

A descriptive analysis of the ethnic/racial composition of Texas high school teachers and students: A multiyear study

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ABSTRACT

The purpose of this longitudinal, statewide, descriptive analysis was to examine the high school teacher and student ethnic/racial diversity for the 2010-2011 school year through the 2018-2019 school year. Data were obtained from the Texas Education Agency on all student enrollment and on all teacher employment. As such, a causal-comparative longitudinal descriptive research design was present due to the use of archival data. Consistent decreases were observed in the average percentages of both White teachers and White students over the 9 school years of data that were examined. Consistent increases were documented in the average percentages of both Hispanic teachers and students over the 9 school years. Slight but consistent increases were established in the average percentages of Asian teachers and students and of Black teachers. The average percentage for Black students decreased in all school year examined, with the exception of two school years. Inequities existed as several school years of data analyzed revealed greater average percentages for ethnic/racial minority students when compared to ethnic/racial minority teachers. Also provided within this study are recommendations for future research along with implications for local and statewide policy and practice.

Keywords: *Asian, Black, High school hispanic, Race/Ethnicity, Texas academic performance report, Texas education agency, White.*

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Highlights of this paper

- Nine school years of data about teacher and student ethnic/racial diversity in Texas were analyzed.
- Although increases occurred in the percentages of Hispanic students, the majority of teachers were White.
- Clear disparities were established in the percentages of students of color and in the percentages of teachers of color.

1. INTRODUCTION

Across all levels of public education, academic achievement gaps exist between students of color and White students. Such gaps may be interpreted to mean that public schools are failing to meet the needs of students of color (Vega, Moore III, & Miranda, 2015). Because students of color compose 41% of the United States' public school student population, it is imperative to remediate existing academic achievement gaps between ethnic/racial groups of students (Wright, Gottfried, & Le, 2017). In Texas, the state of interest for this article, public school student enrollment continues to increase as well as becoming more ethnically/racially diverse (Kauffman, 2019). During the 2018-2019 school year Texas had a high school enrollment of 1,563,774 students (Texas Education Agency., 2019b). For the same school year Texas public high schools had 196,335 Black students, 12.55% of the state's high school population; 808,204 Hispanic students, 51.6% of the state's student population; and 448,630 White students, 28.76% of the state's public school student population (Texas Education Agency., 2019b). During that time Texas reported having 358,450 public school teachers, of which 10.6% were Black, 27.7% were Hispanic, and 58.4% were White (Texas Education Agency, 2019a). The statistical disparities between the ethnic/racial composition of students and teachers in Texas public schools, documented in the statistics presented above, have drawn scrutiny from previous researchers (Bone, 2011; Khan, 2014).

In earlier studies conducted by Bone (2011) and Khan (2014), the ethnic/racial composition of Texas public school students and the teacher workforce were analyzed. Bone (2011) examined the trends of student and teacher demographics at the high school level from the 1999-2000 school year through the 2009-2010 school year. In a subsequent investigation, Khan (2014) analyzed the same trends but for the 2002-2003 school year through the 2012-2013 school year. Both Bone (2011) and Khan (2014) documented the presence of trends in the ethnic/racial population of Texas public school students and teachers. As such, they generated concerns regarding Texas public school hiring practices as the diversity of the state's public school student population increases.

For the 11-school years of data that were examined by Bone (2011), a larger percentage of White teachers was employed at Texas public high schools than at Texas public elementary schools or at middle schools. Bone (2011) established that the percentage of Black Texas public high school teachers increased from 0.30% in the 1999-2000 school year to 2.59% in the 2009-2010 school year. During the same time span, the average percentage of Black students in Texas public high schools increased from 5.00% to 6.9% (Bone, 2011). Although both the percentages of Black teachers and of Black students were low, the percentage of Black students was more than twice the percentage of Black teachers. The numbers and percentages of Hispanic teachers and Hispanic students both grew during the Bone (2011) study, with the Hispanic student population increasing by a much greater percentage than the percentage of Hispanic teachers. The average percentage of Texas public high school Hispanic teachers increased over the 11-year study from 3.4% to 8.75%, whereas the average Hispanic student average percentages increased from 22.20% to 40.20% over the school years examined by Bone (2011). Accordingly, the percentage of Hispanic high school students was more than four times the percentage of Hispanic high school teachers. The average percentage of White teachers decreased from 91% to 78%, and the average percentage of White students decreased from 56.60% to 33.30% over the 11-school years. In contrast to the underrepresentation of Black teachers and of Hispanic teachers in comparison

to the percentage of Black students and Hispanic students, the percentage of White teachers was more than two times the percentage of White students.

In a subsequent study by Khan (2014), which spanned from the 2002-2003 school year through the 2012-2013 school year, similar trends were described for the ethnic/racial diversity of Texas's public high school teaching population. The percentage of Black teachers at Texas public high schools ranged from 7.9% to 9.3% (Bone, 2011). Black student percentages grew from 5.00% to 6.90% over the course of Khan (2014) study. The percentage of Black teachers at Texas public high schools was consistently one and a half times higher than that of Black students. Within the same study, the Hispanic teacher percentages grew from 14.6% in the 2002-2003 school year to 20.6% in the 2012-2013 school year. However, the average percentage of high school Hispanic teachers was the lowest for Hispanic teachers across all three Texas public school levels (i.e. elementary, middle, and high school) (Khan, 2014). Though the Hispanic student percentages composed nearly 50% of the student population at the high school level, the percentage of Hispanic teachers fell well behind the percentage of White teachers. Khan (2014) documented that the percentage of White teachers in Texas public high schools decreased from 76.7% to 68.5%. Both Bone (2011) and Khan (2014) were able to describe, through analyses of archival data, Texas public high school leaders failed to employ teaching staffs that were ethnically/racially representative of the state's evolving ethnic/racial student population.

The efforts of supporting the shifting student demographics by hiring more teachers of color often presents as a challenge for school district leaders and campus administrators. Across the United States, school leaders are tasked with cultivating a teacher population that is representative of the student population (McCarthy, Dillard, Fitchett, Boyle, & Lambert, 2020). A consistent gap in the demography between teachers and students, and the difference between the two populations has increased focus on the issue of equity in education (Egalite, Kisida, & Winters, 2015). In published studies, researchers (Egalite et al., 2015; Yarnell & Bohrnstedt, 2018) have described how ethnic/racial demographic congruence between teachers and students leads to better academic outcomes and decreased discipline referrals for students of color (Capers, 2019). Congruence of demography between teachers and students also has benefits for teachers as it facilitates more comradery within the workplace (Coffey & Farinde-Wu, 2016).

Due to the inability of Texas to provide their public high students of color with teachers of color, students of color are potentially not receiving many benefits which ethnoracial teacher-student matching provides. Plachowski (2019) explained that a diverse teacher workforce has benefits to minority students by providing harmony in teacher-student relationships and by preparing students for successful participation as a global citizen. As noted previously, over a span of 11-school years (i.e., 1999-2000 through 2009-2010) in Texas public high schools, the average percentage of both Black and Hispanic students was over four times greater than the average percentage of employed Black and Hispanic teachers (Bone, 2011). Redding (2019) stated that the benefits of ethnoracial matching between teachers and students are potentially more discernable given that Black and Hispanic students are assigned to teachers who share their ethnicity/race at low rates. One of the advantages of student-teacher ethnic/racial matching can be to ease the transition and matriculation of students of color as that work through the final stages of their public grade school education (Benner, Boyle, & Bakhtiari, 2017). Transition disruptions are constant with the life course theory in which physical, emotional, social, cognitive, and physical development are interrelated (Benner et al., 2017). Because of the complexities of the high school process and the growing/diversifying student population in Texas, an examination of the effects of matching students of color with teachers of color is essential.

Hill and Jones (2018) suggested that comfort levels with students, because of ethnic/racial similarities, may be an important factor in judging the influence of teachers on students. Gershenson, Holt, and Papageorge (2016) analyzed the effects of a student-teacher demographic mismatch on teacher expectations of educational achievement of students. In their study, teachers of color displayed a higher level of educational expectations for students of color

than were displayed by White teachers (Gershenson et al., 2016). If biased teacher expectations were to be communicated with students, negative outcomes for current and future student educational decisions could be possible (Gershenson et al., 2016). In addition, biased feelings towards students of color by non-ethnic/racial minority teachers has also been expressed in low numbers of Gifted and Talented program referrals and higher numbers of discipline referrals for students of color (Yarnell & Bohrnstedt, 2018). In a 2018 report by the Government Accountability Office, exclusionary discipline consequences (e.g., in-school suspension, out-of-school suspension) were assigned at disproportionate rates to students of color (Nowicki, 2018).

When student academic successes are not celebrated, and questionable behaviors are pointed out at unfair rates in comparison to other ethnic/racial groups, an educational environment is created in which students of color have little interest. When teachers can maintain the interest of students, academic success often follows. In schools where the number of Hispanic teachers has increased, a higher number of Hispanic students participating in Advanced Placement classes has occurred (Bristol & Martin-Fernandez, 2019). From 1960 to 2016 the Hispanic population of Texas raised from 16% to 48%; and in that same time period, the state's Hispanic student population swelled from 20% to 48% (Kauffman, 2019). Through these statistics, Kauffman (2019) explained the failure of Texas public schools to retain and educate the state's Hispanic students. Being mindful that high school dropouts rarely attend college or have substantial positive financial effects on their communities (Kauffman, 2019), research studies need to be conducted, and necessary actions initiated that will improve the quality, the equity, and the relationships within educational settings.

1.1. Statement of the Problem

The lack of consistent academic success of students of color has relevant implications that threaten the future prosperity of the United States; and may have substantial negative influences on individuals to function as productive citizens in society (Vescio, 2016). Low high school graduation rates and increasing dropout rates in Texas public high schools can be interpreted to represent an education system that is not meeting the needs of its students of color (Texas Education Agency, 2019a). The Texas Education Agency has self-published data which delineates Texas's struggle with students of color. Based on the available statistics in the Texas Education Agency publication, more students of color drop out each school year as opposed to other ethnic/racial demographic groups (Texas Education Agency, 2019a). Because over 60% of Texas's high school students are Hispanic or Black, and only 38.3% of the state's teacher are of that same ethnic/racial group, this issue warrants research (Texas Education Agency, 2019a). Texas's demographic changes are generating the most varied student population that Texas has seen. As schools navigate the state's new ethnical/racial public education demography, they must confront the challenges of creating and implementing teaching practices which influence demographic populations which they serve (Saphier, 2017). By determining the relationship between the ethnicity and race of Texas public high school teachers and students, school campus and district administrators can begin work toward ensuring that the state's high school population has a strong academic and social foundation cultivated by teachers who have had, or are having, similar social and academic experiences due their ethnicity/race.

1.2. Purpose of the Study

The overall purpose of this study was to examine the racial/ethnic demographic characteristics of students and teachers in Texas public high schools. The first specific purpose was to describe the ethnic/racial demographic characteristics of teachers in Texas public high schools for the 2010-2011 through the 2018-2019 school years. A second purpose was to examine the ethnic/racial diversity (i.e., Asian, Black, Hispanic, and White) of students in

Texas public high schools for each school year from the 2010-2011 school year through the 2018-2019 school year. A third purpose was to identify any trends that were present in the ethnic/racial diversity of teachers in Texas public high schools from the 2010-2011 to the 2018-2019 school year. A fourth and final purpose was to determine the extent to which trends were present in the ethnic/racial diversity of students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

1.3. Significance of the Study

Though the ability of students to adjust into middle school has been more heavily investigated, the high school educational environment has the ability to affect students' well-being as they learn to navigate larger schools, interact with new social groups, and prepare for adult life following grade school (Benner et al., 2017). Assimilation into high school can be eased by campus goals that promote student-teacher relationships which create a level of comfort for students, account for students culturally, grow students socially, and stretch their possibilities (Scales, Pekel, Sethi, Chamberlain, & Van Boekel, 2020). When students are matched with teachers who have the same ethnic/racial demography, a greater chance exist that the teachers will offer a fairer review of the student's school behavior and/or academic performance than teachers who do not share a cultural understanding with the student (Redding, 2019). Because of the importance of a high school education, Texas educational leaders and policymakers can benefit from the results identified in this empirical multiyear analysis in their efforts to aid campuses and districts across the state to review teacher-hiring practices to ensure that Texas is meeting the needs of its expanding ethnic/racial demographic high school student population.

1.4. Research Questions

The following research questions were addressed in this investigation: (a) What is the ethnic/racial diversity (i.e., Asian, Black, Hispanic, and White) of teachers employed in Texas public high schools for each school year from the 2010-2011 school year through the 2018-2019 school year?; (b) What is the ethnic/racial diversity (i.e., Asian, Black, Hispanic, and White) of students enrolled in Texas public high schools for each school year from the 2010-2011 school year through the 2018-2019 school year?; (c) What trend is present in the ethnic/racial diversity of teachers in Texas public high schools from the 2010-2011 to the 2018-2019 school year?; (d) What trend is present in the ethnic/racial diversity of students in Texas public high schools from the 2010-2011 to the 2018-2019 school year?; and (e) What is the relationship between teacher ethnic/racial diversity and student ethnic diversity in Texas high schools for each school year from the 2010-2011 school year through the 2018-2019 school year?

2. METHOD

2.1. Research Design

To answer the research questions previously described, a longitudinal descriptive research design was present (Johnson & Christensen, 2020). In this study, archival data were downloaded from the Texas Academic Performance Report. Given that archival data that had already occurred were analyzed herein, the independent and dependent variables were not able to be manipulated (Johnson & Christensen, 2020).

2.2. Participants and Instrumentation

Two sets of participants were present in this investigation. The first set of participants were all Texas teachers who were employed in Texas public high schools for the 2010-2011 through the 2018-2019 school years. The second set of participants were students who were enrolled in a Texas public high schools for 2010-2011 through the 2018-

2019 school years. Data on the ethnic/racial characteristics of students and teachers were obtained from the Texas Academic Performance Reports website.

The Texas Education Agency annually collects and archives data from Texas public school districts concerning a myriad of demographic and academic accountability categories. The collected data were disaggregated for public consumption by the Texas Education Agency and divided by individual school district and made available for analysis, for state/local district comparisons, and for the general information of the public. The acquired data for this study were representative of 100% of the student and teacher population in the Texas public schools.

3. RESULTS

The first research question about the ethnic/racial composition of the Texas public high school teaching population was answered through descriptive statistics. Specifically calculated were the *M*, *Mdn*, and *SD* (*Standard Deviation*). For Asian, Black, Hispanic, and White Texas public high school teachers, descriptive statistics are respectively depicted in Tables 1, 2, 3, and 4.

Table 1. Descriptive statistics for the percentages of white teachers in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

School year	<i>n</i> of schools	<i>Mdn</i>	<i>M%</i>	<i>SD%</i>
2010-2011	1,139	81.84	71.91	26.30
2011-2012	1,154	81.49	71.11	26.82
2012-2013	1,161	81.20	70.48	27.13
2013-2014	1,173	81.24	70.22	26.88
2014-2015	1,177	79.70	69.19	27.12
2015-2016	1,203	78.80	68.33	27.76
2016-2017	1,208	77.30	67.20	28.09
2017-2018	1,213	75.70	65.85	28.09
2018-2019	1,205	74.80	65.69	27.90

Table 2. Descriptive statistics for the percentages of hispanic teachers in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

School year	<i>n</i> of schools	<i>Mdn</i>	<i>M%</i>	<i>SD%</i>
2010-2011	1,139	8.11	17.08	23.06
2011-2012	1,154	8.35	17.74	23.80
2012-2013	1,161	8.80	18.26	23.95
2013-2014	1,173	9.04	18.66	24.05
2014-2015	1,177	9.40	19.05	24.14
2015-2016	1,203	9.80	19.82	25.16
2016-2017	1,208	10.30	20.48	25.39
2017-2018	1,213	11.30	21.71	25.96
2018-2019	1,205	11.70	22.23	25.85

Table 3. Descriptive statistics for the percentages of black teachers in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

School year	<i>n</i> of schools	<i>Mdn</i>	<i>M%</i>	<i>SD%</i>
2010-2011	1,139	2.45	7.46	13.88
2011-2012	1,154	2.55	7.60	13.86
2012-2013	1,161	2.60	7.82	14.26
2013-2014	1,173	2.92	7.98	13.90
2014-2015	1,177	3.10	8.51	14.22
2015-2016	1,203	3.10	8.54	14.28
2016-2017	1,208	3.00	8.68	14.75
2017-2018	1,213	3.20	8.61	14.28
2018-2019	1,205	3.20	8.57	13.91

Table 4. Descriptive statistics for percentage of asian teachers in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

School year	n of schools	Mdn	M%	SD%
2010-2011	1,139	0.00	1.33	4.04
2011-2012	1,154	0.00	1.31	2.85
2012-2013	1,161	0.00	1.35	2.90
2013-2014	1,173	0.00	1.26	3.18
2014-2015	1,177	0.00	1.38	3.06
2015-2016	1,203	0.00	1.53	4.19
2016-2017	1,208	0.00	1.49	3.08
2017-2018	1,213	0.00	1.60	3.41
2018-2019	1,205	0.00	1.62	3.40

White teachers, with percentages ranging from 71.91% to 65.69%, composed a majority of the teachers in Texas public high schools over the 9-school years of data which were analyzed. Average percentages of Hispanic teachers increased from 17.08% to 22.23% throughout the duration of this 9-year examination. Average percentages of Black teachers in Texas public high schools increased from 7.46% in the 2010-2011 school year to 8.57% in the 2018-2019 school year. The percentage of Asian teachers fluctuated over the 9 school years examined from a high of 1.62% in 2018-2019 to a low of 1.26% in 2013-2014. Delineated in Figure 1 are the median percentages for White, Hispanic, Black, and Asian teacher in Texas public high schools.

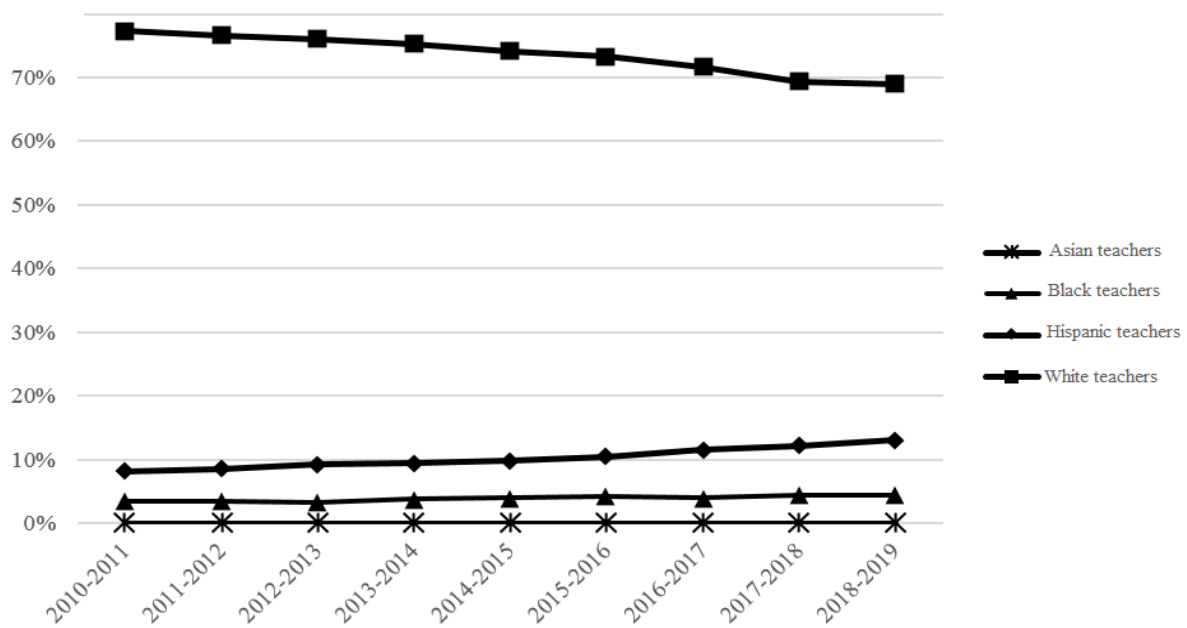


Figure 1. Median percentages of teachers in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

The median percentage for White teachers was 81.85% in 2010-2011 and declined to 74.80% in 2018-2019. For Hispanic teachers in Texas public high schools, median percentages were 8.11% in 2010-2011 and grew to 11.70% in the 2018-2019 school year. The median percentage of Black teacher increased by less than a percentage point for, from 2.45% to 3.20%, for the 9-school years. Median percentages for Asian teachers in Texas public high schools were 0.00% for each of the 9 years examined in this study.

To respond to the second research question, descriptive statistics were calculated for Asian, Black, Hispanic, and White students in Texas public high schools. Respectively depicted in Tables 5, 6, 7, and 8 are the descriptive statistics for the 9-school years (i.e. 2010-2011 through 2018-2019).

Table 5. Descriptive statistics for the percentages of hispanic students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

School year	n of schools	Mdn	M%	SD%
2010-2011	1,157	35.60	43.69	29.67
2011-2012	1,172	37.20	44.17	29.59
2012-2013	1,186	38.60	44.98	29.63
2013-2014	1,196	39.35	45.68	29.27
2014-2015	1,195	40.40	45.98	29.03
2015-2016	1,221	41.20	47.12	29.25
2016-2017	1,229	42.80	47.71	29.16
2017-2018	1,229	43.50	48.70	29.00
2018-2019	1,218	44.65	49.50	28.74

Table 6. Descriptive statistics for the percentages of white students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

School year	n of schools	Mdn	M%	SD%
2010-2011	1,157	41.60	41.28	29.16
2011-2012	1,172	40.55	39.99	29.11
2012-2013	1,186	38.55	39.33	28.94
2013-2014	1,196	36.80	38.63	28.55
2014-2015	1,195	37.40	38.01	28.32
2015-2016	1,221	35.20	37.14	28.23
2016-2017	1,229	33.30	36.30	28.19
2017-2018	1,229	32.90	35.42	27.76
2018-2019	1,218	32.40	34.79	27.40

Table 7. Descriptive statistics for the percentages of black students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

School year	n of schools	Mdn	M%	SD%
2010-2011	1,157	5.60	11.68	15.82
2011-2012	1,172	5.75	11.65	15.62
2012-2013	1,186	5.50	11.51	15.86
2013-2014	1,196	5.60	11.34	15.42
2014-2015	1,195	5.70	11.51	15.44
2015-2016	1,221	5.80	11.18	14.61
2016-2017	1,229	6.00	11.30	14.98
2017-2018	1,229	5.60	10.97	14.25
2018-2019	1,218	5.40	10.63	13.85

Table 8. Descriptive statistics for percentage of asian students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year

School year	n of schools	Mdn	M%	SD%
2010-2011	1,157	0.50	1.92	4.25
2011-2012	1,172	0.60	2.07	4.62
2012-2013	1,186	0.50	2.03	4.55
2013-2014	1,196	0.60	2.15	4.76
2014-2015	1,195	0.60	2.21	4.91
2015-2016	1,221	0.60	2.30	5.09
2016-2017	1,229	0.70	2.41	5.32
2017-2018	1,229	0.70	2.53	4.90
2018-2019	1,218	0.70	2.63	5.71

From the 2010-2011 school year through the 2018-2019 school year, Hispanic students made up the largest average percentage of Texas public high school students. Hispanic student percentages increased by 5.81% from 43.69% in 2010-2011 to 49.50% in 2018-2019. White students had the second highest average percentage of students with percentages that decreased by 6.49% from 41.28% in 2020-2011 to 34.79 in 2018-2019. The average percentages for Black students decreased from 11.68% in 2010-2011 to 10.63% in 2016-2017. Asian student average percentages

consistently grew by just under three-quarters of a percent from 1.92% in 2010-2011 to 2.63% in 2018-2019. Shown in Figure 2 are median percentages of White, Hispanic, Black, and Asian students in public Texas high schools.

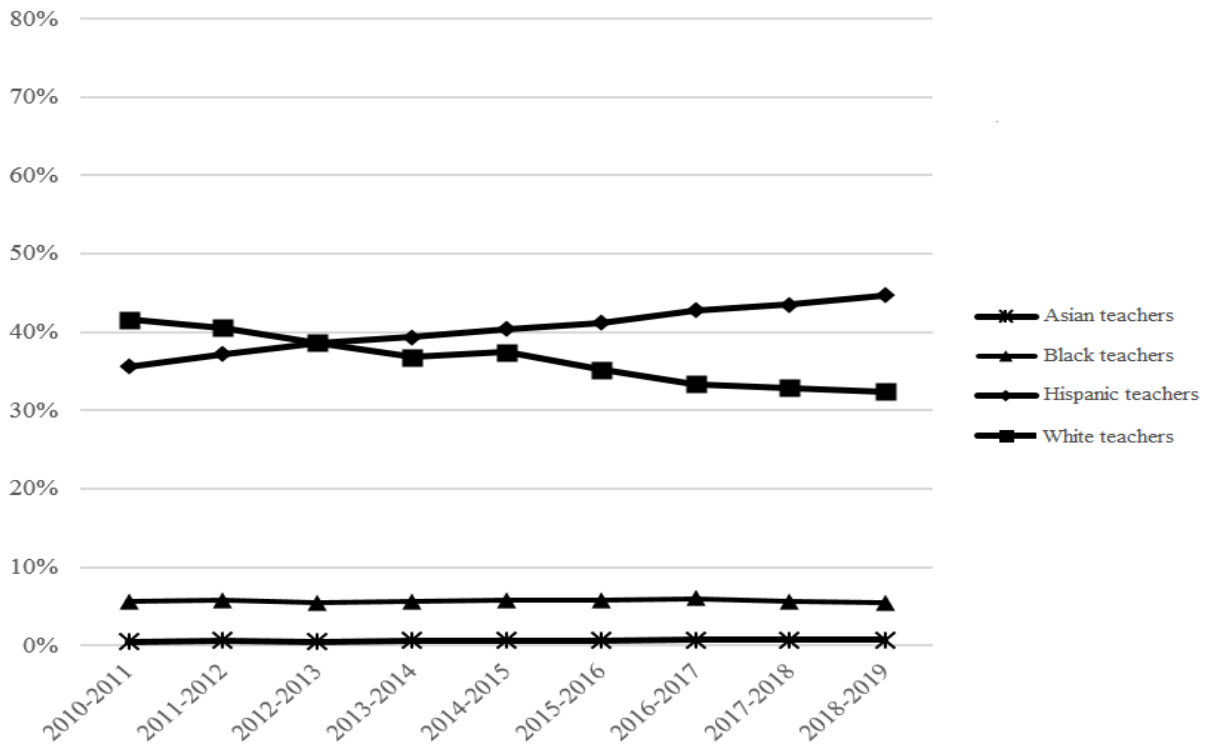


Figure 2. Median percentages of students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

Hispanic students in Texas public high schools had median percentages that increased from 35.60% in 2010-2011 to 44.65% in 2018-2019. This Hispanic student growth represented an overall growth of 9.05% for Texas’s public high school Hispanic student median percentage. The median percentages of White students consistently declined over the 9-school years analyzed from 41.60% in 2010-2011 to 32.40% in 2018-2019. Median percentages for Black students were inconsistent with a high of 6.00% in 2016-2017 and a low of 5.40% in 2018-2019. Median percentages for Asian students were inconsistent over the 9-school years. Asian public high school students in Texas had their lowest median percentage of 0.50% in 2010-2011 and 2012-2015. In 2016-2017 through 2018-2019 Asian students had their highest median percentage of 0.70%.

In answering the third research question on the degree to which a trend existed in the ethnic/racial diversity of teachers in Texas public high schools, descriptive statistics were depicted in Figure 3. As illustrated in Figure 3, a trend of consistently declining percentages of White teachers over the 9-school years was observed. A steady increase was present for the percentage of Hispanic teachers. In regard to Black teachers, a flat line was present and indicative of small and consistently increasing percentages over time. Minimal increases were identified in the percentages of Asian Texas public high school teachers employed over the 9 school years analyzed.

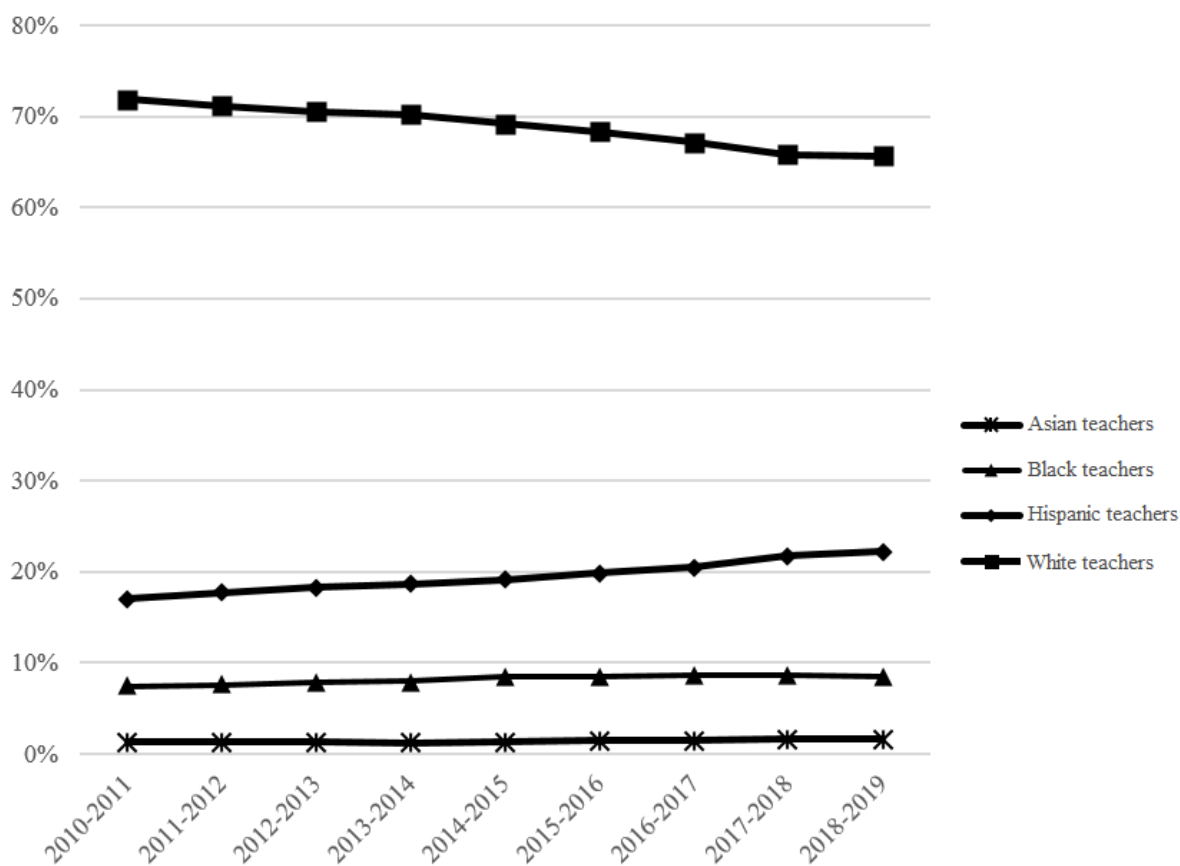


Figure 3. Percentages of teachers in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

In determining the presence of a trend in the ethnic/racial composition of Texas public high school students, descriptive statistics for the 2010-2011 school year through the 2018-2019 school year were reviewed. A 6.49% decrease was observed in the average percentage of White students during this study. Hispanic students had an increase of 5.81% during the 9 years examined. Black student percentages were inconsistent in small increments during this study resulting in a near flat line. Asian students were also represented by a near flat line as their percentages remained minimal and fluctuated across the duration of the 9-school years investigated. Depicted in Figure 4 is a difference between the rising average percentages of Hispanic students and the deteriorating average percentages of White students, a slowly fading gap between the decreasing percentages of White students and the slight wavering average percentages of Black students, and a consistently small and sporadically increasing average percentage of Asian students.

Descriptive statistics were examined to ascertain the extent to which trends were present between the ethnic/racial diversity of teachers and the ethnic/racial diversity of students in Texas public high schools. Both White teacher and White student percentages decreased over the 9-school years of this study. White teacher percentages were an average of 31.01% higher than that of White students. Hispanic teachers and Hispanic students each had average percentage increases. Hispanic student percentages were on average 26.94% greater than the average percentages of Hispanic teachers at the public high school level in Texas. Even with the percentages of Black students varying coupled with documented consistent growth of Black teacher percentages, Black student average percentages were an average of 3.11% greater than the average percentages of Black public high school teachers in the state for the school years examined. Asian student percentages delineated consistent, but small, growth while the minimal percentages of Asian Teachers fluctuated for the 9-school years. On average, Asian student percentages were 0.83%

higher than the average percentages of their teaching counterparts. Figures 5, 6, 7, and 8 contain the average percentages of the public high school students and teachers in Texas.

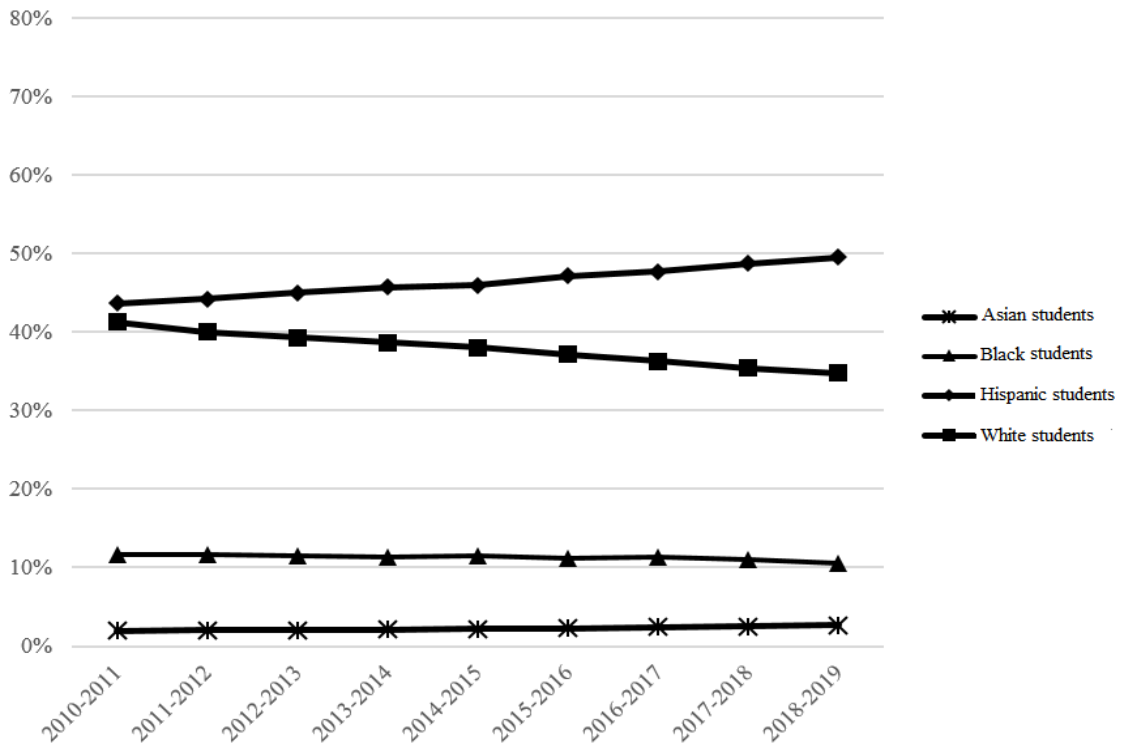


Figure 4. Percentages of students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

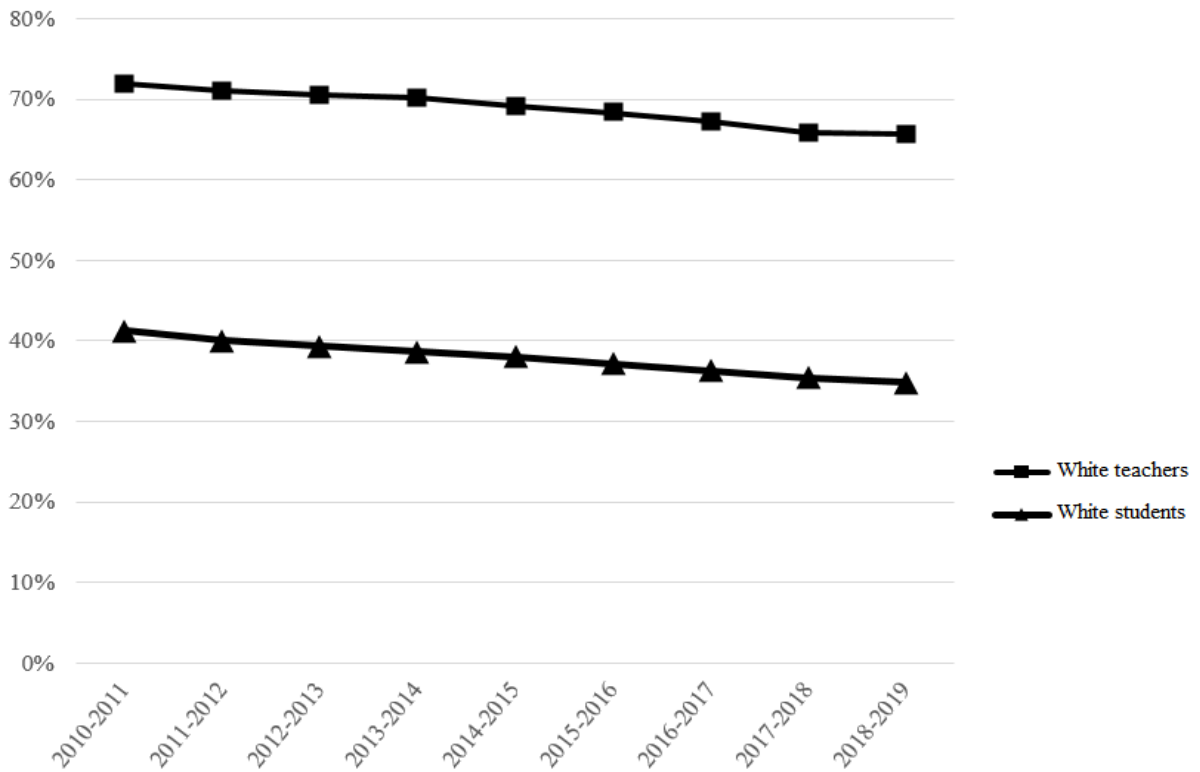


Figure 5. Relationship of the percentages of white teachers and white students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

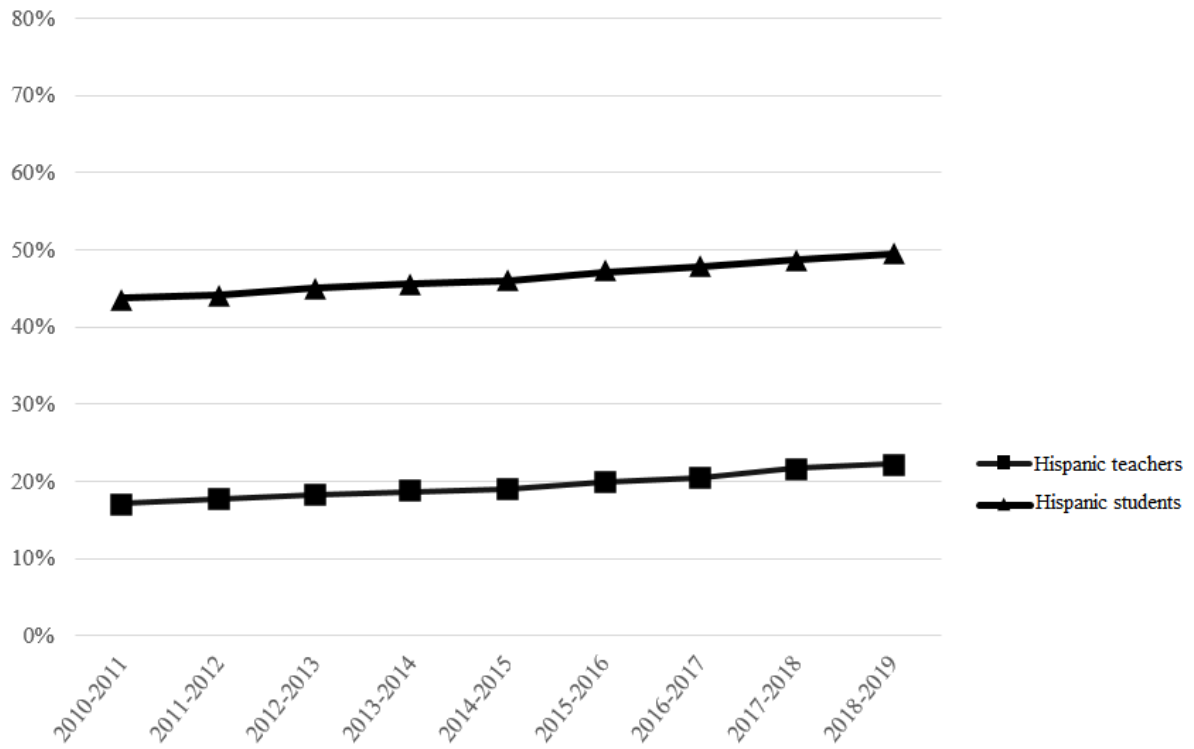


Figure 6. Relationship of the percentages of hispanic teachers and hispanic students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

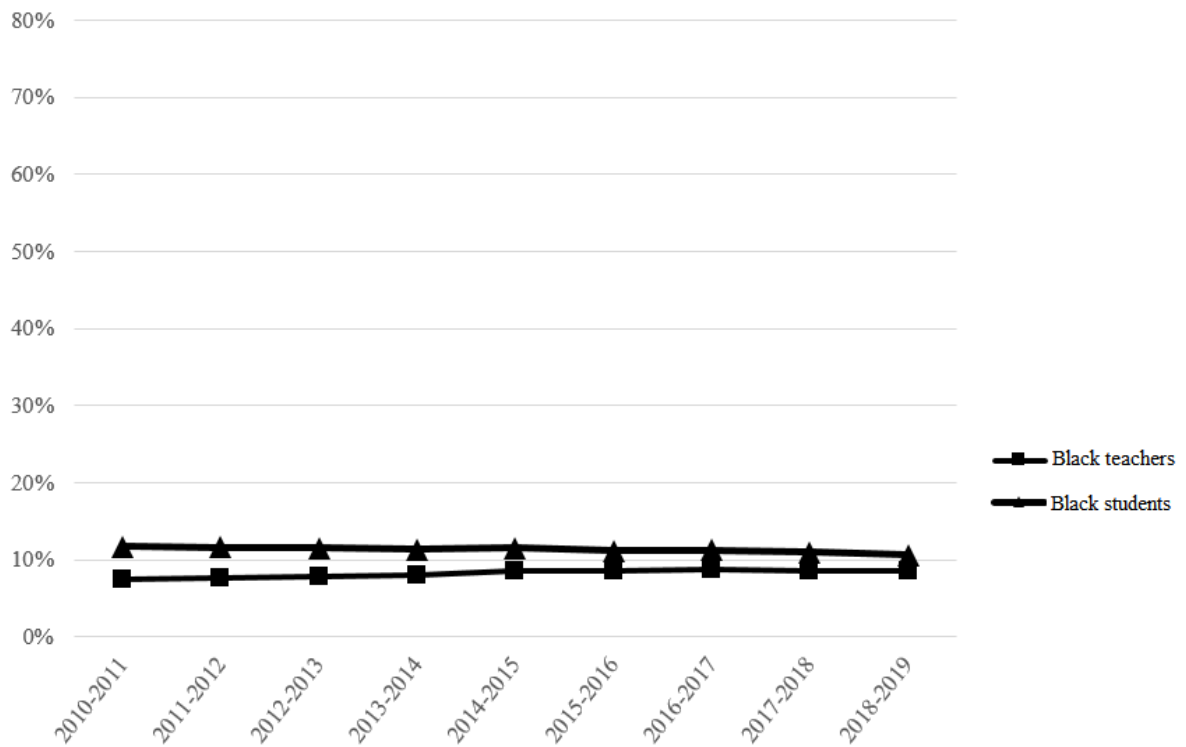


Figure 7. Relationship of the percentages of black teachers and black students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

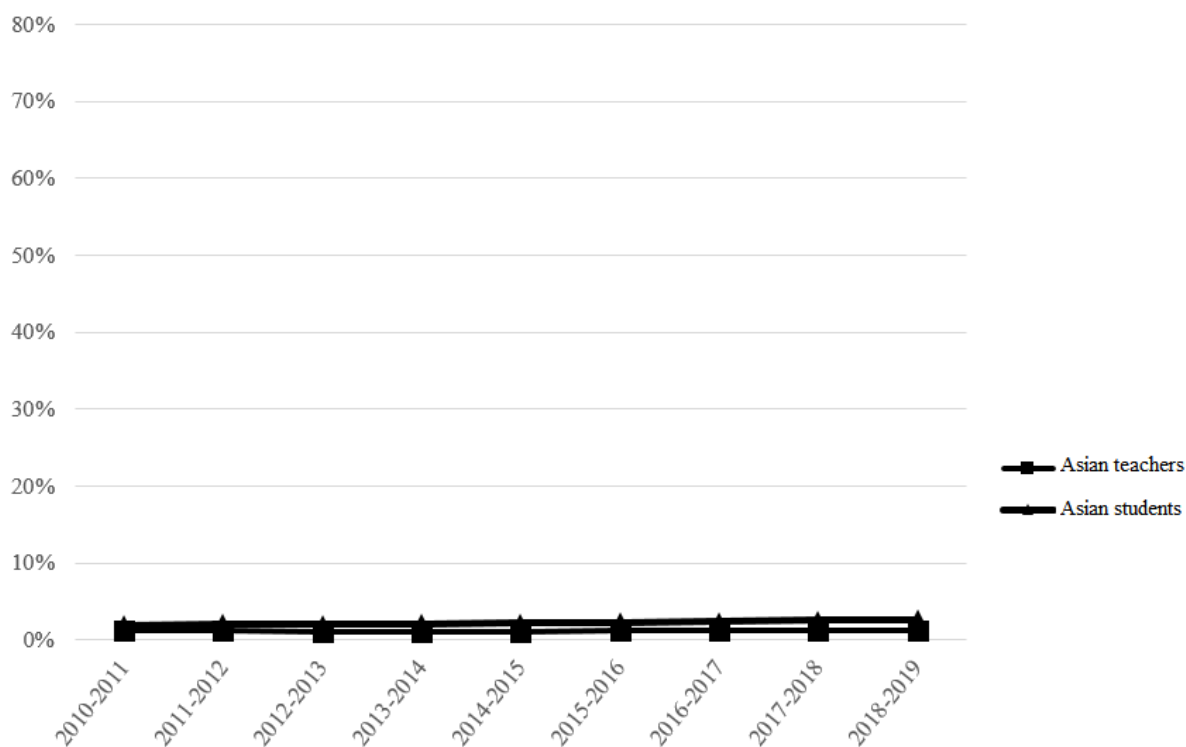


Figure 8. Relationship of the percentages of asian teachers and asian students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

4. DISCUSSION

For this multi-year analysis, Texas public high school teacher and student ethnic/racial characteristics were examined for the 2010-2011 school year through the 2018-2019 school year. The only ethnic/racial group included in this study whose average percentages were higher than their student comparison ethnic/racial group for each school year examined were White teachers. Even with persistent decreases in the percentages of White teachers and students in this analysis, White teacher percentages were an average of 31.01% higher than the percentages of White students. White teacher percentages decreased from 71.91% in 2010-2011 to 65.69% in 2018-2019, and White student percentages declined from 41.28% in 2010-2011 to 34.79% in 2018-2019. While recognizing the small growth of Black and Asian public high school teachers in the state, readers should also focus on the slowly decreasing gap between the percentages of White and Hispanic teachers. The average percentages for Hispanic, Black, and Asian students increased each school year from 2010-2011 through 2018-2019. In Texas public high schools, Hispanic students represented the largest student percentage for each of the 9 analyzed school years.

4.1. Connections to Existing Literature

The outcomes of this multi-year analysis were consistent with the results of earlier studies that were conducted by researchers who analyzed the ethnoracial diversity of public high schools in the State of Texas. Through their examinations of Texas public school diversity, Bone (2011) and Khan (2014) established the presence of consistent decreases in the percentages of White middle school teachers and students. Also documented by Bone (2011) and Khan (2014) were the consistently increasing average percentages of Hispanic teachers and Hispanic students, as well as incremental percentage increases for Black and Asian students and teachers. Egalite et al. (2015) determined that the gap between students and teachers has heightened the focus on educational equity, and the results of this study may be viewed as supportive of the need for an increased concentration on employing teachers of color who match

the growing diversity of the Texas public high school student population. Detailed in this study is the increase of Texas public high school diversity; the data which were analyzed revealed swelling average percentages of ethnic/racial minority students in public high schools throughout the state.

Ethnic/racial demographic similarity between teachers and students leads to improved academic outcomes and less discipline referrals for students of color (Capers, 2019; Egalite et al., 2015; Yarnell & Bohrnstedt, 2018). The results of this study highlight that, with Hispanic students being the largest portion of the Texas public high school student population, those students are potentially not receiving the best opportunities to improve their academic performance or receiving the benefit of fair judgment in regard to discipline referrals due to the documented inequities between the percentages of Hispanic students and Hispanic teachers. At the public high school level an emphasis should be placed on the transition of students of color as they prepare for life after grade school in which physical, emotional, social, and cognitive skills are necessary (Benner et al., 2017). The percentages of teachers of color delineated herein do not evoke confidence that an adequate emphasis is being placed on postsecondary life preparation for students of color. In addition to preparation as productive citizens, academic advancement has also been potentially compromised for students of color as evidenced by low numbers of Gifted and Talented program referrals and increased discipline referrals for students of color (Yarnell & Bohrnstedt, 2018). The combination of the results of this study, and the research which has been conducted on the development and preparation of ethnic/racial minority students, reflects a need for Texas public high schools to increase the percentages of teachers of color who are employed.

It is necessary to utilize the theoretical frameworks of this study to analyze the consistently high average percentages of White teachers which were identified in this examination of Texas public high school teacher and student diversity. The teacher percentages which are detailed in this study highlight the effects of Homosocial Theory as those individuals who are responsible for hiring in Texas public high schools remain more at ease with employing teachers who share ethnic/racial characteristics similar to themselves (Kanter, 1977). Given that 60.12% of Texas public school principals are White, the availability of teaching opportunities for teachers of color at Texas's public high schools remains limited and also supports the presence of Social Closure theory (Simi & Matusitz, 2016; Smith, 2020). Derived from the statistics detailed in this study, ethnoracial characteristics seem to be less of a hindrance to employment for Texas public high school teachers of color as percentages incrementally increased over the 9-school years examined. However, gaps between the percentages of teachers of color and students of color must continue to be decreased through concentrated practices so that the needs of the increasingly diversifying Texas high school student populace can be met.

4.2. Implications for Policy and Practice

In consideration of the results of this multi-year study, several recommendations can be made to be made to improve policy and practice within public education in Texas. The hope is that, through reviewing this descriptive analysis, productive conversations will be had the educational leadership level which target the improvement of hiring practices of Texas public education teachers. The data revealed in this study should encourage school districts to begin internal reviews of their individual teacher and student ethnic/racial diversity and hiring practices. In addition, individual campus should see the see the academic and lifelong benefits of public high school students of color having the opportunity to be educated by classroom instructors of color. Plachowski (2019) emphasized that a teacher population, which is diverse in ethnicity/race, provides benefits for students of color by establishing continuity in teacher-student relationships and preparing ethnic/racial minority students for success as global citizens.

Following a review of the statistical information detailed herein, accountability standards should be created with established goals of holding those in charge of campus and district hiring accountable. Prioritizing ethnic/racial diversity in hiring practices conveys a message to district/campus stakeholders that cultural diversity is of significant importance to their local education agency. The importance placed on ethnic racial/racial hiring practices, in turn, may assist in the cultivation of a quality relationship between school districts/campuses and their community members of color. Also, by taking advantage of the information provided in this analysis, state and local education agencies can develop a rigorous system of checks and balances that can assist in developing procedures for the recruitment and hiring of teachers of color by ensuring that protocols are reliably monitored and implemented.

Coffey and Farinde-Wu (2016); Benner et al. (2017); Yarnell and Bohrnstedt (2018) and Plachowski (2019) each explained the how the presence of teachers of color in public high schools can affect the academic and postsecondary success of students of color. By becoming more aware of individual campus demographics Texas public high school administrators can create the most productive learning environment for the majority of their students, who in this study were ethnic/racial minorities. Of substantial importance is the necessity of educational policy developers to focus on students who are not provided the opportunity to be educated by teachers of similar ethnic/racial characteristics thus affecting their ability to reach their full academic potential, and not on other issues which may accompany their political acquired positions.

4.3. Recommendations for Future Research

Several recommendations for future research can be made based on the results identified in this study. Considering the potential academic and postsecondary benefits for Texas public high school students, teacher and student ethnic/racial matching should be analyzed further. Researchers are encouraged to extend this study to other grade levels across Texas. An identical study, but with a focus on public elementary and middle schools, would greatly benefit state, district, and individual campus leaders. Further studies would make available critical information which would assist educational leaders in making the most informed decisions possible for the benefit of Texas' diversifying and growing student population and the employment of teachers of color to support them. The degree to which the outcome of this longitudinal analysis can be applied to private and charter high schools is not known. Accordingly, another recommendation is that this study be performed for private and charter high schools at the elementary, middle, and high school level. This study also has potential benefits for educational agencies in other states. Researchers are encouraged to extend this study to her states because it is unknown how the results of this examination of Texas public high school teacher and student diversity would compare.

In efforts to comprehend fully the concerns surrounding the recruitment and hiring of teachers of color, an analysis of a potential existence of a relationship between the ethnic/racial demography of administrative leaders, teaching staffs, and students at the elementary, middle, and high school level would provide a robust insight. The degree to which the demographic composition of Texas public high school administrators effects the employment of ethnic/racial minority teachers, and in turn the academic and post-secondary success of high school students of color, is not known. To develop a more complete understanding researchers encouraged to examine the relationships of the ethnic/racial composition of administrators, teachers, and students in private and charter schools at all grade levels as well.

In addition, academic and postsecondary benefits associated with public high school teacher and student gender matching is not common knowledge. Also, of value to educational leaders would be to conduct research investigation on the gender diversity between teachers and students in Texas public elementary, middle, and high schools. Future researchers are encouraged to study the effects of gender diversity matching between students and teachers on the

academic success of Texas school students, as well as students in other states. Similarly, the influence of gender matching should also be reviewed between teachers and students in private and charter schools at elementary, middle, and high schools.

5. CONCLUSION

This longitudinal statewide descriptive analysis spanned the 2010-2011 school year through the 2018-2019 school year and was about the ethnic/racial diversity of teachers and students at the Texas public high school level. Though the average percentages of White teachers and students decreased over the 9 school years of data that were analyzed, White teachers, with percentages decreasing from 71.91% to 65.59%, remained the largest among the four ethnic/racial teacher groups which were reviewed. Consistent growth was identified in the average percentages for both Hispanic teachers and students, as each had consistent increases in their average percentages over the 9-school years. With percentages growing from 43.69% to 49.50%, Hispanic students gradually increased the gap between their average percentages and the average percentages of White, Black, and Asian students. Black student average percentages varied for the 9-school years that were reviewed. However, the average percentages of Black teachers reflected consistent small growth from 7.46% to 8.57%. Asian students represented average percentages which grew from 1.92% to 2.63%, and Asian teachers had minimal inconsistent growth of their average percentages for the 9-school years. More efforts to increase the Texas teacher workforce are clearly warranted by the findings of this multiyear analysis.

REFERENCES

- Benner, A. D., Boyle, A. E., & Bakhtiari, F. (2017). Understanding students' transition to high school: Demographic variation and the role of supportive relationships. *Journal of Youth and Adolescence, 46*(10), 2129-2142. <https://doi.org/10.1007/s10964-017-0716-2>
- Bone, J. A. (2011). *Teacher ethnicity and student ethnicity in Texas public schools: A multi-year study*. Doctoral Dissertation Sam Houston State University, ProQuest.
- Bristol, T. J., & Martin-Fernandez, J. (2019). The added value of Latinx and Black teachers for Latinx and Black students: Implications for policy. *Policy Insights from the Behavioral and Brain Sciences, 6*(2), 147-153.
- Capers, K. J. (2019). The role of desegregation and teachers of color in discipline disproportionality. *The Urban Review, 51*(5), 789-815. <https://doi.org/10.1007/s11256-019-00505-6>
- Coffey, H., & Farinde-Wu, A. (2016). Navigating the journey to culturally responsive teaching: Lessons from the success and struggles of one first-year, Black female teacher of Black students in an urban school. *Teaching and Teacher Education, 60*, 24-33. <https://doi.org/10.1016/j.tate.2016.07.021>
- Egalite, A. J., Kisida, B., & Winters, M. A. (2015). Representation in the classroom: The effect of own-race teachers on student achievement. *Economics of Education Review, 45*, 44-52. <https://doi.org/10.1016/j.econedurev.2015.01.007>
- Gershenson, S., Holt, S. B., & Papageorge, N. W. (2016). Who believes in me? The effect of student-teacher demographic match on teacher expectations. *Economics of Education Review, 52*, 209-224.
- Hill, A. J., & Jones, D. B. (2018). A teacher who knows me: The academic benefits of repeat student-teacher matches. *Economics of Education Review, 64*, 1-12. <https://doi.org/10.1016/j.econedurev.2018.03.004>
- Johnson, R. B., & Christensen, L. (2020). *Educational research: Quantitative, qualitative, mixed approaches* (7th ed.). Thousand Oaks, CA: Sage.
- Kanter, R. M. (1977). *Work and family in the United States: A critical review and agenda for research and policy*. New York: Russell Sage Foundation.

- Kauffman, A. H. (2019). Latino education in Texas: A history of systematic recycling discrimination. *St. Mary's Law Journal*, 50(3), 861-916.
- Khan, M. Q. (2014). *Difference in teacher gender and ethnic/racial composition in Texas public schools: A multiyear, statewide analysis*. Doctoral Dissertation, Sam Houston State University, ProQuest.
- McCarthy, C. J., Dillard, J., Fitchett, P. G., Boyle, L., & Lambert, R. G. (2020). Associations between teacher–student racial/ethnic congruence and public school teachers' risk for stress. *Urban Education*, 0042085919894049.
- Nowicki, J. M. (2018). K-12 education: Discipline disparities for black students, boys, and students with disabilities. Report to congressional requesters. GAO-18-258. *US Government Accountability Office*.
- Plachowski, T. J. (2019). Reflections of preservice teachers of color: Implications for the teacher demographic diversity gap. *Education Sciences*, 9(2), 144.
- Redding, C. (2019). A teacher like me: A review of the effect of student–teacher racial/ethnic matching on teacher perceptions of students and student academic and behavioral outcomes. *Review of Educational Research*, 89(4), 499-535.
- Saphier, J. (2017). The equitable classroom: Today's diverse student body needs culturally proficient teachers. *The Learning Professional*, 38(6), 28-31.
- Scales, P. C., Pekel, K., Sethi, J., Chamberlain, R., & Van Boekel, M. (2020). Academic year changes in student-teacher developmental relationships and their linkage to middle and high school students' motivation: A mixed methods study. *The Journal of Early Adolescence*, 40(4), 499-536.
- Simi, D., & Matusitz, J. (2016). Ageism against older US college students: A view from social closure theory. *Interchange*, 47(4), 391-408. <https://doi.org/10.1007/s10780-016-9286-6>
- Smith, T. G. (2020). Employed principal demographics 2014-2015 through 2018-2019. Retrieved from: <https://tea.texas.gov/sites/default/files/Employed%20Principal%20Demographics%202014-15%20through%202018-19.pdf>.
- Texas Education Agency. (2019a). 2018-2019 Texas academic performance report. Retrieved from: https://rptsvr1.tea.texas.gov/cgi/sas/broker?_service=marykay&year4=2019&year2=19&_debug=0&single=N&batch=N&app=PUBLIC&title=2019+Texas+Academic+Performance+Reports&_program=perf rept.perfmast.sas&ptype=H&paper=N&level=state&search=campname&namenum=&prgopt=2019%2Ftapr%2Fpaper_tapr.sas.
- Texas Education Agency. (2019b). Enrollment data in texas public schools 2018-2019. Retrieved from: https://tea.texas.gov/sites/default/files/enroll_2018-19.pdf.
- Vega, D., Moore III, J. L., & Miranda, A. H. (2015). In their own words: Perceived barriers to achievement by African American and Latino high school students. *American Secondary Education*, 43(3), 36-59.
- Vescio, V. (2016). An equal chance at success: Culturally responsive teaching practices address students' differing needs. *Journal of Staff Development*, 37(5), 18-22.
- Wright, A., Gottfried, M. A., & Le, V. (2017). A kindergarten teacher like me: The role of student-teacher race in social-emotional development. *American Educational Research Journal*, 54(18), 78S-101S.
- Yarnell, L., & Bohrnstedt, G. (2018). Student-teacher racial match and its association with Black student achievement: An exploration using multilevel structural equation modeling. *American Educational Research Journal*, 55(2), 287-324.

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