higher education administrators, and policymakers may use the findings from this study to evaluate the degree to which current recruitment strategies in which the ethnic/racial gaps for postsecondary education are addressed.

Another important element of this research study is in the examination of differences in postsecondary enrollment rates by the economic status of high school graduates within the state of Texas. A considerable body of research exists in which differences in academic performance and motivation of students who are economically disadvantaged have been documented. Investigating differences in enrollment rates of Texas public high school graduates by their poverty status has the potential of assisting postsecondary education administrators and faculty in understanding and implementing programs or interventions focusing on specific student demographics.

Definition of Terms

The following terms are defined to provide the reader with an understanding of the concepts of this journal-ready dissertation.

2-year Institution

A 2-year institution is an institution offering at least a 2-year program of college-level studies, which terminates in an associate degree or is principally creditable toward a baccalaureate degree (National Center for Education Statistics, n.d.).

4-year Institution

A 4-year institution is an institution offering at least a 4-year program of college-level studies wholly or principally creditable toward a baccalaureate degree (National Center for Education Statistics, n.d.).

Black

An individual of Black ethnicity is an individual having origins in any of the Black racial groups of Africa (Texas Higher Education Coordinating Board, 2012).

Economically Disadvantaged

Economically disadvantaged refers to the status given to students who qualify for the federal free and reduced-price lunch program. According to the Texas Education Agency's Texas Academic Performance Report Glossary (2016b), economically disadvantaged students are "eligible for free or reduced-price lunch or eligible for other public assistance" (p. 10). The free and reduced lunch program indicator is used frequently to designate students living in poverty. The Department of Health and Human Services sets the poverty guidelines for the 48 Contiguous States and the District of Columbia. In 2015 the poverty line for a household of four was set at $24,250 (Federal Register, 2015). In Texas, economically disadvantaged status must be reported each year by each school district and charter school through the Texas Education Public Education Information Management System.

Ethnicity/Race

Ethnicity/race is defined as a category used to describe a group to which an individual belongs, identifies with, or belongs in the eyes of the community (Texas Higher Education Coordinating Board, 2012).

Hispanic

An individual of Hispanic ethnicity is a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race (Texas Higher Education Coordinating Board, 2012).

Postsecondary Enrollment

Students have several options for postsecondary education. For this investigation, postsecondary enrollment is defined as any time spent enrolled in a postsecondary setting of any kind. As defined by the Texas Higher Education Coordinating Board (2012), postsecondary enrollment is

> The uncertified, preliminary count of the number of students enrolled in higher education on the 12th day of class in a given fall semester. The figures are requested by the end of September in summary form to publish as a comparative report to the prior fall term. The preliminary enrollments are replaced by "certified" enrollments when they become available after the official enrollment reports are submitted to the Coordinating Board by higher education institutions. (p. 28)

Texas Higher Education Coordinating Board

This agency works closely with educators and government officials in Texas to cultivate and fulfill higher education initiatives. The goal of the Texas Higher Education Coordinating Board is to increase the number of college graduates while keeping cost down to help make college more affordable in Texas. Another objective of the Texas Higher Education Coordinating Board is to align higher education outcomes with the present and future needs of the workforce (Texas Higher Education Coordinating Board, 2012).

White

An individual of White ethnicity is a person having origins in any of the original peoples of Europe, the Middle East or North Africa (Texas Higher Education Coordinating Board, 2012).

Literature Review Search Procedures

For the purpose of this journal-ready dissertation, the literature regarding postsecondary enrollment of graduating high school students and ethnicity/race, gender, and economic status was examined. Phrases used in the search for relevant literature were: *postsecondary enrollment, enrollment gaps, race/ethnicity, poverty, and gender.* All searches were conducted through the EBSCO Host database for academic journals that contained scholarly peer reviewed articles.

Key word searches for "gender and higher education" yielded 894,871 results and when enrollment was added, the number of results reduced to 168,544. When the range was narrowed from 2010 to 2017, the number of results reduced to 40,981. A keyword search for "postsecondary enrollment" yielded 4,784 results and when gender gaps was added and the range was narrowed from 2010 to 2017, the number of results was reduced to 413. A keyword search for "postsecondary enrollment by ethnicity/race" yielded 3,834 results and when the range was narrowed from 2010 to 2017, the number of results reduced to1,833. When the word "gaps" was added the results were reduced to 14. A keyword search for "postsecondary enrollment and economic status" yielded 2,556 results and when the range was narrowed from 2000 to 2017, the number of results was reduced to 1,393. Relevant articles were reviewed pertaining to postsecondary enrollment by gender, race/ethnicity, and economic status.

Delimitations

For the purpose of this journal-ready dissertation, only the postsecondary enrollment rates of Texas public high school graduates was analyzed. The data analyzed was the postsecondary enrollment rates of Texas public high school graduates in Texas 2-year public colleges and in Texas 4-year public universities. Moreover, only data for the 2012-2013 through the 2014-2015 academic years was analyzed. With regard to the research investigation on ethnicity/race, data for the three major ethnic/racial groups in Texas schools was analyzed: White, Hispanic, and Black. Finally, the definition of economic disadvantage restricted to the federal definition with respect to qualifying for the free or reduced-price lunch program.

Limitations

The extent to which differences might be present in the postsecondary enrollment of Texas public high school graduates by their gender, ethnicity/race, and economic status was addressed in this journal-ready dissertation. Inherent limitations, as with any empirical investigation, are present in this investigation. One limitation for this investigation is that the data used to measure postsecondary rates was solely quantitative in nature. Another limitation was in the use of archival data. As such, only quantitative analysis on archival data was conducted to measure the differences in postsecondary enrollments rates of Texas public high school graduates in Texas 2-year public colleges and 4-year public universities. A final limitation is that postsecondary enrollment rates was used to refer to enrollment only in Texas public institutions. Texas public high school graduates who enroll in postsecondary settings outside of Texas or who enroll in private postsecondary settings will not be included in this journal-ready dissertation.

Assumptions

In this journal-ready dissertation, an assumption was made that the postsecondary enrollment data along with the ethnic/racial, gender, economic status data provided by the Texas Education Agency was accurate. An additional assumption was that Texas public high schools collect and report student data both accurately and consistently statewide. Any deviations from these assumptions may affect the accuracy of the results obtained in the three articles in this journal-ready dissertation.

Organization of the Studies

Three research investigations are present within this journal-ready dissertation. In the first study, the degree to which gender differences were present in the postsecondary enrollment of Texas public high school students at 2-year public colleges and at 4-year public universities was examined. In the second study, the extent to which ethnic/racial differences existed in the postsecondary enrollment of Texas public high school students at 2-year public colleges and 4-year public universities was determined. In the last study, the degree to which economic differences were present in the postsecondary enrollment of Texas public high school students at 2-year public colleges and at 4-year public universities was ascertained. These research questions were repeated for the 2012-2013 through the 2014-2015 academic years.

This journal-ready dissertation consists of five chapters of which three chapters are manuscripts. Chapter I included the background of the study, statement of the problem, purpose of the study, significance of the study, definition of terms, delimitations, limitations, assumptions and outline of the proposed journal-ready dissertation. Included in Chapter II is the first journal-ready research investigation on

gender differences in the postsecondary enrollment of Texas public high school graduates at 2-year public colleges and at 4-year public universities. In Chapter III is the second journal-ready research investigation on the extent to which ethnic/racial differences existed in the postsecondary enrollment of Texas public high school graduates at 2-year public colleges and 4-year public universities. In Chapter IV, readers are presented with the third journal-ready research investigation on the degree to which economic differences were present in the postsecondary enrollment of Texas public high school graduates at 2-year public colleges and at 4-year public universities. Finally, in Chapter V, a summary is provided of the results of the three articles, along with the implications for policy and for practice, as well as recommendations for future research.

CHAPTER II

DIFFERENCES IN POSTSECONDARY ENROLLMENT RATES BY THE GENDER OF TEXAS PUBLIC HIGH SCHOOL GRADUATES: A STATEWIDE, MULTIYEAR INVESTIGATION

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

Examined in this study was the degree to which gender differences were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. Specifically analyzed were the enrollment percentages of males and females for three academic years (i.e., 2012-2013 through 2014-2015) for Texas public high school graduates. Over the 3-year time period analyzed, statistically significant differences were present in the postsecondary enrollment of Texas public high school graduates by gender. Female Texas public high school graduates enrolled in both 2-year and 4-year public institutions at a higher rate than their male counterparts. Moreover, females tended to enroll at 2-year institutions at a higher rate then 4-year institutions. Implications of these results and recommendations for future research were discussed.

Keywords: Postsecondary enrollment, 2-year public institutions, 4-year public institutions, Gender, Texas

DIFFERENCES IN POSTSECONDARY ENROLLMENT RATES BY THE GENDER OF TEXAS PUBLIC HIGH SCHOOL GRADUATES: A STATEWIDE, MULTIYEAR INVESTIGATION

> The literature on gender inequality in American education has undergone switchbacks over the last century: from concern about a "boy problem" in the early twentieth century to focus on "shortchanging" girls and women from the 1960s to the 1990s to fear about the "end of men" in the early twenty-first century. (Renshaw & Clark, 2017, p. 79)

Gender gaps in educational expectations and enrollment in postsecondary settings are well documented (McDaniel, 2010; Rudel, 2015; Seifert, Wells, Saunders, & Gopaul, 2013). With respect to educational expectations, McDaniel (2010) determined high school students tend to be ambitious in setting educational goals. The family background, academic ability, and attitudes toward school of students' families were predictors of educational expectations for both males and females. The positive attitudes of females regarding the importance of schooling, compared to that of males, is an attribute that increases female educational expectations (McDaniel, 2010). Moreover, a decline in labor market discrimination may also be contributable to female educational aspirations (Neugebauer, Helbig, & Landmann, 2011)

Rudel (2015) analyzed the relationship of parental presence on postsecondary enrollment expectations of males and females. A father's presence in the house was related to the educational expectations of boys and girls. Boys with absentee fathers were more likely to attend college than boys from two parent households (Rude, 2015). In Rudel's (2015) investigation, boys and girls were affected differentially by the presence

of specific parents in single family homes. That is, girls exhibited statistically significantly lower educational expectations in mother-only homes than did boys.

With respect to male and female levels of educational attainment and achievement (DiPrete & Buchmann, 2013; Riegle-Crumb, 2010; Wells et al., 2011), Riegle-Crumb (2010) contended that males may fall behind female counterparts because female students earn higher grades in high school and express stronger postsecondary ambitions than do males. Similarly, Buchmann, DiPrete, and McDaniel (2008) reviewed the literature on gender inequalities in educational performance and academic attainment in elementary, secondary, and postsecondary schools. They reported student academic achievement in elementary and secondary schools related directly to the level of education students will ultimately achieve, including high school completion and beyond.

In the United States, the first step to accessing postsecondary education is the completion of high school. Of note is that gender disparities are not only present in postsecondary enrollment, they are also present in the graduation rates of high school students (National Center for Education Statistics, 2016a). For instance, in 2013, 8% of males dropped out of high school before obtaining a diploma, compared to only 5.6% of females (National Center for Education Statistics, 2016a). In 2016, females in Texas had a higher 4-year high school graduation rate, 91.4%, than males, 86.9% (Texas Education Agency, 2016b). As a result, students who do not complete high school are excluded from the pool of students who are eligible to attend college because they have not completed high school.

Participation in higher education increases the probability of moving up the socioeconomic ladder and reduces the need to depend on public assistance (Ma, Pender,

& Welch, 2016). Without a high school diploma, students are less likely to earn an average income (Rampbell, 2014; Valletta, 2015). According to the National Center for Education Statistics (2016a), a person with only a high school diploma has an average salary of about $30,500, whereas the average salary of a person with a bachelor's degree was $50,000. Consequently, education is paramount with regard to upward financial mobility (Domina, Conley, & Farkas, 2011).

In the early years of the 21st century, the majority of higher education participants who received bachelor degrees wee women (Snyder & Dillow, 2010). This situation is in contrast to the past, where for centuries, males exceeded females in educational expectations, enrollment, and degree attainment. This trend changed within the last four decades, when the numbers of females began to exceed the numbers of males in these areas (Buchmann, 2009; King, 2010; Renshaw & Clark, 2017; Seifert et al., 2010). In 1945, American college and universities enrolled approximately equal percentages of male and female students (National Center for Education Statistics, 1993). The percentage of females who enrolled in higher education began to increase in the late 1960s and early 1970s when women's expectations of their future no longer included following in their mother's footsteps as homemakers. Female participation in the workforce changed, and as a result, female college enrollment rates began to soar. Although this cultural phenomenon was a major step toward gender equality, the reversal in the gender gap did not occur until the late 20th century. Male total college enrollment decreased from 71% in 1947 to 43% in 2005 (Snyder, Dillow, & Hoffman, 2008).

From 2000 to 2015, the National Center for Education Statistics (2017) documented an increase from 63% to 69% in the percentages of high school graduates

who subsequently enroll in higher education. In Fall of 2014, 17.3 million students in the United States enrolled in a postsecondary setting (National Center for Education Statistics, 2016b). Of those students, 10.6 million attended 4-year institutions and 6.7 million attended 2-year institutions. Fifty-six percent of this enrollment were female students. Hussar and Bailey (2011, 2016) projected women would continue to outpace men in postsecondary enrollment. Not only are females enrolling in institutions of higher learning at a higher rate, but females are also graduating at a higher rate than their male counterparts (National Center for Education Statistics, 2017).

With respect to Texas, higher percentages of females than males are enrolling in postsecondary settings. In 1997, Texas House Bill 588, commonly referred to as the "Top 10% Rule" was implemented. This bill mandated public universities to admit in-state students who graduated in the top 10% of their high school graduating class. Also, Texas House Bill 588 contributed to an ethnically/racially diverse pool of applicants. However, an unanticipated consequence of the mandate was an increase of female students in postsecondary institutions (Conger & Long, 2010).

Provided in decades of research are reasons why females were less likely to enroll in higher education than males. In recent years, the emphasis of the research studies has shifted to the decline in male enrollment. Buchmann et al. (2008) explored this gender shift in higher education. Other researchers (e.g., Conger & Long, 2010; Riegle-Crumb, 2010) indicated high school females have an advantage in postsecondary enrollment because they engage in more rigorous coursework, earn better grades, and have higher postsecondary aspirations than do their male counterparts, which place females higher in academic merit during the college admissions process. Also, females are more

responsive to and benefit more from interventions designed to increase educational attainment (Angrist, Lang, & Oreopoulos, 2009; Deming, Hastings, Kane, & Staiger, 2014).

In an investigation into gender gaps in education, Conger and Long (2013) examined how gender sorting, the distribution of males and females, across public high schools contribute to the growing gender gap in higher education enrollment. Using data from four cohorts of public school students in the state of Florida, they measured the degree of sorting between males and females across schools. Conger and Long (2013) established that the level of gender sorting across Florida public high schools was beyond what would be expected if students were randomly assigned to their schools. As such, they stated that males were more apt than were females to attend high schools with lower college-going rates. Another important finding was that the degree to which males and females sort across Florida high schools, 5% of males or females, would need to change schools to achieve gender balance. Additionally noted was that across school gender sorting explained the 12% and 16% increase of female enrollment among Hispanic and Black students, respectively. Conger and Long (2013) contended that gender sorting trends could be an influencing factor in educational outcomes and the female advantage in higher education enrollment.

Another topic related to gender gaps in postsecondary enrollment is that of social capital. Klevan, Weinberg, and Middleton (2016) examined how social capital explained differences in higher education enrollment. Utilizing data from the 2002 Educational Longitudinal Study, they analyzed social capital and its relationship to postsecondary enrollment. Klevan et al. (2016) contended that males were at a disadvantage with

respect to postsecondary enrollment when considering certain social capital variables. After controlling for the following variables (a) race/ethnicity, (b) parent's education, (c) native language, (d) standardized test scores, (e) socioeconomic status, (f) region of schools, and (g) number of siblings in the home, social capital was determined to be statistically significantly correlated to postsecondary enrollment. Klevan et al. (2016) documented that social capital reduces the probability of females enrolling in college compared to males from 1.63 to 1.41. When gender, social capital, and grade point average were examined, the enrollment probability decreased from 1.41 to 1.23. These findings are congruent with previous researchers (e.g., DiPrete & Buchmann, 2013) who established that academic performance was an excellent predictor of postsecondary enrollment and explained gender gaps in higher education enrollment. In conclusion, Klevan et al. (2016) contended that gender interacts with social capital on postsecondary enrollment, which is consistent with females receiving different returns on social capital.

In a similar analysis for Black and White students, Davis and Otto (2016) examined factors influencing the gender gap in higher education enrollment. Data were obtained from the National Educational Longitudinal Study on the gender gap in higher education enrollment and factors that might influence college enrollment. Results were that Black male students were statistically significantly lower on all predictors of college enrollment than other race-gender groups. White females had higher academic, social, economic, and ecological predictors, meaning they had a higher likelihood of enrolling in postsecondary education than Black females. Davis and Otto's hypothesis that social, academic, and family economic characteristics differ along race-gender lines was supported by their research results.

In another study regarding the gender gap, Renshaw and Clark (2017) examined the educational degree achievements of birth cohorts from 1910 to 1979. Using the General Social Survey data, they analyzed changes in the attainment of secondary and postsecondary degrees by gender. Findings were that an increase in male educational attainment was observed for cohorts born between 1910 and 1930. Renshaw and Clark (2017) contributed this increase to the establishment of programs such as the GI Bill. Additionally documented was that female and male high school graduation rates were similar; however, male higher education attainment outpaced females for these cohorts. Moreover, the reversal of the male advantage began in the birth cohorts of the 1940s and 1950s. A small female advantage was recognized in the cohort of the 1960s, but it was not until the 1970s cohort that a substantial female advantage was achieved. Renshaw and Clark (2017) concluded that changes in female opportunities and public critique were influential in creating change.

As demographics continue to change in higher education in the first quarter of the 21st Century, administrators are facing challenges because women are increasingly outnumbering male enrollments. Growing enrollment gaps by gender have been identified as a variable that could negatively influence academic selectivity by top applicants and the overall receipt of applications from academically competitive college graduates (Jaschick, 2005; Tierney, 2006). Such concerns have been validated by researchers (e.g., Ge, 2011; Williams, 2010) who described trends where females have enrolled in college to increase their returns in the marriage market and have expressed concerns that options are limited in institutions of higher education with low male enrollment.

Statement of the Problem

Texas K-12 public school enrollment increased by 19% from 2003 to 2013, more than six times the increase in public school enrollment in the United States (Texas Education Agency, 2016a). This increase represents the second highest percentage in statewide public school enrollment in the nation (Texas Education Agency, 2016a). Although enrollment rates in public high schools are increasing, the rates at which high school students are graduating remains low. The National Center for Education Statistics (2015) reported that only eight of every 10 current high school students graduate from high school. With respect to Texas, the number of high school graduates increased by 26,166 students, an 11% increase, from 2003 to 2009 (Texas Higher Education Coordinating Board, n.d.). In the Texas high school class of 2016, 89.1% of students graduated (Texas Education Agency, 2017). Of the students who graduated, females had a higher graduation rate compared to males (Texas Education Agency, 2017).

Texas experienced an increase of 4% of high school graduates, both men and women, who enrolled in a Texas higher education institution following their high school graduation from 2003 to 2009 (Texas Higher Education Coordinating Board, n.d.). However, a larger percentage of women enrolled during this time, resulting in a 7% gender gap in male and female college-going rates. Similarly, during the fall of 2016, 51% of Texas high school graduates enrolled in postsecondary institutions in Texas (Texas Higher Education Coordinating Board, 2016). Of those students enrolled, 53% were female (Texas Higher Education Coordinating Board, 2016).

The National Center for Education Statistics (2012) projected female enrollment in postsecondary institutions would increase by 21% through 2019, whereas male

enrollment would only increase by 12%. This growing gender gap in postsecondary enrollment is important because education is a predictor of many adult outcomes, such as income, health, and occupational attainment. Of concern in this investigation is the differences in postsecondary institution enrollment rates of Texas public high school males and female graduates.

Purpose of the Study

The purpose of this study was to examine the degree to which gender differences were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities. Specifically analyzed in this investigation were the percentages for three years (i.e., 2012-2013, 2013-2014, and 2014-2015) for male and female students who graduated from Texas public high schools and who enrolled in a Texas 2-year public postsecondary setting or in a Texas 4-year public postsecondary institution. As such, the extent to which differences were present in the postsecondary enrollment of males and females are ascertained. Through the analysis of three years of Texas statewide data, any trends that were present were identified.

Significance of the Study

As higher education enrollment among women has become a more common occurrence across the United States, findings from this study will be important to determine the degree to which Texas postsecondary enrollment rates at 2-year public colleges and 4-year public colleges and universities are commensurate with national postsecondary enrollment rates. Knowing the demographic characteristics of students who completed public high school and subsequently enroll in postsecondary education

may be of value to higher education leaders and policymakers, as well as to K-12 educational leaders. Colleges and universities are now operating in an academic environment where occupational interests of women are replacing the occupational interests of men. Information obtained from analyzing three years of data may be helpful in determining the degree to which inequities in postsecondary enrollment by student gender are present.

Research Questions

The following research questions were addressed in this empirical, multiyear investigation: (a) What is the difference in postsecondary enrollment at Texas 2-year public institutions between male and female public high school graduates?; (b) What is the difference in postsecondary enrollment at Texas 4-year public institutions between male and female public high school graduates?; (c) What trend is present in the postsecondary enrollment of Texas public high school male and female graduates at 2-year public institutions from the 2012-2013 through the 2014-2015 academic years?; and (d) What trend is present in the postsecondary enrollment of Texas public high school male and female graduates at 4-year public institutions from the 2012-2013 through the 2014-2015 academic years? The first two research questions were repeated for the 2012-2013 through the 2014-2015 academic years whereas the last two research questions involved all three academic years. As such, 12 research questions comprised this study.

Method

Research Design

A non-experimental causal-comparative research design was used for this study (Creswell, 2009; Johnson & Christenson, 2012). Because archival data were used in this

investigation, the independent variable and the dependent variables had already occurred. Accordingly, no variables can be manipulated (Johnson & Christensen, 2012). The independent variable analyzed was gender (i.e., male or female) in each of the years of data analyzed. The dependent variables present in this investigation were the postsecondary enrollment percentages of male and female public high school graduates at Texas 2-year public institutions and at Texas 4-year public institutions. A total of three academic years of data was analyzed.

Participants and Instrumentation

For the purpose of this study**,** archival data were obtained from the Texas Education Agency Academic Excellence Indicator System. The Texas Education Agency collects and stores data from Texas public high schools and school districts. The Texas Education Agency makes an extensive array of data available to anyone with internet access.

For the purpose of this investigation, postsecondary enrollment is defined as any time enrolled in a public postsecondary setting in the State of Texas. The term postsecondary setting is inclusive of both 2-year public institutions and 4-year public settings. A 2-year institution is an institution offering at least a 2-year program of college level studies, which terminates in an associate degree or is partially creditable toward a baccalaureate degree (National Center for Education Statistics, n.d.). A 4-year institution is one offering at least a 4-year program of college-level studies principally creditable toward a baccalaureate degree (National Center for Education Statistics, n.d.). Readers should note that postsecondary enrollment in this article will refer to Texas public high school graduates enrolling in a public postsecondary setting in Texas. Those Texas

public high school graduates who enrolled in postsecondary institutions in states other than Texas were not included in this investigation. Moreover, Texas public high school graduates who enrolled in a private postsecondary institution in Texas were not in the dataset that was analyzed.

Three academic years of archival data collected from all public high schools by the Texas Education Agency and disseminated through the Texas Academic Performance Reports System on cohorts of students who attended Grade 8 in a Texas public school, graduated, and enrolled in a public higher education institution in Texas, were analyzed for the 2012-2013 through the 2014-2015 academic years. Included in this dataset were statewide information on student gender and postsecondary enrollment rates.

Results

Prior to conducting inferential statistics to determine whether statistically significant differences were present by gender in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities, checks were conducted to determine the extent to which the data were normally distributed. Although some of the postsecondary enrollment rate data were not normally distributed, a decision was made to use parametric dependent samples *t*-tests to answer the research questions. Statistical results will now be presented by research question.

Results for Research Question One

In analyzing postsecondary enrollment percentages at Texas 2-year public institutions between male and female public high school graduates for the 2012-2013 academic year, the parametric dependent samples *t*-test analysis yielded a statistically

significant difference, $t(239) = 8.92$, $p < .001$, Cohen's $d = 0.51$. The effect size for this difference was moderate (Cohen, 1988). The postsecondary enrollment rate for females was almost five percentage points more than the postsecondary enrollment rate for males in Texas public 2-year institutions. Readers should note that less than one third of males enrolled in 2-year public colleges compared to slightly more than one third of females in the 2012-2013 academic year. Delineated in Table 2.1 are the descriptive statistics for this analysis.

Insert Table 2.1 about here

Concerning the 2013-2014 academic year, the parametric dependent samples t-test analysis yielded a statistically significant difference in postsecondary enrollment percentages, $t(242) = 11.79$, $p < .001$, Cohen's $d = 0.65$, between males and females. This difference represented a moderate effect size (Cohen, 1988). Female postsecondary enrollment rates were more than six percentage points higher than the postsecondary enrollment rates of male public high school graduates. Similarly, as noted in the 2012-2013 academic year, less than one third of males enrolled in Texas public 2-year colleges compared to slightly more than one third of females who enrolled in Texas public 2-year colleges. Table 2.2 contains the descriptive statistics for this analysis.

Insert Table 2.2 about here

With respect to the 2014-2015 academic year, the parametric dependent samples t-test analysis yielded a statistically significant difference in postsecondary enrollment percentages, $t(236) = 11.701$, $p < .001$, Cohen's $d = 0.57$, between males and females. This difference represented a moderate effect size (Cohen, 1988). Female postsecondary enrollment rates were more than five percentage points higher than the postsecondary enrollment of male public high school graduates. Similar to the previous two years, the enrollment percentages for males were statistically significantly lower than the enrollment percentages of females at Texas public 2-year institutions. Revealed in Table 2.3 are the descriptive statistics for this analysis.

Insert Table 2.3 about here

Results for Research Question Two

Concerning postsecondary enrollment percentages at Texas 4-year public institutions between male and female public high school graduates for the 2012-2013 academic year, the parametric dependent samples *t*-test yielded a statistically significant difference, $t(235) = 11.18$, $p < .001$, Cohen's $d = 0.58$. The effect size for this difference was moderate (Cohen, 1988). The postsecondary enrollment rates of females was five percentage points higher than the postsecondary enrollment rates of male public high school graduates in Texas public 4-year universities. Less than one fifth of males enrolled in Texas 4-year public universities compared to slightly more than one fifth of females who enrolled in Texas public 4-year universities. Table 2.4 contains the descriptive statistics for this analysis.

Insert Table 2.4 about here

With respect to the 2013-2014 academic year, the parametric dependent samples *t*-test yielded a statistically significant difference, $t(242) = 8.68$, $p < .001$, Cohen's $d = 0.50$. The effect size for this difference was moderate (Cohen, 1988). Female postsecondary enrollment rates were more than four percentage points higher than the postsecondary enrollment rates of male public high school graduates. In agreement with the results for the 2012-2013 academic year, less than one fifth of males enrolled in Texas 4-year public universities compared to slightly more than one fifth of females who enrolled in Texas public 4-year universities. Readers are directed to Table 2.5 for the descriptive statistics for this analysis.

Insert Table 2.5 about here

For the 2014-2015 academic year, the parametric dependent samples *t*-test yielded a statistically significant difference, $t(237) = 8.80$, $p < .001$, Cohen's $d = 0.45$. This difference represented a small effect size (Cohen, 1988). Female postsecondary enrollment rates were more than four percentage points higher than the postsecondary enrollment of male public high school graduates. Similar to the previous two years, the postsecondary enrollment percentages for males were statistically significantly lower than the postsecondary enrollment percentages of females at Texas public 4-year institutions. Delineated in Table 2.6 are the descriptive statistics for this analysis.

Insert Table 2.6 about here

Results for Research Question Three

The third research question regarding an analysis of all three years of data for postsecondary enrollment rates by gender of Texas public high school graduates enrolling in Texas 2-year public institutions will now be addressed. As shown in Figure 2.1, trends were clearly present in the postsecondary enrollment rates of Texas public high school graduates for males and females who enrolled in Texas public 2-year institutions. The postsecondary enrollment rates of females were consistently higher than the postsecondary enrollment rates of males. Over the 3-year period, the enrollment rates of female Texas public high school graduates who enrolled in Texas public 2-year postsecondary institutions increased by 1.7%. During the same 3-year period, the postsecondary enrollment rates of male Texas public high school graduates in Texas public 2-year postsecondary institutions increased by 1.22%.

Insert Figure 2.1 about here

Results for Research Question Four

The fourth research question concerning all three years of data for postsecondary enrollment rates by gender of Texas public high school graduates enrolling in Texas 4-year public institutions will now be discussed. As depicted in Figure 2.2, trends were clearly present in the postsecondary enrollment rates of Texas public high school

graduates for males and females who enrolled in Texas public 4-year institutions. The postsecondary enrollment rates of females were consistently higher than the postsecondary enrollment rates of males. Over the 3-year period, the enrollment rates of female Texas public high school graduates who enrolled in Texas public 4-year postsecondary institutions increased by 0.4%. During the same 3-year period, the postsecondary enrollment rates of male Texas public high school graduates in Texas public 4-year postsecondary institutions increased by 1.18%.

Insert Figure 2.2 about here

Discussion

Addressed in this investigation was the degree to which gender differences were present in the postsecondary enrollment rates of Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities. Three years (i.e., 2012-2013, 2013-2014, and 2014-2015) of archival data were obtained from the Texas Education Agency. These data were then analyzed to determine whether the postsecondary enrollment rates of Texas public high school graduates differed between males and females. For the three academic years of data that were analyzed, statistically significant differences were present in each academic year. In this multiyear analysis, females, in all three academic years (i.e., 2012-2013, 2013-2014, and 2014-2015), had higher enrollment rates in Texas public 2-year and 4-year postsecondary institutions than their male counterparts.

The percentage of female Texas public high school graduates who enrolled in Texas public 2-year institutions from the 2012-2013 through the 2014-2015 academic year increased by a mere 1.70%. In contrast, the male enrollment rates in public postsecondary institutions increased by only 1.22%. Differences in the public postsecondary enrollment rates between female and male public high school graduates at Texas public 2-year colleges ranged from a low of 4.82% to a high of 6.51%. As noted previously, females had higher postsecondary enrollment rates in Texas public 2-year settings than males.

Similar to the 2-year public postsecondary enrollment rates, female students had higher public postsecondary enrollment rates in Texas public 4-year institutions from the 2012-2013 through the 2014-2015 academic years. The postsecondary enrollment rates increased by only 0.4% for females over this time period. In contrast, the postsecondary enrollment rates of males increased by 1.18%. Although females had higher enrollment in Texas public postsecondary institutions during all three years of this study, females experienced the largest enrollment percentage growth at 2-year public institutions compared to 4-year public institutions.

Connections with the Existing Literature

Extensive literature can be located on gender differences in postsecondary enrollment rates. Early researchers (Jacob, 2002; Peter& Horn, 2005) documented the presence of higher grades in high school and stronger postsecondary ambitions of females as reasons males lag behind their female counterparts in educational expectations. Additionally, Goldin et al. (2006) noted that female participation in the workforce changed which resulted in female college enrollment rates beginning to soar. More

recently, researchers (Klevan, Weinberg, & Middleton, 2016; Renshaw & Clark, 2017) identified a growing gender gap in postsecondary enrollment with a larger percentage of women enrolling. DiPrete and Buchmann (2013) established that academic performance was a predictor of postsecondary enrollment and explained the gender gaps in higher education.

In this investigation, postsecondary enrollment rates varied between males and females. Texas female public high school graduates enrolled in postsecondary institutions at a rate higher than did Texas male public high school graduates in all three academic years. This higher rate of enrollment occurred in both 2-year public settings and in 4-year public institutions. As such, results of this research investigation were congruent with the results of other researchers in that females enroll in postsecondary institutions at higher rates.

Implications for Policy and for Practice

Based upon the results of this multiyear empirical analysis, several implications for policy and practice can be made. First, it is imperative that Texas institutions of higher education make the necessary changes to address the gender disparities. These changes can include strongly encouraging males to invest in their education to ensure a promising economic future. Education regarding the importance of postsecondary education could be accomplished through partnerships with area high schools and college access programs. Male high school graduates should be informed that success in life is no longer associated with hard labor, but that the future of work place opportunities are connected to postsecondary education.

A second implication for practice, in an effort to reduce the gender gaps in postsecondary enrollment, is for higher education leaders to review hiring practices specifically in regard to gender. Having male outreach staff available to encourage and discuss the importance of males graduating from high school and subsequently enrolling in postsecondary education could assist with narrowing this gap. A third implication for practice is to evaluate recruitment strategies. Based upon the evaluation results, additional resources should be allocated to ensure male high school students can successfully enroll and attain success in higher education. A fourth implication would be to focus on the low percentage of students graduating from high school and not enrolling in postsecondary education. Increasing the high school graduation rate could be accomplished by expanding postsecondary outreach opportunities to local churches, shopping centers, and sports events. According to Carnevale (2016), more than 60% of today's jobs require some type of postsecondary experience. It is imperative that Texans obtain postsecondary education to find gainful employment that will provide a livable wage but also to ensure the economic future of the state and country.

Recommendations for Future Research

Given the results of this multiyear investigation, several recommendations for future research can be made. First, researchers could extend this study by analyzing similar data by the race/ethnicity of students. Such an analysis would permit for a determination of whether the results obtained herein are similar across ethnic/racial groups. Second, researchers are also recommended to extend this investigation by economic status. This type of analysis may reveal that postsecondary enrollment trends differ by the economic status of students. Third, because data on only Texas public high

school graduates were analyzed in this investigation, researchers are encouraged to extend this study to other states to ascertain if the postsecondary enrollment rates documented herein would be generalizable to other stages. The degree to which the inequities herein are generalizable to students in other states is not known.

A fourth recommendation is that researchers should conduct qualitative studies to determine the reasons female and male students choose to enroll or not enroll in postsecondary education. These studies could provide useful information regarding challenges, experiences, and misunderstandings of postsecondary education enrollment. A mixed method approach may be more powerful because researchers could quantitatively analyze the archival data as well as use qualitative methodology to discuss students' perceptions of why they choose to enroll or not enroll. The use of individual student data rather than aggregated date used during the current study would also be beneficial. A final recommendation would be to conduct a longitudinal study from middle school through postsecondary enrollment. Following students over a period of time will provide an opportunity to see enrollment trends and persistence from middle school, to high school, through postsecondary enrollment. These data may be useful because higher education institutions are using predictive analytics to individualize student access and success.

Conclusion

In this multiyear, statewide analysis, the degree to which differences were present in postsecondary enrollment rates of Texas public high school graduates by gender during the 2012-2013, 2013-2014, and 2014-2015 academic years was addressed. Over the 3-year period analyzed, statistically significant gender differences were present in the

postsecondary enrollment rates of Texas public high school graduates. Texas female public high school graduates enrolled in both 2-year public institutions and in 4-year public institutions at statistically significantly higher rates than their male counterparts. For the three academic years, Texas female public high school graduates postsecondary enrollment increased by 1.7%, compared to their male counterparts who postsecondary enrollment increased by 1.22% in Texas public 2-year institutions. The enrollment rates of female Texas public high school graduates who enrolled in Texas public 4-year postsecondary institutions increased by 0.4% over the three years analyzed. During the same 3-year period, the postsecondary enrollment rates of male Texas public high school graduates in Texas public 4-year postsecondary institutions increased by 1.18%.

References

Angrist, J., Lang, D., & Oreopoulos, P. (2009). Incentives and services for college achievement: Evidence from a randomized trial. *American Economic Journal: Applied Economics, 1*(1), 136-163.

Buchmann, C. (2009). Gender inequalities in the transition to college. *Teachers College Record, 111*(10), 2320-2346.

Buchmann, C., DiPrete, T. A., & McDaniel, A. (2008). Gender inequalities in education. *Annual Review of Sociology, 34*(1), 319-337. doi:10.1146/annurev.soc.34.040507.134719

Carneval, A. P. (2016). *Credentials and competencies: Demonstrating the economic values of postsecondary education.* Washington, DC: Georgetown University Center on Education and the Workforce.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

Cohen, J. (1994). The earth is round ($p < .05$). *American Psychologist*, *49*, 997-100.

Conger, D., & Long, M. C. (2010). Why are men falling behind? Gender gaps in college performance and persistence. *The ANNALS of the American Academy of Political and Social Science*, *627*(1), 184-214. doi:10.1177/0002716209348751

Conger, D., & Long, M. C. (2013). Gender gaps in college enrollment: The role of gender sorting across public high schools. *Educational Researcher*, *42*(7), 371-380. doi:10.3102/0013189X13503983

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed variables approaches* (6th ed.). Thousand Oaks, CA: Sage.

Davis, T., & Otto, B. (2016). Juxtaposing the Black and White gender gap: Race and gender differentiation in college enrollment predictors. *Social Science Quarterly, 97*(5). 1245-1266. doi:10.1111/ssqu.12287

Deming, D. J., Hastings, J. S., Kane, T. J., & Staiger, D. O. (2014). School choice, school quality, and postsecondary attainment. *American Economic Review, 104*(3), 991-1013. doi:10.1257/aer.104.3.991

DiPrete, T. A., & Buchmann, C. (2013). *The rise of women: The growing gender gap in education and what it means for American schools.* New York, NY: Russell Sage Foundation.

Domina, T., Conley, A., & Farkas, G. (2011). The case for dreaming big. *Sociology of Education, 84*(2), 118-121. doi:10.1177/0038040711401810

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Thousand Oaks, CA: Sage.

Ge, S. (2011). Women's college decisions: How much does marriage matter? *Journal of Labor Economics, 29*(4), 773-818.

Goldin, C., Katz, L. F., & Kuziemko, I. (2006). The homecoming of American college women: The reversal of the college gender gap. *Journal of Economic Perspectives, 20*(4), 133-156.

Hussar, W. J., & Bailey, T. M. (2011). *Projections of education statistics to 2019 (NCES 2011-017).* Washington, DC: National Center for Education Statistics.

Hussar, W. J., & Bailey, T. M. (2016). *Projections of education statistics to 2024 (NCES 2016-013).* Washington, DC: National Center for Education Statistics.

Jacob, B. (2002). Where the boys aren't: Non-cognitive skills, returns to school and the gender gap in higher education. *Economics of Education Review, 21(6)*, 589-598.

Jaschik, S. (2005). Gender gap at flagships. *Inside higher education.* Accessed from https://www.insidehighered.com/news/2005/06/03/gender

Johnson, R. B., & Christensen, L. (2012). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.). Thousand Oaks, CA: Sage

King, J. E. (2010). *Gender equity in higher education*. Washington, DC: American Council on Education.

Klevan, S., Weinberg, S. L., & Middleton, J. A. (2016). Why the boys are missing: Using social capital to explain gender differences in college enrollment for public high school students. *Research in Higher Education,* 57, 223-257. doi:10.1007/s11162-015-9384-9

Ma, J., Pender, M., & Welch, M. (2016). *Education Pays 2016: The benefits of higher education for individuals and society.* Retrieved from http://files.eric.ed.gov/fulltext/ED572548.pdf

McDaniel, A. (2010). Cross-national gender gaps in educational expectations: The influence of national-level gender ideology and educational systems. *Comparative Education Review, 54*(1), 27-50.

National Center for Education Statistics. (1993). *120 years of American education: A statistical portrait.* Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=93442

National Center for Education Statistics. (2012). *Tables for the 2011 version of the Digest of Education Statistics*. Retrieved from http://nces.ed.gov/Programs/digest/

National Center for Education Statistics. (2015). *Institutional retention and graduation rates for undergraduate students.* Retrieved from http://nces.ed.gov/programs/coe/indicator_cva.asp

National Center for Education Statistics. (2016a). *Digest of Education Statistics: 2015*. Retrieved from https://nces.ed.gov/programs/digest/d15/

National Center for Education Statistics. (2016b). *The condition of education report*. Retrieved from https://nces.ed.gov/pubs2016/2016144.pdf

National Center for Education Statistics. (2016c). *Trends in high school dropout and completion rates in the United States: 2013*. Retrieved from https://nces.ed.gov/pubs2016/2016117rev.pdf

National Center for Education Statistics. (2017). *The condition of education report.* Retrieved from https://nces.ed.gov/pubs2017/2017144.pdf

Neugebauer, M., Helbig, M., & Landmann, A. (2011). Unmasking the myth of the same-sex teacher advantage. *European Sociological Review, 27*(5), 669-689. doi:10.1093/esr/jcq038

Peter, K., & Horn, L. (2005). *Gender differences in participation and completion of undergraduate education and how they have changed over time.* Washington, DC: National Center for Education Statistics.

Rampell, C. (2014). The college degree has become the new high school degree. *The Washington Pos.,* Retrieved from https://www.washingtonpost.com/opinions/catherine-rampell-the-college-degree-has-become-the-new-high-school-degree/2014/09/08/e935b68c-378a-11e4-8601-97ba88884ffd_story.html

Renshaw, S., & Clark, R. (2017). Boy problem? Girl problem? A century of gender inequality in American education viewed through general social survey data. *International Review of Modern Sociology, 43*(1), 79-93.

Riegle-Crumb, C. (2010). More girls go to college: Exploring the social and academic factors behind the female postsecondary advantage among Hispanic and White students. *Research in Higher Education, 51*(6), 573-593. doi:10.1007/s11162-010-9169-0

Rudel, D. (2015). *A gender gap in college expectations? The role of family structure and parental education.* Conference Papers–American Sociological Association, 1-34.

Seifert, T., Wells, R., Saunders, D., & Gopaul, B. (2010, May). *Gender and incongruity between educational expectations and college enrollment: Examining 30 years of data.* Paper presented at the annual conference of the American Educational Research Association, Denver, CO.

Seifert, T., Wells, R., Saunders, D., & Gopaul, B. (2013). *Unrealized educational expectations a growing or diminishing gender gap? It depends on your definition.* Association for Institutional Research. Retrieved from http://files.eric.ed.gov/fulltext/ED573090.pdf

Snyder, T. D., Dillow, S. A., & Hoffman, C. M. (2008). *Digest of education statistics 2007*. (NCES 2008-022). Washington, DC: U. S. Government Printing Office. Retrieved from https://nces.ed.gov/pubs2008/2008022.pdf

Snyder, T. D., & Dillow, S. A. (2010). *Digest of education statistics 2009.* (NCES 2010-013). Washington, DC: National Center for Education Statistics.

Texas Education Agency. (2016a). *Enrollment in Texas public schools 2015-2016*. Retrieved from http://tea.texas.gov/acctres/enroll_index.html

Texas Education Agency. (2016b). *Grade 9 four-year longitudinal graduation and dropout rates, by race/ethnicity, economic status, and gender, Texas Public Schools, Class of 2016*. Retrieved from https://rptsvr1.tea.texas.gov/acctres/completion/2016/state_demo.html

Texas Education Agency. (2017). *Secondary school completion and dropouts in Texas public schools 2015-16*. Retrieved from http://tea.texas.gov/acctres/dropcomp_index.html

Texas Higher Education Coordinating Board (n.d.). *College enrollment trends.* Retrieved from http://www.thecb.state.tx.us/reports/PDF/2455.PDF?CFID=62350235&CFTOKEN=93757893

Texas Higher Education Coordinating Board. (2000). *Closing the Gaps: The Texas Higher Education Plan*. Retrieved from http://www.thecb.state.tx.us/reports/PDF/0379.PDF?CFID=64220365&CFTOKEN=46385957

Texas Higher Education Coordinating Board. (2016). Tracking postsecondary outcomes dashboard-Texas high school graduates. Retrieved from http://reports.thecb.state.tx.us/approot/hs_college/hs_college_main_launch.htm

Tierney, J. (2006, March 25). On campus, a good man is hard to find. *The New York Times*. Retrieved from http://www.nytimes.com/2006/03/25/opinion/on-campus-a-good-man-is-hard-to-find.html

Valletta, T. (2015). Higher education, wages, and polarization. *FRBSF Economic Letter, 2015*(2), 1-5.

Wells, R. S., Seifert, T. A., Padgett, R. D., Park, S., & Umbach, P. D. (2011). Why do more women than men want to earn a four-year degree? Exploring the effects of gender, social origin, and social capital on educational expectations. *Journal of Higher Education, 82*(1), 1-32.

Williams, A. (2010, February 5). The new math on campus. *The New York Times.* Retrieved from http://www.nytimes.com/2010/02/07/fashion/07campus.html

Table 2.1

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Male and Female Public High School Graduates for the 2012-2013 Academic Year

Gender	*n* of counties	*M%*	*SD%*
Male	240	29.85	9.33
Female	240	34.67	9.57

Table 2.2

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Male and Female Public High School Graduates for the 2013-2014 Academic Year

Gender	*n* of counties	*M%*	*SD%*
Male	243	29.73	9.08
Female	243	36.24	10.94

Table 2.3

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Male and Female Public High School Graduates for the 2014-2015 Academic Year

Gender	*n* of counties	*M%*	*SD%*
Male	237	31.07	8.44
Female	237	36.37	10.10

Table 2.4

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Male and Female Public High School Graduates for the 2012-2013 Academic Year

Gender	*n* of counties	*M%*	*SD%*
Male	236	17.59	7.46
Female	236	22.49	9.35

Table 2.5

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Male and Female Public High School Graduates for the 2013-2014 Academic Year

Gender	*n* of counties	*M%*	*SD%*
Male	243	18.03	7.59
Female	243	22.40	9.85

Table 2.6

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Male and Female Public High School Graduates for the 2014-2015 Academic Year

Gender	*n* of counties	*M%*	*SD%*
Male	238	18.78	9.02
Female	238	22.86	9.26

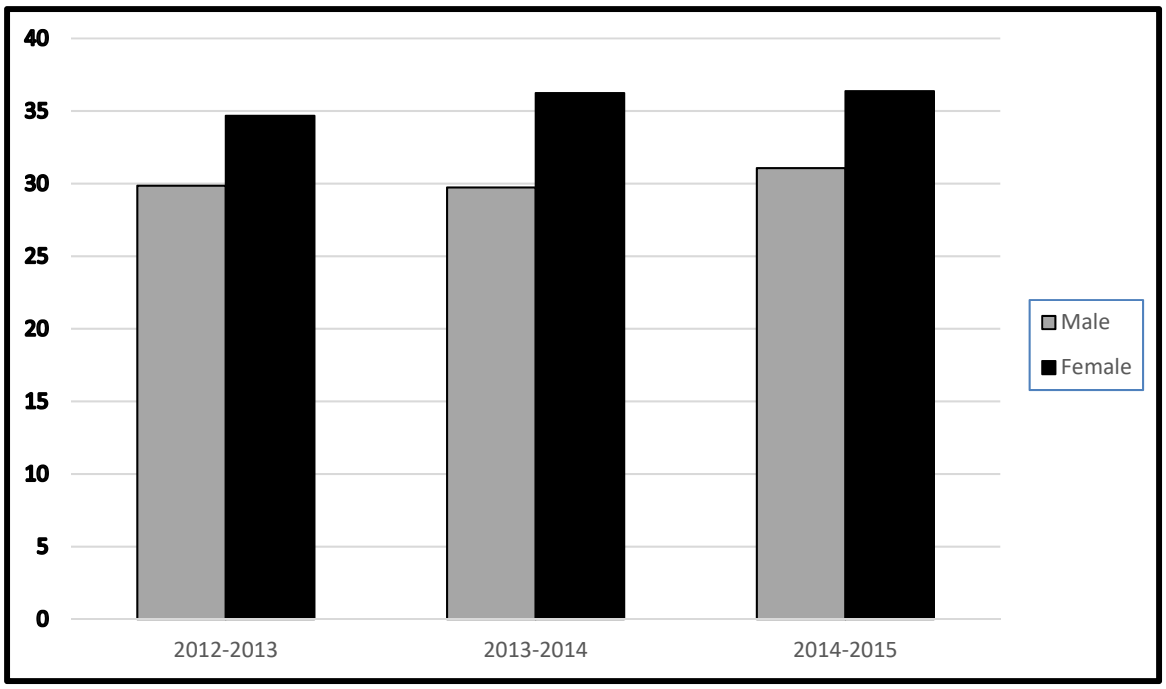

Figure 2.1. Trends in the postsecondary enrollment rates at Texas 2-year public institutions for male and female Texas public high school graduates in the 2012-2013 through the 2014-2015 academic years.

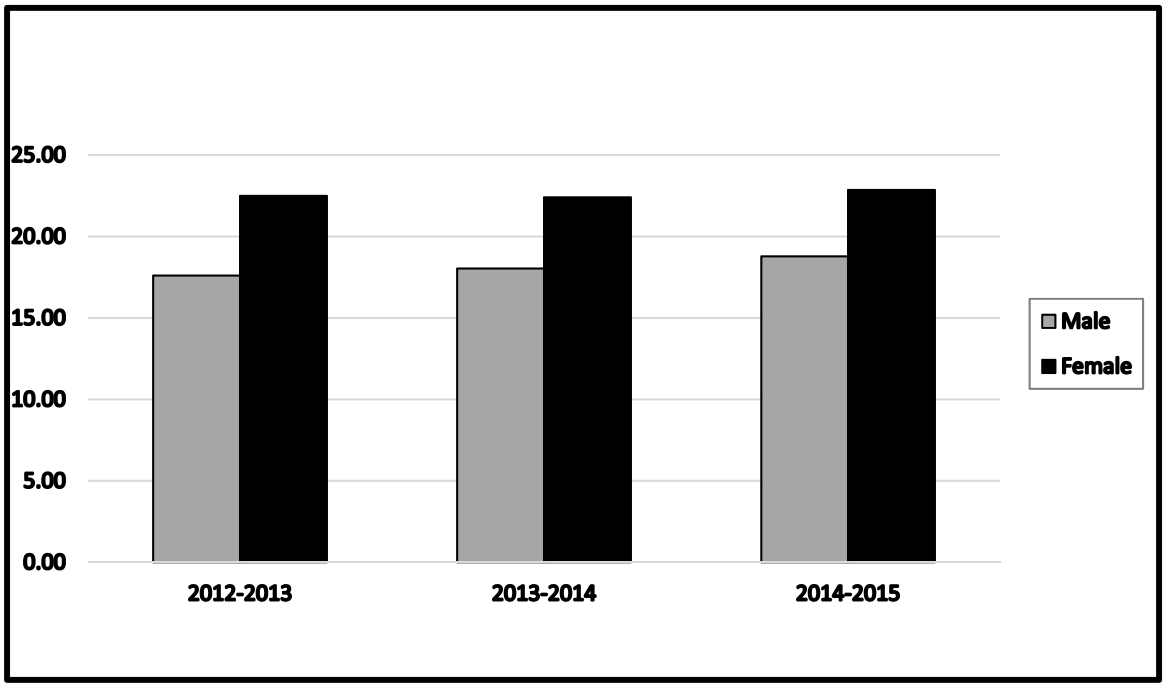

Figure 2.2. Trends in the postsecondary enrollment rates at Texas 4-year public institutions for male and female Texas public high school graduates in the 2012-2013 through the 2014-2015 academic years.

CHAPTER III

DIFFERENCES IN POSTSECONDARY ENROLLMENT RATES BY THE ETHNICITY/RACE OF TEXAS PUBLIC HIGH SCHOOL GRADUATES: A STATEWIDE, MULTIYEAR INVESTIGATION

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

Examined in this study was the degree to which ethnic/racial differences were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. Specifically analyzed were the enrollment percentages of Black, Hispanic, and White for three academic years (i.e., 2012-2013 through 2014-2015) for Texas public high school graduates. Over the 3-year time period analyzed, statistically significant ethnic/racial differences were present in postsecondary enrollment rates of Texas public high school. White Texas public high school graduates enrolled in both 2-year and 4-year public institutions at statistically significantly higher rates than their Black and Hispanic counterparts. Moreover, Black and Hispanic students tended to enroll at 2-year public institutions at a higher rate then 4-year public institutions. Implications of these results and recommendations for future research were discussed.

Keywords: Postsecondary enrollment, 2-year public institutions, 4-year public institutions, Ethnicity/Race, Texas

DIFFERENCES IN POSTSECONDARY ENROLLMENT RATES BY THE ETHNICITY/RACE OF TEXAS PUBLIC HIGH SCHOOL GRADUATES: A STATEWIDE, MULTIYEAR INVESTIGATION

In the United States, earning a degree from a postsecondary institution is a primary factor to reduce economic inequality and increase social mobility (Bowen, Chingos, & McPherson, 2009). Since 1975, the percentage of jobs requiring a postsecondary degree increased from 28% to 59% (Duncan, 2010). Today, more than 60% of jobs require postsecondary education and training and this number is expected to increase to 65% by 2020 (Carnevale, 2016; Carnevale, Smith, & Strohl, 2013; Perez & Slate, 2015). From 2000 to 2015, the National Center for Education Statistics (2017) reported an increase, from 63% to 69%, in the percentage of high school graduates who subsequently enrolled in higher education. Postsecondary education can change the trajectory of an individual's life and affect future earnings in ways that few other experiences can. Currently, obtaining postsecondary experience is critical for individuals to find employment that will provide a livable wage.

Before 1980, middle-class status was achievable with a high school diploma (Carnevale, 2016). According to the U.S. Bureau of Labor Statistics (2017b), the median weekly earnings of full-time workers during the second quarter of 2017 was $1290 for individuals with a bachelor's degree compared to $718 for high school graduates with no college. The U.S. Census Bureau (n.d.) reported the premium for completing college or beyond is approximately $2,000 more per month upon entering the job market.

Numerous researchers (Alon & Gelbgiser, 2011; Beattie, 2002; Bowen & Bok, 1998; Carbonaro, Ellison, & Covay, 2011; Conger & Long, 2013; Davies & Guppy,

1997; Davis & Otto, 2016; Dickerson & Jacobs, 2006; DiPrete & Buchmann, 2013; Klevan, Weinberg, & Middleton, 2016; Renshaw & Clark, 2017) have documented educational inequalities in access by race/ethnicity. Since 1983, 80% of the growth in educational inequality has been caused by differences in college access and success (Carnevale, 2016). Educational inequalities have been documented to exist as a function of the ethnicity/race of individuals. Since 1995, 82% of White students were enrolled in one of 476 selective colleges whereas 68% of Black students and 72% of Hispanic students were enrolled in institutions with open admissions policies (Carnavele, 2016). Hispanic students are the largest minority group enrolled on 4-year campuses (Fry & Lopez, 2012), however, Hispanic students continue to be overrepresented in 2-year colleges (Ryan, 2016). According to the Pew Research Center (2015), almost one half of Hispanic college students attend public 2-year colleges. Similarly, 52% of all Black undergraduate students in the United States are enrolled in community colleges (American Association of Community Colleges, 2015). According to Bowen et al. (2009), this racial/ethnic disparity in higher education will perpetuate inequality into the next generation.

Modest increases in high school graduation and in college enrollment have been established in the United States in the past several decades (Chapman, Laird, & KewalRamani, 2010). In 1980, the percentage of Hispanic high school graduates and White high school graduates who immediately enrolled in postsecondary education was similar at 50%, though Black students enrolled at 44% (National Center for Education Statistics, 2010). From 1976 to 2008, enrollment rates increased for all three groups. However, the participation rate of White individuals was greater than the participation

rates of Black and Hispanic individuals (National Center for Education Statistics, 2010). The participation rate of White students increased from 50% to 72%, whereas the participation rate of Hispanic students increased from 50% to 62%, and the participation rate of Black students increased from 44% to 56% (National Center for Education Statistics, 2010).

In fall of 2015, 17 million students were enrolled in higher education (National Center for Education Statistics, 2017). Of these students, 9.3 million were White, 3 million were Hispanic, 2.3 million were Black, and 1.2 million were other racial/ethnic groups (National Center for Education Statistics, 2017). Hispanic enrollment doubled between 2000 and 2015 from 1.4 million to 3 million students. During this same time, Black enrollment increased from 1.5 million to 2.7 million, and White enrollment increased from 9 million to 10.9 million (National Center for Education Statistics, 2017).

Substantial gains in college enrollment have occurred and resulted in a more diverse demographic student body (National Center for Education Statistics, 2017). Black students and Hispanic students, however, continue to have lower levels of college attainment than do their White counterparts. Educational attainment of Black and Hispanic students is of concern to administrators and policymakers. Accordingly, administrators and policymakers have been examining ways to increase the postsecondary participation of students of color for years. As such, a considerable amount of research and policy aimed at expanding access to postsecondary education exists (Harvill, Maynard, Nguyen, Robertson-Kraft, & Tognatta, 2012). Although 90% of sophomore high school students expect to enroll in college, only 70% will likely enroll in a postsecondary setting (Snyder & Dillow, 2010). Of the students who do not enroll in

a postsecondary setting, a disproportionate number of them are Black and Hispanic students (Deil-Amen & DeLuca, 2010).

In a postsecondary access investigation, Perna (2000) explored variations in the enrollment of Black, Hispanic, and White students at 4-year institutions. Using data from the National Educational Longitudinal Study, Perna analyzed the degree to which social and cultural capital influenced enrollment and examining how variables associated with a student's decision to enroll in a 4-year institution varied among Black students, Hispanic students, and White students. Results were that when differences in cost, benefits, ability, and social and cultural capital were controlled, Hispanic students and White students enrolled at comparable rates. According to Perna, the lower enrollment rates of Hispanic students were linked to their low levels of social and cultural capital, test scores, curricular programs, and educational expectations. Another important finding was that after controlling for factors related to college enrollment, Black students were 11% more likely to enroll in postsecondary education immediately following high school graduation than were White students. This higher probability could be attributed to the affirmative action programs implemented during this time to increase the amount of information and interest in postsecondary education for Black students.

In 2005, Perna and Titus conducted another study using National Educational Longitudinal Study data in which they analyzed the relationship between parental involvement, used as a form of social capital, and postsecondary enrollment. Specifically, Perna and Titus (2005) were interested in examining how parental involvement in their children's decision about postsecondary enrollment varied across racial/ethnic groups. Parental involvement and postsecondary enrollment varied by

race/ethnicity. The odds at which students enrolled in a 2-year or 4-year institution increased with the frequency that discussions with parents occurred regarding education related topics. However, only 38% of Black students and 30% of Hispanic students enrolled in a 4-year institution after graduating high school compared to 46% of White students. Almost one-third, 32% of Hispanic students, 25% White students, and 21% Black students were enrolled in 2-year institutions.

According to Perna (2007), the observed ethnic/racial group gaps may be attributed to the knowledge that Black and Hispanic individuals lack of the social, professional, and economic benefits of higher education. On the contrary, individuals who participate in postsecondary education understand the short-term benefits, such as (a) the learning experience, (b) participation in social and cultural events, and (c) social status enhancement (Perna, 2007). In addition, Black and Hispanic postsecondary education participants are aware of the long-term benefits of (a) improved working conditions, (b) investments and savings, (c) improved health, (d) participative citizenship, and (e) emotional and moral development (Perna, 2007).

Due to the increase in Black and Hispanic populations, the United States population continues to change as a result. This trend is apparent in Texas where the White population percentage decreased from 48.49% in 2000 to 39.91% in 2010 but the Hispanic population percentage increased from 28.63% in 2000 to 35.20% in 2010 (Murdock & Cline, 2011). According to the demographic researchers, the White population would continue to decline and the Hispanic population increase to 62% of the Texas population by 2050 (Murdock & Cline, 2011). These shifts in racial/ethnic

demographics will lead to similar changes in the student body at Texas public colleges and universities. Serrano (2017) posited,

> As a group, Latina/o students are more likely to experience a substandard K-12 education complete with under resourced schools, high teacher turnover, and fewer college-preparatory courses. It is this same inferior education that denies many Latina/o high school students the opportunity to engage in college-choice - leading to their disproportionate enrollment in community college over 4-year colleges or universities. (p. 239)

According to the U.S. Census Bureau (2016), the Hispanic population is 55 million, making Hispanics one of the fastest growing groups in the United States. This increase in the Hispanic population is transforming student body demographics in education. Unfortunately, Hispanic educational inequality is present throughout the educational pipeline resulting in fewer Hispanic students progressing through the K-12 system and enrolling in postsecondary education (Covarrubias, 2011). However, Nunez and Kim (2012) concluded that in states with large Hispanic populations, students were more likely to enroll in 4-year Hispanic serving institutions.

To determine what factors attributed to Hispanic students enrolling in higher education, Cejda and Short (2008) analyzed three studies. A number of common themes emerged from the study. One theme was the barriers that Hispanic students face, which include (a) being first generation, (b) not speaking the English language at home, (c) and lower socioeconomic status. Hispanic parents wanted their children to attend college. In addition, Hispanic parents had a desire to assist their children with attending college; however, they lacked the knowledge to assist. Another theme was finances. Many of the

students had no knowledge of postsecondary education costs, student loan attainment, and student loan repayment. Families were concerned about the affordability, but again, they lacked the knowledge of resources available to assist. According to Cejda and Short, family was an important influencer in Hispanic students' decisions to enroll in postsecondary education. Cejda and Short concluded that creating an environment that values and promote postsecondary education is important. Additionally asserted was that college readiness programs that provide accurate information and assistance in the application process should be implemented. Further, programs in which students learn and develop college-going strategies, abilities, and attitudes should be created and implemented.

In 2012, former-President Barack Obama, issued an executive order to improve educational outcomes for Black students, which included increasing access and student success for this group.

> Significantly improving the educational outcomes of African-Americans will provide substantial benefits for our country by, among other things, increasing college completion rates, productivity, employment rates, and the number of African-American teachers. Enhanced educational outcomes lead to more productive careers, improved economic opportunity, and greater social well-being for all Americans. (para. 4)

According to DePaoli et al. (2015), substantial gains were made to support former-President Obama's mission. For example, tremendous gains in high school graduation rates of Black students occurred between 2012 and 2015, increasing to 71% (DePaoli et al., 2015). In 2014, Black high school graduates were more likely to enroll in

college than their White peers, 71% and 67% respectively (U.S. Bureau of Labor Statistics, 2014). Projected by 2022 is that Black student enrollment in postsecondary institutions will increase by 26% (Hussar & Bailey, 2013).

Although these statistics are encouraging, obstacles continue to impede the progress of Black students. These obstacles include low academic achievement and the lack of challenging college preparatory coursework (Cokley, Obaseki, Moran-Jackson, Jones, & Vohra-Gupta, 2016). According to the ACT and the United Negro College Fund (2014), Black high school graduates are less prepared for college-level coursework compared to other racial/ethnic groups.

Statement of the Problem

Carey (2004) stated, "Higher education, and the promise it represents, has long been one of the main drivers of opportunity, social mobility and economic progress" (p. 1). The State of Texas is profiting from a diverse and thriving economy. However, the state's economy is dependent on the wealth of its residents and the contributions they make to the state. To remain competitive in the 21st Century and beyond, Texas should take bold steps for its prosperity and the future success of its people.

In an effort to improve the accessibility and quality of education for its people, the Texas Higher Education Coordinating Board approved the Closing the Gaps Higher Education Plan in October of 2000. Focused upon in this plan was closing the gap within the state in enrollment and success, in educational excellence, and funded research (Texas Higher Education Coordinating Board, 2000). In 2016, the Texas Higher Education Coordinating Board implemented the 60x30TX strategic plan which has four broad goals to accomplish, but the overarching goal is that by 2030 at least 60% of Texans age 25-34

will have a postsecondary certificate or degree (Texas Higher Education Coordinating Board, 2015). Because Black and Hispanic individuals have been traditionally underrepresented in Texas higher education institutions, these groups are critical to the success of the 60X30TX plan (Texas Higher Education Coordinating Board, 2015).

Only about two-thirds of all high school graduates enroll in postsecondary institutions (National Center for Education Statistics, 2015). In fall 2015, 17 million students enrolled in postsecondary institutions (National Center for Education Statistics, 2017). Of these high school graduates who enrolled in postsecondary institutions, 9.3 million were White, 3.0 million were Hispanic, and 2.3 million were Black (National Center for Education Statistics, 2017). Of concern in this investigation is the degree to which differences might be present in postsecondary enrollment rates by the ethnicity/race of Texas public high school graduates.

Purpose of the Study

The purpose of this study was to examine the degree to which ethnic/racial differences existed in the postsecondary enrollment of Texas public high school graduates at 2-year public colleges and 4-year public universities. In particular, the percentages of Hispanic, Black, and White high school graduates in Texas who enrolled in 2-year public colleges and in 4-year public institutions in Texas were examined for three academic years (i.e., 2012-2013 through 2014-2015). In these analyses, the extent to which ethnic/racial differences were present in postsecondary enrollment in Texas postsecondary settings was ascertained. Through analyzing three years of Texas statewide data, the presence of any trends in the ethnic/racial composition of Texas postsecondary enrollment were identified.

Significance of the Study

Despite the abundance of research that exists on ethnic/racial disparities in postsecondary enrollment, few researchers have focused their investigations on the postsecondary enrollment rates by the ethnicity/race of high school graduates in Texas. Examined in this study was the degree to which ethnic/racial differences were present in the postsecondary enrollment of Texas public high school graduates at 2-year public colleges and 4-year public universities. The findings of this investigation may have practical applications for current practitioners who are engaged in the development and implementation of programs for high school and entering college students. School district leaders, higher education administrators, and policymakers may use the findings from this study to evaluate the degree to which ethnic/racial gaps for postsecondary education are being addressed in their current recruitment strategies.

Research Questions

The following research questions were addressed in this multiyear investigation: (a) What is the difference in postsecondary enrollment at Texas public 2-year institutions as a function of the ethnicity/race (i.e., Hispanic, Black, and White) of Texas public high school graduates?; (b) What is the difference in postsecondary enrollment at public 4-year institutions as a function of the ethnicity/race (i.e., Hispanic, Black, and White) of Texas public high school graduates?; (c) What trend is present in the postsecondary enrollment at Texas public 2-year institutions by the ethnicity/race of Texas public high school graduates from the 2012-2013 through the 2014-2015 academic years?; and (d) What trend is present in the postsecondary enrollment at Texas public 4-year institutions by the ethnicity/race of Texas public high school graduates from the 2012-2013 through

the 2014-2015 academic years? The first two research questions were repeated for the 2012-2013, 2013-2014, and 2014-2015 academic years whereas the last two research questions involved all three academic years. As such, 12 research questions was present in this investigation.

Method

Research Design

A non-experimental causal-comparative design was used for this study (Creswell, 2009). In this multiyear investigation, archival data were analyzed to address the previously discussed research questions. In analyzing archival data, variables cannot be manipulated nor controlled (Johnson & Christensen, 2012). The independent variable analyzed was the race/ethnicity (i.e., White, Hispanic, and Black) of Texas public high school graduates. The dependent variables present in this investigation were the postsecondary enrollment rates of Texas public high school graduates at Texas 2-year public institutions and at Texas 4-year public institutions. A total of three years of data was analyzed.

Participants and Instrumentation

For the purpose of this study, archival data were obtained from the Texas Education Agency database. The Texas Education Agency makes an extensive array of data available to anyone with internet access. Archival data on a cohort of students who attended 8th grade in a Texas public school, graduated, and enrolled in a public higher education institution, were analyzed for the 2012-2013 through the 2014-2015 academic years. Included in these data were student ethnicity/race and their enrollment into either a Texas 2-year public institution or into a Texas 4-year public institution.

For the purpose of this investigation, postsecondary enrollment is defined as any time spent enrolled in either a public 2-year institution or in a public 4-year institution in the State of Texas. The term postsecondary setting is inclusive of both 2-year public institutions and 4-year public institutions. A 2-year institution is a postsecondary institution in which at least a 2-year program of college level studies which terminates in an associate degree or is partially creditable toward a baccalaureate degree is offered to students. A 4-year institution is a postsecondary setting in which at least a 4-year program of college-level studies principally creditable toward a baccalaureate degree is offered to students.

Results

Prior to conducting inferential statistics to determine whether statistically significant differences were present by ethnicity/race in the postsecondary enrollment rates of Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities, checks were conducted to determine the extent to which the data were normally distributed. Although some of the postsecondary enrollment rate data were not normally distributed, a decision was made to use parametric dependent samples *t*-tests to answer the research questions. Dependent samples *t*-tests were the appropriate procedure to use given the manner in which the Texas Education Agency coded the postsecondary enrollment data that were analyzed. In the dataset that was analyzed, student ethnicity/race was linked to postsecondary enrollment rates. As such, it was not possible to have a variable of ethnicity/race separate from a variable of postsecondary enrollment. Because of the manner in which the data were coded, each ethnic/racial

group's postsecondary enrollment rates could only be compared to one other ethnic/racial group at a time. Statistical results will now be presented by research question.

Results for Research Question One

With respect to the postsecondary enrollment percentages at Texas 2-year public institutions between Black and Hispanic students for the 2012-2013 academic year, the parametric dependent samples *t*-test analysis yielded a statistically significant difference, $t(55) = 2.64$, $p = .01$, Cohen's $d = 0.38$, between Black and Hispanic students. The effect size for this difference was small (Cohen, 1988). The postsecondary enrollment rate for Black students was almost three percentage points higher than the postsecondary enrollment rate for Hispanic students in Texas 2-year public institutions. Readers should note that less than one third of Hispanic students enrolled in 2-year public colleges compared to slightly more than one third of Black students in the 2012-2013 academic year. Delineated in Table 3.1 are the descriptive statistics for this analysis.

Insert Table 3.1 about here

Concerning the 2012-2013 academic year postsecondary enrollment percentages between Black and White students, a statistically significant difference, $t(55) = -3.33$, $p = .002$, Cohen's $d = 0.37$, was yielded. The effect size for this difference was small (Cohen, 1988). The postsecondary enrollment rates for White students in Texas public 2-year institutions were three percentage points higher than the postsecondary enrollment rates of Black students in Texas public 2-year institutions. Readers are referred to Table 3.2 for the descriptive statistics for this analysis.

Insert Table 3.2 about here

Regarding postsecondary enrollment rates in Texas public 2-year institutions for the 2012-2013 academic year between Hispanic and White students, a statistically significant difference, $t(55) = -6.77$, $p < .001$, Cohen's $d = 0.84$, was revealed. The effect size for this difference was large (Cohen, 1988). The postsecondary enrollment rates of White students in Texas public 2-year institutions were more than six percentage points higher than the postsecondary enrollment rates of Hispanic students in Texas public 2-year institutions. Table 3.3 contains the descriptive statistics for this analysis.

Insert Table 3.3 about here

Concerning the 2013-2014 academic year, the parametric dependent samples t-test analysis yielded a statistically significant difference in postsecondary enrollment percentages in Texas public 2-year institutions, $t(65) = 3.32$, $p = .001$, Cohen's $d = 0.46$, between Black and Hispanic students. This difference represented a small effect size (Cohen, 1988). Black students had postsecondary enrollment rates in Texas public 2-year institutions that were almost five percentage points higher than the postsecondary enrollment rates of Hispanic students in Texas public 2-year institutions. Revealed in Table 3.4 are the descriptive statistics for this analysis.

Insert Table 3.4 about here

For the 2013-2014 academic year, the parametric dependent samples *t*-test analysis did not yield a statistically significant difference, $t(65) = -1.18$, $p = .24$, in Texas public 2-year institutions postsecondary rates between Black and White students. The postsecondary enrollment rates for both Black and White students in Texas public 2-year institutions were similar. Readers are directed to Table 3.5 for the descriptive statistics for this analysis.

Insert Table 3.5 about here

Regarding the 2013-2014 academic year postsecondary enrollment percentages between Hispanic and White students in Texas public 2-year institutions, the parametric dependent samples *t*-test analysis yielded a statistically significant difference, $t(55) = -6.77$, $p < .001$, Cohen's $d = 0.84$. The effect size for this difference was large (Cohen, 1988). The postsecondary enrollment rate for White students in Texas public 2-year institutions was almost six percentage points higher than the postsecondary enrollment rate of Hispanic students in Texas public 2-year institutions. Table 3.6 contains the descriptive statistics for this analysis.

Insert Table 3.6 about here

With respect to the postsecondary enrollment percentages at Texas 2-year public institutions between Black and Hispanic students for the 2014-2015 academic year, the parametric dependent samples *t*-test analysis yielded a statistically significant difference, $t(62) = 5.38$, $p < .001$, Cohen's $d = 0.79$. This difference represented a near-large effect size (Cohen, 1988). Black students had postsecondary enrollment rates in Texas public 2-year institutions that were almost seven percentage points higher than the postsecondary enrollment rates of Hispanic students in Texas public 2-year institutions. Delineated in Table 3.7 are the descriptive statistics for this analysis.

Insert Table 3.7 about here

For the 2014-2015 academic year, the parametric dependent samples *t*-test analysis did not yield a statistically significant difference, $t(62) = -0.108$, $p = .91$, in postsecondary enrollment rates in Texas public 2-year institutions between Black and White students. The postsecondary enrollment rates for both Black and White students in Texas public 2-year institutions were similar. Revealed in Table 3.8 are the descriptive statistics for this analysis.

Insert Table 3.8 about here

Regarding the 2013-2014 academic year the parametric dependent samples *t*-test analysis yielded a statistically significant difference, $t(62) = -8.54$, $p < .001$, Cohen's $d = 1.03$, between Hispanic and White students in postsecondary enrollment rates in Texas

public 2-year institutions. The effect size for this difference was large (Cohen, 1988). The postsecondary enrollment rate for White students in Texas public 2-year institutions was seven percentage points higher than the postsecondary enrollment rate for Hispanic students in Texas public 2-year institutions. Revealed in Table 3.9 are the descriptive statistics for this analysis.

Insert Table 3.9 about here

Results for Research Question Two

Concerning postsecondary enrollment percentages at Texas 4-year public institutions between Black and Hispanic public high school graduates for the 2012-2013 academic year, the parametric dependent samples *t*-test yielded a statistically significant difference, $t(54) = 8.27$, $p < .001$, Cohen's $d = 1.27$. The effect size for this difference was large (Cohen, 1988). The postsecondary enrollment rates of Black students at Texas 4-year public institutions was over six percentage points higher than the postsecondary enrollment rates of Hispanic public high school graduates in Texas public 4-year universities. Table 3.10 contains the descriptive statistics for this analysis.

Insert Table 3.10 about here

With respect to the postsecondary enrollment percentages at Texas 4-year public institutions for the 2012-2013 academic year between Black and White students, the parametric dependent samples *t*-test yielded a statistically significant difference, $t(54) = -$

5.49, $p < .001$, Cohen's $d = 0.79$. The effect size for this difference was near-large (Cohen, 1988). Black students had postsecondary enrollment rates almost nine percentage points higher than Hispanic students enrolled in Texas public 4-year institutions. Revealed in Table 3.11 are the descriptive statistics for this analysis.

Insert Table 3.11 about here

Regarding the postsecondary enrollment rates of White and Hispanic students at Texas 4-year public institutions for the 2012-2013 academic year, the parametric dependent samples *t*-test yielded a statistically significant difference, $t(55) = -17.95$, $p < .001$, Cohen's $d = 2.19$. The effect size for this difference was very large (Cohen, 1988). White students had postsecondary enrollment rates at Texas 4-year public institutions that were over 15 percentage points higher than the postsecondary enrollment rates of Hispanic students at Texas 4-year public institutions. Table 3.12 contains the descriptive statistics for this analysis.

Insert Table 3.12 about here

For the 2013-2014 academic year, the parametric dependent samples *t*-test yielded a statistically significant difference, $t(65) = -8.54$, $p < .001$, Cohen's $d = 2.42$, in postsecondary enrollment rates in Texas public 4-year institutions between Black and Hispanic students. The effect size for this difference was very large (Cohen, 1988). The postsecondary enrollment rates of Black students at Texas 4-year public institutions were

over seven percentage points higher than the postsecondary enrollment rates of Hispanic public high school graduates in Texas public 4-year universities. Revealed in Table 3.13 are the descriptive statistics for this analysis.

Insert Table 3.13 about here

Concerning postsecondary enrollment percentages at Texas 4-year public institutions between Black and White public high school graduates for the 2013-2014 academic year, the parametric dependent samples *t*-test yielded a statistically significant difference, $t(65) = -9.51$, $p < .001$, Cohen's $d = 1.18$. The effect size for this difference was large (Cohen, 1988). The postsecondary enrollment rates of White students at Texas 4-year public institutions was almost nine percentage points higher than the postsecondary enrollment rates of Black public high school graduates in Texas public 4-year universities. Readers are directed to Table 3.14 for these values.

Insert Table 3.14 about here

Regarding the postsecondary enrollment of White and Hispanic students at Texas 4-year public institutions for the 2013-2014 academic year, the parametric dependent samples *t*-test yielded a statistically significant difference, $t(65) = -22.20$, $p < .001$, Cohen's $d = 2.42$. The effect size for this difference was very large (Cohen, 1988). White students had postsecondary enrollment rates at Texas 4-year public institutions that were over 16 percentage points higher than the postsecondary enrollment rates of

Hispanic public high school graduates in Texas public 4-year universities. Delineated in Table 3.15 are the descriptive statistics for this analysis.

Insert Table 3.15 about here

With respect to the postsecondary enrollment percentages at Texas 4-year public institutions between Black and Hispanic students for 2014-2015 academic year, the parametric dependent samples t-test analysis yielded a statistically significant difference, $t(62) = 10.07$, $p < .001$, Cohen's $d = 1.34$. This difference represented a large effect size (Cohen, 1988). Black students had postsecondary enrollment rates at Texas 4-year public institutions over seven percentage points higher than Hispanic students enrolled in Texas public 4-year institutions. Revealed in Table 3.16 are the descriptive statistics for this analysis.

Insert Table 3.16 about here

For Black and White students during the 2014-2015 academic year, the parametric dependent samples *t*-test analysis yielded a statistically significant difference in postsecondary enrollment percentages at Texas 4-year public institutions, $t(62) = -7.36$, $p < .001$, Cohen's $d = 0.91$. This difference represented a large effect size (Cohen, 1988). White students had postsecondary enrollment rates at Texas 4-year public institutions over nine percentage points higher than Black students enrolled in Texas public 4-year institutions. Table 3.17 contains the descriptive statistics for this analysis.

Insert Table 3.17 about here

The parametric dependent samples *t*-test analysis during the 2014-2015 academic year, yielded a statistically significant difference, $t(62) = -16.35$, $p < .001$, Cohen's $d = 2.13$, in postsecondary enrollment rates in Texas public 2-year institutions between Hispanic and White students. The effect size for this difference was very large (Cohen, 1988). The postsecondary enrollment rate for White students at Texas 4-year public institutions was 16 percentage points higher than the postsecondary enrollment rate for Hispanic students in Texas public 4-year institutions. Revealed in Table 3.18 are the descriptive statistics for this analysis.

Insert Table 3.18 about here

Results for Research Question Three

The third research question regarding an analysis of all three years of data for postsecondary enrollment rates by ethnicity/race of Texas public high school graduates enrolling in Texas 2-year public institutions will now be addressed. As shown in Figure 3.1, trends were clearly present in the postsecondary enrollment rates of Texas public high school graduates for Black and Hispanic students who enrolled in Texas public 2-year institutions. The postsecondary enrollment rates of Black students were consistently higher than the postsecondary enrollment rates of Hispanic students. Over the 3-year period, the enrollment rates of Black Texas public high school graduates who enrolled in

Texas public 2-year postsecondary institutions increased by 5.83%. During the same 3-year period, the postsecondary enrollment rates of Hispanic Texas public high school graduates in Texas public 2-year postsecondary institutions increased by 1.89%.

Insert Figure 3.1 about here

As revealed in Figure 3.2, trends were also present in postsecondary enrollment rates for Black and White Texas public high school graduates enrolling in Texas 2-year public institutions. The postsecondary enrollment rates of White students were consistently higher than the postsecondary enrollment rates of Black students. Over the 3-year period, the enrollment rates of White Texas public high school graduates who enrolled in Texas public 2-year postsecondary institutions increased by 2.8%. During the 2013-2014 and the 2014-2015 academic year, the difference in postsecondary enrollment rates of Black and White Texas public high school graduates in Texas public 2-year postsecondary institutions were not statistically significant.

Insert Figure 3.2 about here

With respect to the postsecondary enrollment rates for White and Hispanic Texas public high school graduates enrolling in Texas 2-year public institutions, trends were also present and are depicted in Figure 3.3. The postsecondary enrollment rates of White students were consistently higher than the postsecondary enrollment rates of Hispanic students. Over the 3-year period, the enrollment rates of White Texas public high school

graduates who enrolled in Texas public 2-year postsecondary institutions increased by 2.8%. During the same 3-year period, the postsecondary enrollment rates of Hispanic Texas public high school graduates in Texas public 2-year postsecondary institutions increased by 1.89%.

Insert Figure 3.3 about here

Results for Research Question Four

The fourth research question concerning all three years of data for postsecondary enrollment rates by ethnicity/race of Texas public high school graduates enrolling in Texas 4-year public institutions will now be discussed. As depicted in Figure 3.4, trends were clearly present in the postsecondary enrollment rates of Texas public high school graduates for Black and Hispanic students who enrolled in Texas public 4-year institutions. The postsecondary enrollment rates of Black students were consistently higher than the postsecondary enrollment rates of Hispanic students. Over the 3-year period, the enrollment rates of Black Texas public high school graduates who enrolled in Texas public 4-year postsecondary institutions decreased by 1.49%. During the same 3-year period, the postsecondary enrollment rates of Hispanic Texas public high school graduates in Texas public 4-year postsecondary institutions remained stable.

Insert Figure 3.4 about here

As revealed in Figure 3.5, trends were also present in postsecondary enrollment rates for Black and White Texas public high school graduates enrolling in Texas 4-year public institutions. The postsecondary enrollment rates of White students were consistently higher than the postsecondary enrollment rates of Black students. However, over the 3-year period, the enrollment rates of White Texas public high school graduates who enrolled in Texas public 4-year postsecondary institutions decreased by 1.64%. During this same period, the postsecondary enrollment rates of Black students also decreased by 1.49%.

Insert Figure 3.5 about here

With respect to the postsecondary enrollment rates for White and Hispanic Texas public high school graduates enrolling in Texas 4-year public institutions, trends were also present and are depicted in Figure 3.6. The postsecondary enrollment rates of White students were consistently much higher than the postsecondary enrollment rates of Hispanic students. Over the 3-year period, the enrollment rates of White Texas public high school graduates who enrolled in Texas public 4-year postsecondary institutions decreased by 1.64%. During the same 3-year period, the postsecondary enrollment rates of Hispanic Texas public high school graduates in Texas public 4-year postsecondary institutions remained constant at 9.2%.

Insert Figure 3.6 about here

Discussion

Addressed in this investigation was the degree to which ethnic/racial differences were present in the postsecondary enrollment rates of Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities. Three years (i.e., 2012-2013, 2013-2014, and 2014-2015) of archival data were obtained from the Texas Education Agency. These data were then analyzed to determine whether the postsecondary enrollment rates of Texas public high school graduates differed by ethnicity/race. White Texas public high school graduates had the highest postsecondary enrollment rates in both 2-year public institutions and in 4-year public institutions. Black students, had the highest postsecondary enrollment rate increase at Texas 2-year public colleges over the three years of data analyzed. Black and Hispanic students tended to enroll at 2-year public institutions at a higher rate than they did at 4-year public institutions. Of note is that Black and White students experienced a decrease in postsecondary enrollment at 4-year institutions over the 3-year period.

Connections with the Existing Literature

Extensive literature can be located on ethnic/racial gaps in education. Documented in previous research investigations **(**Barnes & Slate, 2014; Bradley & Corwyn, 2002; Davis, 2006; Lee, 2002; Reardon et al., 2013) were achievement gaps by ethnicity/race. In this investigation, postsecondary enrollment varied by the ethnicity/race of students. Similar to previous researchers (e.g., King, 2000; Perna & Titus, 2005), Texas White public high school graduates enrolled in public postsecondary institutions at a rate higher than Black and Hispanic students in all three academic years. This higher rate of enrollment occurred in both Texas public 2-year and in 4-year

institutions. Results of this research investigation were congruent with the results of other researchers (e.g., National Center for Education Statistics, 2005; Perna, 2007) in that White students enroll in postsecondary institutions at higher rates than do Hispanic and Black students.

Implications for Policy and for Practice

Based upon the results of this multiyear empirical analysis, several implications for policy and for practice can be made. First, higher education leaders are encouraged to examine recruitment strategies. Based upon the program evaluation outcomes, higher education leaders may need to make concentrated efforts to provide additional resources to increase the postsecondary enrollment of Hispanic and Black students.

A second implication for practice would be to have high school counselors and administrators to establish programs that will assist Black and Hispanic students in their efforts to be college ready and knowledgeable of the college going culture. Through these programs, students who are not aware of the resources available to pay for college as well as the process and requirements to enroll in higher education could be provided with information. As such, local and state funding may need to be genereated to establish such programs.

A third implication for policy and practice would be for K-12 and higher education organizations to work together to develop programs in which students and their families could be informed of the importance of enrolling in and graduating from a higher education institution. Many students, especially first-generation students, lack familial support in regard to college experience. With programs that focus on underserved student populations, Black and Hispanic students could be provided with the social

capital needed to enroll in and be successful during their time in postsecondary education. Additionally, the same programs could be used to help families encourage and support their children in their postsecondary endeavors.

Recommendations for Future Research

Given the results of this multiyear investigation, several recommendations for future research can be made. First, researchers could extend this study by analyzing similar data by student gender. Such an analysis could be used to determine whether the results obtained herein are similar by student gender. Second, researchers are recommended to extend this investigation by economic status. Such an analysis would reveal if postsecondary enrollment trends differ among economic status.

A third recommendation, would be for researchers to extend this study to other states. Such an analysis would be helpful to ascertain if the postsecondary enrollment rates of Texas students documented herein would be generalizable to other states. The degree to which postsecondary enrollment inequities herein are generalizable to students in other states is not known.

A fourth recommendation would be to conduct qualitative studies to determine the reasons why Black, Hispanic, and White students choose to enroll or not enroll in postsecondary education. Through these studies, information could be provided regarding challenges, experiences, and misunderstandings of postsecondary enrollment. A mixed method approach would also be useful to have an analysis of the data as well as the reasons why students choose to enroll or not enroll. A fifth recommendation would be for researchers to analyze individual student data rather than the aggregated data used in the current study would also be beneficial. A final recommendation would be to

conduct a longitudinal study, analyzing student data, from middle school through postsecondary enrollment. Following students over a period of time will provide an opportunity to see enrollment trends and persistence from middle school, to high school, through postsecondary enrollment. These data may be useful as higher education institutions are turning to predictive analytics to individualize student access and success.

Conclusion

In this multiyear, statewide analysis, the degree to which differences were present in postsecondary enrollment of Texas public high school graduates as a function of their ethnicity/race (i.e. Black, Hispanic, and White) during the 2012-2013, 2013-2014, and 2014-2015 academic years was addressed. Over the 3-year period analyzed, statistically significant differences were present in the postsecondary enrollment rates of Texas public high school graduates by ethnicity/race. White Texas public high school graduates enrolled in 2-year and 4-year public institutions in Texas at statistically significantly higher rates than their Black and Hispanic counterparts. For the 2012-2013 academic year, Black Texas public high school graduates enrolled in postsecondary education at statistically significantly higher rates than did Hispanic students. Of the three ethnic/racial groups of students whose data were analyzed herein, Hispanic students experienced the lowest postsecondary enrollment rates. White students had significantly higher postsecondary enrollment rates than both Black students and Hispanic students. These findings were true for both 2-year and 4-year public institutions. During the three academic years of data that were analyzed, Black, White and Hispanic Texas public high school graduates experienced increases in postsecondary enrollment at 2-year public institutions. Surprisingly, Black, White and Hispanic students experienced a decrease in

postsecondary enrollment in 4-year public institutions over the three years analyzed. Congruent with previous researchers (e.g., Alon & Gelbgiser, 2011; Carbonaro, Ellison, & Covay, 2011; Davis & Otto, 2016), clear ethnic/racial inequities were present in the postsecondary enrollment of Texas public high school graduates into Texas public 2-year and 4-year institutions.

References

ACT & United Negro College Fund. (2014). *The condition of college & career readiness 2014: African-American students.* Retrieved from http://bit.ly/1ktWVq9

Alon, S., & Gelbgiser, D. (2011). The female advantage in college academic achievements and horizontal sex segregation. *Social Science Research, 40*(1), 107-119. doi:10.1016/j.ssresearch.2010.06.007

American Association of Community Colleges. (2017). 2017 Fact sheet. Retrieved from https://www.aacc.nche.edu/wp-content/uploads/2017/09/AACCFactSheet2017.pdf

Barnes, W., & Slate, J. R. (2014). College-readiness rates in Texas: A statewide, multiyear study of ethnic differences. *Education and Urban Society, 46*, 59-87. doi:10.1177/0013124511423775

Beattie, I. R. (2002). Are all adolescent econometricians' created equal? Racial, class, and gender differences in college enrollment. *Sociology of Education, 75*, 19-43. doi:10.2307/3090252

Bowen, B. G., & Bok, D. (1998). *The shape of the river: Long-term consequences of considering race in college and university admissions.* Princeton, NJ: Princeton University Press.

Bowen, W. G., Chingos, M. M., & McPherson, M. S. (2009). *Crossing the finish line: Completing college at America's public universities.* Princeton, NJ: Princeton University Press.

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology, 53,* 371-399.

Carbonaro, W. Ellison, B. J., & Covay, E. (2011). Gender inequalities in the college pipeline. *Social Science Research, 40*, 120-135.

Carey, K. (2004). *A matter of degree: Improving graduation rates in four-year colleges and universities.* A Report by the Education Trust. Retrieved from http://edtrust.org/wp-content/uploads/2013/10/highered.pdf

Carneval, A. P. (2016). *Credentials and competencies: Demonstrating the economic values of postsecondary education.* Washington, DC: Georgetown University Center on Education and the Workforce.

Carneval, A., Smith, N., & Strohl, J. (2013). The road to recovery: Projecting U.S. job growth and higher education demand through 2020. *Community College Journal, 84*(3), 26-29.

Cejda, B. D., & Short, M. (2008). Influencing the college attendance rates of Hispanics in Texas. *Community College Journal of Research and Practice, 32,* 347-361. doi:10.1080/10668920701884455

Chapman, C., Laird, J., & KewalRamani, A. (2010). *Trends in high school dropout and completion rates in the United States: 1972-2008* (NCES 2011-012). Washington, DC: National Center for Education Statistics

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

Cokley, K., Obaseki, V., Moran-Jackson, K., Jones, L., & Vohra-Gupta, S. (2016). College access improves for Black students but for which ones? *Phi Delta Kappan, 97*(5), 43-48.

Conger, D., & Long, M. C. (2013). Gender gaps in college enrollment: The role of gender sorting across public high schools. *Educational Researcher*, *42*(7), 371-380. doi:10.3102/0013189X13503983

Covarrubias, A. (2011). Quantitative intersectionality. A critical race analysis of the Chicana/o educational pipeline. *Journal of Latinos and Education, 10*(2), 86-105. doi:10.1080/15348431.2011.556519

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Davis, J. E. (2006). Early schooling and the achievement of African American males. *Urban Education, 38,* 515-537.

Davis, T., & Otto, B. (2016). Juxtaposing the Black and White gender gap: Race and gender differentiation in college enrollment predictors. *Social Science Quarterly, 97*(5), 1245-1266. doi:10.1111/ssqu.12287

Davies, S., & Guppy, N. (1997). Fields of study, college selectivity, and student inequalities in higher education. *Social Forces, 75(*4), 1417-1438.

Deil-Amen, R., & DeLuca, S. (2010). The underserved third: How our educational structures populate an educational underclass. *Journal of Education for Students Placed at Risk, 15,* 27-50. doi:10.1080/10824661003634948

DePaoli, J. L., Fox, J. H., Ingram, E. S., Maushard, M., Bridgeland, J. M., & Balfanz, R. (2015). *Building a grad nation: Progress and challenge in ending the high school dropout epidemic*. Retrieved from America's Promise Alliance Website: http://www.americaspromise.org/report/2015-building-grad-nation-report

Dickerson, N. T. & Jacobs, J. A. (2006). Race differentials in college selectivity, 1981-2000. *Journal of African American Studies, 10*(1), 3-18.

DiPrete, T. A., & Buchmann, C. (2013). *The rise of women: The growing gender gap in education and what it means for American schools.* New York, NY: Russell Sage Foundation.

Duncan, A. (2010). Obama's goal for higher education. *Forbes*. Retrieved from https://www.forbes.com/2010/08/01/america-education-reform-opinions-best-colleges-10-duncan.html#14dc94ae6fee

Fry, R. & Lopez, M. H. (2012). *Hispanic student enrollment reach new highs in 2011*. Pew Research Center. Retrieved from http://www.pewhispanic.org/2012/08/20/hispanic-student-enrollments-reach-new-highs-in-2011/

Harvill, E. L., Maynard, R. A., Nguyen, H. T., Robertson-Kraft, C., & Tognatta, N. (2012, March). *Effects of college access programs on college readiness and enrollment: A meta-analyses*. Paper presented at the meeting of the Society for Research on Educational Effectiveness, Washington, DC.

Hussar, W. J., & Bailey, T. M. (2013). *Projections of education statistics to 2022 (NCES 2014-051).* Washington, DC: National Center for Education Statistics.

Johnson, R. B., & Christensen, L. (2012). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.). Los Angeles, CA: Sage.

King, J. E., (2000). Gender equity in higher education. Washington, DC: American Council on Education.

Klevan, S., Weinberg, S. L., & Middleton, J. A. (2016). Why the boys are missing: Using social capital to explain gender differences in college enrollment for public high school students. *Research in Higher Education, 57*(2), 223-257. doi:10.1007/s11162-015-9384-9

Lee, J. (2002). Racial and ethnic achievement gap trends: Reversing the progress toward equity? *Educational Researcher, 31,* 3-12. doi:10.3102/0013189X031001003

Murdock, S. H., & Cline, A. G. (2011). *Population change in Texas: Implications of the 2010 census for education, the labor force and economic development.* Presented at Texas Tribune, Austin, TX.

National Center for Education Statistics. (2005). *Postsecondary participation rates by sex and race/ethnicity: 1974-2003.* Retrieved from https://nces.ed.gov/pubs2005/2005028.pdf

National Center for Education Statistics. (2010). *Status and trends in the education of racial and minority groups.* Retrieved from https://nces.ed.gov/pubs2010/2010015.pdf

National Center for Education Statistics. (2015). *Institutional retention and graduation rates for undergraduate students.* Retrieved from http://nces.ed.gov/programs/coe/indicator_cva.asp

National Center for Education Statistics. (2017). *The condition of education report.* Retrieved from https://nces.ed.gov/pubs2017/2017144.pdf

National Center for Education Statistics. (n.d.). *The condition of education report*. Retrieved from https://nces.ed.gov/programs/coe/glossary.asp

Nunez, A. M., & Kim, D. (2012). Building a multicontextual model of Latino college enrollment: Student, school, and state-level effects. *The Review of Higher Education, 35*(2), 237-263. doi:10.1037/a0026810

Obama, B. (2012, July 26). *Executive order - White House initiative on educational excellence for African-Americans.* Washington, DC: White House. Retrieved from http://1.usa.gov/1RWbBJs

Perez, A., & Slate, J. R. (2015). Differences in postsecondary enrollment as a function of high school size. *Journal of Global Research in Education and Social Science, 5*(1), 34-39.

Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics, and Whites. *The Journal of Higher Education, 71*(2), 117-141.

Perna, L. W., & Titus, M. A. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *The Journal of Higher Education, 76*(5), 485-518.

Perna, L. W. (2007). The sources of racial-ethnic group differences in college enrollment: A critical examination. *New Directions for Institutional Research, 133*, 51-66.

Pew Research Center. (2015). Facts about Latinos and education. Retrieved from http://www.pewresearch.org/fact-tank/2015/05/26/5-facts-about-latinos-andeducation/

Reardon, S. F., Valentino, R. A., Kalogrides, D., Shores, K. A., & Greenberg, E. H. (2013). *Patterns and trends in racial academic achievement gaps among states,*

1999-2011. Retrieved from http://cepa.stanford.edu/content/patterns-and-trends-racial-academic-achievement-gaps-among-states-1999-2011

Renshaw, S., & Clark, R. (2017). Boy problem? Girl problem? A century of gender inequality in American education viewed through general social survey data. *International Review of Modern Sociology, 43*(1), 79-93.

Ryan, S. (2016). Ambitions in action: Investigating college enrollment among Hispanic youth who expect to complete a bachelor's degree. *Journal of Hispanic Higher Education*, *15*(1), 3-21. doi:10.1177/1538192715584191

Serrano, T. J. G. (2017). "Wait, what do you mean by college?" A critical race analysis of Latina/o students and their pathways to community college. *Community College Journal of Research and Practice*, *41*(4-5), 239-252. doi:10.1080/10668926.2016.1251362

Snyder, T. D., & Dillow, S. A. (2010). *Digest of education statistics 2009. (NCES 2010-013).* Washington, DC: National Center for Education Statistics.

Texas Higher Education Coordinating Board. (2000). *Closing the Gaps: The Texas Higher Education Plan*. Retrieved from http://www.thecb.state.tx.us/reports/PDF

Texas Higher Education Coordinating Board. (2015). 60x30TX. Retreived from http://www.thecb.state.tx.us/reports/PDF/9306.PDF?CFID=72789643&CFTOKEN=82948080

U.S. Bureau of Labor Statistics. (2014). *College enrollment and work activity of 2014 high school graduates.* Washington, DC: Author. Retrieved from http://1.usa.gov/1SpSJmU

U.S. Bureau of Labor Statistics. (2017b). *Usual weekly earnings of wage and salary workers second quarter 2017.* Retrieved from https://www.bls.gov/news.release/pdf/wkyeng.pdf

U.S. Census Bureau. (n.d.). Work experience and earnings association. Retrieved from https://www.census.gov/people/laborforce/files/Earnings_and_Experience_Associations.pdf

U.S. Census Bureau. (2016a). *Annual estimates of the resident population by sex, race, and Hispanic origin for the United States, states, and counties: April 1, 2010 to July 1, 2016.* Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2016_PEPSR6H&prodType=tablehttps://www.census.gov/library/publications/2006/compendia/statab/126ed.html

Table 3.1

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Black and Hispanic Texas Public High School Graduates for the 2012-2013 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	56	32.38	8.95
Hispanic	56	29.43	6.34

Table 3.2

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Black and White Texas Public High School Graduates for the 2012-2013 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	56	32.38	8.95
White	56	35.53	8.01

Table 3.3

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Hispanic and White Texas Public High School Graduates for the 2012-2013 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Hispanic	56	29.43	6.43
White	56	35.53	8.01

Table 3.4

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Black and Hispanic Texas Public High School Graduates for the 2013-2014 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	66	35.36	11.14
Hispanic	66	30.85	8.30

Table 3.5

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Black and White Texas Public High School Graduates for the 2013-2014 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	66	35.36	11.14
White	66	36.74	7.93

Table 3.6

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Hispanic and White Texas Public High School Graduates for the 2013-2014 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Hispanic	66	30.85	8.30
White	66	36.74	7.93

Table 3.7

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Black and Hispanic Texas Public High School Graduates for the 2014-2015 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	63	38.21	10.62
Hispanic	63	31.32	6.24

Table 3.8

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Black and White Texas Public High School Graduates for the 2014-2015 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	63	38.21	10.62
White	63	38.33	7.34

Table 3.9

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions for Hispanic and White Texas Public High School Graduates for the 2014-2015 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Hispanic	63	31.32	6.24
White	63	38.33	7.34

Table 3.10

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Black and Hispanic Texas Public High School Graduates for the 2012-2013 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	66	18.07	8.10
Hispanic	66	9.27	5.52

Table 3.11

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Black and White Texas Public High School Graduates for the 2012-2013 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	66	18.07	8.10
White	66	24.59	8.27

Table 3.12

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Hispanic and White Texas Public High School Graduates for the 2012-2013 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Hispanic	66	9.27	5.52
White	66	24.59	8.27

Table 3.13

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Black and Hispanic Texas Public High School Graduates for the 2013-2014 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	66	16.35	6.98
Hispanic	66	9.27	4.66

Table 3.14

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Black and White Texas Public High School Graduates for the 2013-2014 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	66	16.35	6.98
White	66	25.30	8.13

Table 3.15

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Hispanic and White Texas Public High School Graduates for the 2013-2014 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Hispanic	66	9.27	4.66
White	66	25.30	8.13

Table 3.16

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Black and Hispanic Texas Public High School Graduates for the 2014-2015 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	63	16.58	6.13
Hispanic	63	9.21	4.80

Table 3.17

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Black and White Texas Public High School Graduates for the 2014-2015 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Black	63	16.58	6.13
White	63	22.95	7.74

Table 3.18

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions for Hispanic and White Texas Public High School Graduates for the 2014-2015 Academic Year

Race/Ethnicity	*n* of counties	*M%*	*SD%*
Hispanic	63	9.21	4.80
White	63	22.95	7.74

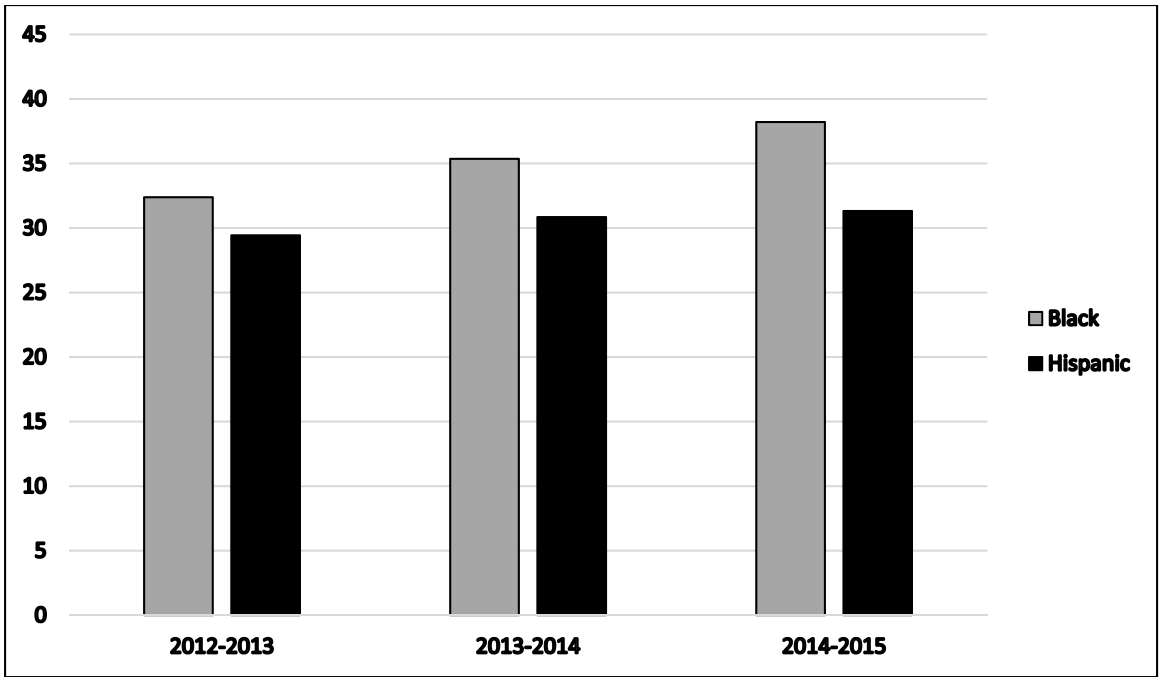

Figure 3.1. Trends in the postsecondary enrollment rates at Texas 2-year public institutions for Black and Hispanic Texas public high school graduates in the 2012-2013 through the 2014-2015 academic years.

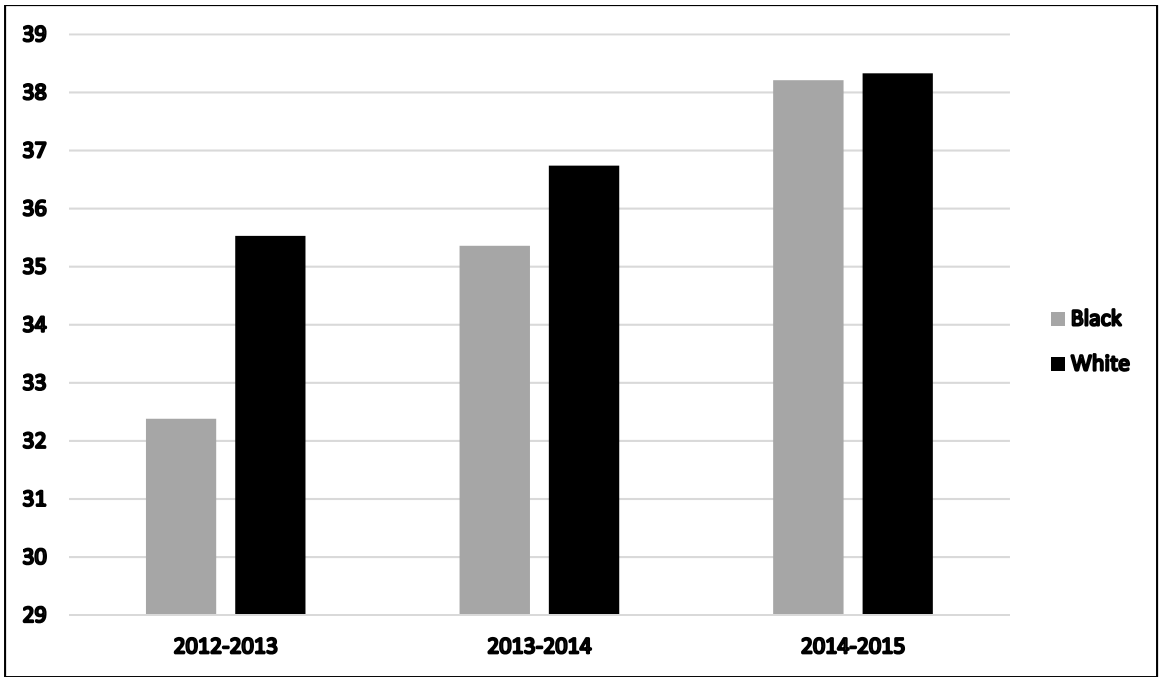

Figure 3.2. Trends in the postsecondary enrollment rates at Texas 2-year public institutions for Black and White Texas public high school graduates in the 2012-2013 through the 2014-2015 academic years.

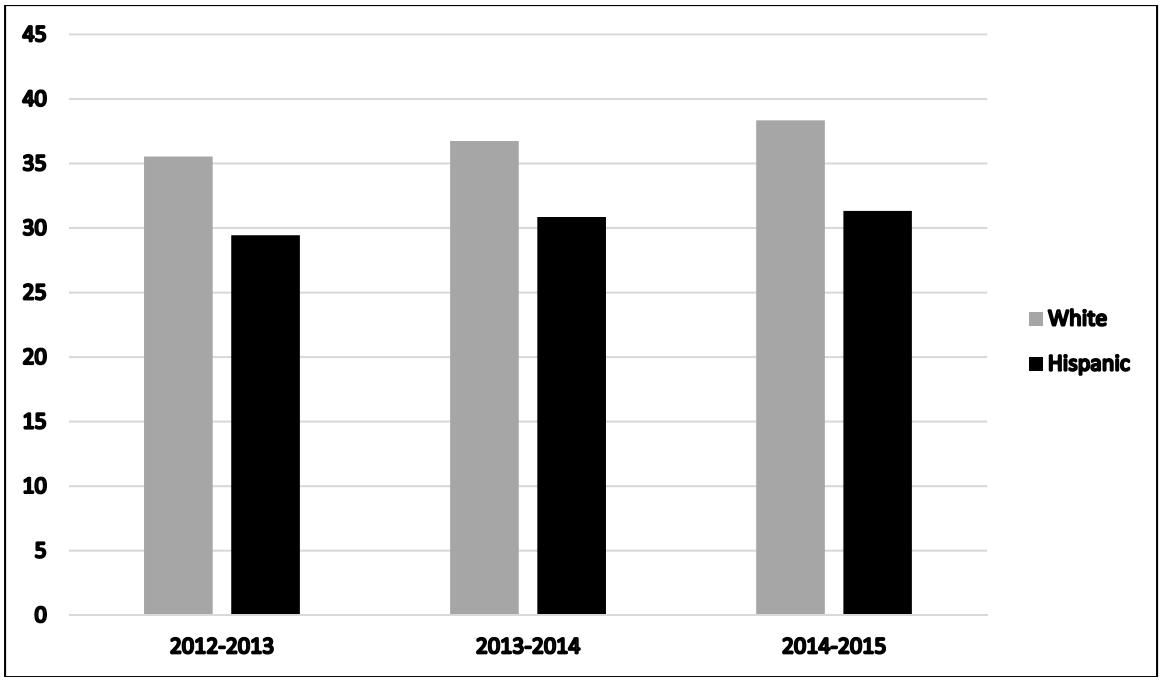

Figure 3.3. Trends in the postsecondary enrollment rates at Texas 2-year public institutions for White and Hispanic Texas public high school graduates in the 2012-2013 through the 2014-2015 academic years.

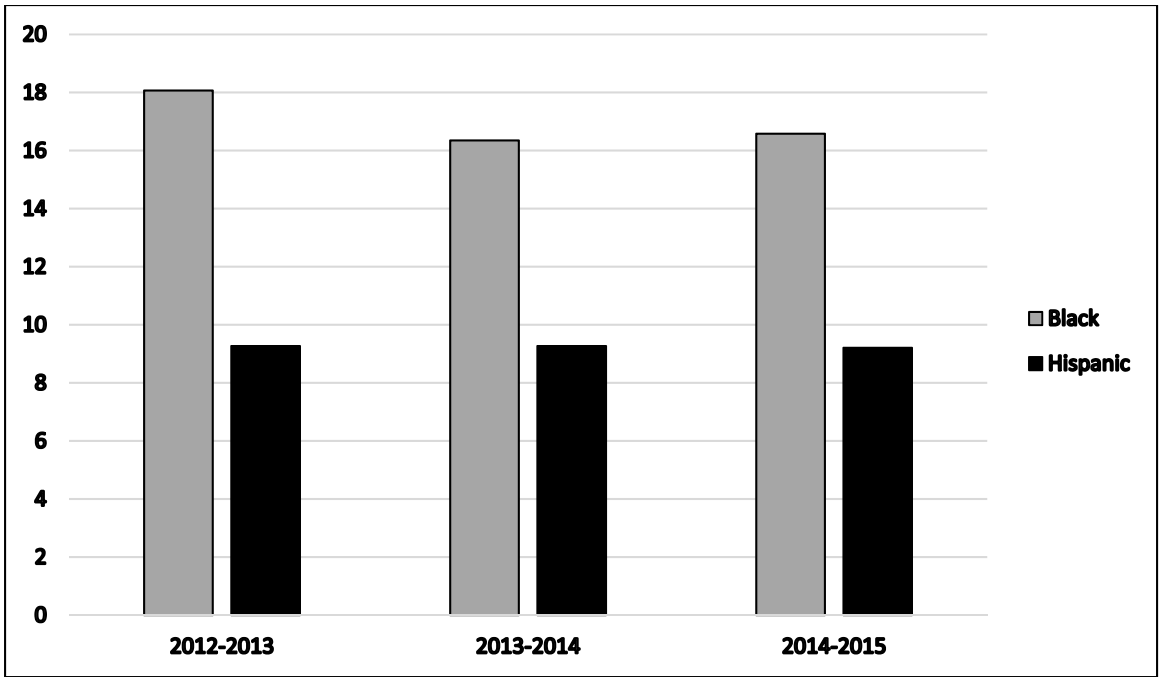

Figure 3.4. Trends in the postsecondary enrollment rates at Texas 4-year public institutions for Black and Hispanic Texas public high school graduates in the 2012-2013 through the 2014-2015 academic years.

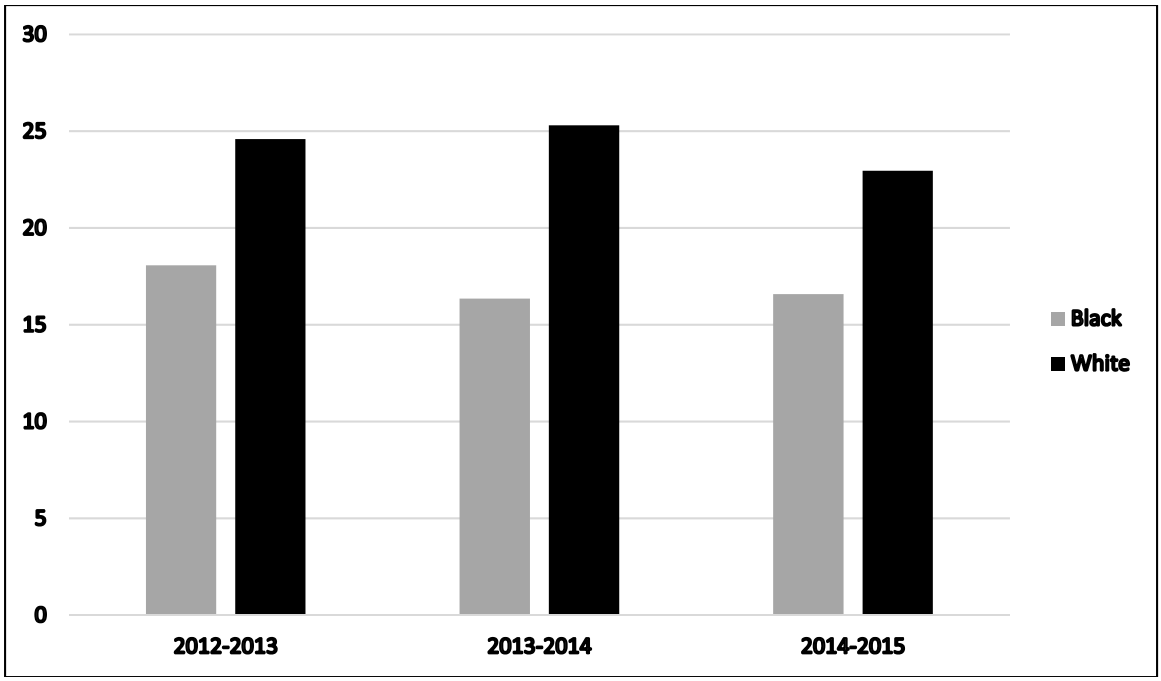

Figure 3.5. Trends in the postsecondary enrollment rates at Texas 4-year public institutions for Black and White Texas public high school graduates in the 2012-2013 through the 2014-2015 academic years.

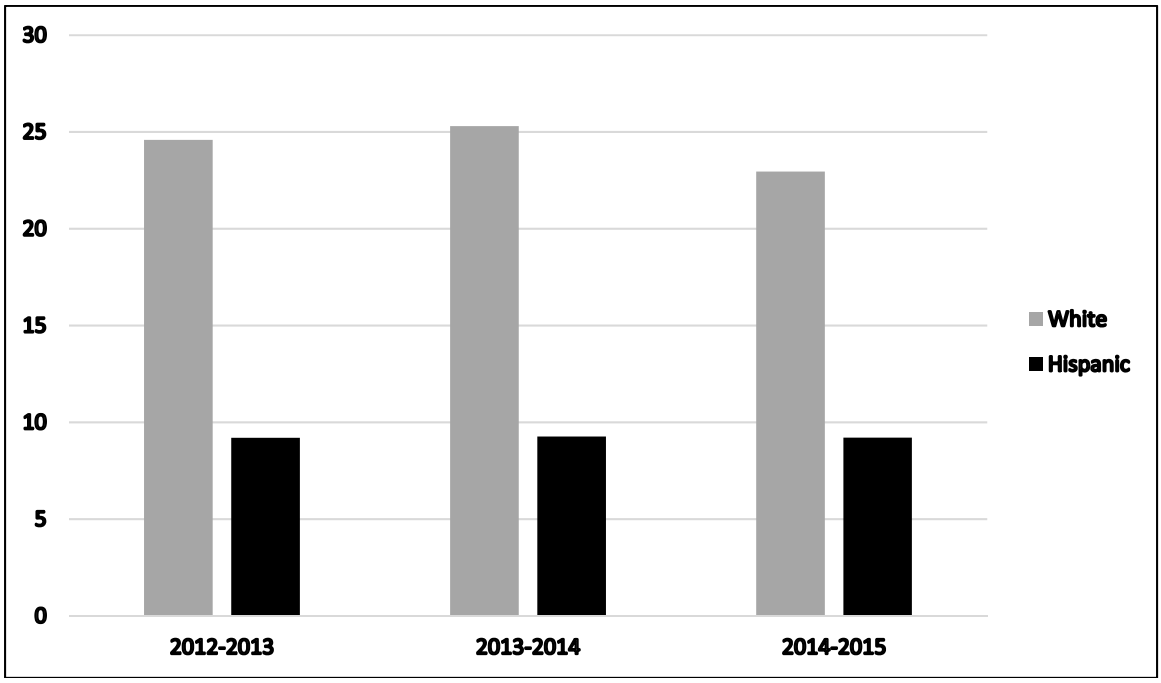

Figure 3.6. Trends in the postsecondary enrollment rates at Texas 4-year public institutions for White and Hispanic Texas public high school graduates in the 2012-2013 through the 2014-2015 academic years.

CHAPTER IV

DIFFERENCES IN POSTSECONDARY ENROLLMENT RATES BY THE ECONOMIC STATUS OF TEXAS PUBLIC HIGH SCHOOL GRADUATES: A STATEWIDE, MULTIYEAR INVESTIGATION

This dissertation follows the style and format of *Research in the Schools (RITS)*.

Abstract

Addressed in this multiyear empirical investigation was the degree to which economic status was related to the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. Specifically analyzed were the enrollment percentages of students in poverty and students who were not poor for three academic years (i.e., 2012-2013 through 2014-2015) for Texas public high school graduates. Over the 3-year time period analyzed, statistically significant differences were present in postsecondary enrollment rates of Texas public high school graduates by their economic status. Texas public high school graduates who were not poor enrolled in both 2-year and 4-year public institutions at statistically significantly higher rates than their peers who were poor. Moreover, students who were poor tended to enroll at 2-year public institutions at higher rates than at 4-year public institutions. Implications of these results and recommendations for future research were discussed.

Keywords: Postsecondary enrollment, 2-year public institutions, 4-year public institutions, Economic Status, Texas

DIFFERENCES IN POSTSECONDARY ENROLLMENT RATES BY THE ECONOMIC STATUS OF TEXAS PUBLIC HIGH SCHOOL GRADUATES: A STATEWIDE, MULTIYEAR INVESTIGATION

In 2015, 43.1 million people in the United States lived in poverty (U.S. Census Bureau, 2016b). This fact is important for this research article because education and poverty are directly correlated (Awan, Malik, Sarwar, & Waqas, 2011). Poverty has a direct influence on the quality and productivity of education. Hernandez (2011) reported:

> Families in poverty are more likely to live in neighborhoods with low-performing schools. Consequently, children in poor families tend to develop weaker academic skills and to achieve less academic success. Many arrive at kindergarten without the language or social skills they need for learning. They miss school frequently because of health or family concerns. They slip behind in the summer with little access to stimulating educational programs or even regular meals. Consequently, the children in poor families are in double jeopardy: They are more likely to have low reading test scores and, at any reading-skill level, they are less likely to graduate from high school. (p. 7)

With respect to this article, poverty will be used to refer to students who are eligible for free or reduced-price meals under the National School Lunch and Child Nutrition Program. According to Burney and Beilke (2008),

> Children whose families have an income of 130% or less of the federal poverty guide-line can receive free meals at school, and those whose families have incomes from 131% to 185% of the poverty guideline are eligible for reduced-price meals" (p. 173).

As DePaoli et al. (2015) noted, the majority of students in public schools in the United States meet the federal criteria for being in poverty. In 21 states, 50% or more of students were eligible for free and reduced-price lunch (DePaoli et al., 2015). Additionally, in 19 other states, students in poverty comprise 40% to 49% of public school enrollment (DePaoli et al., 2015).

Students who are economically disadvantaged are more likely to attend resource-poor schools, participate in less demanding high school curriculum, lack college experienced role models, and struggle with issues of cultural and academic incongruity (Scott et al., 2013; Tavernise, 2012). Additionally, students in poverty are more likely to drop out of high school than are their more economically advantaged peers (Coley & Baker, 2013; Duncan & Murmane, 2014; Hartas, 2011; Lee & Slate, 2014). Scott et al. (2013) noted that being poor was a major factor that contributes to students dropping out of high school.

Failure to complete high school is associated with numerous negative outcomes. Not obtaining a high school diploma means that low-income students will be trapped in low-wage jobs perpetuating a cycle of poverty (Correa, Boatright, & Bonnesen, 2015). According to the National Center for Education Statistics (2017), the median average income of workers with less than a high school diploma was $25,000 in 2015. By comparison, the median income of individuals who obtained at least a high school diploma was $30,500. Similarly, the percentage of dropouts who are unemployed is less than the percentage of high school graduates who are unemployed (U.S. Department of Labor, 2014). Pleis, Ward, and Lucas (2010) observed that individuals who drop out of high school have poorer health than their peers who complete high school. Additionally,

students who drop out of high school cost the economy approximately $260,000 over their lifetime considering their low tax contributions, reliance on public assistance, and rates of criminal activity (National Center for Education Statistics, 2016c).

To lessen the effects of poverty, education continues to be viewed as the great equalizer (Coley & Baker, 2013). Education can equip citizens with knowledge and skills that will allow them to lead successful and productive lives (Coley & Baker, 2013). Students in poverty, however, are less likely than students from families who are not in poverty to earn a high school diploma and to enroll subsequently in college (Ou & Reynolds, 2014; Zwick & Himelfarb, 2011)

If students who live in poverty do graduate high school, their lack of information about the costs and benefits of postsecondary enrollment may influence their decision of attending college or not attending college. Students who are low-income are typically the first individuals in their families to attend college; therefore, they lack the experience and direction from parents to navigate higher education roadblocks (Babcock, 2014). Students who live in poverty complete postsecondary education at lower rates than do students not living in poverty (Ma, Pender, & Welch, 2016).

With respect to the state of interest for this investigation, during the 2013-2014 academic year, 60.1% of students in Texas were eligible for free or reduced lunch (Texas Education Agency, 2017a). This change is 8.1% higher than the national average of 52% (Texas Education Agency, 2017a). Between 2006-2007 and 2016-2017, the percentage of students who were economically disadvantaged in Texas increased by 24.1%. This increase was larger than the 16.6% increase of the total student population (Texas Education Agency, 2017a).

In a recent investigation, Baydu, Kaplan, and Bayar (2013) examined the influence of poverty on graduation rates in public high schools in the United States. They established the presence of a negative relationship between graduation rates and poverty. As student poverty rates increased, high school graduation rates decreased. Findings from the Baydu et al. (2013) study were in agreement with Mertens and Flowers (2003).

Drotos and Cilesiz (2016) conducted a qualitative study to understand the challenges faced by students from high poverty, urban high schools who had an interest in postsecondary education. Using secondary analysis of interviews and classroom observation, the researchers investigated student's perspective on higher education opportunities as a way to increase understanding of challenges students from high poverty high schools encountered. Two themes, resources and ability, which led them to state, "from the perspective of students, academic attainment depends on various socioeconomic factors, impacted by resources of money, time, knowledge, courage, and the abilities to make sacrifices and take risks" (p. 227). Limited resources such as money, time and information, are barriers to student achievement because they create an academically, emotionally, and financially uncertain environment. Not having the necessary resources makes enrollment in higher education challenging because students require these resources.

Cilesiz and Drotos, (2016), investigated high poverty urban high school student's views of and plans for attending a higher education institution. The data was collected in the form of a psychology-based curriculum intervention that included a course designed to increase academic success and promote college attendance. In their responses, the students who participated in the study viewed higher education as rewarding -

economically, symbolically, and personally. Challenges the student participants mentioned included substantial risk of failure, economic loss, and other unfavorable life conditions (e.g., unstable home lives, single parent homes, need to have an income). The risks the students mentioned, economic, social and academic, appeared to stem from their sociocultural background. Students felt college would be expensive, unfamiliar, and academically challenging. Due to resource limitations, students did not have support systems in place in the event they did fail. The intervention assisted students in developing strategies to reduces risk and lessen their fears. These strategies included attending a less expensive college such as a community college with the goal to transfer to their preferred institution of higher education in the future. In addition, some students developed multi-stage plans, of which one plan was to achieve a quick career that would allow them to save money and establish a work history in the event they did not succeed in enrolling in postsecondary education. According to Cilesiz and Drotos (2016), family members, educators, administrators, and policymakers should understand and acknowledge the educational views and plans of economically disadvantaged students. This understanding can assist in developing the proper support needed to facilitate their enrollment in postsecondary education.

In an earlier investigation, Price and Reeves (2003) examined school characteristics, accountability, and student poverty that forecast postsecondary enrollment rates of high school graduates in the state of Kentucky. Data were acquired from the Kentucky Department of Education for the 1998 school year. Results were that school poverty and racial diversity accounted for 18% of the total difference in postsecondary enrollment. High school graduates in poverty enrolled into postsecondary institutions in

smaller numbers. In addition, Price and Reeves (2003) determined that high schools with more than the average rate of both poor and minority students were unlikely to send students to postsecondary education. Even high poverty high schools that performed well on the accountability test enrolled less students in postsecondary education than did affluent high schools. Furthermore noted was that school poverty inhibits postsecondary enrollment even after controlling for geographic location and accountability test scores. According to Price and Reeves (2003), "focusing exclusively on school accountability measures is unlikely to generate equal educational opportunities for all of Kentucky's children due to the strong negative influence of school poverty on postsecondary enrollments" (p. 32).

The benefits of higher education are apparent but concerns about equity of access to and success in postsecondary educational opportunities for groups in poverty are of concern. As awareness of the benefits of higher education becomes more apparent within today's global and competitive economy, researchers, practitioners, and educators should document economic and ethnic/racial disparities to develop strategies to close gaps in access and equity among all high school graduates. Facilitating access to postsecondary education for students who are economically disadvantaged should be an important goal of educational administrators and policymakers. Educational equity requires that all students have equal access to academic opportunities; however, students who are economically disadvantaged and/or from under-educated families, whether intentionally or not, are disregarded and underserved in their educational pursuits (Mudge & Higgins, 2011). To overcome economic inequities, high schools and institutions of higher

education should collaborate to examine and identify the inequities and implement programs to prepare all students for postsecondary access and success.

Mandela (2005) stated:

> Like slavery and Apartheid, poverty is not natural. It is man-made, and it can be overcome and eradicated by the actions of human beings. And overcoming poverty is not a gesture of charity. It is an act of justice. It is the protection of a fundamental human right, the right to dignity and a decent life. While poverty persists, there is no true freedom. (para 10-12)

Statement of the Problem

Postsecondary education is a requisite to economic prosperity for individuals from economically disadvantaged backgrounds (Venezia & Jaeger, 2013). The lack of education has an inverse correlation to poverty (Awan, Malik, Sarwar, & Waqas, 2011). According to the Texas Education Agency (2015), 60.1% of students in Texas were living in poverty. Research has been conducted on socioeconomic status in regard to student achievement (Lee & Slate, 2014; Wright & Slate, 2015; Wright, Slate, & Moore, 2016) and college attainment rates (Ou & Reynolds, 2014). Texas students in poverty had lower college readiness skills on the reading college readiness indicator than their non-poverty counterparts. (Lee & Slate, 2014). Additionally, Texas middle school students who were economically disadvantaged underperformed students who were not economically disadvantaged in critical thinking skills.

Of concern is that many careers today require some type of postsecondary education (Carnevale, 2016). As the demand for less skilled workers has declined, postsecondary education and training are essential for individuals seeking gainful

employment (Carnevale, 2016). Increased earnings are typically associated with higher levels of education (Spotlight on Poverty, 2013). Other benefits gained from a college education, include improved working conditions, better quality of life, and job security. Without some form of postsecondary experience, high school graduates, particularly those students who are economically disadvantaged, will not be able to earn a decent income (Rampell, 2014).

Purpose of the Study

The purpose of this study was to ascertain the extent to which economic differences were present in the postsecondary enrollment of Texas public high school graduates at 2-year public colleges and 4-year public universities. Ascertained in this investigation will be the degree to which postsecondary enrollment status of Texas public high school graduates differs between students who are economically disadvantaged and those students who are not economically disadvantaged. By analyzing three years of Texas statewide data, the extent to which trends might be present in the postsecondary enrollment status of Texas public high school graduates by their economic status will be determined.

Significance of the Study

The significance of this research study is in the comparison of postsecondary enrollment rates by the economic status of high school graduates within the state of Texas. A considerable body of research exists in which differences in academic performance and motivation of students who are economically disadvantaged have been documented. Investigating in the enrollment rates of Texas public high school graduates by their poverty status has the potential of assisting postsecondary education

administrators and faculty in understanding and implementing programs or interventions focusing on specific student demographics.

Research Questions

The following research questions were addressed in this empirical, multiyear investigation: (a) What is the difference in postsecondary enrollment at Texas 2-year public institutions as a function of the economic status (i.e., Not Poor, Poor) of Texas public high school graduates?; (b) What is the difference in postsecondary enrollment at Texas 4-year public institutions as a function of the economic status of Texas public high school graduates?; (c) What trend is present in the postsecondary enrollment at Texas 2-year public institutions as a function of the economic status of Texas public high school graduates in the 2012-2013 through the 2014-2015 academic years?; and (d) What trend is present in the postsecondary enrollment at Texas 4-year public institutions as a function of the economic status of Texas public high school graduates in the 2012-2013 through the 2014-2014 academic years? The first two research questions were repeated for 2012-2013, 2013-2014, and 2014-2015 academic years whereas the last two research questions involved all three academic years. As such, 12 research questions were present in this empirical investigation.

Method

Research Design

A non-experimental causal-comparative design was used for this study (Creswell, 2009). Archival data were analyzed in this investigation. As such, the independent variable and dependent variables had already occurred, and no extraneous variables were controlled (Johnson & Christensen, 2012). The independent variable analyzed was

economic status. The dependent variable present in this investigation was postsecondary enrollment. A total of three years of data was analyzed.

Participants and Instrumentation

For the purpose of this study, archival data were obtained from the Texas Education Agency database. Archival data on a cohort of students who attended Grade 8 in a Texas public school, graduated, and enrolled in a higher education institution in Texas, were analyzed for the 2012-2013 through the 2014-2015 academic years. For the purpose of this investigation postsecondary enrollment is defined as any time spent enrolled in a public postsecondary setting of any kind in the State of Texas. The term postsecondary setting is inclusive of both 2-year public institutions and 4-year public settings. A 2-year institution is an institution offering at least a 2-year program of college level studies which terminates in an associate degree or is partially creditable toward a baccalaureate degree. A 4-year institution is one offering at least a 4-year program of college-level studies principally creditable toward a baccalaureate degree.

Information regarding economic status was obtained from the archival data. Economically disadvantaged refers to the status given to students who qualify for the federal free and reduced-price lunch program. According to the Texas Education Agency's Texas Academic Performance Report Glossary (2016b), economically disadvantaged students are "eligible for free or reduced-price lunch or eligible for other public assistance" (p. 10). The Texas Education Agency makes an extensive array of data available to anyone with internet access. Included in this data were student economic status and postsecondary enrollment rates for the 2012-2013 through the 2014-2015 academic years.

Results

Prior to conducting inferential statistics to determine whether statistically significant differences were present by economic status in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities, checks were conducted to determine the extent to which the data were normally distributed. Although some of the postsecondary enrollment rate data were not normally distributed, a decision was made to use parametric dependent samples *t*-tests to answer the research questions. Statistical results will now be presented by research question.

Results for Research Question One

In analyzing postsecondary enrollment percentages at Texas 2-year public institutions by the economic status of public high school graduates for the 2012-2013 academic year, the parametric dependent samples *t*-test analysis yielded a statistically significant difference, $t(238) = -15.15$, $p < .001$, Cohen's $d = 0.94$. The effect size for this difference was large (Cohen, 1988). The postsecondary enrollment rate for students who were poor were nine percentage points less than the postsecondary enrollment rate for students who were not poor in Texas public 2-year institutions. Readers should note that less than one third of students who were poor enrolled in 2-year public colleges compared to slightly more than one third of students who were not poor in the 2012-2013 academic year. Delineated in Table 4.1 are the descriptive statistics for this analysis.

Insert Table 4.1 about here

Concerning the 2013-2014 academic year, the parametric dependent samples *t*-test analysis yielded a statistically significant difference in postsecondary enrollment percentages at Texas 2-year public institutions, $t(235) = -13.48$, $p < .001$, Cohen's $d = 0.87$, between students who were poor and students who were not poor. This difference represented a large effect size (Cohen, 1988). The postsecondary enrollment rates in Texas public 2-year institutions of public high school graduates who were poor were almost nine percentage points less than the postsecondary enrollment rates of their peers who were not poor. Similarly, as noted in the 2012-2013 academic year, less than one third of students who were poor enrolled in Texas public 2-year colleges compared to more than one third of students who were not poor who enrolled in Texas public 2-year colleges. Table 4.2 contains the descriptive statistics for this analysis.

Insert Table 4.2 about here

With respect to the postsecondary enrollment percentages at Texas 2-year public institutions between students who were poor and students who were not poor for the 2014-2015 academic year, a statistically significant difference was revealed, $t(235) = -14.83$, $p < .001$, Cohen's $d = 0.91$. This difference represented a large effect size (Cohen, 1988). The postsecondary enrollment rates at Texas 2-year public institutions for students who were poor were more than eight percentage points less than the postsecondary enrollment of public high school graduates who were not poor. Similar to the previous two years, the enrollment percentages at Texas 2-year public institutions for students who were poor were statistically significantly lower than the enrollment

percentages of students who were not poor. Revealed in Table 4.3 are the descriptive statistics for this analysis.

Insert Table 4.3 about here

Results for Research Question Two

Concerning postsecondary enrollment percentages at Texas 4-year public institutions for the 2012-2013 academic year between students who were poor and students who were not poor, a statistically significant difference was yielded, $t(235) = -34.70$, $p < .001$, Cohen's $d = 2.36$. The effect size for this difference was very large (Cohen, 1988). The postsecondary enrollment rates at Texas public 4-year universities of Texas public high school students who were poor was over 20 percentage points lower than the postsecondary enrollment rates of students who were not poor. Less than 10% of students who were poor enrolled in Texas 4-year public universities compared to slightly more than 30% of their peers who were not poor. Table 4.4 contains the descriptive statistics for this analysis.

Insert Table 4.4 about here

With respect to the postsecondary enrollment percentages at Texas 4-year public institutions between students who were poor and students who were not poor for the 2013-2014 academic year, a statistically significant difference was yielded, $t(235) = -31.18$, $p < .001$, Cohen's $d = 2.14$. The effect size for this difference was very large

(Cohen, 1988). The postsecondary enrollment rates at Texas 4-year public institutions for Texas public high school students who were poor were more than 19 percentage points lower than the postsecondary enrollment rates of public high school students who were not poor. Similar to the results for the 2012-2013 academic year, about 10% of students who were poor enrolled in Texas 4-year public universities compared to slightly more than 30% of students who were not poor. Readers are directed to Table 4.5 for the descriptive statistics for this analysis.

Insert Table 4.5 about here

Regarding the postsecondary enrollment percentages at Texas 4-year public institutions between students who were poor and students who were not poor for the 2014-2015 academic year, a statistically significant difference was revealed, $t(234) = -4.38$, $p < .001$, Cohen's $d = 0.91$,. This difference represented a large effect size (Cohen, 1988). Similar to the previous year results, the postsecondary enrollment rates at Texas public 4-year universities of students who were poor were more than 19 percentage points less than the postsecondary enrollment rates of Texas public high school students who were poor. Congruent with the previous two years, the postsecondary enrollment percentages at Texas public 4-year universities for students who were poor were statistically significantly lower than the postsecondary enrollment percentages of students who were not poor. Delineated in Table 4.6 are the descriptive statistics for this analysis.

Insert Table 4.6 about here

Results for Research Question Three

The third research question regarding an analysis of all three years of data for postsecondary enrollment rates by the economic status of Texas public high school graduates who enrolled in Texas 2-year public institutions will now be addressed. As depicted in Figure 4.1, trends were clearly present in the postsecondary enrollment rates at Texas public 2-year institutions for Texas public high school graduates who were poor and who were not poor. The postsecondary enrollment rates of students who were poor were consistently lower than the postsecondary enrollment rates of their peers who were not poor. Over the 3-year period, the enrollment rates of Texas public high school students who were poor who enrolled in Texas public 2-year postsecondary institutions increased by 1.72%. During the same 3-year period, the postsecondary enrollment rates of Texas public high school students who were not poor in Texas public 2-year postsecondary institutions increased by less than 1%.

Insert Figure 4.1 about here

Results for Research Question Four

The fourth research question concerning all three years of data for postsecondary enrollment rates by the economic status of Texas public high school graduates who enrolled in Texas 4-year public institutions will now be discussed. As depicted in Figure

4.2, trends were clearly present in the postsecondary enrollment rates at Texas public 4-year universities for Texas public high school graduates who were poor and who were not poor. The postsecondary enrollment rates of students who were poor were consistently lower than the postsecondary enrollment rates of students who were not poor. Over the 3-year period, the enrollment rates of Texas public high school students who were not poor and enrolled in Texas public 4-year postsecondary institutions increased by 0.6%. During the same 3-year period, the postsecondary enrollment rates of Texas public high school students who were poor in Texas public 4-year postsecondary institutions increased by 1.58%.

Insert Figure 4.2 about here

Discussion

In this study, the degree to which differences were present in the postsecondary enrollment rates as a function of the economic status of Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities was examined. Three years (i.e., 2012-2013, 2013-2014, and 2014-2015) of archival data were obtained from the Texas Education Agency. These data were then analyzed to determine whether the postsecondary enrollment rates of Texas public high school graduates differed by student economic status. Texas public high school students who were poor had the lowest postsecondary enrollment rates in both 2-year and 4-year public institutions. Students who were poor tended to enroll at 2-year public institutions at a higher rate then at 4-year public institutions. Interestingly, in this investigation, both

students who were poor and students who were not poor enrolled in public postsecondary institutions at low rates over the 3-year period.

Connections with the Existing Literature

Extensive literature can be located on gaps in education as a function of economic status. In this investigation, postsecondary enrollment differed as a function of the economic status of students. Texas public high school graduates who were not poor enrolled in postsecondary institutions at statistically significantly higher rates than their peers who were poor for all three academic years. This higher rate of enrollment occurred for both 2-year public institutions and at 4-year public institutions. Results of this research investigation were congruent with the results of other researchers (e.g., Bailey & Dynarski, 2011**;** Declercq & Verboven, 2015; Drotos & Cilesiz, 2016) in that students who were poor enroll in postsecondary institutions at lower rates than their peers who were not poor.

Implications for Policy and for Practice

Based upon the results of this 3-year analyses, several implications for policy and for practice can be made. First, K-12 and higher education leaders are encouraged to examine their school districts and school campuses to determine the degree to which student poverty is related to postsecondary enrollment. With a focus on the enrollment rates of high school graduates in Texas higher education institutions, school districts should evaluate their postsecondary preparation programs and initiatives. In the state of Texas, a high percentage of high school graduates are not eligible to enroll in college level coursework (Barnes & Slate, 2014; Moore et al., 2010). As such, particular attention should be given to factors that influence high school graduation and

postsecondary enrollment. Higher education leaders can further support students in poverty by subsidizing their tuition through scholarships. Additionally, the establishment of various outreach programs which allow future students and their families to obtain information on available financial support. Such audits can be used to assist or drive changes in existing programs and the establishment of new programs that provide college going assistance.

A second implication for practice would be to increase access to school counselors. High schools that predominantly serve students who are poor, have counselor to student ratios twice the national average (Haskin, Holzer, and Lerman, 2009). The low counselor to student ratio means that high poverty schools have 1,000 students per counselor compared to the national ratio of 470 students per counselor. According to Hurwitz and Howell (2013), adding one additional high school counselor increases 4-year college enrollment by 10 percentage points.

A third implication for practice would be to increase teacher and counselor awareness and understanding of the needs of students in poverty. Often students in poverty cannot focus due insufficient nutrition and other issues occurring in the home. These students could possibly benefit from someone who understands the challenges they face and can provide them with the social capital needed to enroll and succeed in postsecondary education.

A final implication for practice would be for policymakers to provide more financial resources to students in poverty that would allow them to go to college. These resources can consist of technology needed to stay engaged in and outside of the classroom and funding for early intervention programs. Such a program could follow

students from high school through college and provide support that would help prepare them for college such as tutoring, mentoring, college visits, and summer programs. Additionally, resources need to be provided to ensure students can continue to persist while in college

Recommendations for Future Research

Given the results of this multiyear investigation, several recommendations for future research can be made. First, researchers could extend this study by analyzing similar data by gender. Such an analysis would permit for a determination of whether the results obtained herein are similar between males and females. Second, researchers are also recommended to extend this investigation by ethnicity/race. Such an analysis would reveal if postsecondary enrollment trends differ among racial/ethnic lines. Results from such an investigation could provide information regarding the extent to which educational disparities by ethnicity/race exist in postsecondary enrollment. Third, because data on only Texas public high school graduates were analyzed in this investigation, researchers are encouraged to extend this study to other states. Such an analysis would be helpful to ascertain if other states are experiencing similar or different trends. The degree to which the inequities herein are generalizable to students in other states is not known. A final recommendation, would be to conduct a mixed methods study which would provide a comprehensive approach to understanding the poverty disparities in postsecondary enrollment.

Conclusion

In this multiyear, statewide analysis, the degree to which differences were present in postsecondary enrollment rates of Texas public high school graduates by their

economic status during the 2012-2013, 2013-2014, and 2014-2015 academic years was addressed. Over the 3-year period analyzed, statistically significant differences were present in the postsecondary enrollment rates of Texas public high school graduates as a function of their economic status. Texas public high school students who were poor enrolled in both 2-year public institutions and in 4-year public institutions at statistically significantly lower rates than their counterparts who were not poor. For the three academic years, the enrollment rates of Texas public high school students who were poor who enrolled in Texas public 2-year postsecondary institutions increased by 1.72%, compared to their counterparts who were not poor whose postsecondary enrollment rates increased by less than 1% in Texas public 2-year institutions. The enrollment rates of Texas public high school students who were not poor and enrolled in Texas public 4-year postsecondary institutions increased by 0.6% over the three years analyzed. During the same 3-year period, the postsecondary enrollment rates of Texas public high school students who were poor in Texas public 4-year postsecondary institutions increased by 1.58%.

References

Awan, M. S., Malik, N., Sarwar, H., & Waqas, M. (2011). Impact of education on poverty reduction. *International Journal of Academic Research, 3*(1), 659-664.

Babcock, E. B. (2014). *Using brain science to design pathways out of poverty.* Retrieved from http://www.liveworkthrive.org/research_and_tools/reports_and_publications/EF_Report

Bailey, J., & Dynarski, S. (2011). *Gains and gaps: Changing inequality in U.S. college entry and completion.* NBER Working paper 17633.

Barnes, W., & Slate, J. R. (2014). College-readiness rates in Texas: A statewide, multiyear study of ethnic differences. *Education and Urban Society, 46*(1), 59-87. doi:10.1177/0013124511423775

Baydu, M. M., Kaplan, O., & Bayar, A. (2013). Facing the influence of poverty on graduation rates in public high schools. *Procedia Social and Behavioral Sciences, 84*, 233-237.

Burney, V. H., & Beilke, J. R. (2008). The constraints of poverty on high achievement. *Journal for the Education of the Gifted*, *31*, 295-321.

Carneval, A. P. (2016). *Credentials and competencies: Demonstrating the economic values of postsecondary education.* Washington, DC: Georgetown University Center on Education and the Workforce.

Cilesiz, S., & Drotos, S. M. (2016). High poverty urban high school students' plans for higher education; Weaving their own safety nets. *Urban Education, 51*(1), 3-31. doi:10.1177/0042085914543115

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

Coley, R. J., & Baker, B. (2013). *Poverty and education: Finding the way forward*. The ETS Center for Research on Human Capital and Education. Princeton, NJ: Educational Testing Service.

Correa, A. M., Boatright, P. E., & Bonnesen, J. A. (2015). *The poverty problem within the academic achievement gap of U.S. students* (Doctoral Dissertation). Retrieved from ProQuest Dissertation. (ProQuest 10003019)

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Declercq, K., & Verboven, F. (2015). Socioeconomic status and enrollment in higher education: do costs matter? *Education Economics*, 23(5), 532-556.

DePaoli, J. L., Fox, J. H., Ingram, E. S., Maushard, M., Bridgeland, J. M., & Balfanz, R. (2015). *Building a grad nation: Progress and challenge in ending the high school dropout epidemic*. Retrieved from America's Promise Alliance Website: http://www.americaspromise.org/report/2015-building-grad-nation-report

Drotos, S. M., & Cilesiz, S. (2016). Shoes, dues, and other barriers to college attainment: Perspectives of students attending high-poverty, urban high schools. *Education and Urban Society, 48*(3), 221-244. doi:10.1177/0013124514533793

Duncan, G. J., & Murmane, R. J. (2014). Growing income inequality threatens American education. *Kappan*, *95*(6), 8-14.

Hartas, D. (2011). Families' social backgrounds matter: Socio-economic factors, home learning and young children's language, literacy and social outcomes. British

Educational Research Journal, *37(6)*, 893-914. doi:10.1080/01411926.2010.506945

Haskins, R., Holzer, H., & Lerman, R. (2009). Promoting economic mobility by increasing postsecondary education. Retrieved from https://www.urban.org/sites/default/files/publication/29826/1001280-promoting-economic-mobility-by-increasing-postsecondary-education.pdf

Hernandez, D. J. (2011). *Double Jeopardy: How third-grade reading skills and poverty influence high school graduation.* Retrieved from http://files.eric.ed.gov/fulltext/ED518818.pdf

Hurwitz, M. & Howell, J. (2013). Measuring the impact of high school counselors on college enrollment. Retrieved from https://files.eric.ed.gov/fulltext/ED562748.pdf

Johnson, R. B., & Christensen, L. (2012). *Educational research: Quantitative, qualitative*, *and mixed approaches* (4th ed.). Los Angeles, CA: Sage.

Lee, K. M., & Slate, J. R. (2014). Differences in advanced achievement outcomes for Texas students as a function of economic disadvantage. *Journal of Education Research, 8*(3), 137-149.

Ma, J., Pender, M., & Welch, M. (2016). *Education Pays 2016: The benefits of higher education for individuals and society.* Retrieved from http://files.eric.ed.gov/fulltext/ED572548.pdf

Mandela, N. (2005). *In full: Mandela's poverty speech.* Retrieved from http://news.bbc.co.uk/1/hi/uk_politics/4232603.stm

Mertens, S. B., & Flowers, N. (2003). Middle school practices improve student achievement in high poverty schools. *Middle School Journal*, *35*(1), 33-43.

Moore, G. W., Slate, J. R., Edmonson, S. L., Combs. J. P., Bustamante, R., & Onwuegbuzie, A. J. (2010). High school students and their lack of preparedness for college: A statewide study. *Education and Urban Society, 42*, 817-838. doi:10.1177/0013124510379619

Mudge, S., & Higgins, D. J. (2011). College access programming: Removing higher education barriers for underrepresented student populations. *International Journal of Learning, 17*(11), 123-139.

National Center for Education Statistics. (2016c). *Trends in high school dropout and completion rates in the United States: 2013*. Retrieved from https://nces.ed.gov/pubs2016/2016117rev.pdf

National Center for Education Statistics. (2017). *The condition of education report.* Retrieved from https://nces.ed.gov/pubs2017/2017144.pdf

Ou, S., & Reynolds, A. J. (2014). Early determinants of postsecondary education participation and degree attainment: Findings from an inner-city minority cohort. *Education & Urban Society, 46*, 474-504. doi:10.177/0013124512447810

Pleis, J. R., Ward, B. W., & Lucas, J. W. (2010). *Vital and health statistics: Summary health statistics for U.S. adults: National health interview survey, 2009*. Retrieved from https://www.cdc.gov/nchs/data/series/sr_10/sr10_249.pdf

Price, D. V., & Reeves, E. B. (2003). Student poverty, school accountability, and postsecondary enrollment: A challenge for educational reform in Kentucky. *Journal of Poverty, 7*(4), 21-35.

Rampell, C. (2014). The college degree has become the new high school degree. *The Washington Post.* Retrieved from https://www.washingtonpost.com/opinions/catherine-rampell-the-college-degree-has-become-the-new-high-school-degree/2014/09/08/e935b68c-378a-11e4-8601-97ba88884ffd_story.html

Scott, J. A., Taylor, K. J., & Palmer, R. T. (2013). Challenges to success in higher education: An examination of educational challenges from the voices of college-bound Black males. *The Journal of Negro Education, 82*(3), 288-299.

Spotlight on Poverty. (2013). *Issues: Education and poverty*. Retrieved from http://www.spotlightonpoverty.org/education_and_poverty.aspx

Tavernise, S. (2012, February 9). Education gap grows between rich and poor, studies say. *The New York Times.* Retrieved from http://www.nytimes.com/2012/02/10/education/education-gap-grows-between-rich-and-poor-studies-show.html?pagewanted=all

Texas Education Agency. (2015). *Texas Academic Performance Report.* Retrieved from https://rptsvr1.tea.texas.gov/perfreport/tapr/2015/state.pdf

Texas Education Agency. (2017a). *Enrollment in Texas public schools 2016-2017*. Retrieved from http://tea.texas.gov/acctres/enroll_index.html

U.S. Bureau of Labor Statistics. (2017b). *Labor force statistics from the current population survey.* Retrieved from https://www.bls.gov/cps/aa2014/cpsaat07.htm

U. S. Census Bureau. (2016b). *Income and poverty in the United States: 2015.* Retrieved from https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf

Venezia, A., & Jaeger, L. (2013). Transitions from high school to college. *Future of Children, 23*(1), 117-136.

Wright, L. A., & Slate, J. R. (2015). Differences in critical-thinking skills for Texas middle school students as a function of economic disadvantage. *Journal of Education Research, 9*(4), 345-356.

Wright, L. A., Slate, J. R., & Moore, G. W. (2016). Reading skill differences by economic status for Texas high school students: A multiyear, statewide analysis. *Journal of Education Policy, Planning & Administration, 6*(2), 1-17. Retrieved from http://www.jeppa.org

Zwick, R., & Himelfarb, I. (2011). The effect of high school socioeconomic status on the predictive validity of SAT scores and high school grade-point average. *Journal of Educational Measurement*, *48*(2), 101-121.

Table 4.1

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions by the Economic Status of Public High School Graduates for the 2012-2013 Academic Year

Economic Status	*n* of counties	*M%*	*SD%*
Poor	239	27.45	9.22
Not Poor	239	36.97	11.04

Table 4.2

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions by the Economic Status of Public High School Graduates for the 2013-2014 Academic Year

Economic Status	*n* of counties	*M%*	*SD%*
Poor	236	28.38	9.19
Not Poor	236	37.23	11.02

Table 4.3

Descriptive Statistics of Postsecondary Enrollment at Texas Public 2-year Institutions by the Economic Status of Public High School Graduates for the 2014-2015 Academic Year

Economic Status	*n* of counties	*M%*	*SD%*
Poor	236	29.17	8.11
Not Poor	236	37.92	10.83

Table 4.4

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions by the Economic Status of Public High School Graduates for the 2012-2013 Academic Year

Economic Status	*n* of counties	*M%*	*SD%*
Poor	236	9.77	5.87
Not Poor	236	30.29	10.83

Table 4.5

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions by the Economic Status of Public High School Graduates for the 2013-2014 Academic Year

Economic Status	*n* of counties	*M%*	*SD%*
Poor	236	10.50	6.88
Not Poor	236	30.11	11.02

Table 4.6

Descriptive Statistics of Postsecondary Enrollment at Texas Public 4-year Institutions by the Economic Status of Public High School Graduates for the 2014-2015 Academic Year

Economic Status	*n* of counties	*M%*	*SD%*
Poor	235	11.35	7.02
Not Poor	235	30.90	11.56

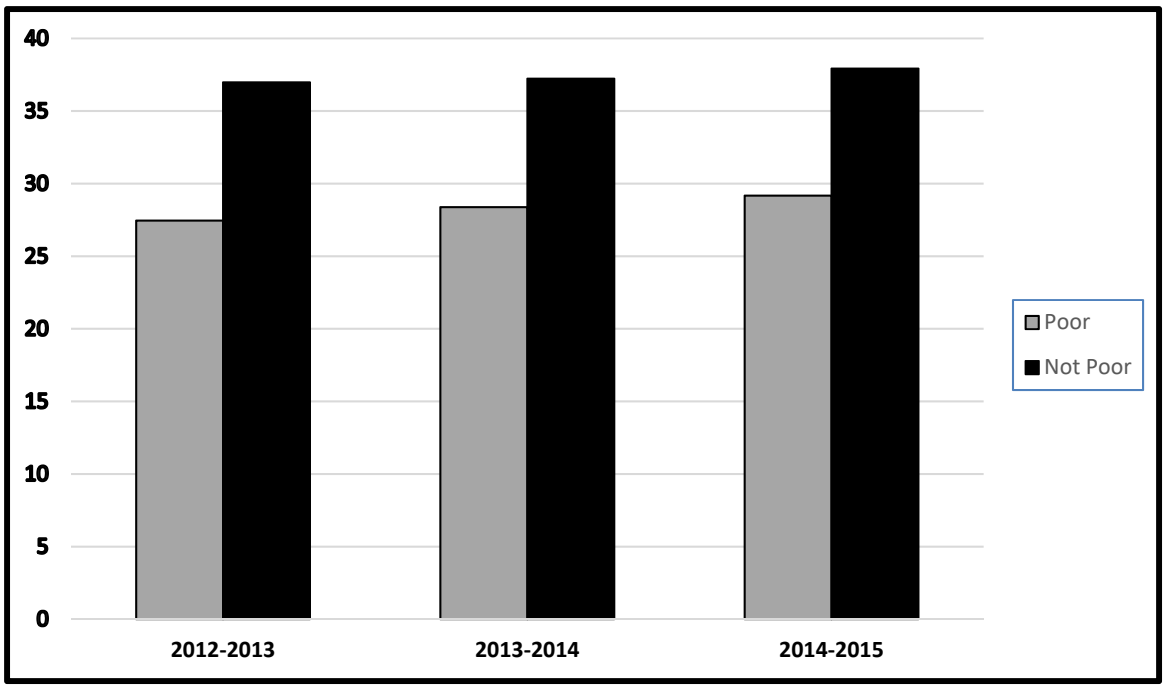

Figure 4.1. Trends in the postsecondary enrollment rates at 2-year public institutions by the economic status of public high school graduates in the 2012-2013 through the 2014-2015 academic years.

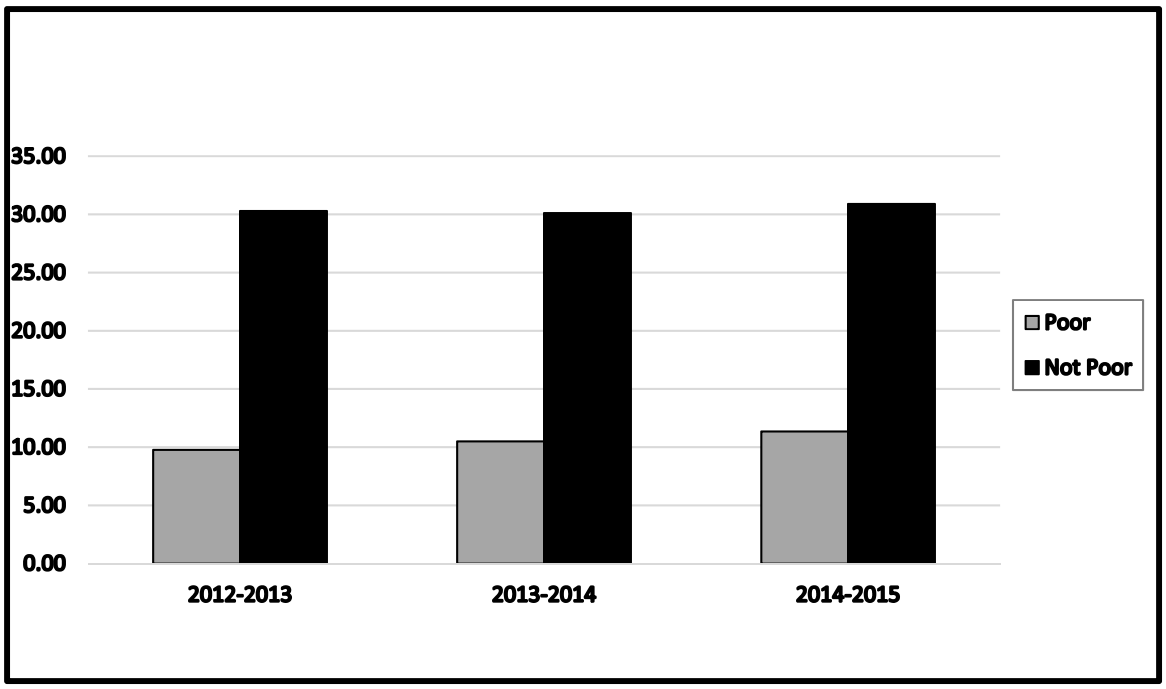

Figure 4.2. Trends in the postsecondary enrollment rates at 4-year public institutions by the economic status of public high school graduates in the 2012-2013 through the 2014-2015 academic years.

CHAPTER V

DISCUSSION

The purpose of this journal-ready dissertation was to examine the postsecondary enrollment rates of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. Specifically analyzed was the extent to which differences were present in gender, ethnicity/race, and economic status in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. In the first investigation, the degree to which gender differences were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities was examined. In the second study, the extent to which ethnic/racial differences (i.e., Black, Hispanic, and White) existed in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities was ascertained. Finally, in the third investigation, the extent to which economic differences (i.e., Poor and Not Poor) were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities was determined.

Each of these investigations included three years of statewide data for Texas 2-year public colleges and 4-year public universities. In this chapter, an overview of each of the articles is provided and the results of each investigation are discussed. Implications for policy and practice are discussed and recommendations for future research are provided.

Study One Results

In the first investigation, the degree to which gender differences were present in the postsecondary enrollment rates of Texas public high school graduates at Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities was examined. Three years of archival data from the Texas Education Agency were obtained and analyzed for the 2012-2013 through the 2014-2015 academic years. With respect to gender differences in the postsecondary enrollment rates of Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities, statistically significant differences were present in each academic year. Females in all three academic years had higher enrollment rates in Texas public 2-year and in 4-year public postsecondary institutions than their male counterparts.

The percentage of female Texas public high school graduates who enrolled in Texas public 2-year institutions from the 2012-2013 through the 2014-2015 academic year ranged from a low 34.67% to a high of 36.37%, a change of only 1.70%. In contrast, the male enrollment rates in public postsecondary institutions ranged from 29.73 to 31.07 and reflected an increase of only 1.22%. Differences in the public postsecondary enrollment rates between female and male public high school graduates at Texas public 2-year colleges ranged from a low of 4.82% to a high of 6.51%. Table 5.1 contains a summary of postsecondary enrollment rates by gender for Texas public high school graduates across the three academic years.

Table 5.1

Summary of Postsecondary Enrollment at Texas Public 2-year Institutions for Male and Female Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Moderate	Males
2013-2014	Yes	Moderate	Males
2014-2015	Yes	Moderate	Males

Female students also had higher public postsecondary enrollment rates in Texas public 4-year institutions from the 2012-2013 through the 2014-2015 academic years than did male students. Their enrollment rates were similar to the 2-year public postsecondary enrollment rates. The postsecondary enrollment rates in Texas public 4-year institutions ranged from 22.40 to 22.86 and reflected an increase of only 0.46% for females over this time period. In contrast, the postsecondary enrollment rates of males ranged from 17.59 to 18.78, an increase of only1.18%. Readers are directed to Table 5.2 for a summary of postsecondary enrollment rates by gender for Texas public high school graduates across the three academic years.

Table 5.2

Summary of Postsecondary Enrollment at Texas Public 4-year Institutions for Male and Female Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Moderate	Males
2013-2014	Yes	Moderate	Males
2014-2015	Yes	Small	Males

Study Two Results

Examined in the second investigation was the degree to which ethnic/racial differences existed in the postsecondary enrollment of Texas public high school graduates at 2-year public colleges and 4-year public universities. The percentages of Hispanic, Black, and White high school graduates in Texas who enrolled in 2-year public colleges and in 4-year public institutions in Texas were examined for three academic years (i.e., 2012-2013 through 2014-2015). Regarding ethnic/racial differences in the postsecondary enrollment rates of Texas public high school graduates at Texas 2-year public colleges and at Texas 4-year public universities, statistically significant differences were present. White Texas public high school graduates enrolled in both 2-year public institutions and in 4-year public institutions in Texas at statistically significantly higher rates than their Black and Hispanic counterparts.

During the three academic years analyzed, Black Texas public high school graduates enrolled in postsecondary education at statistically significantly higher rates

than Hispanic students. The percentage of Black Texas public high school graduates who enrolled in Texas public 2-year institutions from the 2012-2013 through the 2014-2015 academic year ranged from a low 32.38% to a high of 38.21%, a change of 5.83%. In contrast, the Hispanic student enrollment rates in public postsecondary institutions ranged from 29.43 to 31.32 and reflected an increase of only 1.89%. Delineated in Table 5.3 is a summary of postsecondary enrollment rates for Black and Hispanic Texas public high school graduates across the three academic years.

Table 5.3

Summary of Postsecondary Enrollment at Texas Public 2-year Institutions for Black and Hispanic Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Small	Hispanic
2013-2014	Yes	Small	Hispanic
2014-2015	Yes	Near Large	Hispanic

During the 2012-2013 academic year, White Texas public high school graduates enrolled in postsecondary education at statistically significantly higher rates than Black students. The percentage of White student enrollment rates in public postsecondary institutions ranged from 35.53% to 38.33% and reflected an increase of 2.8%. In contrast, Black Texas public high school graduates who enrolled in Texas public 2-year institutions from the 2012-2013 through the 2014-2015 academic year ranged from a low

32.38% to a high of 38.21%, a change of 5.83%. Table 5.4 provides a summary of postsecondary enrollment rates for White and Black Texas public high school graduates across the three academic years.

Table 5.4

Summary of Postsecondary Enrollment at Texas Public 2-year Institutions for White and Black Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Small	Black
2013-2014	No	None	
2014-2015	No	None	

During the three academic years analyzed, White Texas public high school graduates enrolled in postsecondary education at statistically significantly higher rates than Hispanic students. The percentage of White student enrollment rates in public postsecondary institutions ranged from 35.53% to 38.33% and reflected an increase of 2.8%. In contrast, the Hispanic student enrollment rates in public postsecondary institutions ranged from 29.43% to 31.32% and reflected an increase of only 1.89%. Table 5.5 contains a summary of postsecondary enrollment rates for White and Hispanic Texas public high school graduates across the three academic years.

Table 5.5

Summary of Postsecondary Enrollment at Texas Public 2-year Institutions for White and Hispanic Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Large	Hispanic
2013-2014	Yes	Large	Hispanic
2014-2015	Yes	Large	Hispanic

Surprisingly, Black, White and Hispanic students experienced a decrease in postsecondary enrollment in 4-year public institutions over the three years analyzed. The percentage of Black Texas public high school graduates who enrolled in Texas public 4-year institutions from the 2012-2013 through the 2014-2015 academic year ranged from a low of 16.58% to a high of 18.07%, a decrease of 1.49%. In contrast, the Hispanic student enrollment rates in public postsecondary institutions ranged from 22.95% to 25.30% and reflected a decrease of 2.35%. Delineated in Table 5.6 is a summary of Texas public 4-year postsecondary enrollment rates for Black and Hispanic Texas public high school graduates across the three academic years.

Table 5.6

Summary of Postsecondary Enrollment at Texas Public 4-year Institutions for Black and Hispanic Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Large	Hispanic
2013-2014	Yes	Very Large	Hispanic
2014-2015	Yes	Large	Hispanic

During the three academic years analyzed, White Texas public high school graduates enrolled in postsecondary education at statistically significantly higher rates than Black students. The percentage of White Texas public high school graduates enrolled in Texas public 4-year institutions ranged from 24.59 during the 2012-2013 academic year to 22.95 for the 2014-2015 academic year, a decrease of 1.64%. The enrollment of Black Texas public high school graduates in Texas public 4-year institutions ranged from a high 18.07% to a low of 16.58%, a decrease of 1.49%. Revealed in Table 5.7 is a summary of Texas public 4-year postsecondary enrollment rates for Black and White Texas public high school graduates across the three academic years.

Table 5.7

Summary of Postsecondary Enrollment at Texas Public 4-year Institutions for Black and White Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Near Large	Black
2013-2014	Yes	Large	Black
2014-2015	Yes	Large	Black

During the three academic years analyzed, White Texas public high school graduates enrolled in postsecondary education at statistically significantly higher rates than Hispanic students. The percentage of White Texas public high school graduates enrolled in Texas public 4-year institutions ranged from 24.59 during the 2012-2013 academic year to 22.95 for the 2014-2015 academic year, a decrease of 1.64%. Hispanic postsecondary enrollment rates in public 4-year institutions ranged from 22.95 to 25.30 and reflected a decrease of 2.35%. Delineated in Table 5.8 is a summary of postsecondary enrollment rates of White and Hispanic Texas public high school graduates in public 4-year postsecondary institutions across the three academic years.

Table 5.8

Summary of Postsecondary Enrollment at Texas Public 4-year Institutions for White and Hispanic Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Very Large	Hispanic
2013-2014	Yes	Large	Hispanic
2014-2015	Yes	Very Large	Hispanic

Study Three Results

Analyzed in the third investigation was the extent to which economic differences were present in the postsecondary enrollment of Texas public high school graduates at Texas 2-year public colleges and at 4-year public universities. Three years of archival data from the Texas Education Agency were obtained for the 2012-2013 through the 2014-2015 academic years. Texas public high school students who were poor had the lowest postsecondary enrollment rates in both 2-year public institutions and in 4-year public institutions. Students who were poor tended to enroll at 2-year public institutions at a higher rate then at 4-year public institutions. Both students who were poor and students who were not poor enrolled at low rates over the 3-year period.

The percentage of Texas public high school graduates who were poor and who enrolled in Texas public 2-year institutions from the 2012-2013 through the 2014-2015 academic year ranged from a low 27.45% to a high of 29.17%, a change of only 1.72%. In contrast, enrollment rates of students who were not poor in public postsecondary

institutions ranged from 36.97% to 37.92% and reflected an increase of only 0.95%. Table 5.9 contains a summary of postsecondary enrollment rates by economic status for Texas public high school graduates across the three academic years.

Table 5.9

Summary of Postsecondary Enrollment at Texas Public 2-year Institutions by the Economic Status of Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Large	Poor
2013-2014	Yes	Large	Poor
2014-2015	Yes	Large	Poor

The percentage of Texas public high school graduates who were poor and who enrolled in Texas public 4-year institutions from the 2012-2013 through the 2014-2015 academic year ranged from a low 9.77% to a high of 11.35%, a change of 1.58%. In contrast, the postsecondary enrollment rates of students who were not poor and who enrolled in public postsecondary institutions ranged from 30.29% to 30.9% and reflected an increase of only 0.61%. Revealed in Table 5.10 is a summary of postsecondary enrollment rates by economic status for Texas public high school graduates across the three academic years.

Table 5.10

Summary of Postsecondary Enrollment at Texas Public 4-year Institutions by the Economic Status of Public High School Graduates for the 2012-2013, 2013-2014, and 2014-2015 Academic Years

Academic Year	Statistically significant	Effect Size	Lowest Enrollment Group
2012-2013	Yes	Very Large	Poor
2013-2014	Yes	Very Large	Poor
2014-2015	Yes	Large	Poor

Connections to the Extant Literature

Extensive literature can be located on gender differences in postsecondary enrollment rates. Early researchers (Jacob, 2002; Peter& Horn, 2005; Riegle-Crumb, 2007) documented the presence of higher grades in high school and stronger postsecondary ambitions of females as reasons males lag behind their female counterparts in educational expectations. Additionally, Goldin et al. (2006) noted that female participation in the workforce changed, which resulted in female college enrollment rates beginning to soar. More recently, researchers (Klevan, Weinberg, & Middleton, 2016; Renshaw & Clark, 2017) identified a growing gender gap in postsecondary enrollment with a larger percentage of women than men enrolling. DiPrete and Buchmann (2013) established that academic performance was a predictor of postsecondary enrollment and explained the gender gaps in higher education.

In this investigation, postsecondary enrollment rates varied between males and females. Texas female public high school graduates enrolled in public postsecondary

institutions at a rate higher than did Texas male public high school graduates in all three academic years. This higher rate of enrollment occurred in both 2-year public settings and in 4-year public institutions. As such, results of this research investigation were congruent with the results of other researchers (Buchmann, 2009; Hussar & Bailey, 2011, 2016; Snyder & Dillow, 2010) in that females enroll in postsecondary institutions at higher rates.

With regard to ethnic/racial gaps in education, extensive literature is available. Documented in previous research investigations (Barnes & Slate, 2014; Bradley & Corwyn, 2002; Davis, 2006; Lee, 2002; Reardon et al., 2013) were achievement gaps by ethnicity/race. In this investigation, postsecondary enrollment differed by the ethnicity/race of students. Similar to previous researchers (e.g., King, 2010; Perna & Titus, 2005), Texas White public high school graduates enrolled in public postsecondary institutions at a higher rate than did Black and Hispanic students in all three academic years. This higher rate of enrollment occurred in both Texas public 2-year and in Texas public 4-year institutions. Results of this research investigation were congruent with the results of other researchers (e.g., National Center for Education Statistics, 2005; Perna, 2007) in that White students enroll in postsecondary institutions at higher rates than do Hispanic and Black students.

Similarly, extensive literature can also be located on gaps in education as a function of economic status. In this investigation, postsecondary enrollment differed as a function of the economic status of students. Texas public high school graduates who were not poor enrolled in postsecondary institutions at statistically significantly higher rates than their peers who were poor for all three academic years. This higher rate of

enrollment occurred for both 2-year public institutions and at 4-year public institutions. Results of this research investigation were congruent with the results of other researchers (e.g., Bailey & Dynarski, 2011**;** Declercq & Verboven, 2015; Drotos & Cilesiz, 2016) in that students who were poor enroll in postsecondary institutions at lower rates than their peers who were not poor.

Connections to Theoretical Framework

Social capital theory was used as the theoretical framework in this investigation. Social capital is a concept that refers to the connections within and between social networks. Bourdieu (1986) defined social capital as "being made up of social obligations (i.e., connections) which is convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility" (p. 243). Coleman (1988) defined social capital by its function and reported that social capital exists in relationships among people and can bring about better outcomes. Both Coleman and Bourdieu's perspective on social capital provide insight into the association of parent resources; aligned actions, match between high expectations and college-going actions, and college enrollment.

Although postsecondary education is linked to better life outcomes (Ma, Pender, & Welch, 2016), no assurance exists that high school graduates will enroll and participate in postsecondary education. High school graduates have to decide which path they will take after high school. For some this decision involves the choice to enroll in postsecondary education or go directly into the workforce due to personal and family responsibilities. For those high school graduates with an interest in postsecondary enrollment a barrier is the lack of knowledge regarding postsecondary enrollment.

Parents of these students may also face barriers in guiding their children to align their educational aspirations in the appropriate sequence of actions to enroll in higher education (Ryan, 2016). According to O'Conner et al. (2010) and Tienda (2011), parents of Hispanic students have limited access to resources in which the information needed is readily available. Parents may rely more often on friends or family for information on education because of barriers at school, supposed or real, which prevent them from obtaining information and establishing resourceful relationships with school personnel (Fann, Jarsky, & McDonough, 2009).

Implications for Policy and for Practice

Based upon the results of the three articles in this journal-ready dissertation, several implications for policy and for practice can be made. First, K-12 and higher education leaders are encouraged to conduct analyses of their school districts and school campuses. With a focus on the enrollment rates of high school graduates in Texas higher education institutions, school districts should evaluate their postsecondary preparation programs and initiatives. In the state of Texas, a high percentage of high school graduates are not eligible to enroll in college level coursework (Barnes & Slate, 2014; Moore et al., 2010). As such, particular attention should be given to factors that influence high school graduation and postsecondary enrollment. Additionally, the establishment of various outreach programs which allow future students and their families to obtain information on available financial support. Such audits can be used to assist or drive changes in existing programs and the establishment of new programs that provide college going assistance.

A second implication for practice would be to increase access to school counselors. High schools that predominantly serve students who are poor, have counselor to student ratios twice the national average (Haskin, Holzer, & Lerman, 2009). The low counselor to student ratio means that high poverty schools have 1,000 students per counselor compared to the national ratio of 470 students per counselor. According to Hurwitz and Howell (2013), adding one additional high school counselor increases 4-year college enrollment by 10 percentage points.

A third implication for practice would be to focus on the low percentage of students graduating high school and not enrolling in postsecondary education. This could be accomplished by expanding postsecondary outreach opportunities to local churches, shopping centers, and sports events. According to Carnevale (2016), more than 60% of today's jobs require some type of postsecondary experience. It is imperative that Texans obtain postsecondary education to find employment that will provide a livable wage but also to ensure the economic future of this country.

A final implication for practice would be for policymakers to provide more financial resources to students in that the monetary assistance may encourage lower socioeconomic students to attend postsecondary institutions. These resources can consist of technology needed to stay engaged in and outside of the classroom and funding for early intervention programs. Such programs could follow students from high school through college and provide support, such as tutors, mentors, college visits, and summer bridge programs, to help prepare them for college. Additionally, resources should be provided to ensure students can continue to persist while in college.

Recommendations for Future Research

Given the results of the three articles in this journal-ready dissertation, several recommendations for future research can be made. First, researchers are encouraged to extend this study to other states because data on only Texas public high school graduates were analyzed in this investigation. Such an analysis would be helpful to ascertain if the postsecondary enrollment rates documented herein would be generalizable to other states. The degree to which the inequities herein are generalizable to students in other states is not known.

A second recommendation is to conduct qualitative studies to determine the reasons students choose to enroll or not enroll in postsecondary education. These studies could provide useful information regarding challenges, experiences, and misunderstandings of postsecondary education enrollment. A mixed method approach would be even more powerful as both quantitative and qualitative methodology regarding enrollment as the reasons behind why students choose to enroll and choose not to enroll could be obtained. Another recommendation for future research involves the use of individual student data rather than aggregated data used in this journal-ready dissertation. Individual student level data would permit more detailed analyses than are possible with aggregated data. A final recommendation would be to conduct a longitudinal study, from middle school through postsecondary enrollment. Following students over a period of time will provide an opportunity to determine enrollment trends and persistence rates from middle school, to high school, through postsecondary enrollment. These data may be useful as higher education institutions are turning to predictive analytics to individualize student access and success.

Conclusion

In the three articles in this journal-ready dissertation, the degree to which differences were present in postsecondary enrollment rates of Texas public high school graduates by their gender, ethnicity/race, and economic status in the 2012-2013, 2013-2014, and 2014-2015 academic years was addressed. Over the 3-year period analyzed, statistically significant gender differences were present in the postsecondary enrollment rates of Texas public high school graduates. Texas female public high school graduates enrolled in both 2-year public institutions and in 4-year public institutions at statistically significantly higher rates than their male counterparts.

Statistically significant differences were also present in the postsecondary enrollment rates of Texas public high school graduates by their ethnicity/race. White Texas public high school graduates enrolled in both 2-year and 4-year public institutions in Texas at statistically significantly higher rates than their Black and Hispanic counterparts. For the 2012-2013 academic year, Black Texas public high school graduates enrolled in postsecondary education at statistically significantly higher rates than Hispanic students. Of the three ethnic/racial groups of students whose data were analyzed herein, Hispanic students had the lowest postsecondary enrollment rates. White students had statistically significantly higher postsecondary enrollment rates than both Black students and Hispanic students. These findings were true for both 2-year and 4-year institutions.

Finally statistically significant differences were present in the postsecondary enrollment rates of Texas public high school graduates as a function of their economic status. Texas public high school students who were poor enrolled in both 2-year public

institutions and in 4-year public institutions at statistically significantly lower rates than their counterparts who were not poor. These finding further support the idea that researchers, practitioners, and educators should continue to document the disparities in access, equity, and success within postsecondary education.

REFERENCES

ACT & United Negro College Fund. (2014). *The condition of college & career readiness 2014: African-American students.* Retrieved from http://bit.ly/1ktWVq9

Allen, J., Robbins, S. B., & Sawyer, R. (2010). Can measuring psychosocial factors promote college success? *Applied Measurement in Education*, 23(1), 1-22.

Alon, S., & Gelbgiser, D. (2011). The female advantage in college academic achievements and horizontal sex segregation. *Social Science Research, 40*(1), 107-119. doi:10.1016/j.ssresearch.2010.06.007

American Association of Community Colleges. (2017). 2017 Fact Sheet. Retrieved from https://www.aacc.nche.edu/wp-content/uploads/2017/09/AACCFactSheet2017.pdf

Angrist, J., Lang, D., & Oreopoulos, P. (2009). Incentives and services for college achievement: Evidence from a randomized trial. *American Economic Journal: Applied Economics, 1*(1), 136-163.

Awan, M. S., Malik, N., Sarwar, H., & Waqas, M. (2011). Impact of education on poverty reduction. *International Journal of Academic Research, 3*(1), 659-664.

Babcock, E. B. (2014). *Using brain science to design pathways out of poverty.* Retrieved from http://www.liveworkthrive.org/research_and_tools/reports_and_publications/EF_Report

Bailey, J., & Dynarski, S. (2011). *Gains and gaps: Changing inequality in U.S. college entry and completion.* NBER Working paper 17633.

Barnes, W., & Slate, J. R. (2014). College-readiness rates in Texas: A statewide, multiyear study of ethnic differences. *Education and Urban Society, 46*(1), 59-87. doi:10.1177/0013124511423775

Baydu, M. M., Kaplan, O., & Bayar, A. (2013). Facing the influence of poverty on graduation rates in public high schools. *Procedia Social and Behavioral Sciences, 84*, 233-237.

Beattie, I. R. (2002). Are all adolescent econometricians' created equal? Racial, class, and gender differences in college enrollment. *Sociology of Education, 75*(1), 19-43. doi:10.2307/3090252

Bok, D. (2013). *Higher education in America.* Princeton, NJ: Princeton University Press.

Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research in the sociology of education* (pp. 241-258). New York, NY: Greenwood Press.

Bowen, B. G., & Bok, D. (1998). *The shape of the river: Long-term consequences of considering race in college and university admissions.* Princeton, NJ: Princeton University Press.

Bowen, W. G., Chingos, M. M., & McPherson, M. S. (2009). *Crossing the finish line: Completing college at America's public universities.* Princeton, NJ: Princeton University Press.

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology, 53,* 371-399.

Buchmann, C. (2009). Gender inequalities in the transition to college. *Teachers College Record, 111*(10), 2320-2346.

Buchmann, C., DiPrete, T. A., & McDaniel, A. (2008). Gender inequalities in education. *Annual Review of Sociology, 34*(1), 319-337. doi:10.1146/annurev.soc.34.040507.134719

Burney, V. H., & Beilke, J. R. (2008). The constraints of poverty on high achievement. *Journal for the Education of the Gifted*, *31*(3), 295-321.

Carbonaro, W., Ellison, B. J., & Covay, E. (2011). Gender inequalities in the college pipeline. *Social Science Research, 40*(1), 120-135.

Carey, K. (2004). *A matter of degree: Improving graduation rates in four-year colleges and universities.* A Report by the Education Trust. Retrieved from http://edtrust.org/wp-content/uploads/2013/10/highered.pdf

Carneval, A. P. (2016). *Credentials and competencies: Demonstrating the economic values of postsecondary education.* Washington, DC: Georgetown University Center on Education and the Workforce.

Carneval, A., Smith, N., & Strohl, J. (2013). The road to recovery: Projecting U.S. job growth and higher education demand through 2020. *Community College Journal, 84*(3), 26-29.

Cejda, B. D., & Short, M. (2008). Influencing the college attendance rates of Hispanics in Texas. *Community College Journal of Research and Practice, 32*(4-6), 347-361. doi:10.1080/10668920701884455

Chapman, C., Laird, J., & KewalRamani, A. (2010). *Trends in high school dropout and completion rates in the United States: 1972-2008* (NCES 2011-012). Washington, DC: National Center for Education Statistics.

Cilesiz, S., & Drotos, S. M. (2016). High poverty urban high school students plans for higher education: Weaving their own safety nets. *Urban Education, 51*(1), 3-31. doi:10.1177/0042085914543115

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.

Cokley, K., Obaseki, V., Moran-Jackson, K., Jones, L., & Vohra-Gupta, S. (2016). College access improves for Black students but for which ones? *Phi Delta Kappan, 97*(5), 43-48.

Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*, S95-S120.

Coley, R. J., & Baker, B. (2013). *Poverty and education: Finding the way forward*. The ETS Center for Research on Human Capital and Education. Princeton, NJ: Educational Testing Service.

Complete College America. (2012, April). Remediation: Higher education's bridge to nowhere. Retrieved from https://files.eric.ed.gov/fulltext/ED536825.pdf

Conger, D., & Long, M. C. (2010). Why are men falling behind? Gender gaps in college performance and persistence. *The ANNALS of the American Academy of Political and Social Science*, *627*(1), 184-214. doi:10.1177/0002716209348751

Conger, D., & Long, M. C. (2013). Gender gaps in college enrollment: The role of gender sorting across public high schools. *Educational Researcher*, *42*(7), 371-380. doi:10.3102/0013189X13503983

Correa, A. M., Boatright, P. E., & Bonnesen, J. A. (2015). *The poverty problem within the academic achievement gap of U.S. students* (Doctoral Dissertation). Retrieved from ProQuest Dissertation. (ProQuest 10003019)

Covarrubias, A. (2011). Quantitative intersectionality. A critical race analysis of the Chicana/o educational pipeline. *Journal of Latinos and Education, 10*(2), 86-105. doi:10.1080/15348431.2011.556519

Cox, S., Joyner, S. A., & Slate, J. R. (2011) Differences in Hispanic graduation rates at Texas community colleges over time. *Community College Enterprise, 17*(2), 62-76.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed variables approaches* (6th ed.). Thousand Oaks, CA: Sage.

Davies, S., & Guppy, N. (1997). Fields of study, college selectivity, and student inequalities in higher education. *Social Forces, 75(*4), 1417-1438.

Davis, J. E. (2006). Early schooling and the achievement of African American males. *Urban Education, 38,* 515-537.

Davis, T., & Otto, B. (2016). Juxtaposing the Black and White gender gap: Race and gender differentiation in college enrollment predictors. *Social Science Quarterly, 97*(5), 1245-1266. doi:10.1111/ssqu.12287

Declercq, K., & Verboven, F. (2015). Socioeconomic status and enrollment in higher education: do costs matter? *Education Economics*, 23(5), 532-556.

Deil-Amen, R., & DeLuca, S. (2010). The underserved third: How our educational structures populate an educational underclass. *Journal of Education for Students Placed at Risk, 15,* 27-50. doi:10.1080/10824661003634948

Deming, D. J., Hastings, J. S., Kane, T. J., & Staiger, D. O. (2014). School choice, school quality, and postsecondary attainment. *American Economic Review, 104*(3), 991-1013. doi:10.1257/aer.104.3.991

DePaoli, J. L., Fox, J. H., Ingram, E. S., Maushard, M., Bridgeland, J. M., & Balfanz, R. (2015). *Building a grad nation: Progress and challenge in ending the high school dropout epidemic*. Retrieved from America's Promise Alliance Website: http://www.americaspromise.org/report/2015-building-grad-nation-report

Dickerson, N. T., & Jacobs, J. A. (2006). Race differentials in college selectivity, 1981-2000. *Journal of African American Studies, 10*(1), 3-18.

DiPrete, T. A., & Buchmann, C. (2013). *The rise of women: The growing gender gap in education and what it means for American schools.* New York, NY: Russell Sage Foundation.

Domina, T., Conley, A., & Farkas, G. (2011). The case for dreaming big. *Sociology of Education, 84*(2), 118-121. doi:10.1177/0038040711401810

Drotos, S. M., & Cilesiz, S. (2016). Shoes, dues, and other barriers to college attainment: Perspectives of students attending high-poverty, urban high schools. *Education and Urban Society, 48*(3), 221-244. doi:10.1177/0013124514533793

Duncan, A. (2010). Obama's goal for higher education. *Forbes*. Retrieved from https://www.forbes.com/2010/08/01/america-education-reform-opinions-best-colleges-10-duncan.html#14dc94ae6fee

Duncan, G. J., & Murmane, R. J. (2014). Growing income inequality threatens American education. *Kappan*, *95*(6), 8-14.

Fann, A., Jarsky, K. M., & McDonough, P. M. (2009). Parent involvement in the college planning process: A case study of P-20 collaboration. *Journal of Hispanic Higher Education, 8(4)*, 374-393. doi:10.1177/1538192709347847

Federal Register. (2015). *The daily journal of the United States Government.* Retrieved from https://www.federalregister.gov/articles/2015/01/22/2015-01120/annualupdate-of-the-hhs-poverty-guidelines#t-1

Fry, R. & Lopez, M. H. (2012). *Hispanic student enrollment reach new highs in 2011*. Pew Research Center. Retrieved from http://www.pewhispanic.org/2012/08/20/hispanic-student-enrollments-reach-new-highs-in-2011/

Ge, S. (2011). Women's college decisions: How much does marriage matter? *Journal of Labor Economics, 29*(4), 773-818.

Goldin, C., Katz, L. F., & Kuziemko, I. (2006). The homecoming of American college women: The reversal of the college gender gap. *Journal of Economic Perspectives, 20*(4), 133-156.

Hartas, D. (2011). Families' social backgrounds matter: Socio-economic factors, home learning and young children's language, literacy and social outcomes. British *Educational Research Journal*, *37(6)*, 893-914. doi:10.1080/01411926.2010.506945

Harvill, E. L., Maynard, R. A., Nguyen, H. T., Robertson-Kraft, C., & Tognatta, N. (2012, March). *Effects of college access programs on college readiness and enrollment: A meta-analysis*. Paper presented at the meeting of the Society for Research on Educational Effectiveness, Washington, DC.

Haskins, R., Holzer, H., & Lerman, R. (2009). *Promoting economic mobility by increasing postsecondary education.* Retrieved from https://www.urban.org/sites/default/files/publication/29826/1001280-promoting-economic-mobility-by-increasing-postsecondary-education.pdf

Hernandez, D. J. (2011). *Double Jeopardy: How third-grade reading skills and poverty influence high school graduation.* Retrieved from http://files.eric.ed.gov/fulltext/ED518818.pdf

Hughes, K. (2013). *The college completion agenda 2012 progress report.* Retrieved from http://media.collegeboard.com/digitalServices/pdf/advocacy/policycenter/college-completion-agenda-2012-progress-report.pdf

Hurwitz, M., & Howell, J. (2013). *Measuring the impact of high school counselors on college enrollment.* Retrieved from https://files.eric.ed.gov/fulltext/ED562748.pdf

Hussar, W. J., & Bailey, T. M. (2011). *Projections of education statistics to 2019 (NCES 2011-017).* Washington, DC: National Center for Education Statistics.

Hussar, W. J., & Bailey, T. M. (2013). *Projections of education statistics to 2022 (NCES 2014-051).* Washington, DC: National Center for Education Statistics.

Hussar, W. J., & Bailey, T. M. (2016). *Projections of education statistics to 2024 (NCES 2016-013).* Washington, DC: National Center for Education Statistics.

Jacob, B. (2002). Where the boys aren't: Non-cognitive skills, returns to school and the gender gap in higher education. *Economics of Education Review, 21(6)*, 589-598.

Jaschik, S. (2005). *Gender gap at flagships. Inside higher education.* Accessed from https://www.insidehighered.com/news/2005/06/03/gender

Johnson, R. B., & Christensen, L. (2012). *Educational research: Quantitative, qualitative, and mixed approaches* (4th ed.) Thousand Oaks, CA: Sage.

King, J. E. (2010). *Gender equity in higher education*. Washington, DC: American Council on Education.

Klevan, S., Weinberg, S. L., & Middleton, J. A. (2016). Why the boys are missing: Using social capital to explain gender differences in college enrollment for public high school students. *Research in Higher Education, 57*(2), 223-257. doi:10.1007/s11162-015-9384-9

Lee, J. (2002). Racial and ethnic achievement gap trends: Reversing the progress toward equity? *Educational Researcher, 31,* 3-12. doi:10.3102/0013189X031001003

Lee, K. M., & Slate, J. R. (2014). Differences in advanced achievement outcomes for Texas students as a function of economic disadvantage. *Journal of Education Research, 8*(3), 137-149.

Ma, J., Pender, M., & Welch, M. (2016). *Education Pays 2016: The benefits of higher education for individuals and society.* Retrieved from http://files.eric.ed.gov/fulltext/ED572548.pdf

Mandela, N. (2005). *In full: Mandela's poverty speech.* Retrieved from http://news.bbc.co.uk/1/hi/uk_politics/4232603.stm

McDaniel, A. (2010). Cross-national gender gaps in educational expectations: The influence of national-level gender ideology and educational systems. *Comparative Education Review, 54*(1), 27-50.

Mertens, S. B., & Flowers, N. (2003). Middle school practices improve student achievement in high poverty schools. *Middle School Journal*, *35*(1), 33-43.

Moore, G. W., Slate, J. R., Edmonson, S. L., Combs. J. P., Bustamante, R., & Onwuegbuzie, A. J. (2010). High school students and their lack of preparedness for college: A statewide study. *Education and Urban Society, 42*, 817-838. doi:10.1177/0013124510379619

Mudge, S., & Higgins, D. J. (2011). College access programming: Removing higher education barriers for underrepresented student populations. *International Journal of Learning, 17*(11), 123-139.

Murdock, S. H., & Cline, A. G. (2011). *Population change in Texas: Implications of the 2010 census for education, the labor force and economic development.* Presented at Texas Tribune, Austin, TX.

National Center for Education Statistics. (1993). *120 years of American education: A statistical portrait.* Retrieved from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=93442

National Center for Education Statistics. (2005). *Postsecondary participation rates by sex and race/ethnicity: 1974-2003.* Retrieved from https://nces.ed.gov/pubs2005/2005028.pdf

National Center for Education Statistics. (2010). *Status and trends in the education of racial and minority groups.* Retrieved from https://nces.ed.gov/pubs2010/2010015.pdf

National Center for Education Statistics. (2012). *Tables for the 2011 version of the Digest of Education Statistics*. Retrieved from http://nces.ed.gov/Programs/digest/

National Center for Education Statistics. (2015). *Institutional retention and graduation rates for undergraduate students.* Retrieved from http://nces.ed.gov/programs/coe/indicator_cva.asp

National Center for Education Statistics. (n.d.). *The condition of education report*. Retrieved from https://nces.ed.gov/programs/coe/glossary.asp

National Center for Education Statistics. (2016a). *Digest of Education Statistics: 2015*. Retrieved from https://nces.ed.gov/programs/digest/d15/

National Center for Education Statistics. (2016b). *The condition of education report*. Retrieved from https://nces.ed.gov/pubs2016/2016144.pdf

National Center for Education Statistics. (2016c). *Trends in high school dropout and completion rates in the United States: 2013*. Retrieved from https://nces.ed.gov/pubs2016/2016117rev.pdf

National Center for Education Statistics. (2017). *The condition of education report.* Retrieved from https://nces.ed.gov/pubs2017/2017144.pdf

Neugebauer, M., Helbig, M., & Landmann, A. (2011). Unmasking the myth of the same-sex teacher advantage. *European Sociological Review, 27*(5), 669-689. doi:10.1093/esr/jcq038

Nunez, A. M., & Kim, D. (2012). Building a multicontextual model of Latino college enrollment: Student, school, and state-level effects. *The Review of Higher Education, 35*(2), 237-263. doi:10.1037/a0026810

Obama, B. (2012, July 26). Executive order -*White House initiative on educational excellence for African-Americans.* Washington, DC: White House. Retrieved from http://1.usa.gov/1RWbBJs

O'Conner, N., Hammack, F. M., & Scott, M. A. (2010). Social capital, financial knowledge, and Hispanic student college choices. *Research in Higher Education*, *51*, 195-219.

Ou, S., & Reynolds, A. J. (2014). Early determinants of postsecondary education participation and degree attainment: Findings from an inner-city minority cohort. *Education & Urban Society, 46*, 474-504. doi:10.177/0013124512447810

Perez, A., & Slate, J. R. (2015). Differences in postsecondary enrollment as a function of high school size. *Journal of Global Research in Education and Social Science, 5*(1), 34-39.

Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics, and Whites. *The Journal of Higher Education, 71*(2), 117-141.

Perna, L. W., & Titus, M. A. (2005). The relationship between parental involvement as social capital and college enrollment: An examination of racial/ethnic group differences. *The Journal of Higher Education, 76*(5), 485-518.

Perna, L. W. (2007). The sources of racial-ethnic group differences in college enrollment: A critical examination. *New Directions for Institutional Research, 133*, 51-66.

Peter, K., & Horn, L. (2005). *Gender differences in participation and completion of undergraduate education and how they have changed over time.* Washington, DC: National Center for Education Statistics.

Pew Research Center. (2015). *Facts about Latinos and education.* Retrieved from http://www.pewresearch.org/fact-tank/2015/05/26/5-facts-about-latinos-andeducation/

Pleis, J. R., Ward, B. W., & Lucas, J. W. (2010). *Vital and health statistics: Summary health statistics for U.S. adults: National health interview survey, 2009*. Retrieved from https://www.cdc.gov/nchs/data/series/sr_10/sr10_249.pdf

Price, D. V., & Reeves, E. B. (2003). Student poverty, school accountability, and postsecondary enrollment: A challenge for educational reform in Kentucky. *Journal of Poverty, 7*(4), 21-35.

Rampell, C. (2014). The college degree has become the new high school degree. *The Washington Post.* Retrieved from https://www.washingtonpost.com/opinions/catherine-rampell-the-college-degree-has-become-the-new-high-school-degree/2014/09/08/e935b68c-378a-11e4-8601-97ba88884ffd_story.html

Reardon, S. F., Valentino, R. A., Kalogrides, D., Shores, K. A., & Greenberg, E. H. (2013). *Patterns and trends in racial academic achievement gaps among states, 1999-2011.* Retrieved from http://cepa.stanford.edu/content/patterns-and-trends-racial-academic-achievement-gaps-among-states-1999-2011

Renshaw, S., & Clark, R. (2017). Boy problem? Girl problem? A century of gender inequality in American education viewed through general social survey data. *International Review of Modern Sociology, 43*(1), 79-93.

Riegle-Crumb, C. (2010). More girls go to college: Exploring the social and academic factors behind the female postsecondary advantage among Hispanic and White students. *Research in Higher Education, 51*(6), 573-593. doi:10.1007/s11162-010-9169-0

Rudel, D. (2015). *A gender gap in college expectations? The role of family structure and parental education.* Conference Papers – American Sociological Association, 1-34.

Ryan, S. (2016). Ambitions in action: Investigating college enrollment among Hispanic youth who expect to complete a bachelor's degree. *Journal of Hispanic Higher Education*, *15*(1), 3-21. doi:10.1177/1538192715584191

Scott, J. A., Taylor, K. J., & Palmer, R. T. (2013). Challenges to success in higher education: An examination of educational challenges from the voices of college-bound Black males. *The Journal of Negro Education, 82*(3), 288-299.

Scott-Clayton, J., Crosta, P., & Belfield, C. R. (2014). Improving the targeting of treatment: Evidence from college remediation. *Education Evaluation and Policy Analysis, 36*(3), 371-393. doi:10.3102/0162373713517935

Seifert, T., Wells, R., Saunders, D., & Gopaul, B. (2010, May). *Gender and incongruity between educational expectations and college enrollment: Examining 30 years of data.* Paper presented at the annual conference of the American Educational Research Association, Denver, CO.

Seifert, T., Wells, R., Saunders, D., & Gopaul, B. (2013). Unrealized educational expectations a growing or diminishing gender gap? It depends on your definition. *Association for Institutional Research.* Retrieved from http://files.eric.ed.gov/fulltext/ED573090.pdf

Serrano, T. J. G. (2017). “Wait, what do you mean by college?” A critical race analysis of Latina/o students and their pathways to community college. *Community College Journal of Research and Practice*, *41*(4-5), 239-252. doi:10.1080/10668926.2016.1251362

Snyder, T. D., & Dillow, S. A. (2007). *Digest of education statistics 2006.* (NCES 2007-017). Washington, DC: U. S. Government Printing Office. Retrieved from https://nces.ed.gov/pubs2007/2007017.pdf

Snyder, T. D., Dillow, S. A., & Hoffman, C. M. (2008). *Digest of education statistics 2007.* (NCES 2008-022). Washington, DC: U.S. Government Printing Office. Retrieved from https://nces.ed.gov/pubs2008/2008022.pdf

Snyder, T. D., & Dillow, S. A. (2010). *Digest of education statistics 2009.* (NCES 2010-013). Washington, DC: National Center for Education Statistics.

Spotlight on Poverty. (2013). *Issues: Education and poverty*. Retrieved from http://www.spotlightonpoverty.org/education_and_poverty.aspx

Tavernise, S. (2012, February 9). Education gap grows between rich and poor, studies say. *The New York Times.* Retrieved from http://www.nytimes.com/2012/02/10/education/education-gap-grows-between-rich-and-poor-studies-show.html?pagewanted=all

Texas Education Agency. (2015). *Texas Academic Performance Report.* Retrieved from https://rptsvr1.tea.texas.gov/perfreport/tapr/2015/state.pdf

Texas Education Agency. (2016a). *Enrollment in Texas public schools 2015-2016*. Retrieved from http://tea.texas.gov/acctres/enroll_index.html

Texas Education Agency. (2016b). *Glossary for the Texas Academic Performance Report.* Retrieved from https://rptsvr1.tea.texas.gov/perfreport/tapr/2016/glossary_1.18.pdf

Texas Education Agency. (2017a). *Enrollment in Texas public schools 2016-2017*. Retrieved from http://tea.texas.gov/acctres/enroll_index.html

Texas Education Agency. (2017b). *Secondary school completion and dropouts in Texas public schools 2015-16*. Retrieved from http://tea.texas.gov/acctres/dropcomp_index.html

Texas Higher Education Coordinating Board. (n.d.). *College enrollment trends.* Retrieved from http://www.thecb.state.tx.us/reports/PDF/2455.PDF?CFID=62350235&CFTOKEN=93757893

Texas Higher Education Coordinating Board. (2000). *Closing the Gaps: The Texas Higher Education Plan*. Retrieved from http://www.thecb.state.tx.us/reports/PDF/0379.PDF?CFID=64220365&CFTOKEN=46385957

Texas Higher Education Coordinating Board. (2012). *Glossary of terms.* Retrieved from www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=1316&Format=DOC - 2012-03-19

Texas Higher Education Coordinating Board. (2015). 60x30TX. Retreived from http://www.thecb.state.tx.us/reports/PDF/9306.PDF?CFID=72789643&CFTOKEN=82948080

Texas Higher Education Coordinating Board. (2016). *Tracking postsecondary outcomes dashboard-Texas high school graduates.* Retrieved from http://reports.thecb.state.tx.us/approot/hs_college/hs_college_main_launch.htm

Tienda, M. (2011). Hispanics and U.S. schools: Problems, puzzles, and possibilities. In M. T. Hallinan (Ed.), *Frontiers in sociology of education* (pp. 303-310). New York, NY: Springer.

Tierney, J. (2006, March 25). On campus, a good man is hard to find. *The New York Times*. Retrieved from http://www.nytimes.com/2006/03/25/opinion/on-campus-a-good-man-is-hard-to-find.html

U.S. Bureau of Labor Statistics. (2014). *College enrollment and work activity of 2014 high school graduates.* Washington, DC: Author. Retrieved from http://1.usa.gov/1SpSJmU

U.S. Bureau of Labor Statistics. (2017a). *Labor force statistics from the current population survey.* Retrieved from https://www.bls.gov/cps/aa2014/cpsaat07.htm

U.S. Bureau of Labor Statistics. (2017b). *Usual weekly earnings of wage and salary workers second quarter 2017*. Retrieved from https://www.bls.gov/news.release/pdf/wkyeng.pdf

U.S. Census Bureau. (n.d.). *Work experience and earnings association.* Retrieved from https://www.census.gov/people/laborforce/files/Earnings_and_Experience_Associations.pdf

U.S. Census Bureau. (2006). *Statistical abstract of the United States: 2007* (126th ed.) Washington, DC: Author. Retrieved from https://www.census.gov/library/publications/2006/compendia/statab/126ed.html

U.S. Census Bureau. (2016a). *Annual estimates of the resident population by sex, race, and Hispanic origin for the United States, states, and counties: April 1, 2010 to July 1, 2016.* Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2016_PEPSR6H&prodType=tablehttps://www.census.gov/library/publications/2006/compendia/statab/126ed.html

U. S. Census Bureau. (2016b). *Income and poverty in the United States: 2015*. Retrieved from https://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf

Valletta, T. (2015). Higher education, wages, and polarization. *FRBSF Economic Letter, 2015*(2), 1-5.

Venezia, A., & Jaeger, L. (2013). Transitions from high school to college. *Future of Children, 23*(1), 117-136.

Wells, R. S., Seifert, T. A., Padgett, R. D., Park, S., & Umbach, P. D. (2011). Why do more women than men want to earn a four-year degree? Exploring the effects of gender, social origin, and social capital on educational expectations. *Journal of Higher Education, 82*(1), 1-32.

Williams, A. (2010, February 5). The new math on campus. *The New York Times.* Retrieved from http://www.nytimes.com/2010/02/07/fashion/07campus.html

Wright, L. A., & Slate, J. R. (2015). Differences in critical-thinking skills for Texas middle school students as a function of economic disadvantage. *Journal of Education Research, 9*(4), 345-356.

Wright, L. A., Slate, J. R., & Moore, G. W. (2016). Reading skill differences by economic status for Texas high school students: A multiyear, statewide analysis. *Journal of Education Policy, Planning & Administration, 6*(2), 1-17. Retrieved from http://www.jeppa.org

Zwick, R., & Himelfarb, I. (2011). The effect of high school socioeconomic status on the predictive validity of SAT scores and high school grade-point average. *Journal of Educational Measurement*, *48*(2), 101-121. doi:10.1111/j.1745-3984.2011.00136.x

APPENDIX

Institutional Review Board
Office of Research and Sponsored Programs
903 Bowers Blvd, Huntsville, TX 77341-2448
Phone: 936.294.4875
Fax: 936.294.3622
irb@shsu.edu
www.shsu.edu/~rgs_www/irb/

Sam Houston STATE UNIVERSITY
A Member of The Texas State University System

DATE:	November 1, 2017
TO:	Deshonta Holmes [Faculty Sponsor: Dr. John Slate]
FROM:	Sam Houston State University (SHSU) IRB
PROJECT TITLE:	*Differences In Postsecondary Enrollment Rates Of Texas High School Graduates: A Multiyear, Statewide Study [T/D]*
PROTOCOL #:	2017-10-36830
SUBMISSION TYPE:	INITIAL REVIEW
ACTION:	DETERMINATION OF EXEMPT STATUS
DECISION DATE:	November 1, 2017
REVIEW CATEGORY:	Category 4—research involving existing, publicly available data usually has little, if any, associated risk, particularly if subject identifiers are removed from the data or specimens.

Thank you for your submission of Initial Review materials for this project. The Sam Houston State University (SHSU) IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will retain a copy of this correspondence within our records.

*** What should investigators do when considering changes to an exempt study that could make it nonexempt?**

It is the PI's responsibility to consult with the IRB whenever questions arise about whether planned changes to an exempt study might make that study nonexempt human subjects research. In this case, please make available sufficient information to the IRB so it can make a correct determination.

If you have any questions, please contact the IRB Office at 936-294-4875 or irb@shsu.edu. Please include your project title and protocol number in all correspondence with this committee.

Sincerely,

Donna Desforges
IRB Chair, PHSC

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Sam Houston State University IRB's records

VITA

Deshonta Holmes

Educational History

Doctor of Education - Educational Leadership, May 2018
Sam Houston State University, Huntsville, TX
Dissertation: Differences in Public Postsecondary Enrollment Rates of Texas Public High School Graduates as a Function of Gender, Ethnicity/Race, and Economic Status: A Multiyear, Statewide Study

Master of Science – Biology, May 2006
Texas Southern University, Houston, TX
Thesis: Effects of Arsenic in Drinking Water on the Kidney

Bachelor of Science – Biology, May 2002
Jackson State University, Jackson, MS

Professional Experience

Education-
Special Assistant to the President, Lone Star College-University Park, 2016-Present
Associate Dean, Admissions and Outreach, Lone Star College-University Park, 2015-2016
Director, Admissions and Outreach, Lone Star College-University Park, 2013-2015
Program Manager, Student Success Initiatives, Lone Star College–North Harris, 2011-2013
Academic Advisor, Lone Star College–North Harris, 2009-2011
Program Coordinator, Biology Labs, Lone Star College–North Harris, 2006-2009

Teaching Experience

Adjunct Professor of Biology, Texas Southern University, 2006-2014
Adjunct Professor of First Year Experience, Lone Star College–North Harris, 2011-2013
Adjunct Professor of Biology, Lone Star College–North Harris, 2006-2009

Recognitions

Next Generation Leadership Program, 2017
LSCS Employee Doctoral Scholarship, 2015-2017
Staff Excellence Award Winner, Lone Star College-North Harris, 2013
Academy Fellow, Lone Star College System, 2010

Scholarly Research Activity

Holmes, D. L., & Slate, J. R. (2017). Differences in GPA by gender and ethnicity/race as a function of first-generation status for community college students. *Global Journal of Human-Social Science: A Arts & Humanities-Psychology*, *17*(3), 1-6.

Professional Presentations

Holmes, D. L., Welbeck, R., & Ardalan, S. (2017). *How colleges can support men of color*. Presented at College Board Forum, New York, NY.

Holmes, D. L., Ardalan, S. & Evans, L. (2017). *Pathways to Success: A seamless transfer partnership*. Presented at College Board Forum, New York, NY.

Holmes, D. L. (2017). *Differences in GPA by gender and ethnicity/race as a function of first-generation status for community college students*. Paper presented at the Conference on Academic Research in Education, Las Vegas, NV.

Catalla, P., Holmes, D. L., Korah, A., Lue King, K., & Landry, E. (2016). *Where do I belong? A multi-site campus ecology case study*. Paper presented at the annual meeting of the Southwest Educational Research Association, New Orleans, LA.

Hogan, L. Maxwell, C., & Holmes, D. L. (2015). *Lessons learned in student support*. Invited presentation for the Competency Based Education for Community Colleges Conference, Denver, CO.

Dixon, D. B., & Holmes, D.L. (2014). *A game changing program for African American students*. Invited presentation at annual conference for National Council on Black American Affairs, Houston, TX.

Weissman, E., Holmes, D. L., & Whitley, M. (2013). *Improving summer bridge programs: Research-based recommendations for student success.* Invited presentation for Gulf Coast Pass Grant conference, Houston, TX.

Professional Affiliations

National Association of Student Personnel Administrators (NASPA)
National Council on Black American Affairs (NCBAA)
American Association of Collegiate Registrars and Admissions Officers (AACRAO)