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Schools of Choice and Neighborhood Schools: A Texas Statewide Investigation into the Academic Achievement of Their Students of Color

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Abstract

Differences between schools of choice and neighborhood high schools were examined in terms of the performance of their students of color on the Texas state-mandated English I and Algebra 1 exams for three school years. Hispanic students from neighborhood campuses outperformed their peers from the schools of choice at the Approaches and Meets Grade Level standards but not at the Masters Grade Level standard on the English I exam, and on the Algebra I exam except at the Meets Grade Level standard. Black students from schools of choice outperformed their peers from the traditional high schools on the English I exam but not on the Algebra I EOC exam. Implications and recommendations for future research were discussed.

Keywords: Black students, Hispanic students, students of color, STAAR, end-of-course exam, schools of choice, traditional high schools, academic achievement, school choice, Algebra 1 EOC, English I EOC, grade level standard

1. Introduction

According to the U.S. Census Bureau (2017), the rapid growth of the Hispanic population in the United States has contributed to more than half of the nation's growth over the last 10 years. This increase has doubled the number of Hispanic students at all educational levels in the last two decades. With respect to high school completion, the percentage of Hispanic students who did not finish high school or who were not enrolled in school fell from 33.3% in 1996 to only 9.9% in 2016. The number of Hispanics who enrolled in college has tripled over the past 20 years with 42.9% of Hispanic college students attending 2-year schools (U.S. Census Bureau, 2017).

The National School Boards Association (2020) reported that nearly 33% of Black students live in poverty, compared with 10% of White students. More than a fourth, 27%, of Black students live in households where the highest level of education attained by either parent was a bachelor's or higher degree, compared with substantially higher percentages for Asian students, 69%, and for White students, 53%. Although remarkable decreases have been documented in the dropout rates for all demographic groups, the dropout rates for Hispanic and Black students still remain higher than for White students. The Hispanic dropout rate decreased from 16.6% to 7.7%, whereas the Black dropout rate decreased from 10.3% to 5.6%, and the White dropout rate decreased from 5.3% to 4.1% (National Center for Education Statistics, 2021). Graduation rates and college enrollment rates also remain low for Black students. As of 2018, the national graduation rate for Black students was 79% compared to the national average of 85%.

Despite these positive trends, the proportion of Black and Hispanic students who do not graduate from high school or who do not enroll in a postsecondary setting is still much higher than for Asian and White students (Flores et al., 2017). Low graduation rates disproportionately affect students of color. Black and Hispanic

students are about two times more likely to leave school without earning a high school diploma (Intercultural Development Research Association, 2021) than are Asian and White students. Hispanic students are more likely to stop going to school after finishing high school (Merolla, 2018), and if they do enroll in college, they are more likely to drop out (Tajalli & Ortiz, 2018). Enrollment in graduate or professional schools is also lowest for Hispanics with only 1.9% for individuals in the 25 to 34 age brackets when compared to 4.2% for Whites, 4% for Blacks, and 7.6% for Asians (U.S. Census Bureau, 2017).

Despite substantial increases in high school completion and postsecondary enrollment for Black students (U.S. Census Bureau, 2017), they are less likely to choose science, technology, engineering, and mathematics (STEM) courses. As such, they limit their career prospects (Rogers, 2020) and more likely to drop out of college and to not finish a bachelor's degree (Merolla, 2018). Flores et al. (2017) explained that the college completion gap between Black and Hispanic students when compared to their Asian and White peers was determined by their precollege characteristics or readiness which is a combination of individual and high school context factors. Student characteristics, academic preparation, curriculum choices such as taking upper-level mathematics courses and advanced placement courses, as well as school context are some of the determining precollege factors to postsecondary completion.

With respect to the state of interest for this article, Texas, Black and Hispanic students have the lowest passing rates on all five State of Texas Academic Assessment of Readiness (STAAR) End-of-Course (EOC) exams in comparison to Asian and White students. The percentage of Hispanic and Black students who are college, career, and military ready are also lower compared to their Asian and White peers. Of the 5,416,400 students enrolled in Texas, 52.6% were Hispanic and 12.6% were Black, representing that 65.2% of Texas students are students of color (Texas Education Agency, 2019).

As reported on the 2019 Texas Academic Performance Report for the state 63% of Black students and 74% of Hispanic students scored at the Approaches Grade Level compared to 86% of White students and 93% of Asian students. The percentage of Black students who scored at the Meets Grade Level was 37%, a little over half of the 63% of White students and less than half of the 80% of Asian students who scored at the same performance level. Although the percentage of Hispanic students who scored at the Meets Grade Level was a little higher, at 44%, it was still 19 percentage points lower than White students, and 36 percentage points lower than Asian students. The percentage of Black students who scored at the Masters Grade Level, 14%, was less than half of the White students, 33% and less than one-third of the Asian students, 55%, who scored at the same performance level. The percentage of Hispanic students who scored at the Masters Grade Level, 18%, was just a little over half of the White students and a little less than one-third of the Asian students who scored at the same performance level (Texas Education Agency, 2019).

In efforts to address the achievement gaps, the United States Department of Education has been aggressively advocating for the expansion of school choice (Kaplan & Owings, 2018) as a method to prepare young men and women to be successful in the future economy of a rapidly changing labor market, one that is increasingly dependent on STEM and skilled labor. Rapid technological advances and global economic competition demand increased levels of skilled technical education preparation and readiness on the part of youths entering the workforce (Burrowes et al., 2014; Langdon, 2011; Noonan, 2017). The federal government has also been increasing its focus on school choice over traditional comprehensive high schools because career and technical education has been on the rise for the past 12 years. Current labor markets have created a myriad of opportunities for business leaders, educators, policymakers, and labor leaders to work together and to spark the revival of technical jobs (Burrowes et al., 2014; Langdon et al., 2011; Noonan, 2017).

Magnet schools such as STEM academies are another form of school choice that school districts provide to attract students from a wide variety of racial/ethnic backgrounds (Bischoff & Tach, 2018; Kitmitto et al., 2016). In a similar study on the effect of STEM academies on academic achievement, Bicer and Capraro (2018) compared the mathematics performance of Grade 9 students who attended an inclusive STEM academy to Grade 9 students who attended traditional public high schools or non-STEM high schools. Students who enrolled in the STEM academies had average achievement in science and mathematics but displayed higher interest in science and mathematics by their willingness to take care of their own transportation. Students who enrolled in their school choice, which was a STEM academy, had statistically significantly higher average test scores compared to the students who were enrolled in their neighborhood schools. Additionally, Black students, Hispanic students, and students in poverty who were enrolled in STEM academies had higher mathematics test scores and continued to have higher mathematics score growth when compared to their peers who were enrolled in traditional public high schools (Bicer & Capraro, 2018). Concluded was that the attributes of their school choice based on their interests provided learning experiences that extrinsically motivated the students to perform better than their peers at the traditional neighborhood schools. Also suggested was that the increased extrinsic motivation potentially sparked student intrinsic motivation to choose a STEM career pathway. Bicer and Capraro

(2018) stressed that school choice such as STEM academies should be examined more as an influencing factor to encourage more underrepresented students to pursue STEM careers.

To understand the effect of school choice policies on educational equity, Kotok et al. (2019) conducted a study on the open enrollment policies within the El Paso Independent School District. Concerned that unregulated open enrollment systems could increase racial segregation and poverty density, Kotok et al. (2019) examined whether providing choice and encouraging competitions among schools based on market-based forces would advance equity and efficiency. With 25% of students in 2014 attending their school of choice, the researchers discovered no significant relationship between open enrollment and segregation within the school district. They also noted that the open enrollment system had brought back a number of secondary students from private schools and had also attracted students from neighboring districts (Kotok et al., 2019). In their longitudinal study to examine the changes in student diversity of 21 magnet schools across the United States, Kitmitto et al. (2016) reported that the schools became more diverse after they converted into traditional or destination magnet schools. Although school type could not be linked directly to the increase in student diversity, it was suggested that the conversion into magnet schools offered options to parents of minority students and students under poverty to choose the school that were better suited to address their children's educational needs and interests. It was also noted that academic achievement increased overall when the schools converted into magnet schools (Kitmitto et al., 2016).

In comparing school choice in the form of charter schools and public schools in Texas, Barden and Lassmann (2016) suggested that traditional public schools do not work for all students. As such, students and families should continue to be given choices to determine the type of school that best fit their need. The number of families choosing charter schools in Texas had been increasing because charter schools design their instruction based on the needs of their students and had demonstrated academic gains comparable to public schools. Given the continued growth of charter schools in Texas and their academic track record, Texas should continue to offer these choices to underserved student populations (Barden & Lassman, 2016).

In Texas, one of the prerequisites to high school graduation is passing the state standardized exams known as the State of Texas Assessment of Academic Readiness (STAAR) End-of-Course (EOC) exams in Biology, English Language Arts (ELA) I and II, Algebra I, and U.S. History. Based on the mandates set forth by the 80th and the 81st sessions of the Texas Legislature, the STAAR EOC exams were developed by the Texas Education Agency in collaboration with the Texas Higher Education Coordinating Board and Texas educators to provide the foundations of a new assessment and accountability system focused on college and career readiness (Texas Education Agency, 2010). First implemented in the 2011-2012 school year, the STAAR EOC exams were designed to measure the degree to which high school students have learned and are able to apply the knowledge and skills articulated in the state-mandate curriculum standards which are the Texas Essential Knowledge and Skills.

The STAAR EOC scores are reported for each student following these performance level descriptors, (a) Did Not Meet Grade Level, (b) Approaches Grade Level, (c) Meets Grade Level, and (d) Masters Grade Level. These performance level descriptors characterize the degree to which students have mastered the Texas Essential Knowledge and Skills. A score labeled Did Not Meet Grade Level shows a lack of basic understanding of course content, which means that the student needs substantial support in the coming school year to be successful. A student receiving a score that is described as Approaches Grade Level means that the student demonstrates some knowledge of course content but maybe missing critical elements and that the student may need additional support in the coming year. Meets Grade Level indicates strong knowledge of course content, which means that the student is adequately prepared to progress to the next grade level. A student who scores at the Masters Grade Level shows mastery of the course content and the student is on track for college and career readiness (Texas Education Agency, 2021).

1.1 Statement of the Problem

Although the debate continues about the benefits and negative consequences of school choice policies, the number of school districts becoming districts of choice is increasing. In 2015, the 84th Texas Legislature created the Texas Education Code Chapter 12A, otherwise known as the Districts of Innovation (Texas Association of School Board, 2020). This policy allows school districts to access most of the flexibilities normally available to Texas charter schools and to gain more local control to pursue specific innovations in curriculum, instruction, governance, or budget allocations. Since the enactment of the law, 898 school districts have been designated as districts of innovations. Since their designations, most districts of innovation have expanded their school choice program by building more campuses serving as schools of choice in the form of early college high schools, Career and Technical Education (CTE) schools, learning and training centers, or schools focused on industry programs of study as academies or magnet programs in existing traditional high schools. Since the enactment of the District of Innovation and H.R. 2353 legislations, school district leaders have responded to current labor

market needs by ensuring that their students graduate from high school equipped with workforce skills for college and career success. School districts have expanded their school choice program by building more new campuses serving as schools of choice in the form of early college high schools, Career and Technical Education (CTE) schools, learning and training centers, or started offering industry programs of study in career academies or magnet programs in existing traditional high schools.

In July 2018, H.R. 2353, the *Strengthening Career and Technical Education for the 21st Century Act*, commonly known as the Perkins Career and Technical Education (CTE) Act V, was enacted into law. According to the Office of Career, Technical, and Adult Education (2019), the bill authorized 1.23 billion dollars as funding for secondary and postsecondary programs to ensure that CTE programs will expand opportunities for all secondary and postsecondary students, including middle school students to explore, choose, and follow CTE programs of study and career pathways that culminate into industry certifications or postsecondary credentials for higher education (U.S. Department of Education, 2019a). Career and technical education campuses have become the newest type of school choice taking root in public school districts. Increases have been documented in the number of new CTE schools being built across the United States, designed as schools of choice. Career and technical education offer a wide range of affordable hands-on learning, industry-driven learning, and grounded in skills as opposed to theory learning (U.S. Department of Education, 2019b). Many students have discovered that choosing to follow a CTE pathway, is an inexpensive but lucrative alternative to a traditional 4-year university degree that often incurs tens of thousands of student debt (Burrowes et al., 2014; Carnevale et al., 2017).

Today's school choice programs are not only a means to empower students and their families to opt out of failing neighborhood schools but have also become a way to increase equitable access for postsecondary opportunities. As traditional school districts expand their school choice programs to be responsive to current market-based demands for 21st century workforce skills, it is imperative to examine how existing school choice programs are influencing student achievement, which could potentially determine their success in accessing and thriving in postsecondary opportunities. A need clearly exists to determine the extent to which these programs are effectively implemented, particularly given the preponderance of studies about charter schools and magnet programs (e.g., Archbald et al., 2018; Blatt & Votruba-Drzal, 2021; Berends, 2015; Kitmitto et al., 2016; Linkow, 2011; Ni & Arsen, 2011; Teasley et al., 2016).

1.2 Purpose of the Study

The purpose of this investigation was to determine the degree to which school choice was related to the academic achievement of students of color in public secondary schools in Texas. Schools of choice were compared to traditional comprehensive neighborhood high schools in terms of their students' passing rates in the STAAR EOC exams in English I and Algebra I. Specifically addressed were three grade level standards for each EOC exam: (a) Approaches Grade Level, (b) Meets Grade Level, and (c) Masters Grade Level. Schools of choice were compared to traditional comprehensive neighborhood high schools for the 2016-2017, 2017-2018, and 2018-2019 school years.

1.3 Significance of the Study

A strong need exists for educational leaders, school district administrators, and educational policymakers to exert efforts in addressing the problem of low high school graduation rates for students of color. These stakeholders need to examine systemic issues that negatively influence student school participation and graduation including curriculum quality, access to a coherent program of study relevant to postsecondary careers and workforce readiness, parent, and community engagement. Systemic issues that serve as roadblocks to higher high school completion rates require systemic solutions such as school choice in the form of magnet, or STEM academies in existing traditional campuses, or new CTE and workforce development campuses. Systemic solutions to narrowing both the high school and post-secondary completion rate gaps might also require examining whether current curriculum programs being offered in traditional schools enable students to acquire the academic, technical, and employability skills aligned with high-wage, fast growing industry and to sustain their value in the rapidly changing labor market leading to family-sustaining jobs, postsecondary opportunities, or careers.

The results of this study will add to the existing literature about the degree to which school choice practices in public education enhances access to educational opportunities especially to students of color. An urgent need exists to examine their academic performance to inform educators and educational leaders of possible systemic reforms that are responsive to the needs of students of color. Findings from this study may be helpful to educational leaders seeking to implement school reforms that will not exacerbate educational inequalities.

1.4 Research Questions

The following research questions were addressed in this study: (a) What is the difference between schools of choice and traditional comprehensive schools in the English I EOC exam passing rates of their students of color?;

(b) What is the difference between schools of choice and traditional comprehensive schools in the Algebra I EOC exam passing rates of their students of color?; and (c) What trend is present in the performance of students of color on the three grade level standards across the three school years of data analyzed? Each research question was answered separately for Black and Hispanic students for the 2016-2017, 2017-2018 and 2018-2019 school years. Each research question had three grade level standards that were compared: (a) Approaches Grade Level, (b) Meets Grade Level, and (c) Masters Grade Level. The final research question involved comparisons across all three years of data.

2. Method

2.1 Research Design

A non-experimental causal-comparative research design was used for this study (Johnson & Christensen, 2020). A causal-comparative design is a research design in which relationships are sought between independent and dependent variables based on pre-existing action or events (Salkind, 2010; Schenker & Rumrill, 2004). In this particular study the pre-existing events were data on the three STAAR EOC grade level standards of Black and Hispanic high school students. For this investigation, the independent variable is the type of high school (i.e., school of choice and traditional comprehensive high schools) and the dependent variables are the three grade level standards for the STAAR EOC exam in Algebra I and English I.

2.2 Participants and Instrumentation

Participants in this study were students of color enrolled in high schools from all the existing public school districts, excluding charter schools, in the state of Texas. Student scores from the STAAR EOC exams in English I and Algebra I on all three-grade level performance (i.e., Approaches Grade Level, Meets Grade Level, and Masters Grade Level) were collected for each school from the 2016-2017, 2017-2018, and 2018-2019 school years. Each high school was identified, as either a school of choice or a traditional comprehensive high school based on information gathered from each school district's website.

3. Results

To ascertain whether differences were present in the exam performance (i.e., Did Not Meet, Met) at the Approaches Grade Level standard, Meets Grade Level Standard, and Masters Grade Level standard of students color (i.e., Hispanic, Black) between schools of choice and traditional neighborhood schools, Pearson chi-square analyses were conducted. Pearson chi-square analysis procedures were viewed as the optimal statistical procedure to use because both the independent and dependent variables are dichotomous. Accordingly, chi-squares are the statistical procedure of choice when both variables in each research question are categorical (Slate & Rojas-LeBouef, 2011). Given the large sample size, the available sample size per cell was more than five. Therefore, the assumptions for using Pearson chi-square procedures were met.

3.1 Approaches Grade Level Performance Analyses of Hispanic Students for English I

For the first research question on whether differences were present between schools of choice and traditional comprehensive schools in the English 1 EOC exam passing rates at the Approaches Grade Level for the 2016-2017 school year, the result for Hispanic students was statistically significant, $\chi^2(1) = 3.79$, $p = .05$. The effect size for this finding, Cramer's V of .004, was a below small effect size (Cohen, 1988). As revealed in Table 1, a little less than half a percentage lower of Hispanic students enrolled in schools of choice met the STAAR English I EOC exam Approaches Grade Level standard, than did the Hispanic students who were enrolled in traditional comprehensive high schools.

Table 1. Frequencies and Percentages of STAAR English I EOC Approaches Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 27,845) 40.7%	(*n* = 40,607) 59.3%
Traditional High Schools	(*n* = 75,740) 41.1%	(*n* = 108,513) 58.9%
2017-2018		
Schools of Choice	(*n* = 31,208) 42.8%	(*n* = 41,735) 57.2%
Traditional High Schools	(*n* = 84,439) 45.6%	(*n* = 100,586) 54.4%
2018-2019		

Schools of Choice	(*n* = 29,119) 42.9%	(*n* = 38,726) 57.1%
Traditional High Schools	(*n* = 77,808) 46.2%	(*n* = 90,457) 53.8%

With respect to the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 172.11$, $p < .001$, Cramer's V of .026, a below small effect size (Cohen, 1988). A statistically significantly lower percentage of Hispanic students enrolled in schools of choice met the STAAR English I EOC exam, almost three percentage points lower, at the Approaches Grade level standard than did Hispanic students enrolled in traditional neighborhood schools. Table 1 contains the descriptive statistics for this analysis.

Regarding the 2018-2019 school year, a statistically significant difference was revealed, $\chi^2(1) = 215.27$, $p < .001$, Cramer's V of .03, a below small effect size (Cohen,1988). A statistically significantly lower percentage, a little over three percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR English I EOC exam at the Approaches Grade Level standard than did Hispanic students who were enrolled in traditional comprehensive schools. Table 1 contains the frequencies and percentages of Hispanic students who met the STAAR English I EOC exam at the Approaches Grade Level standard.

3.2 Approaches Grade Level Performance Analyses of Black Students for English I

With respect to the performance of Black students on the English 1 EOC exam at the Approaches Grade Level for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 48.21$, $p < .001$. The effect size for this finding, Cramer's V, was a below small effect size, .027 (Cohen, 1988). As delineated in Table 2, a statistically significantly higher percentage, three percentage points higher, of Black students enrolled in schools of choice met the STAAR English I EOC exam at the Approaches Grade level standard than did Black students who were enrolled in traditional comprehensive high schools.

Table 2. Frequencies and Percentages of STAAR English I EOC Approaches Grade Level Performance Standard of Black Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 6,247) 38.2%	(*n* = 10,124) 61.8%
Traditional High Schools	(*n* = 17,405) 35.2%	(*n* = 32,103) 64.8%
2017-2018		
Schools of Choice	(*n* = 7,280) 40.4%	(*n* = 10,760) 59.6%
Traditional High Schools	(*n* = 19,908) 38.6%	(*n* = 31,678) 61.4%
2018-2019		
Schools of Choice	(*n* = 7,270) 41.0%	(*n* = 10,444) 59.0%
Traditional High Schools	(*n* = 19,621) 41.2%	(*n* = 27,980) 58.8%

Concerning the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 18.96$, $p < .001$, Cramer's V of .017, a below small effect size (Cohen, 1988). A statistically significantly higher percentage, almost two percentage points higher, of Black students enrolled in schools of choice met the STAAR English I EOC exam at the Approaches Grade level standard than did Black students who were enrolled in traditional high schools. Table 2 contains the descriptive statistics for this analysis.

With regard to the 2018-2019 school year, a statistically significant difference was not present, $\chi^2(1) = 0.17$, $p = .68$. The performance of Hispanic students on the STAAR English I EOC exam Approaches Grade Level standard was similar, regardless of their high school enrollment type. Revealed in Table 2 are the descriptive statistics for this analysis.

3.3 Meets Grade Level Performance Analyses of Hispanic Students for English I

For the research question on whether differences were present between schools of choice and traditional comprehensive schools in the English 1 EOC exam passing rates at the Meets Grade Level for the 2016-2017 school year, the result for Hispanic students approached, but did not reach, the conventional level of statistical significance, $\chi^2(1) = 3.26$, $p = .07$. As revealed in Table 3, a little less than half a percentage point higher, of Hispanic students enrolled in schools of choice met the STAAR English I EOC exam Meets Grade Level

standard, than did Hispanic students who were enrolled in traditional comprehensive high schools.

Table 3. Frequencies and Percentages of STAAR English I EOC Meets Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 21,985) 32.1%	(*n* = 46,467) 67.9%
Traditional High Schools	(*n* = 58,483) 31.7%	(*n* = 125,770) 68.3%
2017-2018		
Schools of Choice	(*n* = 19,929) 27.3%	(*n* = 53,014) 72.7%
Traditional High Schools	(*n* = 54,054) 29.2%	(*n* = 130,971) 70.8%
2018-2019		
Schools of Choice	(*n* = 20,666) 30.5%	(*n* = 47,179) 69.5%
Traditional High Schools	(*n* = 55,047) 32.7%	(*n* = 113,218) 67.3%

With respect to the 2017-2018 school year, statistically significant difference was yielded, $\chi^2(1) = 91.67$, $p < .001$, Cramer's V of .019, a below small effect size (Cohen, 1988). A statistically significantly lower percentage, almost two percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR English I EOC exam at the Meets Grade level standards than did Hispanic students enrolled in traditional neighborhood campuses. Table 3 contains the descriptive statistics for this analysis.

Regarding the 2018-2019 school year, a statistically significant difference was revealed, $\chi^2(1) = 112.75$, $p < .001$, Cramer's V of .022, a below small effect size (Cohen,1988). A statistically significantly lower percentage, a little over two percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR English I EOC exam at the Meets Grade Level standard than did Hispanic students who were enrolled in traditional comprehensive schools. Delineated in Table 3 are the descriptive statistics for this analysis

3.4 Meets Grade Level Performance Analyses of Black Students for English I

For the research question on whether differences were present between schools of choice and traditional comprehensive schools in the English 1 EOC exam passing at the Meets Grade Level for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 73.22$, $p < .001$, Cramer's V of .033, a lower than small effect size. As revealed in Table 4, a higher percentage, almost three-and-a-half percentage points higher, of Black students enrolled in schools of choice met the STAAR English I EOC exam Meets Grade Level standard, than did Black students enrolled in traditional comprehensive high schools.

Table 4. Frequencies and Percentages of STAAR English I EOC Meets Grade Level Performance Standard of Black Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 4,687) 28.6%	(*n* = 11,684) 71.4%
Traditional High Schools	(*n* = 12,497) 25.2%	(*n* = 37,011) 74.8%
2017-2018		
Schools of Choice	(*n* = 4,352) 24.2%	(*n* = 13,654) 75.8%
Traditional High Schools	(*n* = 11,488) 22.3%	(*n* = 40,098) 77.7%
2018-2019		
Schools of Choice	(*n* = 4,796) 27.1%	(*n* = 12,918) 72.9%
Traditional High Schools	(*n* = 12,898) 27.1%	(*n* = 34,703) 72.9%

With respect to the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 27.41$, $p < .001$, Cramer's V of .02, a below small effect size (Cohen, 1988). A statistically significantly higher percentage, almost two percentage points higher, of Black students enrolled in schools of choice met the STAAR English I EOC exam at the Meets Grade level standard than did Black students enrolled in traditional neighborhood campuses. Table 4 contains the descriptive statistics for this analysis.

Concerning the 2018-2019 school year, the Pearson chi-square yielded no statistically significant difference, $\chi^2(1) = 0.003$, $p = .96$. The same percentage, 27.1% of Black students enrolled in schools of choice, and 27.1% of Black students enrolled in traditional neighborhood high schools met the STAAR English I EOC exam at the Meets Grade Level standards. Delineated in Table 4 are the frequencies and percentages of Black students who met the STAAR English I EOC exam at the Meets Grade Level standard for all three consecutive school years.

3.5 Masters Grade Level Performance Analyses of Hispanic Students for English I

With respect to the performance of Hispanic students on the English 1 EOC exam at the Masters Grade Level standard for the 2016-2017 school year, the Pearson chi-square analysis resulted in a statistically significant difference, $\chi^2(1) = 30.16$, $p < .001$. The effect size for this finding, Cramer's V, was a below small effect size, .011 (Cohen, 1988). As delineated in Table 5, a statistically significantly higher percentage, half a percentage point higher, of Hispanic students enrolled in schools of choice met the STAAR English I EOC exam at the Approaches Grade level standard than did Black students who were enrolled in traditional neighborhood high schools.

Table 5. Frequencies and Percentages of STAAR English I EOC Masters Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 3,759) 5.5%	(*n* = 64,693) 94.5%
Traditional High Schools	(*n* = 9,122) 5.0%	(*n* = 175,131) 95.0%
2017-2018		
Schools of Choice	(*n* = 2,290) 3.1%	(*n* = 70,653) 96.9%
Traditional High Schools	(*n* = 5,933) 3.2%	(*n* = 179,092) 96.8%
2018-2019		
Schools of Choice	(*n* = 3,948) 5.8%	(*n* = 63,897) 94.2%
Traditional High Schools	(*n* = 9,629) 5.7%	(*n* = 158,636) 94.3%

Concerning the 2017-2018 school year, the difference was not statistically significant, $\chi^2(1) = .76$, $p = .38$. Similar percentages of Hispanic students met the Masters Grade Level standard, regardless of the type of school they were enrolled in. Table 5 contains the descriptive statistics for this analysis.

With regard to the 2018-2019 school year, a statistically significant difference was not present, $\chi^2(1) = 0.83$, $p = .36$. The performance of Hispanic students on the STAAR English I EOC exam Masters Grade Level standard was similar, regardless of their high school enrollment type. Delineated in Table 5 are the frequencies and percentages of Hispanic students who met the STAAR English I EOC exam at the Masters Grade Level standard.

3.6 Masters Grade Level Performance Analyses of Black Students for English I

For the research question on whether differences were present between schools of choice and traditional comprehensive schools in the English 1 EOC exam passing rates of their Black students at the Masters Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 27.62$, $p < .001$, Cramer's V of .020, a lower than small effect size. As revealed in Table 6, a higher percentage, almost one percentage point higher, of Black students enrolled in schools of choice met the STAAR English I EOC exam Masters Grade Level standard, than did Black students enrolled in traditional comprehensive high schools.

Table 6. Frequencies and Percentages of STAAR English I EOC Masters Grade Level Performance Standard of Black Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 646) 3.9%	(*n* = 15,725) 96.1%
Traditional High Schools	(*n* = 1,534) 3.1%	(*n* = 47,974) 96.9%
2017-2018		
Schools of Choice	(*n* = 463) 2.6%	(*n* = 17,543) 97.4%
Traditional High Schools	(*n* = 1,096) 2.1%	(*n* = 50,490) 97.9%
2018-2019		
Schools of Choice	(*n* = 820) 4.6%	(*n* = 16,894) 95.4%
Traditional High Schools	(*n* = 1,989) 4.2%	(*n* = 45,612) 95.8%

With respect to the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 12.16$, $p < .001$, Cramer's V of .013, a below small effect size (Cohen, 1988). A statistically significantly higher percentage, half a percentage point higher, of Black students enrolled in schools of choice met the STAAR English I EOC exam at the Masters Grade level standard than did Black students enrolled in traditional neighborhood campuses. Table 6 contains the descriptive statistics for this analysis.

Concerning the 2018-2019 school year, the Pearson chi-square analysis yielded a statistically significant difference, $\chi^2(1) = 6.37$, $p = .012$. A statistically significantly higher percentage, almost half a percentage point higher, of Black students enrolled in schools of choice met the STAAR English I EOC exam at the Masters Grade level standard than did Black students enrolled in traditional neighborhood campuses. Delineated in Table 6 are the frequencies and percentages of Black students who met the STAAR English I EOC exam at the Masters Grade Level standards for all three consecutive school years.

3.7 Approaches Grade Level Performance Analyses of Hispanic Students for Algebra I

With respect to the performance of Hispanic students on the Algebra 1 EOC exam at the Approaches Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 372.17$, $p < .001$. The effect size for this finding, Cramer's V, was a below small effect size, .05 (Cohen, 1988). As delineated in Table 7, a statistically significantly lower percentage, a little over five percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Approaches Grade level standard than did Hispanic students who were enrolled in traditional comprehensive high schools.

Table 7. Frequencies and Percentages of STAAR Algebra I EOC Approaches Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 23,075) 67.2%	(*n* = 11,283) 32.8%
Traditional High Schools	(*n* = 82,271) 72.5%	(*n* = 31,151) 27.5%
2017-2018		
Schools of Choice	(*n* = 25,502) 68.1%	(*n* = 11,957) 31.9%
Traditional High Schools	(*n* = 92,604) 74.7%	(*n* = 31,420) 25.3%
2018-2019		
Schools of Choice	(*n* = 24,061) 70.4%	(*n* = 10,123) 29.6%
Traditional High Schools	(*n* = 84,314) 74.8%	(*n* = 28,458) 25.2%

Concerning the 2017-2018 school year, the Pearson chi-square analysis resulted in a statistically significant

difference, $\chi^2(1) = 635.27$, $p < .001$, Cramer's V of .063, a below small effect size (Cohen, 1988). A statistically significantly lower percentage, almost seven percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR English I EOC exam at the Approaches Grade level standard than did Hispanic students who were enrolled in traditional high schools. Table 7 contains the descriptive statistics for this analysis.

With regard to the 2018-2019 school year, a statistically significant difference was present, $\chi^2(1) = 259.73$, $p < .001$, Cramer's V of .042, a below small effect size (Cohen, 1988). A statistically significantly lower percentage, a little over four percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR English I EOC exam at the Approaches Grade level standard than did Hispanic students who were enrolled in traditional high schools. Delineated in Table 7 are the descriptive statistics for this analysis.

3.8 Approaches Grade Level Performance Analyses of Black Students for Algebra I

Regarding the performance of Black students on the Algebra 1 EOC exam at the Approaches Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 4.14$, $p = .042$. The effect size for this finding, Cramer's V, was a below small effect size, .009 (Cohen, 1988). As delineated in Table 8, a statistically significantly higher percentage, a little over one percentage point higher, of Black students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Approaches Grade level standard than did Black students enrolled in traditional neighborhood high schools.

Table 8. Frequencies and Percentages of STAAR Algebra I EOC Approaches Grade Level Performance Standard of Black Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 6,253) 59.4%	(*n* = 4,274) 40.6%
Traditional High Schools	(*n* = 20,769) 58.3%	(*n* = 14,863) 41.7%
2017-2018		
Schools of Choice	(*n* = 6,419) 61.8%	(*n* = 3,973) 38.2%
Traditional High Schools	(*n* = 21,403) 63.3%	(*n* = 12,424) 36.7%
2018-2019		
Schools of Choice	(*n* = 6,560) 63.2%	(*n* = 3,827) 36.8%
Traditional High Schools	(*n* = 20,577) 66.6%	(*n* = 10,342) 33.4%

With respect to the 2017-2018 school year, the Pearson chi-square analysis yielded a statistically significant difference, $\chi^2(1) = 7.70$, $p = .006$, Cramer's V of .013, a below small effect size (Cohen, 1988). A statistically significantly lower percentage, one-and-a-half percentage points lower, of Black students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Approaches Grade level standard than did Black students who were enrolled in traditional high schools. Contained in Table 8 are the descriptive statistics for this analysis.

Concerning the 2018-2019 school year, the Pearson chi-square analysis indicated the presence of a statistically significant difference, $\chi^2(1) = 39.78$, $p < .001$, Cramer's V of .031, lower than a small effect size (Cohen, 1988). A statistically significantly lower percentage, a little over three percentage points lower, of Black students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Approaches Grade level standard than did Black students who were enrolled in traditional high schools. Table 8 contains the descriptive statistics for this analysis.

3.9 Meets Grade Level Performance Analyses of Hispanic Students for Algebra I

Concerning the research question on whether differences were present between schools of choice and traditional comprehensive schools in the Algebra 1 EOC exam passing rates of their Hispanic students at the Meets Grade Level standard for the 2016-2017 school year, the Pearson chi-square analysis yielded a statistically significant difference, $\chi^2(1) = 561.10$, $p < .001$. The effect size for this finding, Cramer's V, was a below small effect size, .062 (Cohen, 1988). As revealed in Table 9, a little over seven percentage points higher of Hispanic students enrolled in schools of choice met the STAAR Algebra I EOC exam Meets Grade Level standard than did Hispanic students who were enrolled in traditional comprehensive high schools.

Table 9. Frequencies and Percentages of STAAR Algebra I EOC Meets Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 13,184) 38.4%	(*n* = 21,174) 61.6%
Traditional High Schools	(*n* = 51,734) 45.6%	(*n* = 61,688) 54.4%
2017-2018		
Schools of Choice	(*n* = 14,371) 38.4%	(*n* = 23,088) 61.6%
Traditional High Schools	(*n* = 58,772) 47.4%	(*n* = 65,252) 52.6%
2018-2019		
Schools of Choice	(*n* = 15,794) 46.2%	(*n* = 18,390) 53.8%
Traditional High Schools	(*n* = 58,602) 52.0%	(*n* = 54,170) 48.0%

With respect to the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 635.27$, $p < .001$, Cramer's V of .063, a below small effect size (Cohen, 1988). A statistically significantly lower percentage, nine percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Meets Grade level standard than did Hispanic students enrolled in traditional neighborhood campuses. Table 9 contains the descriptive statistics for this analysis.

Regarding the 2018-2019 school year, a statistically significant difference was revealed, $\chi^2(1) = 348.44$, $p < .001$, Cramer's V of .049, a below small effect size (Cohen,1988). A statistically significantly lower percentage, almost six percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Meets Grade Level standard than did Hispanic students who were enrolled in traditional comprehensive schools. Delineated in Table 9 are the descriptive statistics for this analysis.

3.10 Meets Grade Level Performance Analyses of Black Students for Algebra I

With respect to the performance of Black students on the Algebra 1 EOC exam at the Meets Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 5.34$, $p = .021$. The effect size for this finding, Cramer's V, was a below small effect size, .011 (Cohen, 1988). As revealed in Table 10, a statistically significantly lower percentage, a little over one percentage point lower, of Black students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Meets Grade level standard than did Black students who were enrolled in traditional comprehensive high schools.

Table 10. Frequencies and Percentages of STAAR Algebra I EOC Meets Grade Level Performance Standard of Black Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 2,797) 26.6%	(*n* = 7,730) 73.4%
Traditional High Schools	(*n* = 9,875) 27.7%	(*n* = 25,757) 72.3%
2017-2018		
Schools of Choice	(*n* = 2,998) 28.8%	(*n* = 7,394) 71.2%
Traditional High Schools	(*n* = 10,739) 31.7%	(*n* = 23,088) 68.3%
2018-2019		
Schools of Choice	(*n* = 3,495) 33.6%	(*n* = 6,892) 66.4%
Traditional High Schools	(*n* = 12,237) 39.6%	(*n* = 18,682) 60.4%

Concerning the 2017-2018 school year, the Pearson chi-square analysis yielded a statistically significant difference, $\chi^2(1) = 31.17$, $p < .001$, Cramer's V of .027, a below small effect size (Cohen, 1988). A statistically

significantly lower percentage, almost three percentage points lower, of Black students enrolled in schools of choice met the STAAR English I EOC exam at the Meets Grade level standard than did Black students enrolled in traditional high school campuses. Table 10 contains the descriptive statistics for this analysis.

Regarding the 2018-2019 school year, a statistically significant difference was present, $\chi^2(1) = 115.94$, $p < .001$, Cramer's V of .053, a below small effect size (Cohen, 1988). A statistically significantly lower percentage, six percentage points lower, of Black students enrolled in schools of choice met the STAAR English I EOC exam at the Meets Grade level standard than did Black students enrolled in traditional neighborhood high schools. Delineated in Table 10 are the descriptive statistics for this analysis.

3.11 Masters Grade Level Performance Analyses of Hispanic Students for Algebra I

Regarding the research question on whether differences existed between schools of choice and traditional neighborhood campuses in terms of the performance of their Hispanic students on the Algebra 1 EOC exam at the Masters Grade Level standard for the 2016-2017 school year, the Pearson chi-square analysis yielded a statistically significant difference, $\chi^2(1) = 848.74$, $p < .001$. The effect size for this finding, Cramer's V of .076, was a below small effect size (Cohen, 1988). As indicated in Table 11, a statistically significantly lower percentage, a little over seven percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Masters Grade level standard than did Hispanic students enrolled in traditional neighborhood high schools.

Table 11. Frequencies and Percentages of STAAR Algebra I EOC Masters Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

	Met	Did Not Meet
School Year and School Type	*n* and %age of Total	*n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 4,903) 14.3%	(*n* = 29,455) 85.7%
Traditional High Schools	(*n* = 24,287) 21.4%	(*n* = 89,135) 78.6%
2017-2018		
Schools of Choice	(*n* = 6,724) 18.0%	(*n* = 30,735) 82.0%
Traditional High Schools	(*n* = 31,800) 25.6%	(*n* = 92,224) 74.4%
2018-2019		
Schools of Choice	(*n* = 8,359) 24.5%	(*n* = 25,825) 75.5%
Traditional High Schools	(*n* = 34,630) 30.7%	(*n* = 78,142) 69.3%

With respect to the 2017-2018 school year, the Pearson chi-square analysis revealed the presence of a statistically significant difference, $\chi^2(1) = 936.57$, $p < .001$, Cramer's V of .076, a below small effect size (Cohen, 1988). A statistically significantly lower percentage, almost eight percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Masters Grade level standard than did Hispanic students enrolled in traditional neighborhood high schools. Table 11 contains the descriptive statistics for this analysis.

Concerning the 2018-2019 school year, a statistically significant difference was present, $\chi^2(1) = 495.92$, $p < .001$, Cramer's V of .058, a below small effect size (Cohen, 1988). A statistically significantly lower percentage, a little over six percentage points lower, of Hispanic students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Masters Grade level standard than did Hispanic students enrolled in traditional neighborhood high schools. Delineated in Table 11 are the descriptive statistics for this analysis.

3.12 Masters Grade Level Performance Analyses of Black Students for Algebra I

With respect to the performance of Black students on the STAAR Algebra I EOC exam at the Masters Grade Level standard for the 2016-2017 school year, the result was statistically significant, $\chi^2(1) = 42.97$, $p < .001$. The effect size for this finding, Cramer's V of .031, was a below small effect size (Cohen, 1988). As indicated in Table 12, a statistically significantly lower percentage, a little over two percentage points lower, of Black students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Masters Grade level standard than did Black students enrolled in traditional neighborhood high schools.

Table 12. Frequencies and Percentages of STAAR Algebra I EOC Masters Grade Level Performance Standard of Black Students by School Type for All Three School Years

School Year and School Type	Met *n* and %age of Total	Did Not Meet *n* and %age of Total
2016-2017		
Schools of Choice	(*n* = 811) 7.7%	(*n* = 9,716) 92.3%
Traditional High Schools	(*n* = 3,499) 9.8%	(*n* = 32,133) 90.2%
2017-2018		
Schools of Choice	(*n* = 1,063) 10.2%	(*n* = 9,329) 89.8%
Traditional High Schools	(*n* = 4,640) 13.7%	(*n* = 29,187) 86.3%
2018-2019		
Schools of Choice	(*n* = 1,447) 13.9%	(*n* = 8,940) 86.1%
Traditional High Schools	(*n* = 6,056) 19.6%	(*n* = 24,863) 80.4%

Concerning the 2017-2018 school year, a statistically significant difference was yielded, $\chi^2(1) = 86.09$, $p < .001$, Cramer's V of .044, a below small effect size (Cohen, 1988). A statistically significantly lower percentage, three-and-a-half percentage points lower, of Black students enrolled in schools of choice met the STAAR Algebra I EOC exam at the Masters Grade level standard than did Black students enrolled in traditional comprehensive campuses. Table 12 contains the descriptive statistics for this analysis.

Regarding the 2018-2019 school year, the Pearson chi-square yielded a statistically significant difference, $\chi^2(1) = 167.31$, $p < .001$, Cramer's V of .064, a below small effect size (Cohen,1988). A statistically significantly lower percentage, almost six percentage point lower, of Black students enrolled in schools of choice performed at the Masters Grade Level standard on the Algebra 1 EOC exam than did Black students enrolled in traditional comprehensive schools. Revealed in Table 12 are the descriptive statistics for this analysis.

3.13 English I EOC Exam Performance of Hispanic Students for All Three School Years

With respect to the academic performance of Hispanic students on the English I EOC exam, the percentages of students who met the Approaches Grade Level standard increased overall across the three consecutive school years regardless of the school type. Hispanic students who attended traditional neighborhood high schools consistently outperformed their peers who attended schools of choice for all three school years. The percentages of Hispanic students who met the Approaches Grade Level standard are displayed in Figure 1.

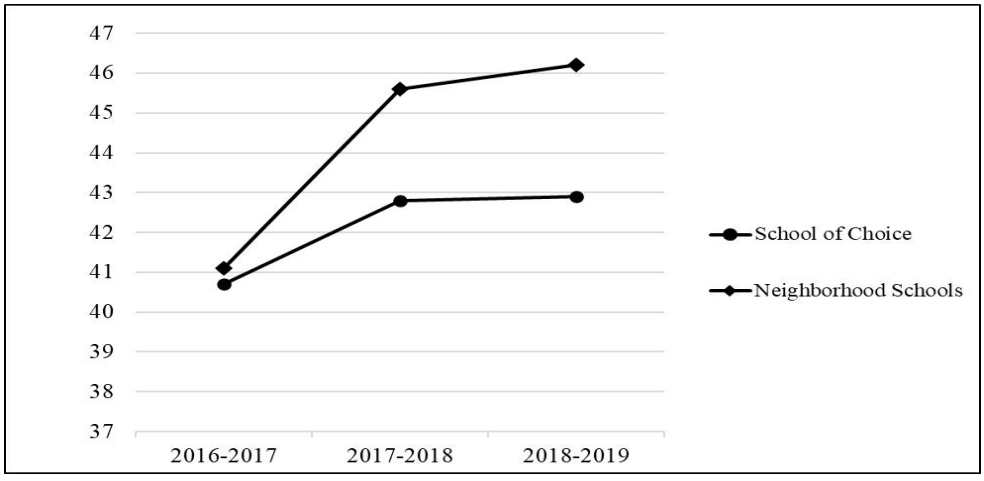

Figure 1. Percentages of STAAR English I EOC Approaches Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

In regard to the performance of students at the Meets Grade Level standard, regardless of their school type, the percentages of students who met this standard decreased from the 2016-2017 school year to the 2017-2018

school year. Although the percentages of students who met this standard from both types of schools increased from the 2017-2018 school year to the 2018-2019 school year, Hispanic students from neighborhood campuses outperformed their peers enrolled in schools of choice for both school years. The percentages of Hispanic students who met the Approaches Grade Level standard are shown in Figure 2.

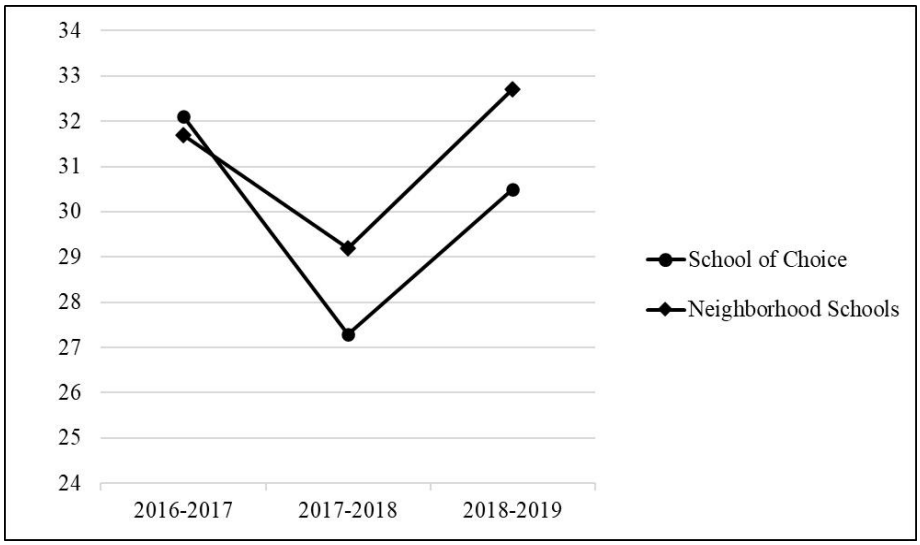

Figure 2. Percentages of STAAR English I EOC Meets Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

Similar with the academic achievement at the Meets Grade Level standard, the percentages of students who met the Masters Grade Level standard on the English I EOC exam, decreased from the 2016-2017 school year to the 2017-2018 school year. However, the percentages of students from both types of schools meeting this standard increased from the 2017-2018 school year to the 2018-2019 school year. Hispanic students enrolled in schools of choice outperformed their peers from neighborhood campuses in the 2016-2017 and 2018-2019 school years. Displayed in Figure 3 are the percentages of Hispanic students who met the Masters Grade Level standard on the English I EOC exam.

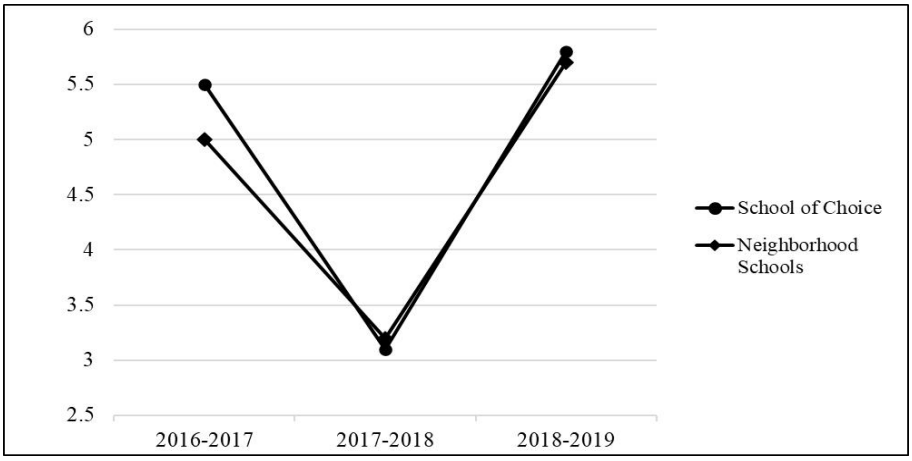

Figure 3. Percentages of STAAR English I EOC Masters Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

3.14 English I EOC Exam Performance of Black Students for All Three School Years

Regarding the academic achievement at the Approaches Grade Level standard, the percentages of Black students who met this standard consistently increased over the three consecutive school years regardless of their school enrollment. Black students enrolled in schools of choice outperformed Black students from the neighborhood campuses in the 2016-2017 and 2018-2019 school years. The percentages of Black students who met the

Approaches Grade Level standard are shown in Figure 4.

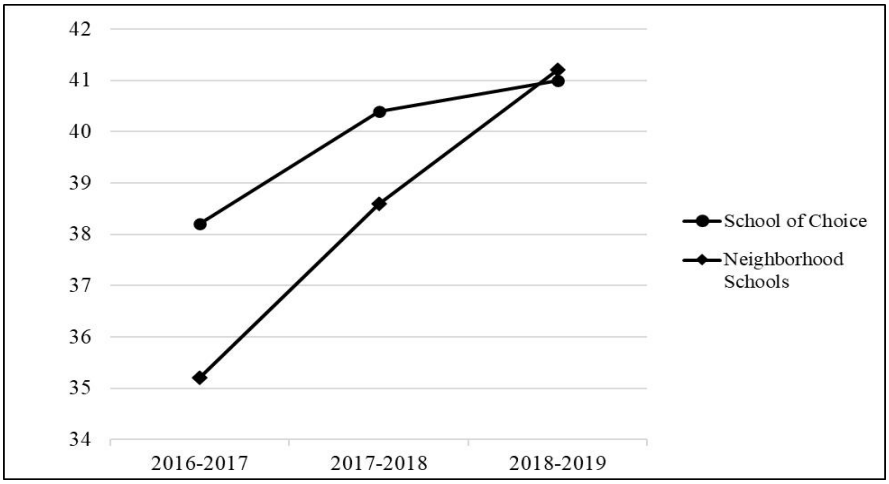

Figure 4. Percentages of STAAR English I EOC Approaches Grade Level Performance Standard of Black Students by School Type for All Three School Years

Concerning the performance of students on the English I EOC exam at the Meets Grade Level standard, the percentages of Black students who met this standard decreased from the 2016-2017 school year to the 2017-2018 school year. The percentages of students who met Meets Grade Level standard increased again in the following school year regardless of school type. Black students enrolled in schools of choice outperformed their peers enrolled in neighborhood high schools for the first two school years. Presented in Figure 5 are the percentages of Black students who met the Meets Grade Level standard.

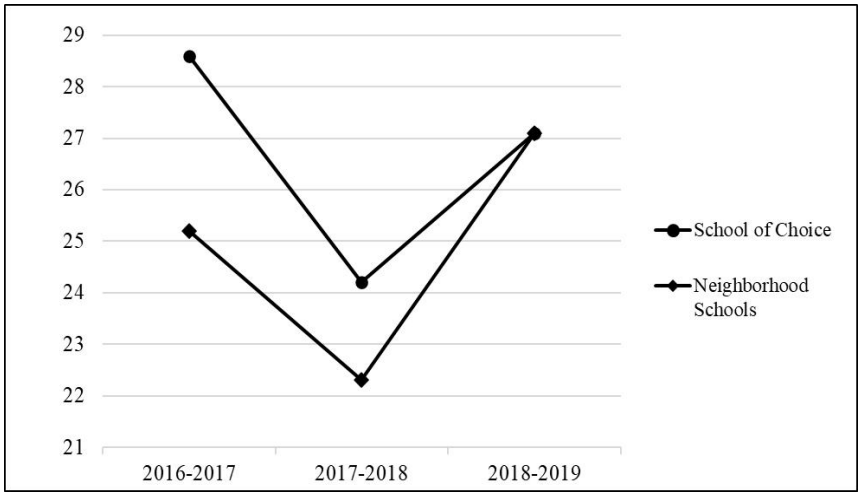

Figure 5. Percentages of STAAR English I EOC Meets Grade Level Performance Standard of Black Students by School Type for All Three School Years

With respect to the academic achievement at the Masters Grade Level standard, the percentage of Black students enrolled in schools of choice and who met this standard was consistently higher than the percentage of Black students from the neighborhood high schools who met the same standard. Student achievement was at the lowest during the 2017-2018 school year for both school types. Depicted in Figure 6 are the percentages of Black students who met the Masters Grade Level standard on the English I EOC exam.

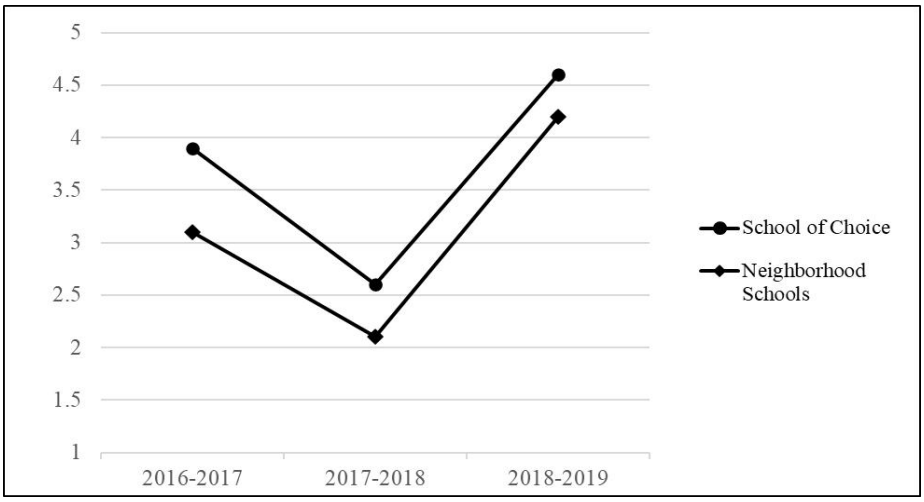

Figure 6. Percentages of STAAR English I EOC Masters Grade Level Performance Standard of Black Students by School Type for All Three School Years

3.15 Algebra I EOC Exam Performance of Hispanic Students for All Three School Years

With respect to the academic achievement of students on the Algebra I EOC exam, the percentages of Hispanic students enrolled in schools of choice who met the standard consistently increased over the three consecutive school years. Meanwhile, the percentages of Hispanic students from traditional high schools who met the standard decreased overall across the three school years. Hispanic students from schools of choice outperformed their peers from the neighborhood campuses in the 2018-2019 school year. The percentages of Hispanic students who met the Approaches Grade Level standard are displayed in Figure 7.

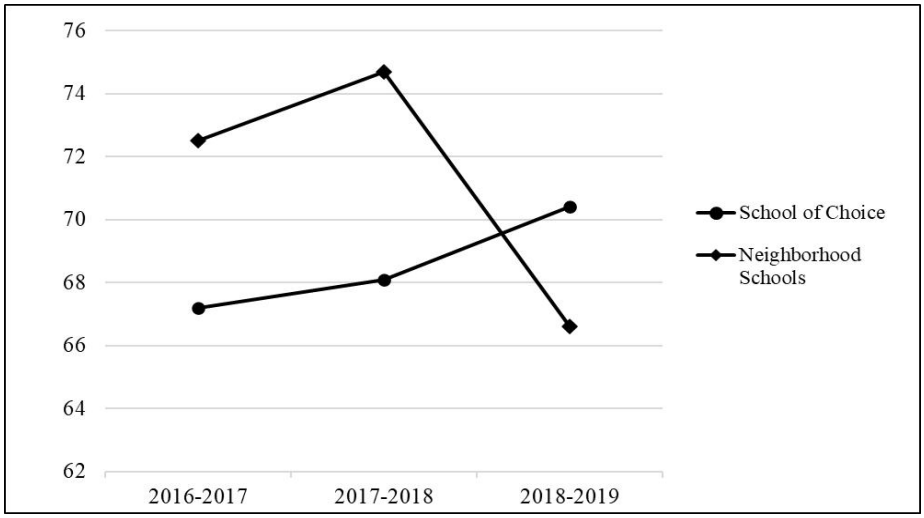

Figure 7. Percentages of STAAR Algebra I EOC Approaches Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

In regard to the academic performance at the Meets Grade Level standard, regardless of their school type, the percentages of Hispanic students who met this standard increased overall across all three school years. Hispanic students enrolled in traditional campuses performed consistently better than their peers enrolled in schools of choice. The percentages of Hispanic students who met the Approaches Grade Level standard are presented in Figure 8.

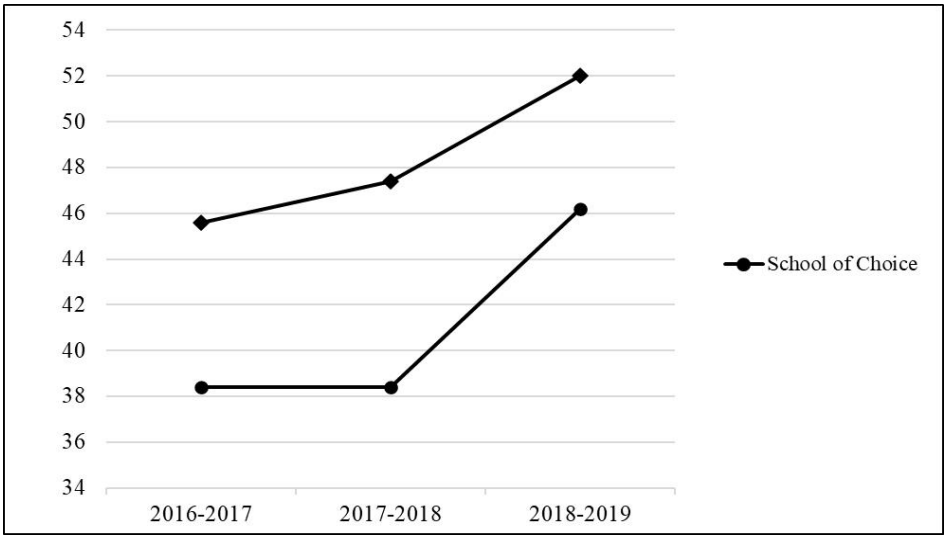

Figure 8. Percentages of STAAR Algebra I EOC Meets Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

Similar with the performance at the Meets Grade Level standard, the percentages of students who met the Masters Grade Level standard on the English I EOC exam consistently increased across all school years. The percentages of Hispanic students from traditional high schools who met this standard were also consistently higher than the percentages of Hispanic students from schools of choice who met this same standard. Displayed in Figure 9 are the percentages of Hispanic students who met the English I EOC Masters Grade Level standard.

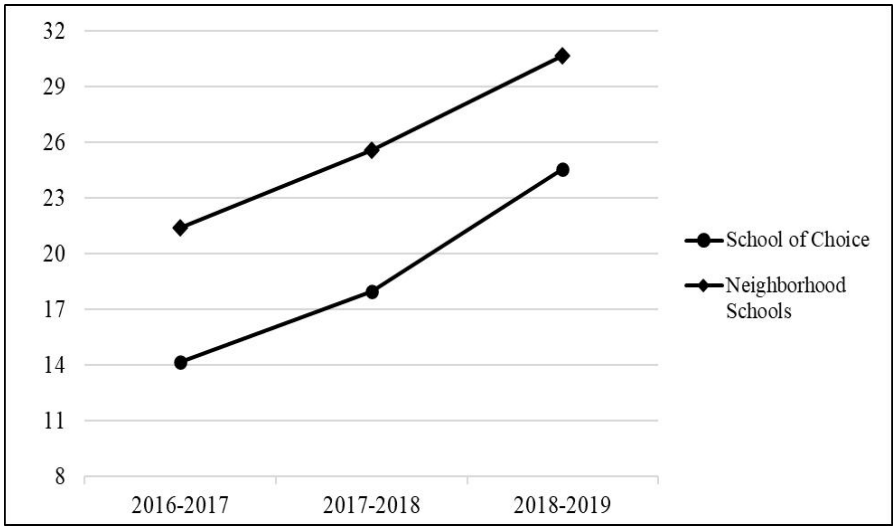

Figure 9. Percentages of STAAR Algebra I EOC Masters Grade Level Performance Standard of Hispanic Students by School Type for All Three School Years

3.16 Algebra I EOC Exam Performance of Black Students for All Three School Years

Regarding the performance of students on the Algebra I EOC exam, the percentages of Black students who met the Approaches Grade Level standard increased consistently across all the three consecutive school years regardless of school type. Black students enrolled in schools of choice outperformed their peers in the 2016-2017 school year but not in the 2017-2018 and 2018-2019 school years. The percentages of Black students who met the Approaches Grade Level standard are illustrated in Figure 10.

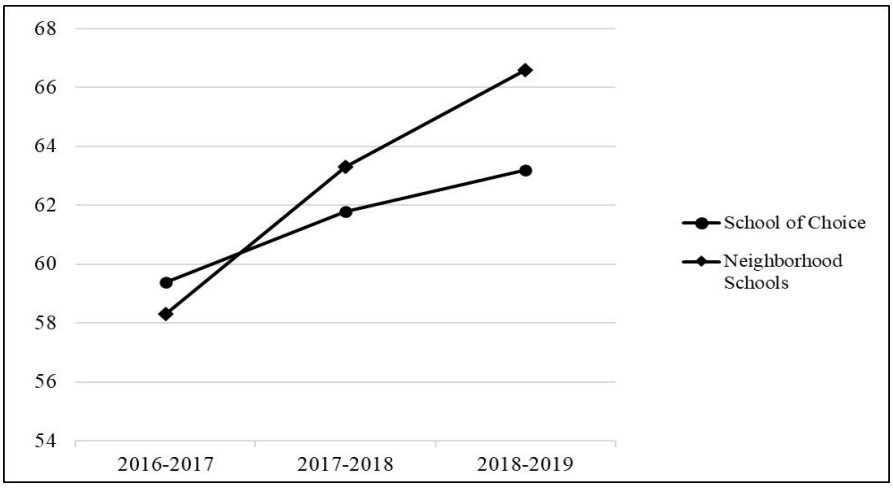

Figure 10. Percentages of STAAR Algebra I EOC Approaches Grade Level Performance Standard of Black Students by School Type for All Three School Years

Concerning the performance of Black students at the Meets Grade Level standard, the percentages of students who met this standard increased consistently over the three school years. In all three school years, Black students who were enrolled in traditional neighborhood high schools outperformed Black students enrolled in schools of choice. Depicted in Figure 11 are the percentages of Black students who met the Meets Grade Level standard.

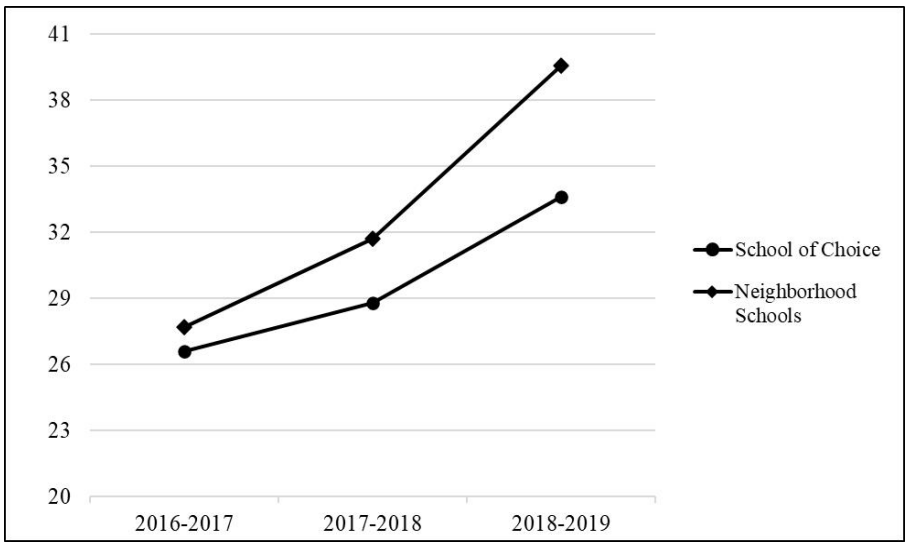

Figure 11. Percentages of STAAR Algebra I EOC Meets Grade Level Performance Standard of Black Students by School Type for All Three School Years

Similar with the performance at the Meets Grade Level standard, the percentages of Black students who met the Masters Grade Level standard on the Algebra I EOC exam, increased across all three school years. The percentages of Black students in neighborhood campuses who met the Masters Grade Level standard were consistently higher than the percentages of students from schools of choice who met this same standard on all three school years. Displayed in Figure 12 are the percentages of Black students who met the Masters Grade Level standard on the Algebra I EOC exam.

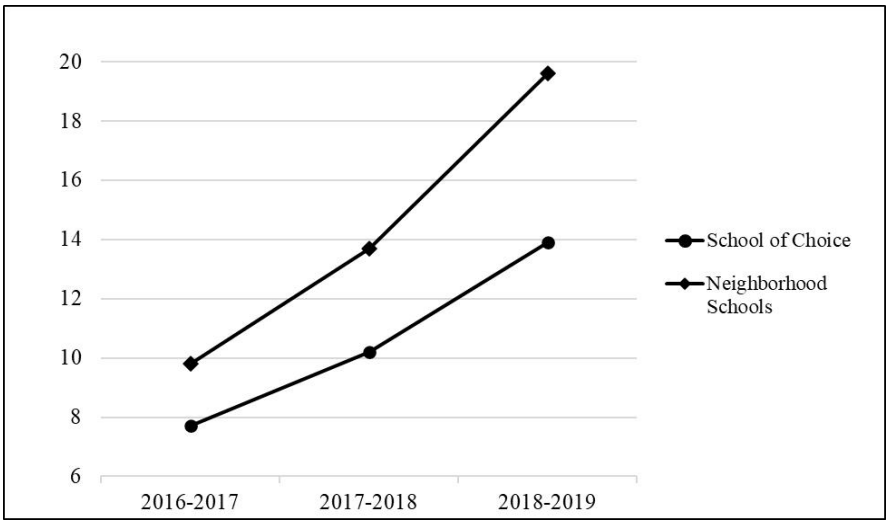

Figure 12. Percentages of STAAR Algebra I EOC Masters Grade Level Performance Standard of Black Students by School Type for All Three School Years

4. Discussion

In this statewide multi-year investigation, differences between traditional schools of choice and traditional neighborhood schools in the state of Texas were examined in terms of the performance of their students of color in the English I and Algebra 1 STAAR EOC exams. The percentages of Hispanic students and Black students who met the Approaches Grade Level, the Meets Grade Level, and the Masters Grade Level standards were compared for both types of schools to determine the presence of significant differences. Based on the results of the statistical analysis on the academic achievement of students at-risk, significant differences were exhibited between schools of choice and traditional high schools on almost all the grade level standards across all three school years for both the English I and Algebra 1 EOC exams.

Hispanic students enrolled in traditional high schools overall outperformed their peers from the schools of choice at the Approaches and Meets Grade Level standards on the English I exam across all three school years except in the 2016-2017 school year in which no significant differences emerged at the Meets Grade Level standard. Similarly, no significant differences were confirmed at the Masters Grade Level standard for the 2017-2018 and 2018-2019 school years. However, Hispanic students from the schools of choice outperformed their peers from the traditional campuses on the English I exam at this same grade level standard. As for the Algebra I exam, Hispanic students from the traditional high schools performed better on all grade level standards across all three school years except at the Meets Grade Level standard in the 2016-2017 school year.

Results were different for Black students. On the English I EOC exam, Black students enrolled in schools of choice statistically significantly outperformed their peers from traditional high schools on almost all the grade level standards across all three school years. In contrast, Black students from neighborhood campuses outperformed their peers enrolled in schools of choice on the Algebra I EOC exam on all the grade level standards across all three school years. Based on these mixed results, it is not clear which type of high school had better academic outcomes.

4.1 Connections to Existing Literature

As stated above, school type was statistically significantly related to the academic achievement of students of color in English I and Algebra I. However, the mixed results from this investigation were in contrast with a number of previous researchers who provided evidence of positive effects of school choice participation on reading and mathematics performance (e.g., Bicer & Capraro, 2018; Bonner, 2017; Kitmitto et al., 2016; Sahin et al., 2017). The mixed findings from this study, consistent with previous researchers (e.g., Berends, 2015; Browne & Slate, 2021; Cohodes, 2018; Jabbar et al., 2019; Linkow, 2011; Raymond et al., 2013) provide insufficient evidence that school choice offers the much sought-after academic benefits for students of color when compared with neighborhood campuses. Nevertheless, the positive outcomes that emerged from this investigation do not discount the potential of school choice programs to narrow the achievement gaps of students of color more specifically for Black students. Because of the newness of school choice expanding within public school districts, it can be conjectured that the implementation of their programs is at the beginning level.

4.2 Implications for Policy and Practice

Based on the results of this multi-year statewide investigation, several implications for policy and practice are hereby described. Given that the type of school choice currently expanding within traditional public-school districts was envisioned as a collective response to current market-based demands for 21st century workforce skills development (Kaplan & Owings, 2018), policymakers need to advocate for the funding of large scale research to evaluate the alignment of traditional core subjects with choice programs of study so that districts of choice are more responsive to the needs of their students of color. Policymakers also need to expand school choice funding to enable districts of choice to partner with other local educational institutions and businesses to evaluate the relevance of program offerings to the needs of the local community they serve. Given the mixed results of this study, some schools of choice may have been more effective than other schools of choice. As such, educational leaders are encouraged to conduct their own research to identify the best practices that work in the most effective schools of choice. As school choice moves forward within traditional public-school districts, district level administrators need to provide and sustain the necessary professional development training to their staff (e.g., program directors and teachers) to support both the cognitive and non-cognitive needs of their students of color.

4.3 Recommendations for Future Research

Several recommendations for future research can be made based on the results of this study. First, researchers are encouraged to conduct a longitudinal study on the graduation and dropout rates of students of color in Texas and in other states to generate a better understanding of the influence of school choice on student outcomes. Second, another longitudinal study should be implemented on the long-term postsecondary outcomes and career trajectories of Hispanic and Black students enrolled in school of choice. Third, because only English I and Algebra I data were analyzed for this study, researchers are strongly encouraged to analyze data in English II, Biology, and U.S. History, all of which, are requisites for high school graduation in the state of Texas. Fourth, this study should be expanded to other states for schools to ascertain the degree to which results delineated here would be generalizable. Lastly, researchers should compare the graduation and dropout rates of Hispanic and Black students enrolled in schools of choice and their peers from traditional campuses.

5. Conclusion

The extent to which differences in the academic achievement of students of color between neighborhood high schools and high schools of choice in terms of their performance in the English I and Algebra 1 EOC exams were examined. Hispanic students enrolled in zoned campuses overall outperformed their peers from the schools of choice at the Approaches and Meets Grade Level standards but not at the Masters Grade Level standard on the English I exam and on the Algebra I exam except at the Meets Grade Level standard in the 2016-2017 school year. Black students enrolled in schools of choice overall outperformed their peers from the traditional high schools on the English I exam but not on the Algebra I EOC exam. Based on these mixed results it could not be ascertained that a specific type of school is a better predictor for student achievement. Nevertheless, based on the positive outcomes, the small positive effects, and the absence of negative outcomes for all student groups, the potential for school choice programs to provide benefits for historically underperforming students' needs further investigation.

References

Archbald, D. A, Hurwitz, A., & Hurwitz, F. (2018). Charter schools, parent choice, and segregation: A longitudinal study of the growth of charters and changing enrollment patterns in five school districts over 26 years. *Education Policy Analysis Archives*, *26*(22), 1-41. https://doi.org/10.14507/epaa.26.2921.

Barden, K. J. K., & Lassman, M. E. (2016). Charter schools and public schools in Texas. *Education*, *136*(3), 291-298.

Berends, M. (2015). Sociology and school choice: What we know after two decades of charter schools. *Annual Review of Sociology*, *41*, 159-180. https://doi.org/10.1146/annurev-soc-073014-112340.

Bicer, A., & Capraro, R. M. (2019). Mathematics achievement in the secondary high school context of STEM and non-STEM schools. *School Science & Mathematics*, *119*(2), 61-71. https://doi.org/10.1111/ssm.12321.

Bischoff, K., & Tach, L. (2018). The racial composition of neighborhoods and local schools: The role of diversity, inequality, and school choice. *City & Community*, *17*(3), 675-701. https://doi.org/10.1111/cico.12323.

Blatt, L., & Votruba-Drzal, E. (2021). District-level school choice and racial/ethnic test score gaps. *American Educational Research Journal*, *20*(10), 1-47. https://doi.org/10.3102/0002831221999405.

Burrowes, J., Young, A., Restuccia, D., Fuller, J., & Raman, M. (2014). *Bridge the gap: rebuilding America's middle skills*. https://www.hbs.edu/competitiveness/Documents/bridge-the-gap.pdf.

Browne, D., & Slate, J. R. (2021). Differences between schools of choice and traditional comprehensive schools

in their Grade 9 academic performance. *International Journal of Social Learning* (IJSL), *2*(1), 1-15. https://doi.org/10.47134/ijsl.v2i1.39.

Carnavale, A. P., Strohl, J., Ridley, N., & Gulish, A. (2018). Three educational pathways to good jobs: High school, middle schools, and bachelor's degree. *Georgetown Career on Education and the Workforce* [PDF file]. https://luminafoundation.org/wp-content/uploads/2019/03/3-pathways-to-good-jobs.pdf.

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

Flores, S. M., Park, T. J., & Baker, D. J. (2017). The racial college completion gap: Evidence from Texas. *Journal of Higher Education*, *88*(6), 894-921. https://doi.org/10.1080/00221546.2017.1291259.

Intercultural Development Research Association. (2021). *Texas public school attrition study 2019-20.* https://www.idra.org/wp-content/uploads/2021/06/IDRA-Attrition-Study-2019-20.pdf.

Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, and mixed approaches* (7th ed.). Sage.

Kaplan, L. S., & Owings, W. A. (2018). Betsy DeVos's education reform agenda: What principals and their publics need to know. *NASSP Bulletin*, *102*(1), 58-84.

Kitmitto, S., Levin, J., Betts, J., Bos, J., & Eaton, M. (2016). What happens when schools become magnet schools? A longitudinal study of diversity and achievement. *Society for Research on Educational Effectiveness.* (ED567120). *ERIC.* https://files.eric.ed.gov/fulltext/ED567120.pdf.

Kotok S., Knight, D. S., Jabbar, H., Rivera, L. E., & Rincones, R. (2019). On becoming a district of choice: Implications for equity along the United State-Mexico border. *Education Administration Quarterly*, *55*(4), 615-656. https://doi.org/10.1177/0013161X18821357.

Langdon, D., McKittrick, G., Beede, D., Khan, B., & Doms, M. (2011). *STEM: Good jobs now and in the future.* U.S. Department of Commerce, Economics and Statistics Administration Issue Brief #03-11. (ED522129). *ERIC*. https://files.eric.gov/fulltext/ED522129.pdf.

Linkow, T. M. (2011). Disconnected reform: The proliferation of school choice options in U.S. school districts. *Journal of School Choice, 5*(4), 414-443. https://doi.org/10.1080/15582159.2011.624932.

Merolla, D. M. (2018). Completing the educational career: High school graduation, four-year college enrollment, and bachelor's degree completion among Black, Hispanic, and White students. *Sociology of Race & Ethnicity, 4*(2), 281-297.

National Center for Education Statistics. (2020). Table 216.20: Number and enrollment of public elementary and secondary schools, by school level, type, and charter, magnet, and virtual status: Selected years, 1990-91 through 2018-19. *Digest of Education Statistics*. https://nces.ed.gov/programs/digest/d20/tables/dt20_216.20.asp.

National Center for Education Statistics. (2021). *Status dropout rates.* https://nces.ed.gov/programs/coe/indicator/coj?tid=4.

National School Boards Association. (2020). *Black students in the condition of education 2020*. https://www.nsba.org/Perspectives/2020/black-students-condition-education.

Ni, Y., & Arsen, D. (2011). School choice participation rates: which districts are pressured? *Education Policy Archives*, *19*(29), 1-27. http://epaa.asu.edu/ojs/article/view/777.

Noonan, R. (2017). *STEM jobs: 2017 Update*. Office of the Chief Economist, Economics and Statistics Administration, U.S. Department of Commerce. (ED594354). *ERIC.* https://files.eric.ed.gov/fulltext/ED594354.pdf.

Raymond, M. E., Cremata, E., Davis, D., Dickey, K., Lawyer, K., Negassi, Y., & Woodworth, J.L. (2013), National Charter school study. *Center for Research on Education Outcomes*. https://credo.stanford.edu/sites/g/files/sbiybj6481/f/ncss_2013_final_draft.pdf.

Rogers, K. D. Jr. (2020). Centering the M in STEM: A review of Black students' math experiences. *The Negro Education Review*, *71*(1-4), 7-52.

Salkind, N. J. (2010). *Encyclopedia of research design.* Sage.

Schenker, J. D., & Rumrill, P. D. (2004). Causal-comparative research designs. *Journal of Vocational Rehabilitation*, *21*(3), 117-121.

Slate, J. R., & Rojas-LeBouef, A. (2011). *Calculating basic statistical procedures in SPSS: A self-help and practical guide to preparing theses, dissertations, and manuscripts.* NCPEA Press.

Tajalli, H., & Ortiz, M. (2018). An examination of Hispanic college enrollment and graduation: Has the Texas

Closing the Gaps plan been successful? *Journal of Latinos & Education, 17*(4), 330-343. https://doi.org/10.1080/15348431.2017.1348301.

Teasley, M., Crutchfield, J., Williams-Jennings, S. A., Clayton, M. A., & Okilwa, N. S. A. (2016). School choice and Afrocentric charter schools: A review and critique of evaluation outcomes. *Journal of African American Studies*, *20*(1), 99-119. https://doi.org/10.1007/s12111-015-9322-0.

Texas Association of School Boards. (2020). *Districts of Innovation frequently asked questions* [PDF file]. https://www.tasb.org/services/legal-services/tasb-school-law-esource/governance/districts-of-innovation/documents/districts_of_innovation.pdf.

Texas Education Agency. (n.d.). *House Bill 5: Foundations high school program*. https://tea.texas.gov/academics/graduation-information/house-bill-5-foundation-high-school-program.

Texas Education Agency. (2010). *House Bill 3 transition plan: A report to the 82nd Texas Legislature from the Texas Education Agency.* https://tea.texas.gov/sites/default/files/HB3-AllTransitionPlan.pdf.

Texas Education Agency. (2019). *Texas Academic Performance Report: 2018-2019 State student Information*. https://rptsvr1.tea.texas.gov/perfreport/tapr/2019/srch.html?srch=S.

Texas Education Agency. (2021). *Understanding your child's score.* https://texasassessment.gov/staar/families/understanding-the-test-score/.

U.S. Census Bureau. (2017). *Number of Hispanic students more than double in 20 years: Big increase in college enrollment.* https://www.census.gov/library/stories/2017/10/hispanic-enrollment.html.

U.S. Department of Education. (2019a). *Bridging the skills gap: Career and technical education in high school*. https://www2.ed.gov/datastory/cte/index.html#data-story-title.

U.S. Department of Education. (2019b). *Split secondary and postsecondary awards in 2019*. https://cte.ed.gov/grants/state-allocations.