

ETHNIC/RACIAL COMPOSITION OF TEXAS PUBLIC SCHOOL TEACHERS AND
STUDENTS: A MULTI-YEAR DESCRIPTIVE ANALYSIS

A Dissertation

Presented to

The Faculty of the Department of Educational Leadership

Sam Houston State University

In Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

by

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December 2020

ETHNIC/RACIAL COMPOSITION OF TEXAS PUBLIC SCHOOL TEACHERS AND
STUDENTS: A MULTI-YEAR DESCRIPTIVE ANALYSIS

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DEDICATION

I dedicate this dissertation to my daughters, Layla and Lydia, whose creativity, courage, curiosity, and beauty drive me each day in all that I do. I hope that you both see the pursuit of anything in your purview is obtainable, and that you will always have your mom's and my unwavering support of your journey to your reality. To my wife, Brittainy, thank you for always seeing in me what I often struggle to see in myself. I appreciate and respect the bravery with which you embark on each day to keep our family living for the moment and working to be better for each other. I take you completely and however you come.

To my parents, James and Lynette Moye, thank you for providing consistency and a calm confidence in my ability to succeed at anything that I attempt. I am honored to be your son and I hope that my work is making you proud. To my brother, Kevin Moye, thank you for being a continued example. Your dedication to public education and helping students grow has been inspiring to watch.

Finally, to those who came before me and persevered through unimaginable circumstances so that I can have this opportunity to learn, for leisure, in any institution that I choose. I hope that I am living up to the dreams for which you imagined, fought, and sacrificed. My goal with this work was to exemplify the progress, and highlight the needs, which are all made possible by your willingness to push boundaries and demand equality for people, most of whom you would never meet. I humbly thank you for not flinching in the face of your greatest fears and remaining steadfast in your mission.

ABSTRACT

Moye, Alan K., *Ethnic/racial composition of Texas public school teachers and students: A multiyear descriptive analysis*. Doctor of Education (Educational Leadership), December 2020, Sam Houston State University, Huntsville, Texas.

Purpose

The overall purpose of this journal-ready dissertation was to describe the racial/ethnic demographic characteristics of students and teachers in Texas public schools. The first specific purpose was to describe the ethnic/racial demographic characteristics of students and teachers in Texas elementary public schools for the 2010-2011 through the 2018-2019 school years. A second purpose was to determine the ethnic/racial demographic characteristics of students and teachers in Texas public middle schools for the 2010-2011 through the 2018-2019 school years. A third purpose was to identify the ethnic/racial demographic characteristics of students and teachers in Texas public high schools for the 2010-2011 through the 2018-2019 school years. A final purpose was to identify the degree to which trends might be present in the ethnic/racial membership of students and teachers in Texas public elementary, middle, and high schools over a 9-year time period.

Method

For this analysis, a longitudinal descriptive research design was utilized. Archival data, from the Texas Education Agency, were acquired for Texas public elementary, middle, and high schools for the 2010-2011 school year through the 2018-2019 school year. Participants were teachers and students in Texas public elementary, middle, and high schools.

Findings

The ethnic/racial composition of Texas public school teachers and students over the span of 9 school years (i.e., the 2010-2011 school year through the 2018-2019 school year) varied. The percentages of White teachers and White students declined over this time period. Even with declining percentages, however, White teachers had the highest percentage of the four major ethnic/racial teacher groups. The percentages of Hispanic teachers and Hispanic students increased over the 9 school years. A sizeable gap remains, however, between the higher percentages of Hispanic students and the lower percentages of Hispanic teachers. The percentages of Black teachers and of Black students remained relatively consistent over the 9 school years. Similar results were established for Asian teachers and for Asian students. Substantive differences were present between the ethnic/racial diversity of teachers and of students. As such, more efforts to increase teacher diversity are warranted.

KEYWORDS: Asian, Black, Elementary school, High school, Hispanic, Middle school, Race/Ethnicity, Texas Academic Performance Report, Texas Education Agency, White

ACKNOWLEDGEMENTS

I very much would like to thank my dissertation chair, Dr. John R. Slate, for the attentiveness and patience that he has shown me through his statistics courses and throughout the development of this dissertation. I appreciate the manner in which he explained the relevance of statistics and provided instruction which cultivated a confidence in conducting statistical procedures. Thank you for being encouraging and consistent during this process.

I also would like to express my appreciation to my committee members Dr. Cynthia Martinez-Garcia, Dr. Frederick C. Lunenburg, and Dr. Janene Hemmen. Thank you for your time that you gave to review my dissertation and give edits and feedback. Your selflessness, commitment, and knowledge which contributed to this endeavor are valued beyond measure.

Finally, I want to extend an immense amount of gratitude to my classmates in Cohort 40: Shukella Price, Gaylon Davenport, Alexis Taylor, Ann Le, Bart Miller, Chastity Simon, Dion Rivera, Heather Hamilton, Kenny Fraga, Letty Roman, Martha Werner, and Tim Harkrider. It was amazing growing and learning with you all each Wednesday night. Each of you brought such an incredibly unique perspective to our group, one that created a learning environment that helped me to become a better administrator. I am so appreciative that I have the opportunity to have you all in my life as mentors and friends.

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CHAPTER I

INTRODUCTION

Over 60 years have passed since the legendary ruling of the United States Supreme Court in *Brown v. Board of Education of Topeka* (1954). Still unclear, however, is whether the United States can provide quality equal opportunities in education for all students, regardless of their ethnic/racial makeup (Capers, 2019). With respect to the state of interest for this journal-ready dissertation, Texas was hampered in providing quality and equal education by former Texas Commissioner of Education J. W. Edgar; who, shortly after the *Brown v. Board of Education* (1954) decision, advised the State's public schools to maintain the status quo and resist public school integration (Bullock, 2019). Bullock (2019) explained that many Texas public-school districts followed Commissioner Edgar's advice for nearly a decade, until the United States passed the Civil Rights Act of 1964.

The 1964 legislation reinforced, with consequences, that discrimination of public accommodations were banned, that federal funding to public school entities which practiced segregation would be withheld, and that the Department of Justice held the ability to file federal suit against school districts which failed to integrate properly (Civil Rights Act, 1964). Texas public school districts that refused to comply with integration were not forced to integrate until a federal lawsuit, which was prompted by the 1964 Civil Rights Act, was filed (Schott, 1982). Judge William Wayne Justice delivered a ruling on April 20, 1971, in which he placed Texas under court order for all school districts, without exception, to integrate (Schott, 1982). Since this court decision, Texas public schools have been working to improve equal educational opportunities for students

and equal employment opportunities for teachers amid a swiftly growing ethnically/racially diverse population (Kauffman, 2019). In this journal-ready dissertation, the progress of Texas public schools at the elementary, middle, and high school levels to employ teachers of color in efforts to create a population of educators that is more representative of the demography of the state's students was addressed.

Literature Review: Racial/Ethnic Demography in Elementary School Education

Ethnic/racial minorities constitute 41% of the elementary, middle, and high school student population across the United States, yet only 16.5% of the teachers in those same school levels are ethnic/racial minorities (Wright, Gottfried, & Le, 2017). In the State of Texas, the state of interest in this article, the diversity of the public school student population has been undergoing dramatic demographic transformations and growth throughout the past decade (Kauffman, 2019). Over a 10-year span (i.e., 2008-2009 to 2018-2019), Texas had a student enrollment increase of 14.4%, or 682,339 students across all grade levels (Texas Education Agency, 2019b). In the 2018-2019 school year, Texas public elementary schools had 295,063 Black students, 12.42% of the Texas student population; 1,235,337 Hispanic students, 52.02% of the student population; and 658,139 White students, 27.75% of the student population (Texas Education Agency, 2019b). In the same school year, but across all grade levels, not just elementary grades, 358,450 teachers were present, of which 10.6% were Black, 27.7% were Hispanic, and 58.4% were White (Texas Education Agency, 2019a).

According to the U.S. Census Bureau (2016), the population of Texas has increased by 12.7%, which can also be reflected as a growth to a total population of 28 million individuals. Currently, in Texas, no one ethnic/racial group comprises more than

50% of the State's total population (U.S. Census Bureau, 2019). This rapid statewide change is reflected in greater numbers in ethnic/racial demographic groups than what has traditionally been represented. With respect to the total Texas population, Hispanics make up 39%, White non-Hispanics make up 42%, Blacks comprise 13%, and Asians make up 5% (U.S. Census Bureau, 2019).

In two previously conducted studies, Bone (2011) and Khan (2014) described the ethnic/racial composition of Texas public elementary school teachers and students. Bone (2011) reviewed demographic data which spanned 11-school years (i.e., 1999-2000 through 2009-2010), whereas Khan (2014) documented teacher demographic data across an 11-school year time period as well (i.e., 2002-2003 through 2012-2013). Both researchers (Bone, 2011; Khan, 2014) obtained similar results of a growing and diversifying population in Texas.

With respect to the grade levels of interest in this investigation, elementary school, in the most comprehensive analysis to date, Bone (2011) analyzed the ethnic/racial characteristics of Texas elementary school teachers and elementary school students for an 11-year period. Bone (2011) established that, for the 11-year span, between 79.29% and 85.30% of Texas elementary school teachers were White. Over this time period, the percentage of White Texas public elementary teachers decreased from 70.84% to 66.68% (Bone, 2011). During the same time period, the average percentage of White public elementary students in Texas also decreased from 42.20% to 32.00%. Bone (2011) established that the percentage of Hispanic public elementary school teachers increased over this 11-year time period from 5.70% to 8.82%. This increase in the percentage of Hispanic elementary school teachers coincided with the growth of Hispanic

elementary student percentages from 30.80% to 41.10%. Though small, an increase was also observed in the percentage of Black elementary school teachers over this 11-year time period from 1.90% to 2.56%, and Black elementary student percentages grew from 5.90% to 6.90% (Bone, 2011).

In efforts to provide a more complete description of the ethnic/racial demography of Texas public school teachers, Khan (2014) completed a follow up study to Bone's (2011) analysis. Khan (2014) reviewed data regarding the ethnic/racial makeup of Texas public elementary school teachers from the 2002-2003 through the 2012-2013 school years. From 2002-2003 to 2012-2013, Khan (2014) established that the percentage of Black public school teachers declined from 8.1% to 7.7%. Hispanic public elementary school teachers, during this same time period, experienced an increase from 21.6% to 29.9%. Khan (2014) also documented a decrease in the percentage of White public elementary school teachers from 69.4% in 2002-2003 to 61.3% in 2012-2013. As Bone (2011) also concluded, Khan (2014) determined that the diversity of Texas public elementary school teachers remained relatively unchanged, and mostly White, for the 11 school years of data which were analyzed.

An important finding that Bone (2011) documented was the presence of a slight increase in the Black elementary public-school teacher population. In contrast, Khan (2014) established the presence of a slight decrease in that population for the subsequent 11-year span. This ebb and flow of the percentages of Black public-school elementary teachers has merit for further analysis in Texas as ethnic/racial minority populations continue to grow. The individuals who stand to be most affected academically by the rapid change in population diversity are Black and Hispanic students, especially as the

ethnic/racial demography of Texas teachers is not diversifying as quickly at the student population (Bone, 2011; Khan, 2014).

Many of the ethnic/racial differences which accompany rapid school population growth, and can cause academic issues, potentially can be addressed by teachers of color who may share similar cultural traits with students of color. Teachers who are sympathetic to cultural issues of students of color are increasingly difficult to find (Bristol & Martin-Fernandez, 2019; Fitchett & Heafner, 2017; Rasheed, Doyle, Brown, & Jennings, 2019; Verkuyten, Thijs, & Gharaei 2019). Boser (2014) noted that teachers of color comprise less than 20% of the teachers in the profession; yet, over one half of the students in public schools are students of color (Maxwell, 2014).

Rasheed et al. (2019) contended that Black and Hispanic students face difficulties at a very early point in life. These early difficulties create cause for concern when campus leaders and school district administrators encounter teacher staffing decisions which determine when Texas public elementary students will have an opportunity to be educated by teachers of a similar ethnicity/race, who share their cultural beliefs, have had similar life experiences, and have the potential to become positive role models (Plachowski, 2019; Wang, Leary, Taylor, & Derosier, 2016). Though non-White teacher recruitment has been a point of emphasis across the nation for more than a decade, educational leaders need to develop policies which increase the ethnic/racial matching of teachers and students in classrooms (Rasheed et al., 2019).

Researchers (Amos, 2016; Gollnick & Chinn, 2017; Wright et al., 2017) of public-school policy and demographics have realized that school populations in the United States have become a near mirror image of American society, becoming much

more racially/ethnically diverse. However, research investigations are essential to determine if educational staffing is maintaining pace with the reflection that is showing in public schools, particularly in Texas public elementary schools. Ingersoll and May (2011) detailed three aspects of teacher and student ethnic/racial demography matching in public schools that have potential positive benefits for ethnic/racial minority students. The first benefit was related to parity of demography as teachers of color can be positive role models and serve as ambassadors of diversity to both students of color and White students (Ingersoll & May, 2011).

The argument of cultural synchronicity was Ingersoll and May's (2011) second pillar in which they touted that ethnic/racial minority students benefit, due to cultural similarities, from being assigned to ethnic/racial minority teachers. Bristol and Martin-Fernandez (2019) also supported cultural synchronicity when they explained that Hispanic teachers who have Hispanic students assigned to them, and share similar cultural experiences, can create classrooms for Hispanic students which cultivate positive socioemotional support. Public education researchers, such as Wright et al. (2017) and Ingersoll and May (2011), have conducted studies regarding ethnoracial matching, or cultural synchronicity, and how the two concepts facilitate quality student-teacher relationships at the individual level (Banerjee, 2018). Finally, Ingersoll and May (2011) established humanistic commitment as a benefit of teacher matching; meaning that minority teachers are more likely to be motivated in making differences in lives of ethnic/racial minority students.

Tyler (2016) explained that these demographic changes increase the likelihood of teachers, in both rural and suburban areas, to encounter students of a different

racial/ethnic groups. If these encounters are not appropriately handled or understood, racial discrimination experiences could potentially become detrimental to student academic success (Leath, Mathews, Harrison, & Chavous 2019). In addition to potential academic shortcomings, Verkuyten et al. (2019) concluded that students of color can experience social identity issues when they perceive and experience ethnic/racial discrimination. Even though relationships between academic engagement, success, and social discrimination have been investigated, less information is present regarding which grade level academic outcomes are most substantially influenced (Verkuyten et al., 2019). Students of color who have little to no sociocultural support, experience decreased levels of academic perseverance (Plachowski, 2019). Elementary school teachers are positioned to have an immediate influence on academic engagement and can assist families as they integrate into their child's educational career (Frost & Goldberg, 2019).

Literature Review: Racial/Ethnic Demography in Middle School Education

The population of Texas, and its public school student enrollment has been rapidly growing and increasing in diversity (Kauffman, 2019). For the past decade (i.e., 2008-2009 to 2018-2019), Texas public schools have had an increase of overall student enrollment of 14.4%, or 682,339 total students (Texas Education Agency, 2019b). During the 2018-2019 school year, Texas public middle schools had 155,207 Black students, 12.67% of the state's student population; 646,047 Hispanic students, 52.53% of the state's student population; and 339,812 White students, 27.67% of the state's public school student population (Texas Education Agency, 2019b). For the same school year, across all grade levels, not just middle school grades, Texas reported having 358,450

public school teachers; 10.6% were Black, 27.7% were Hispanic, and 58.4% were White (Texas Education Agency, 2019a). As evidenced by the statistics above, Texas has a diverse educational environment.

In the most comprehensive study conducted to date in the state of interest for this investigation, Texas, Bone (2011) analyzed the ethnic/racial demographic characteristics of middle school students and teachers over an 11-year time period (i.e., 1999-2000 to 2009-2010). The percentage of Black teachers in Texas public middle schools grew from 8.10% to 10.31% for the span of the 11-school years. During this same time, Black Texas public middle school students represented between 13.10% and 15.38% of the middle school population (Bone, 2011). A notable characteristic of Black public middle school teachers and students is the low average percentage increase (Bone, 2011) during a period of growth and increasing diversity in the Texas population (Kauffman, 2019). Hispanic public middle school teachers in Texas represented 12.66% of the middle school teachers in 1999-2000 and 21.23% in 2009-2010. Over the last 50 years Hispanic students have grown from 20% of the total student population in Texas to 48% of the total student population (Kauffman, 2019). The average percentage of Hispanic student enrollment grew from 36.06% to 46.11% of the Texas public middle school population for the 11-school year study.

Bone (2011) also documented that the average percentages of White public middle school teachers remained much higher than the percentages of teachers of color previously mentioned. White teachers in Texas public middle schools represented 78.35% of the public middle school teachers in the 1999-2000 school year and 68.25% in the 2009-2010 school year (Bone, 2011). In the 1999-2000 school year, White students

made up an average of 47.43% of the Texas public middle school student population; by the 2009-2010 school year they were only 37.18% of the State's middle school population (Bone, 2011).

In a similar study conducted by Khan (2014), she examined the percentages of ethnic/racial minority teachers in Texas public elementary, middle, and high schools for the 2002-2003 school year through the 2012-2013 school year. Khan (2014) established that the average percentage of White teachers well exceeded the average percentage of ethnic/minority teachers. During the decade that was addressed, the average percentage of Black teachers in Texas public middle schools grew from 8.5% in the 2002-2003 school year to 11.2% in the 2012-2013 school year. Reflected in Khan's (2014) study was an increase in the average percentage of Hispanic teachers in Texas public middle schools from 16.3% to 22.2% during the examined time span. White Texas public middle school teachers experienced a consistent decline in average percentage of middle school teachers (Khan, 2014). In 2002-2003 the average percentage of White public middle school teachers was 74.2%, and in the 2012-2013 school year the average percentage of White public middle school teachers was 65.4% (Khan, 2014). Based on the evidence from the 11-year period which was analyzed, efforts to diversify the ethnicity/race of public middle school teachers in Texas have not been successful (Khan, 2014). The failure to provide equity in the ethnicity/race of middle school teachers may have substantial influences on the social, emotional, and academic experiences of Texas's public middle school students.

Juvonen, Kogachi, and Graham (2018) conducted a study in which social-emotional and ethnic/racial perspectives of middle school students from various

ethnic/racial backgrounds were examined. Middle school students understand the value of respect by fellow classmates and are sensitive to being patronized (Francis et al., 2019). Within a multi-period school day, students may experience a myriad of ethnic/racial make-ups within each of their courses, and these potential inequalities may increase racial tensions and attitudes toward different ethnic/racial groups (Juvones et al., 2018). Utilizing a nationally representative data set of middle school students, Wright, Gottfried, and Le (2017) examined the relationship between teachers and students who share the same ethnic/racial demography and how that relationship influences the socioemotional health of middle school students. Wright et al. (2017) determined that when the ethnicity/race of teachers matches that of their students, those teachers are more likely than non-ethnoracial teachers to describe their students as having less external behavior issues.

Francis et al. (2019) explained that middle school students displayed a view that higher expectations were present for perceived top ethnic/racial groups. Those top ethnic/racial groups were identified by students as having pedagogical experiences which included more rigorous expectations, stronger teacher encouragement, and student driven learning opportunities (Francis et al., 2019). Banerjee (2019) described that teachers of the same ethnic/racial background of their students may be better equipped to influence social and intellectual experiences within classrooms for those students than teachers of a different ethnic/racial background.

Vinopal and Holt (2019) suggested that the presence of more teachers with a similar ethnicity/race to that of their students is correlated with academic improvement. The realization that teachers are important to student outcomes has increased attention on

to their presence and work in public schools (Morley, 2019). Kondo (2019) pointed out that cultivating a perspective of inclusivity is a challenging undertaking for all teachers, especially teachers of color. According to Utt and Tochluk (2020), too few White teachers have a good understanding of how their ethnic/racial identity influences their classroom instruction. In a time where public school student populations are becoming increasingly diverse, a public-school administrator's focus to increase teacher diversity often identifies teachers as the solution to the problems of public-school education (Kondo, 2019). As Kondo (2019) documented, some of the demands that public school teachers face are associated with ethnic/racial demography. Vinopal and Holt (2019) explained that teacher training, such as implicit bias training, may be beneficial to both preservice teachers and currently employed teachers of all ethnic/racial groups.

Egalite et al. (2015) conducted a longitudinal 8-year study in which the Florida Department of Education data were analyzed. In the study, students who had poor academic achievement performed better on state examinations in both reading and mathematics when assigned to a teacher who shared the same ethnic/racial traits than did academically struggling students who were assigned to teachers who were not ethnic/racial matches (Egalite et al., 2015). Reasons why students of color have shown improved academic performance when assigned to a teacher of color are explained by Gottfried, Kirksey, and Wright (2019) as being two-fold. The first reason given by Gottfried et al. (2019) was that teachers who do not match the ethnicity/race of their students are potentially dispositioned to display neutrality toward students who are not ethnic/racial matches with them. The second reason is that teachers who are not ethnic/racial matches with their students of color are less likely to have a cultural

understanding, especially related to providing classroom instruction to students of color (Gottfried et al., 2019). Schroeder-Arce (2018) expressed that for teachers to prepare to be culturally responsive, they must first examine their own cultural and ethnic/racial identity. Glock and Schuchart (2019) who examined the ethnic/racial match of teachers and students through a vignette study, determined that students may benefit from being assigned to a teacher who is an ethnic/racial match, but only when the students and teachers actually share the same ethnic/racial background.

Literature Review: Racial/Ethnic Demography in High School Education

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, & 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 had increases 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% (Khan, 2014). Black student percentages grew from 5.00% to 6.90% over the course of Khan's (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, schools are tasked with cultivating a teacher population that is representative of the student population (McCarthy et al., 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 et al., 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 they work through the final stages of their public grade school education (Benner, Boyle, & Bakhtiari, 2018). Transition disruptions are constant with the life course theory in which physical, emotional, social, cognitive, and physical development are interrelated (Benner et al., 2018). 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 also occurred (Bristol & Martinez-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 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.

Statement of the Problem

In addition to nationwide teacher shortages, gaps in the racial/ethnic demography between teachers and students are increasing (Carothers, Aydin, & Houdyshell, 2019). Aydin, Ozfidan, and Carothers (2017) detailed in their literature, that for the first time in 2014 California, Texas, New York, and Florida had student enrollments that were mostly

students of color. Even with the United States population growth slowing to an increase of only 0.07% from 2015-2016, Texas has experienced tremendous changes in demography and population size in that time (U.S. Census Bureau, 2016). Hispanic students accounted for the largest percentage of total enrollment in Texas public schools in 2018-2019 at 52.6% of the Texas student population, followed by White students at 27.4%, Black students at 12.6%, and Asian students at 4.5% (Texas Education Agency, 2019b). The current incoming immigration population has serious implications for educators in classrooms in the United States (Goodwin, 2017).

The willingness to combat racial inequities in public schools with teaching staffs who are ethnically/racially matched to a school's student population may provide students of color with mentors and advocates who are necessary for academic success (Plachowski, 2019). Considering current Texas demographic statistics, it is important to acknowledge that the evolving body of evidence in which public school students benefit from being assigned to a teacher who shares similar racial/ethnic demography (Egalite & Kisida, 2018). In efforts to expand on the research of Bone (2011), who examined teacher and student demographic changes in Texas from the 1999-2000 school year through the 2009-2010 school year, it is necessary to update the study as Texas public school diversity continues to increase.

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 of these changes in the ethnic/racial composition of the Texas public school student body across Texas, it is imperative that the demographic characteristics of public school teachers in Texas be examined. Even though knowledge and understanding of diversity is essential for all educators, practical or personal experiences in communities and schools with large minority demographics is also important to being successful as an educator in Texas among its evolved student demography (Schroeder-Arce, 2018). As such, determining the relationship between the ethnicity/race of Texas public school teachers and students can assist in ensuring that the state's school population has a strong academic, social, and cultural foundation as they progress through each level (i.e., elementary, middle, and high) of the Texas public school system.

Purpose of the Study

The overall purpose of this journal-ready dissertation was to describe the racial/ethnic demographic characteristics of students and teachers in Texas public schools. The first specific purpose was to describe the ethnic/racial demographic characteristics of students and teachers in Texas elementary public schools for the 2010-2011 through the 2018-2019 school years. A second purpose was to determine the ethnic/racial demographic characteristics of students and teachers in Texas public middle schools for the 2010-2011 through the 2018-2019 school years. A third purpose was to

identify the ethnic/racial demographic characteristics of students and teachers in Texas public high schools for the 2010-2011 through the 2018-2019 school years. A final purpose was to identify the degree to which trends might be present in the ethnic/racial membership of students and teachers in Texas public elementary, middle, and high schools over a 9-year time period.

Significance of the Study

Historically, school leaders have depended on educational legislation when determining their leadership practices, however, legal frameworks have shortcomings because they have been developed by policymakers who do not reflect the ethnic/racial demography of Texas's current student population (Allen & Liou, 2019). Since the 1700s, racial biases have prevailed over ethnic/racial minority student educational experiences and opportunities (Miller, 2013). Student-teacher relationships are extremely important as students are developing, or polishing in the later grade levels, their sociocultural understanding in addition to approaching significant academic benchmarks (Prewett, Bergin, & Huang, 2019). Teachers who do not match the racial/ethnic demography of their students often focus on implied/stereotypical deficits, which can have damaging consequences (Utt & Tochluk, 2020). Negative consequences have been documented of students of color having mostly White teachers who have little depth of understanding related to ethnic and/or racial culture and experiences (Utt & Tockluk, 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).

In their efforts to aid campuses and districts across the state in reviewing teacher-hiring practices, Texas educational leaders and policymakers could benefit from the results of this empirical multiyear analysis as they endeavor to ensure that Texas is meeting the needs of its expanding ethnic/racial demographic student population. Bone (2011) and Khan (2014) documented for the Texas educational community how difficult demography matching is for Texas public schools can be due to the rapid and diverse population growth of the state. Because of the increase in diversity in the Texas student population, it was important that both researchers' findings be updated. The Texas public education statistics, in which information was provided about the percentages of ethnic/racial composition of the state's student population and the state's teacher population, were examined to ensure that all students were being provided with appropriate educational opportunities.

Theoretical Framework

The theoretical frameworks which guided the examination of the proposed research questions was derived from the theory of social closure (Albiston & Green, 2018) and from the homosocial reproduction theory (Kanter, 1977). Social closure theory, as explained by Albiston and Green (2018), focused on the presence of restrictions placed on some while others experience privilege. Also, homosocial reproduction theory (Kanter, 1977) was applied in this study to guide an examination of public school teacher hiring practices.

Social Closure Theory

Initially developed by German sociologist Weber, social closure theory was first used to detail how the legal profession maintained social inequalities (Albiston & Green,

2018). Focused upon in social closure theory is the idea that social restrictions are present for some ethnic/racial groups and privileges are present for other ethnic/racial groups (Albiston & Green, 2018). Certain ethnic/racial groups have benefited by closing off opportunities to others (Simi & Matusitz, 2016). Simi and Matusitz (2016) explained that social closure theory becomes apparent when clearly identified differences between groups become a constraint for a particular faction. Social closure theory also creates immobility in professional occupations, such as teaching, by limiting opportunities for restricted groups to advance professionally (Ruggera & Barone, 2017).

Minefee, Rabelo, Stewart, and Jones-Young (2018) documented another aspect of social closure theory as the hoarding of knowledge and resources which give privileged ethnic/racial parties the ability to cultivate and perpetuate control over desired resources and access. In relation to learning styles and interest, ethnic/racial minority groups have historically experienced neglect when curriculum is developed (Simi & Matusitz, 2016). Social closure theory was used as the framework to examine ethnoracial demography among teachers and students of Texas public schools.

Homosocial Theory

Kanter (1977) explained that homosocial reproduction gives leaders a sense of comfort in the face of uncertainty when having to determine and/or measure performance while serving in a leadership position. The reassurance can come from hiring individuals that resemble their own ethnic/racial identity, gender, or nationality. Because of homosocial reproduction, certain positions can become closed to individuals that have differing characteristics from leaders that make employment decisions (Kanter, 1977). In education, where campus administrators are under pressure to meet state and federal

accountability measures, a common practice has been for educational leaders to hire teachers because of their own personal social bases for trust (Kanter, 1977).

School leaders are tasked with the challenge of hiring teachers who are going to assist their students in achieving academic success, and help the school achieve academic accountability measures. As Kanter (1977) discussed, the pressure for schools to perform can cause campus and district administrators to defer to what is most familiar, or trusted, for them to attain certain desired results. Across the State of Texas, percentages of public school teachers of color at the elementary, middle, and high school levels have only slightly increased whereas the overall percentages of students of color have dramatically changed. The percentages of ethnic/racial minority students have grown at a much faster rate than the rate of ethnic/racial minority teacher percentages. Even with this growth, the Texas public school teacher population remained largely White (Texas Education Agency, 2019a). To respond adequately to the identified research questions, which pertain to the ethnic/racial makeup of teachers and students in Texas public schools, homosocial theory and social closure theory were used as theoretical frameworks to guide this study.

Definition of Terms

The following terms, which were utilized in this study, were defined to assist readers in the understanding of the content of this analysis

Asian

The Texas Education Agency (2019c) defined Asian as a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent

including, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Black

The Texas Education Agency (2019c) defined Black as a person having origins in any of the Black racial groups of Africa.

Elementary School

The Texas Education Agency (2019b) defined elementary school as a campus in which students range in grade level from K-5. Each Texas public school campus is assigned a school type (i.e., elementary, middle, high school) classification based the grade level span that is served and reported in the fall Texas Student Data System Public Education Information Management System data submission. In cases where campuses in which the grade levels served do not align directly with the Texas Education Agency's traditional grade levels, the campuses are then assigned a school type that is most closely related to their served grade level span.

High School

The Texas Education Agency (2019b) defined a high school as a campus in which students range from Grades 9 through 12. Each Texas public school campus is assigned a school type (i.e., elementary, middle, high school) classification based the grade level span that is served and reported in the fall Texas Student Data System Public Education Information Management System data submission. For this analysis, a Texas public high school will reference a campus in which student range in grade level from 9-12

Hispanic

The Texas Education Agency (2019c) defined Hispanic/Latino as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

Middle School

The Texas Education Agency (2019b) defined Texas public middle school as a campus in which students range in grade level from 6-8. Each Texas public school campus is assigned a school type (i.e., elementary, middle, high school) classification based the grade level span that is served and reported in the fall Texas Student Data System Public Education Information Management System data submission. In cases where campuses in which the grade levels served do not align directly with the Texas Education Agency's traditional grade levels, the campuses are then assigned a school type that is most closely related to their served grade level span.

Race/Ethnicity

According to the Texas Education Agency (2019c), ethnicity refers to whether a person identifies as 'Hispanic/Latino' or 'not Hispanic/Latino'. A person who identifies as 'Hispanic/Latino' is defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The Texas Education Agency defines race as relating to an ancestral background (i.e., American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White.

Texas Academic Performance Report

The Texas Academic Performance Report is defined as the annual statistical report produced each fall that contains a wide range of information about student performance, school and district staffing, programs, and student demographics. The Texas Academic Performance Report replaced the Academic Excellence Indicator System report in the 2012-2013 school year.

Texas Education Agency

The Texas Education Agency is the organization that provides leadership, guidance, and resources to assist schools to meet the educational needs of all students in the state. Led by the state's Commissioner of Education, the agency manages the textbook adoption process, oversees the development of statewide curriculum, administers the statewide assessment program, administers a data collection system on public school students, staff and finances, rates school districts under the statewide accountability system, operates research and information programs, monitors for compliance with federal guidelines and serves as a fiscal agent for the distribution of state and federal funds (Texas Education Agency, 2019b).

White

The Texas Education Agency (2019c) defined White as a person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Literature Review Search Procedures

For the purposes of this journal-ready dissertation, literature about the ethnic/racial demography matching of Texas public school teachers and students was examined. Phrases that were used to narrow the research focus were: ethnic/racial education matching, teacher student matching, public school demography, public school integration, public school integration, Texas teacher demographics, social closure theory, middle school expectations, Texas elementary demographics, Texas middle school demographics, Texas, high school demographics, Texas population diversity. All searches related to the literature review were performed through the following databases: Academic Search Complete, American Psychological Association (Psych NET), EBSCOhost, EBSCOhost Electronic Journal Service (EJS), Educational Resources Information Center (ERIC), Google Scholar (customized to link to SHSU resources), Sage Journals, and the Social Sciences Electronic Data Library (SSEDL).

Delimitations

The data that were analyzed for the three articles in this journal-ready dissertation were limited to public schools in Texas. Information relating to charter school, private schools, or alternative educational placement schools were not included in this dissertation. This study was also delimited to the four major ethnic/racial groups in the State of Texas: Asian, Black, Hispanic, and White. Finally, the data that were reviewed for this study were obtained from the Texas Academic Performance Reports for the most recent nine school years: 2010-2011 through 2018-2019.

Limitations

Several potential limitations were present to this study; most of which were related to ensuring internal and external validity. Validity can be explained as the degree to which what is intended to be measured, as outlined by the researcher, is actually measured (St-Onge, Young, Ewa, & Hodges (2017). In this study, student and teacher ethnicity/race were only able to be compared along school grade level lines, and not through individual grade levels or individual classes with the available data. Because of these data limitations, potential threats were present to the internal validity of this research. Another internal validity threat was the assumption that the data provided to the state from individual school districts, regarding the reported demographic information on teachers and students, were accurate and reliable. Also, the accuracy with which teachers, students, and/or parents/guardian provided ethnic/racial information to the public school districts in Texas was another threat to internal validity. Due to reporting audits conducted by the Texas Education Agency, these issues were believed to present minimal risk to this proposed journal-ready dissertation.

When addressing external validity, ecological validity was a concept which presented a potential vulnerability to this study. Onwuegbuzie (2000) explained ecological vulnerability as the ability of results from a study to be generalized for multiple conditions, social environments, and contexts. Because all the data that were gathered and analyzed for this study were from Texas public schools, the results of this study may not be applicable for private schools, charter schools, or public schools outside of Texas.

Assumptions

An assumption made for this dissertation was that the information reported by school campuses and school districts to the Texas Academic Performance Report was accurate for each of the nine school years (i.e., 2010-2011 through 2018-2019) examined. Also assumed was that each public school district followed the Texas Education Agency's reporting procedures and requirements when providing their data for the Texas Academic Performance Report. Finally assumed was that the data available in the Texas Academic Performance Report were audited to ensure accuracy in reporting and collecting the data.

Procedures

Following the approval of this journal-ready dissertation by the doctoral dissertation committee, an application was submitted for approval to the Sam Houston State University Institutional Review Board. Once approval was granted by the Institutional Review Board, data from the Texas Academic Performance Reports were downloaded. The data that were collected and analyzed were from the 2010-2011 through the 2018-2019 school years. All these downloaded data were publicly available through the Texas Education Agency's website.

Organization of the Study

This journal-ready dissertation contains three journal-ready articles about the ethnic/racial demography of Texas public school teachers and students. In the first research article, an analysis of Texas public elementary school teacher and student ethnic/racial demographics was conducted. Within the second study, a review of Texas public middle school teacher and student ethnic/racial demographic characteristics was

addressed. Finally, in the third journal article, research questions related to the ethnic/racial demographic percentages of Texas public high school teachers and students were examined.

A total of five chapters constitute this journal-ready dissertation. Chapter I includes: an introduction of the study, literature review, statement of the problem, purpose of the study, significance of the study, theoretical framework, Definitions of key terms, explanation of the literature review search procedures, delimitations, limitations, assumptions, and an explanation of the organization of the study. Chapter II contains the first research article on the ethnic/racial demographic characteristics of Texas public elementary teachers and students over the past 9 school years. Contained in Chapter III is the proposed study about the ethnic/racial demographic characteristics of Texas public middle school teachers and students over the last nine school years. Contained in Chapter IV is an analysis of the ethnic/racial demographic characteristics of public high school teachers and students for the 2010-2011 through the 2018-2019 school years. Lastly, Chapter V contains a discussion of the findings of each of the three articles within this journal-ready dissertation.

CHAPTER II

ETHNIC/RACIAL COMPOSITION OF TEXAS PUBLIC ELEMENTARY SCHOOL TEACHERS AND STUDENTS: A MULTIYEAR STUDY

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

Abstract

In this longitudinal descriptive investigation, an analysis of the ethnic/racial diversity of teachers and of students in Texas public elementary schools from the 2010-2011 school year through the 2018-2019 school year was conducted. Descriptive statistics revealed decreases in the average percentages of White teachers and of White students in Texas public elementary school over 9 school years of data examined herein. The average percentages of Asian, Black, and Hispanic student and teachers increased from 2010-2011 to 2018-2019. Through comparisons of the ethnic/racial diversity of teachers and of students, clear disparities were evident. Higher percentages of White teachers were present than percentages of teachers of color and percentages of students of color. Implications for policy and for practice, as well as recommendations for future research, were discussed.

Keywords: Asian, Black, Elementary schools, Hispanic, Race/Ethnicity, Texas Academic Performance Report, Texas Education Agency, White

ETHNIC/RACIAL COMPOSITION OF TEXAS PUBLIC ELEMENTARY SCHOOL TEACHERS AND STUDENTS: A MULTIYEAR STUDY

Ethnic/racial minorities constitute 41% of the elementary, middle, and high school student population across the United States, yet only 16.5% of the teachers in those same school levels are ethnic/racial minorities (Wright, Gottfried, & Le, 2017). In the State of Texas, the state of interest in this article, the diversity of the public school student population has been undergoing dramatic demographic transformations and growth throughout the past decade (Kauffman, 2019). Over a 10-year span (i.e., 2008-2009 to 2018-2019), Texas had a student enrollment increase of 14.4%, or 682,339 students across all grade levels (Texas Education Agency, 2019b). In the 2018-2019 school year, Texas public elementary schools had 295,063 Black students, 12.42% of the Texas student population; 1,235,337 Hispanic students, 52.02% of the student population; and 658,139 White students, 27.75% of the student population (Texas Education Agency, 2019b). In the same school year, but across all grade levels, not just elementary grades, 358,450 teachers were present, of which 10.6% were Black, 27.7% were Hispanic, and 58.4% were White (Texas Education Agency, 2019a).

According to the U.S. Census Bureau (2016), the population of Texas has increased by 12.7% which can also be reflected as a growth to a total population of 28 million individuals. Currently, in Texas, no one ethnic/racial group comprises more than 50% of the State's total population (U.S. Census Bureau, 2019). This rapid statewide change is reflected in greater numbers in ethnic/racial demographic groups than what has traditionally been represented. With respect to the total Texas population, Hispanics

make up 39%, White non-Hispanics make up 42%, Blacks comprise 13%, and Asians make up 5% (U.S. Census Bureau, 2019).

In two previously conducted studies, Bone (2011) and Khan (2014) described the ethnic/racial composition of Texas public elementary school teachers and students. Bone (2011) reviewed demographic data which spanned 11-school years (i.e., 1999-2000 through 2009-2010), whereas Khan (2014) documented teacher demographic data across an 11-school year time period as well (i.e., 2002-2003 through 2012-2013). Both researchers (Bone, 2011; Khan, 2014) obtained similar results of a growing and diversifying population in Texas.

With respect to the grade levels of interest in this investigation, elementary school, in the most comprehensive analysis to date, Bone (2011) analyzed the ethnic/racial characteristics of Texas elementary school teachers and elementary school students for an 11-year period. Bone (2011) established that, for the 11-year span, between 79.29% and 85.30% of Texas elementary school teachers were White. Over this time period, the percentage of White Texas public elementary teachers decreased from 70.84% to 66.68% (Bone, 2011). During the same time period, the average percentage of White public elementary students in Texas also decreased from 42.20% to 32.00%. Bone (2011) established that the percentage of Hispanic public elementary school teachers increased over this 11-year time period from 5.70% to 8.82%. This increase in the percentage of Hispanic elementary school teachers coincided with the growth of Hispanic elementary student percentages from 30.80% to 41.10%. Though small, an increase was also observed in the percentage of Black elementary school teachers over this 11-year

time period from 1.90% to 2.56%, and Black elementary student percentages grew from 5.90% to 6.90% (Bone, 2011).

In efforts to provide a more complete description of the ethnic/racial demography of Texas public school teachers, Khan (2014) completed a follow up study to Bone's (2011) analysis. Khan (2014) reviewed data regarding the ethnic/racial makeup of Texas public elementary school teachers from the 2002-2003 through the 2012-2013 school years. From 2002-2003 to 2012-2013, Khan (2014) established that the percentage of Black public school teachers declined from 8.1% to 7.7%. Hispanic public elementary school teachers, during this same time period, experienced an increase from 21.6% to 29.9%. Khan (2014) also documented a decrease in the percentage of White public elementary school teachers from 69.4% in 2002-2003 to 61.3% in 2012-2013. As Bone (2011) also concluded, Khan (2014) determined that the diversity of Texas public elementary school teachers remained relatively unchanged, and mostly White, for the 11 school years of data which were analyzed.

An important finding that Bone (2011) documented was the presence of a slight increase in the Black elementary public-school teacher population. In contrast, Khan (2014) established the presence of a slight decrease in that population for the subsequent 11-year span. This ebb and flow of the percentages of Black public-school elementary teachers has merit for further analysis in Texas as ethnic/racial minority populations continue to grow. The individuals who stand to be most affected academically by the rapid change in population diversity are Black and Hispanic students, especially as the ethnic/racial demography of Texas teachers is not diversifying as quickly at the student population (Bone, 2011; Khan, 2014).

Many of the ethnic/racial differences which accompany rapid school population growth, and can cause academic issues, potentially can be addressed by teachers of color who may share similar cultural traits with students of color. Teachers who are sympathetic to cultural issues of students of color are increasingly difficult to find (Bristol & Martin-Fernandez, 2019; Fitchett & Heafner, 2017; Rasheed, Doyle, Brown, & Jennings, 2019; Verkuyten, Thijs, & Gharaei 2019). Boser (2014) noted that teachers of color comprise less than 20% of the teachers in the profession; yet, over one half of the students in public schools are students of color (Maxwell, 2014).

Rasheed et al. (2019) contended that Black and Hispanic students face difficulties at a very early point in life. These early difficulties create cause for concern when campus leaders and school district administrators encounter teacher staffing decisions which determine when Texas public elementary students will have an opportunity to be educated by teachers of a similar ethnicity/race, who share their cultural beliefs, have had similar life experiences, and have the potential to become positive role models (Plachowski, 2019; Wang, Leary, Taylor, & Derosier, 2016). Though non-White teacher recruitment has been a point of emphasis across the nation for more than a decade, educational leaders need to develop policies which increase the ethnic/racial matching of teachers and students in classrooms (Rasheed et al., 2019).

Researchers (Amos, 2016; Gollnick & Chinn, 2017; Wright et al., 2017) of public-school policy and demographics have recognized that school populations in the United States have become a near mirror image of American society, becoming much more racially/ethnically diverse. However, research investigations are essential to determine if educational staffing is maintaining pace with the reflection that is visible in

public schools, particularly in Texas public elementary schools. Ingersoll and May (2011) detailed three aspects of teacher and student ethnic/racial demography matching in public schools that have potential positive benefits for ethnic/racial minority students. The first benefit was related to parity of demography as teachers of color can be positive role models and serve as ambassadors of diversity to both students of color and White students (Ingersoll & May, 2011).

The argument of cultural synchronicity was Ingersoll and May's (2011) second pillar in which they touted that ethnic/racial minority students benefit, due to cultural similarities, from being assigned to ethnic/racial minority teachers. Bristol and Martin-Fernandez (2019) also supported cultural synchronicity when they explained that Hispanic teachers who have Hispanic students assigned to them, and share similar cultural experiences, can create classrooms for Hispanic students which cultivate positive socioemotional support. Public education researchers, such as Wright et al. (2017) and Ingersoll and May (2011), have conducted studies regarding ethnoracial matching, or cultural synchronicity, and how the two concepts facilitate quality student-teacher relationships at the individual level (Banerjee, 2018). Finally, Ingersoll and May (2011) established humanistic commitment as a benefit of teacher matching, meaning that minority teachers are more likely to be motivated in making differences in lives of ethnic/racial minority students.

Tyler (2016) explained that these demographic changes increase the likelihood of teachers, in both rural and suburban areas, to encounter students of a different racial/ethnic groups. If these encounters are not appropriately handled or understood, racial discrimination experiences could potentially become detrimental to student

academic success (Leath, Mathews, Harrison, & Chavous 2019). In addition to potential academic shortcomings, Verkuyten et al. (2019) concluded that students of color can experience social identity issues when they perceive and experience ethnic/racial discrimination. Even though relationships between academic engagement, success, and social discrimination have been investigated, less information is present regarding which grade level academic outcomes are most substantially influenced (Verkuyten et al., 2019). Students of color who have little to no sociocultural support, experience decreased levels of academic perseverance (Plachowski, 2019). Elementary school teachers are positioned to have an immediate influence on academic engagement and can assist families as they integrate into their child's educational career (Frost & Goldberg, 2019).

Statement of the Problem

In addition to nationwide teacher shortages, gaps in the racial/ethnic demography between teachers and students are increasing (Carothers, Aydin, & Houdyshell, 2019). Aydin, Ozfidan, and Carothers (2017) detailed in their literature, that for the first time in 2014 California, Texas, New York, and Florida had student enrollments that were mostly students of color. Even with the United States population growth slowing to an increase of only 0.07% from 2015-2016, Texas has experienced tremendous changes in demography and population size in that time (U.S. Census Bureau, 2016). Hispanic students accounted for the largest percentage of total enrollment in Texas public schools in 2018-19 at 52.6% of the Texas student population, followed by White students at 27.4%, Black students at 12.6%, and Asian students at 4.5% (Texas Education Agency,

2019b). The current incoming immigration population has serious implications for educators in classrooms in the United States (Goodwin, 2017).

The willingness to combat racial inequities in public schools with teaching staffs who are ethnically and racially matched to a school's student population, may provide students of color with mentors and advocates who are necessary for academic success (Plachowski, 2019). Considering current Texas demographic statistics, it is important to acknowledge that the evolving body of evidence in which public school students benefit from being assigned to a teacher who shares similar racial and ethnic demography (Egalite & Kisida, 2018). In efforts to expand on the research of Bone (2011), who examined staff and student demographic changes in Texas from the 1999-2000 school year through the 2009-2010 school year, it is necessary to update the study as Texas public school diversity continues to increase. Also, reviewing data related to the relationship between the ethnic and racial demography of Texas elementary teachers and elementary students can assist school and district administrators in ensuring that their hiring practices are best serving the social and academic needs of their students.

Purpose of the Study

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

Significance of the Study

Historically, school leaders have depended on educational legislation when determining their leadership practices; however, legal frameworks have shortcomings because they have been developed by policymakers who do not reflect the ethnic/racial demography of Texas's current student population (Allen & Liou, 2019). Since the 1700s, racial biases have prevailed over ethnic/racial minority student educational experiences and opportunities (Miller, 2013). Teachers who do not match the racial/ethnic demography of their students often focus on implied/stereotypical deficits, which can have damaging consequences (Utt & Tochluk, 2020).

Negative consequences have been documented of students of color having mostly White teachers who have little depth of understanding related to ethnic and/or racial culture and experiences (Utt & Tockluk, 2020). Due to the crucial period of development that is elementary education, findings from this multi-year statewide analysis can be used to review campus and district teacher hiring practices to ensure that Texas is meeting the needs of more than half of its elementary students. Bone (2011) and Khan (2014) documented for the Texas educational community how difficult demography matching can be for Texas public schools due to the rapid and diverse population growth of the

state. Because of the increase in diversity in the Texas student population, it was important that both researchers' findings be updated.

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 elementary 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 elementary 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 elementary 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 elementary 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/racial diversity in Texas elementary schools for each school year from the 2010-2011 school year through the 2018-2019 school year?

Method

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 had already occurred, the variables were not able to be manipulated (Johnson & Christensen, 2020).

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 elementary 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 elementary 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.

Results

The first research question regarding the ethnic/racial composition of the Texas teacher workforce was addressed through descriptive statistics. Specifically calculated were the *M*, *Mdn*, and *SD*. Descriptive statistics for the four major ethnic/racial groups of Texas public elementary school teachers are respectively represented in Tables 2.1, 2.2, 2.3, and 2.4.

Insert Tables 2.1, 2.2, 2.3, and 2.4 about here

The majority of teachers in Texas public elementary schools were White, with their percentages ranging from 51.68% to 56.77% over the 9 school years of data that were analyzed. The percentage of Hispanic teachers increased steadily from 32.12% in 2010-2011 to 36.30% in 2018-2019. Black teacher in Texas public elementary schools were employed at an average percentage of 8.67% in 2010-2011 school year and an average percentage of 9.16% in 2018-2019. Asian teacher percentages ranged from 1.12% in the 2010-2011 school year to 1.42% in the 2018-2019 school year. The median percentages of White, Hispanic, Black, and Asian Texas public elementary teachers are delineated in Figure 2.1.

Insert Figure 2.1 about here

The median percentage for White teachers was 63.35% in 2010-2011 and 54.70% in 2018-2019. The next highest median percentage was for Hispanic teachers who had a median percentage of 21.45% in 2010-2011 and 28.10% in the 2018-2019 school year. From 2010-2011 through 2018-2019 the median percentage of Black teacher increased minimally, from 2.37% to 2.70%. The median percentage for Asian teachers in Texas over the 9 years of data was 0.0%.

To answer the second research question, descriptive statistics were calculated for the four major ethnic/racial groups of students in Texas elementary schools. These

statistics were generated for the 2010-2011 school year through the 2018-2019 school year. Descriptive statistics for Asian, Black, Hispanic, and White Texas public elementary school students are contained, respectively, in Tables 2.5, 2.6, 2.7, and 2.8.

Insert Tables 2.5, 2.6, 2.7, and 2.8 about here

From 2010-2011 through 2018-2019, Hispanic students made up the largest average percentage of Texas public elementary school students. Hispanic student percentages ranged from 54.99% to 56.62%. White students had the second highest percentages, percentages that consistently decreased over the 9 school years that were examined. A decline of 2.73% was documented for the average percentages of White Texas public elementary school students from 27.32% in 2010-2011 to 24.59% in 2018-2019. The average percentages for Black students fluctuated between 12.08% in 2010-2011, and 11.75% in 2012-2013. The percentage of Asian students ranged from 3.44% in 2010-2011 to 4.27% in 2018-2019. The median percentage of White, Hispanic, Black, and Asian Texas public elementary students are delineated in Figure 2.2.

Insert Figure 2.2 about here

The median percentage of Hispanic students ranged from 54.00% in 2010-2011 to 55.95% in 2018-2019. The second highest median percentages belonged to White students in Texas public elementary schools who had a median percentage high of 17.50% in 2010-2011 school year to a low of 14.80% in 2014-2015. For the most recent

school year examined, 2018-2019, a median percentage of 15.50% was documented for White students. The lowest median percentage for Black students in Texas public elementary schools was 5.40% in 2012-2013 school year, and the highest documented median percentage for Black students was 6.00% in 2018-2019. Finally, Asian students in Texas public elementary school represented the lowest median percentage of the four ethnic/racial groups in this article. For each school year from 2010-2011 through 2013-2014, the median percentage for Asian students was 0.70%. The highest documented median percentage for Asian Texas public elementary students was 0.90% in 2017-2018.

In addressing the third research question concerning the extent to which a trend was present in the ethnic/racial diversity of teachers in Texas public elementary schools, the previously discussed descriptive statistics were used to generate Figure 2.3. In this figure, readers can see that the percentage of White teachers consistently decreased over the 9 school years. A consistent increase was documented for the percentage of Hispanic teachers. With respect to the percentage of Black teachers, a flat line was present and reflective of consistent percentages over time. A small increase was determined for the percentage of Asian teachers employed over the 9 school years.

 Insert Figure 2.3 about here

To determine the extent to which a trend was present in the ethnic/racial composition of student enrollment in Texas public elementary schools, descriptive statistics over the 9 year time period were reviewed. The average percentage of White students showed a steady decline, 2.73%, over the 9 years. A slight increase of 1.63% was observed in the percentage of Hispanic students over the 9 years. Though the average

percentage of Black students fluctuated slightly over the time period, their figure remained flat over the time period. The percentage of Asian students enrolled in Texas public elementary schools increased slightly over this time period, 0.83%. Visible in Figure 2.4 is the rapidly increasing gap between the growing average percentages of Hispanic students and the decreasing average percentages of White students, a slowly decreasing gap between the shrinking percentages of White students and the fluctuating average percentages of Black students, and consistently small and growing average percentages of Asian students.

Insert Figure 2.4 about here

To answer the fifth research question on the relationship between the ethnic/racial diversity of teachers and the ethnic/racial diversity of students in Texas public elementary schools, the previously discussed descriptive statistics were examined. Readers should note that the percentages of White teachers and White students both decreased over the 9 years of this study. The percentages of White teachers were the only ethnic/racial group in which teacher percentages were greater than the student percentages, with teacher percentages being an average of 28.53% greater over the 9 school years. The percentages of both Hispanic teachers and Hispanic students both reflected increases of note. The percentages of Hispanic students were consistently larger than the percentages of Hispanic teachers by an average of 21.81%. Black students and teachers also experienced a slight increase of their average percentages, but Black student percentages were, on average, 3.07% larger than Black teachers. Asian students and teachers both reflected

small consistent growths, and they had an average percentage difference of 2.56% over the 9 school years with Asian students having a higher average percentage each school year. Depicted respectively in Figures 2.5, 2.6, 2.7, and 2.8 are the relationships between the percentages of teachers and students by their ethnicity/race in Texas public elementary public schools.

Insert Figures 2.5, 2.6, 2.7, and 2.8 about here

Discussion

In this multiyear study, the ethnic/racial diversity of teachers and students in Texas public elementary schools was examined for 9 school years (i.e., 2010-2011 through 2018-2019). The only ethnic/racial group in which teacher percentages were greater than student percentages was White. Even with persistent decreases documented between each school year for White students and teachers, White teachers still had represented percentages that were on average 28.53 percentage points higher than the average percentages of White students. White teacher percentages decreased from 56.77% in 2010-2011 to 51.68% in 2018-2019 and White student percentages decreased from 27.32% in 2010-2011 to 24.59% in 2018-2019. Though the average percentage gap closed slightly between White and Hispanic teachers, readers should note a lack of growth in the average percentages of Black and Asian Texas public elementary school teachers. For the 9 school years of data that were examined here, the percentages of Hispanic, Black, and Asian students and teachers all increased. Hispanic students were the ethnic/racial student group with the highest percentages in each of the 9 school years.

Connections to Existing Literature

Findings of this multiyear descriptive analysis were consistent with the results of Bone (2011) and Khan (2014) who also examined the ethnic/racial characteristics of teachers and students in Texas public schools. Bone (2011) and Khan (2014) documented increases in the percentages of teachers and students in each ethnic/racial group, except for White teachers and students. Kauffman (2019) expounded on the growth in diversity in which Texas public schools are experiencing. Such growth in diversity was supported by the results delineated in this study. The percentages of students of color are increasing and becoming larger as state demographics change. Boser (2014) established that less than 20% of teachers are teachers of color. Revealed in this study were growing percentages of teachers of color to an extent which a divergence from the Boser (2014) statistic was present, at least in Texas public elementary schools. Tyler (2016) reported that the diversifying student populations are creating educational environments in which teachers of color are now, more than ever, likely to encounter students of ethnic/racial backgrounds than themselves. As evidenced by the consistent statistical increases of both students of color and teachers of color, Tyler's (2016) statement is becoming increasingly true in Texas public elementary schools.

Regarding teachers, the persistent leading average percentages of White teachers, even while realizing gradual declines in their overall average percentages, supports the presence of Social Closure Theory. The slow pace of decline of the average percentages of White teachers also suggest that educational leaders are still finding comfort in teachers of ethnic/racial similarity as outlined by Homosocial Theory (Kanter, 1977). That ethnic/racial similarity and the closing of opportunities for teachers of color are

often revealed in the hiring of White teachers; currently, in the state of Texas, 60.12% of Texas public school principals are White (Smith, 2020). Even though identified differences among subpopulations are slowly becoming less of a constraint for ethnic/racial minority groups entering the profession, statistics in this study were interpreted to mean that even with the documented growth, much ground remains to be made up (Simi & Matusitz, 2016).

Implications for Policy and Practice

Based upon the results of this investigation, several recommendations can be made for policy and for practice. With respect to policy, the information provided in this multiyear statewide study should induce conversations regarding the necessity to develop hiring practices which diversify teacher populations more quickly in Texas public elementary schools. Most importantly a review of research which details how important it is for the academic development for students of color to be educated by teachers of color at an early age should be conducted by district and campus leaders. Emphasized by Bristol and Martin-Fernandez (2019) and Plachowski (2019) was the need for a diverse teacher workforce which can benefit students of color by providing congruence in teacher-student relationships, and by providing an early introduction to academic experiences beyond, and outside, of elementary schools.

Regarding implications for practice, when district/campus hiring procedures do not support or promote the need for diverse ethnic/racial hires, it perpetuates a message that ethnic/racial diversity is not a necessary focus and that teachers and students of color are not valued. Because of the information contained in this study, state and local education agencies should develop and enforce standards which ensure the adequate

recruitment and hiring of teachers of color. In addition to developing procedures and processes which measure the impact of established recruitment and hiring standards, a means of accountability should be developed to ensure that district/campus teaching staffs are approaching or commensurate with student demographics.

Plachowski (2019) and Wang, Leary, Taylor, and Derosier (2016) all detailed how students of color can benefit academically by being taught in academic environments which are led by teachers of color. Texas public elementary administrators need to ensure that they are hiring the appropriate individuals to educate their student demography based on Texas academic success standards. Although a political response may be evoked as a response to this study, a concentrated focus must remain on the academic success of students and determining which teachers are best suited to educate the state's growing population of students of color.

Recommendations for Future Research

Based upon the results of this Texas statewide investigation, several recommendations for future research can be made. First, provided that teacher and student ethnic/racial matching can influence student academic performance, this topic must be thoroughly examined on a myriad of levels. Researchers are encouraged to extend this study within the state of Texas. It would be beneficial to Texas educators and lawmakers to know the outcomes of this descriptive study for public middle and public high schools across the state. A second recommendation would be for researchers to extend this study to private and charter schools at the elementary, middle, and high schools. The degree to which the results delineated herein on Texas public elementary school teachers and students would extend to private schools or to charter schools is not

known. An additional recommendation would be to replicate this investigation in other states. The extent to which the results obtained in this investigation, solely on Texas public elementary school teachers and students, would generalize to other states is unclear.

Being able to determine if gender matching among students and teacher has a relationship with student academic performance would create a more robust understanding of the teachers that should be hired to better academic and socioemotional outcomes for students. Because potential academic benefits related to public school teacher and student gender matching are unknown, a study on gender diversity of students and teachers in Texas public elementary, middle, and high schools would benefit Texas public school administrators and lawmakers. The degree to which gender matching may influence the academic success of public school students in other states is also unclear and merits study. Similarly, educational researchers are encouraged to review gender diversity of students and teachers at both private and charter schools across Texas and other states.

Conclusion

In this longitudinal descriptive analysis, which spanned the 2010-2011 school year through the 2018-2019 school year, the ethnic/racial diversity of students and teachers in Texas public elementary schools was examined. Percentages of White teachers and students declined over the 9 school years. Even with a documented decrease in White teacher percentages from 56.77% to 51.68%, White teachers still had the highest percentage of all four ethnic/racial teacher groups reviewed. Hispanic students and teachers also experienced increases in their average percentages. Hispanic students were

the largest student group with percentages which ranged 56.99% to 56.62%. Black students and teachers experienced minimal, but sustained growth. However, Black students, whose percentages ranged from 11.75% to 12.08%, displayed higher percentages than Black teachers for each year of the study. Finally, Asian teachers and students represented the lowest percentages, but both parties had documented growth. Even though Asian teacher percentages increased from 1.10% to 1.42%, they still trailed the percentages of Asian students for the 9-year period. As such, efforts to improve the diversity of the teaching workforce in Texas are warranted.

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Table 2.1

Descriptive Statistics for the Percentages of White Teachers in Texas Public Elementary 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 | 2,584 | 63.35 | 56.77 | 32.54 |
| 2011-2012 | 2,598 | 63.34 | 56.16 | 32.52 |
| 2012-2013 | 2,664 | 60.80 | 55.29 | 32.45 |
| 2013-2014 | 2,685 | 60.16 | 54.76 | 32.19 |
| 2014-2015 | 2,708 | 58.95 | 53.98 | 31.89 |
| 2015-2016 | 2,761 | 57.50 | 53.47 | 31.85 |
| 2016-2017 | 2,809 | 56.80 | 52.90 | 31.84 |
| 2017-2018 | 2,820 | 55.70 | 52.41 | 31.90 |
| 2018-2019 | 2,879 | 54.70 | 51.68 | 31.93 |

Table 2.2

Descriptive Statistics for the Percentages of Hispanic Teachers in Texas Public

Elementary 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 | 2,584 | 21.45 | 32.12 | 31.35 |
| 2011-2012 | 2,598 | 22.86 | 32.93 | 31.40 |
| 2012-2013 | 2,664 | 24.10 | 33.57 | 31.21 |
| 2013-2014 | 2,685 | 24.90 | 33.91 | 31.22 |
| 2014-2015 | 2,708 | 24.85 | 34.48 | 31.30 |
| 2015-2016 | 2,761 | 26.40 | 35.05 | 31.21 |
| 2016-2017 | 2,809 | 26.70 | 35.17 | 31.12 |
| 2017-2018 | 2,820 | 27.10 | 35.70 | 31.35 |
| 2018-2019 | 2,879 | 28.10 | 36.30 | 31.22 |

Table 2.3

Descriptive Statistics for the Percentages of Black Teachers in Texas Public Elementary 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 | 2,584 | 2.37 | 8.67 | 16.86 |
| 2011-2012 | 2,598 | 2.38 | 8.51 | 16.35 |
| 2012-2013 | 2,664 | 2.40 | 8.64 | 16.19 |
| 2013-2014 | 2,685 | 2.54 | 8.90 | 16.34 |
| 2014-2015 | 2,708 | 2.50 | 8.89 | 16.14 |
| 2015-2016 | 2,761 | 2.60 | 8.83 | 16.05 |
| 2016-2017 | 2,809 | 2.70 | 8.93 | 16.12 |
| 2017-2018 | 2,820 | 2.70 | 8.97 | 16.05 |
| 2018-2019 | 2,879 | 2.70 | 9.16 | 16.22 |

Table 2.4

Descriptive Statistics for Percentage of Asian Teachers in Texas Public Elementary Schools from the 2010-2011 School Year Through the 2018-2019 School Year

| Year | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-----------|---------------------|------------|-----------|------------|
| 2010-2011 | 2,584 | 0.00 | 1.12 | 2.81 |
| 2011-2012 | 2,598 | 0.00 | 1.10 | 2.77 |
| 2012-2013 | 2,664 | 0.00 | 1.21 | 2.98 |
| 2013-2014 | 2,685 | 0.00 | 1.21 | 2.55 |
| 2014-2015 | 2,708 | 0.00 | 1.25 | 2.64 |
| 2015-2016 | 2,761 | 0.00 | 1.31 | 2.78 |
| 2016-2017 | 2,809 | 0.00 | 1.30 | 2.46 |
| 2017-2018 | 2,820 | 0.00 | 1.35 | 2.71 |
| 2018-2019 | 2,879 | 0.00 | 1.42 | 2.61 |

Table 2.5

Descriptive Statistics for the Percentages of Hispanic Students in Texas Public Elementary 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 | 2,585 | 54.00 | 54.99 | 31.64 |
| 2011-2012 | 2,599 | 55.50 | 55.56 | 31.29 |
| 2012-2013 | 2,668 | 55.80 | 56.16 | 31.05 |
| 2013-2014 | 2,687 | 57.00 | 56.51 | 30.88 |
| 2014-2015 | 2,713 | 57.20 | 56.65 | 30.76 |
| 2015-2016 | 2,770 | 57.00 | 56.62 | 30.43 |
| 2016-2017 | 2,810 | 55.90 | 56.14 | 30.30 |
| 2017-2018 | 2,821 | 55.40 | 55.79 | 30.29 |
| 2018-2019 | 2,880 | 55.95 | 56.11 | 30.01 |

Table 2.6

Descriptive Statistics for the Percentages of White Students in Texas Public Elementary 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 | 2,585 | 17.50 | 27.32 | 27.00 |
| 2011-2012 | 2,599 | 17.10 | 26.75 | 26.51 |
| 2012-2013 | 2,668 | 16.30 | 26.25 | 26.21 |
| 2013-2014 | 2,687 | 15.30 | 25.56 | 25.83 |
| 2014-2015 | 2,713 | 14.80 | 25.17 | 25.52 |
| 2015-2016 | 2,770 | 15.30 | 24.94 | 24.91 |
| 2016-2017 | 2,810 | 15.70 | 24.94 | 24.66 |
| 2017-2018 | 2,821 | 16.40 | 25.09 | 24.67 |
| 2018-2019 | 2,880 | 15.50 | 24.59 | 24.31 |

Table 2.7

Descriptive Statistics for the Percentages of Black Students in Texas Public Elementary 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 | 2,585 | 5.50 | 12.08 | 17.54 |
| 2011-2012 | 2,599 | 5.50 | 11.95 | 17.14 |
| 2012-2013 | 2,668 | 5.40 | 11.75 | 16.79 |
| 2013-2014 | 2,687 | 5.40 | 11.87 | 16.85 |
| 2014-2015 | 2,713 | 5.50 | 11.84 | 16.64 |
| 2015-2016 | 2,770 | 5.50 | 11.86 | 16.56 |
| 2016-2017 | 2,810 | 5.70 | 12.02 | 16.47 |
| 2017-2018 | 2,821 | 5.70 | 11.95 | 16.35 |
| 2018-2019 | 2,880 | 6.00 | 12.00 | 15.95 |

Table 2.8

Descriptive Statistics for Percentage of Asian Students in Texas Public Elementary Schools from the 2010-2011 School Year Through the 2018-2019 School Year

| Year | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-----------|---------------------|------------|-----------|------------|
| 2010-2011 | 2,585 | 0.70 | 3.44 | 7.15 |
| 2011-2012 | 2,599 | 0.70 | 3.50 | 7.41 |
| 2012-2013 | 2,668 | 0.70 | 3.52 | 7.60 |
| 2013-2014 | 2,687 | 0.70 | 3.63 | 7.83 |
| 2014-2015 | 2,713 | 0.80 | 3.79 | 8.27 |
| 2015-2016 | 2,770 | 0.80 | 3.91 | 8.60 |
| 2016-2017 | 2,810 | 0.80 | 4.08 | 8.90 |
| 2017-2018 | 2,821 | 0.90 | 4.23 | 9.19 |
| 2018-2019 | 2,880 | 0.80 | 4.27 | 9.43 |

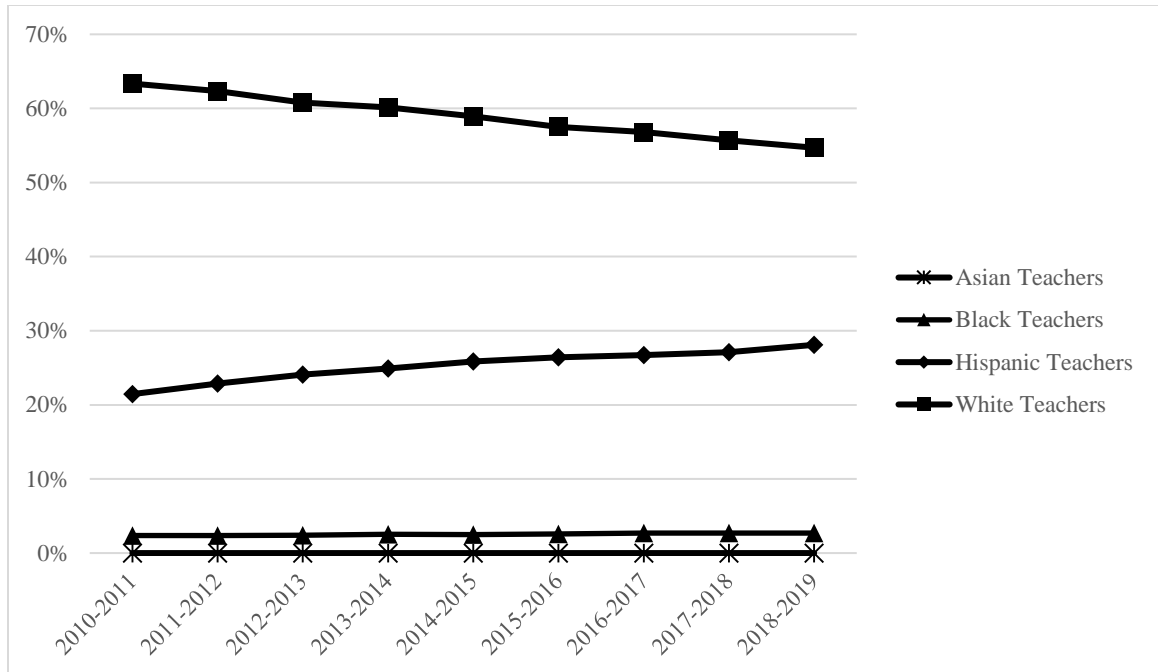


Figure 2.1. Median percentages of teachers in Texas public elementary schools from the 2010-2011 school year through the 2018-2019 school year.

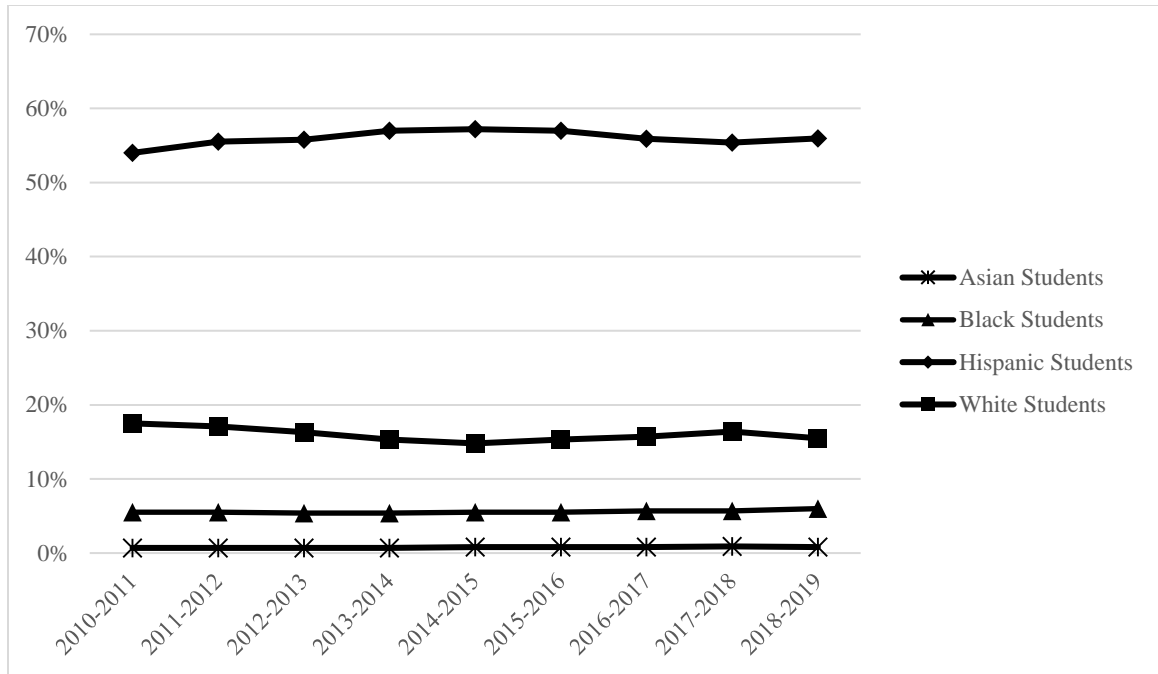


Figure 2.2. Median percentages of students in Texas public elementary schools from the 2010-2011 school year through the 2018-2019 school year.

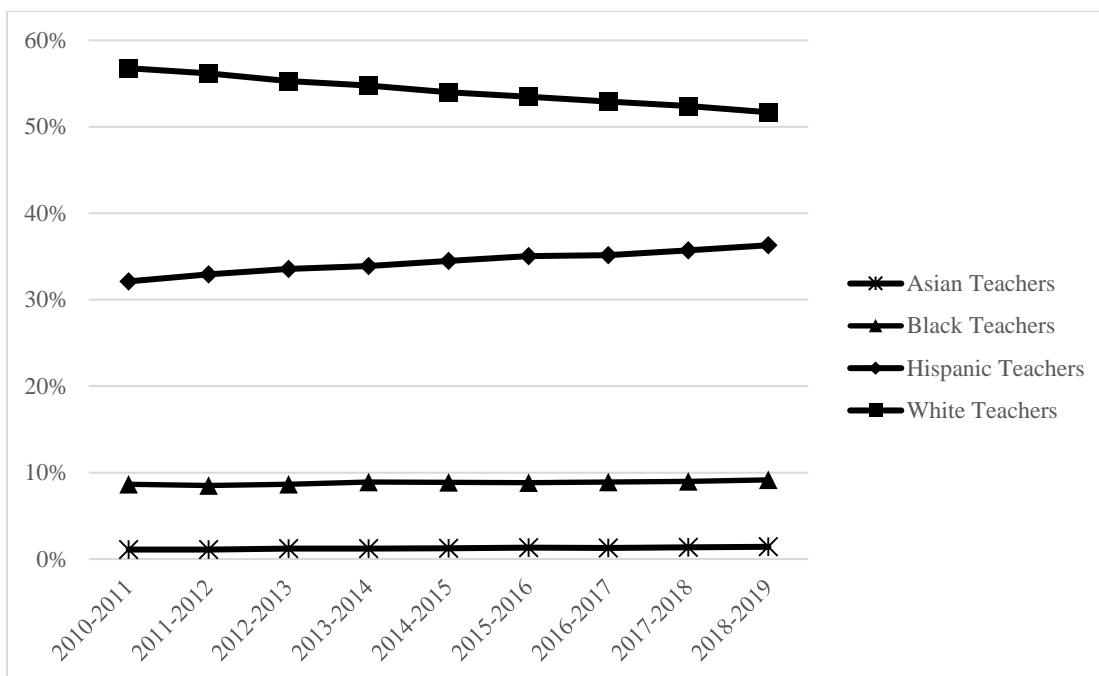


Figure 2.3. Percentages of teachers in Texas public elementary schools from the 2010-2011 school year through the 2018-2019 school year.

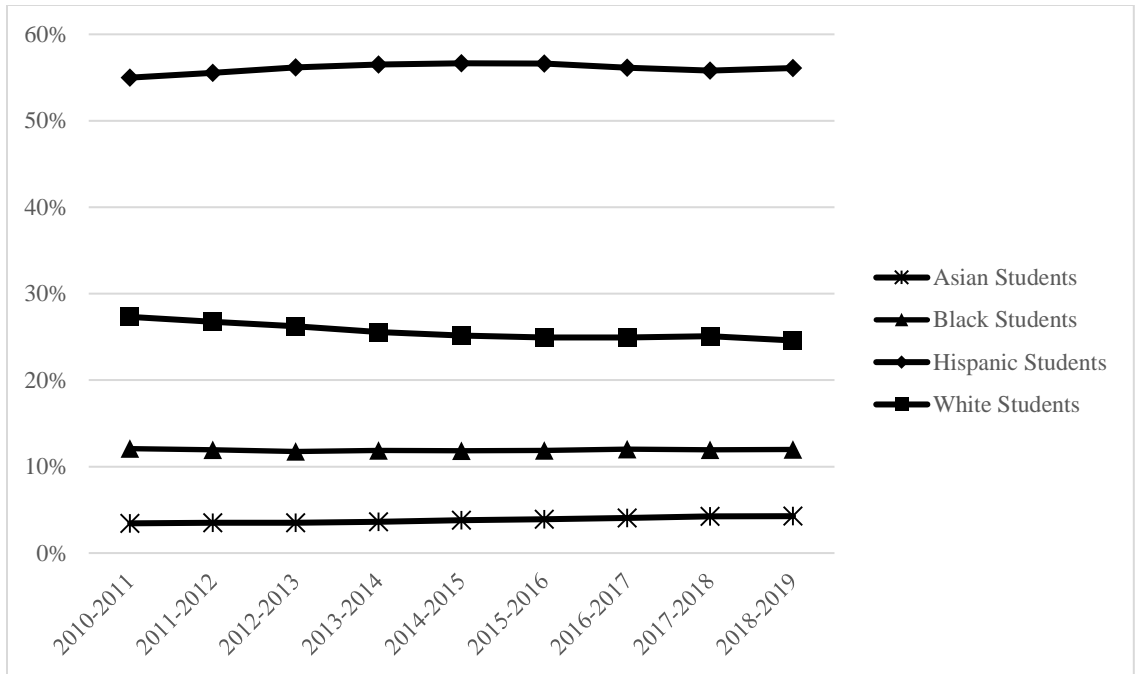


Figure 2.4. Percentages of students in Texas public elementary schools from the 2010-2011 school year through the 2018-2019 school year.

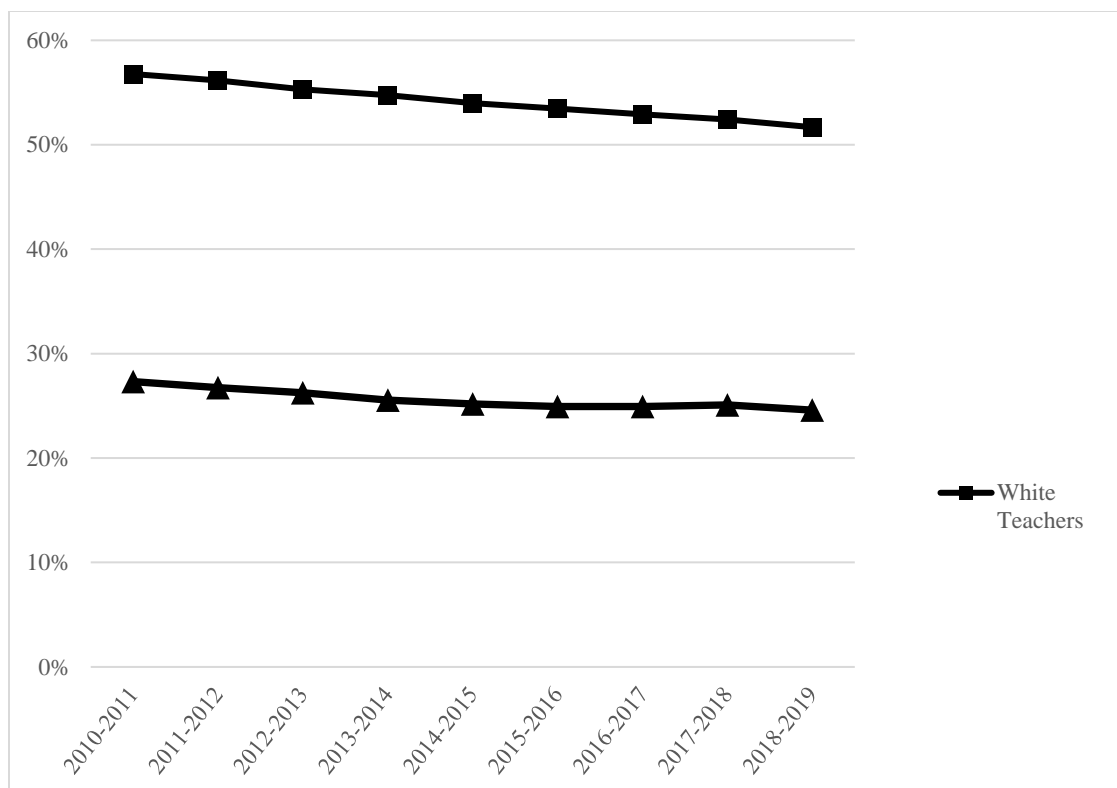


Figure 2.5. Relationship of the percentages of White teachers and White students in Texas public elementary schools from the 2010-2011 school year through the 2018-2019 school year.

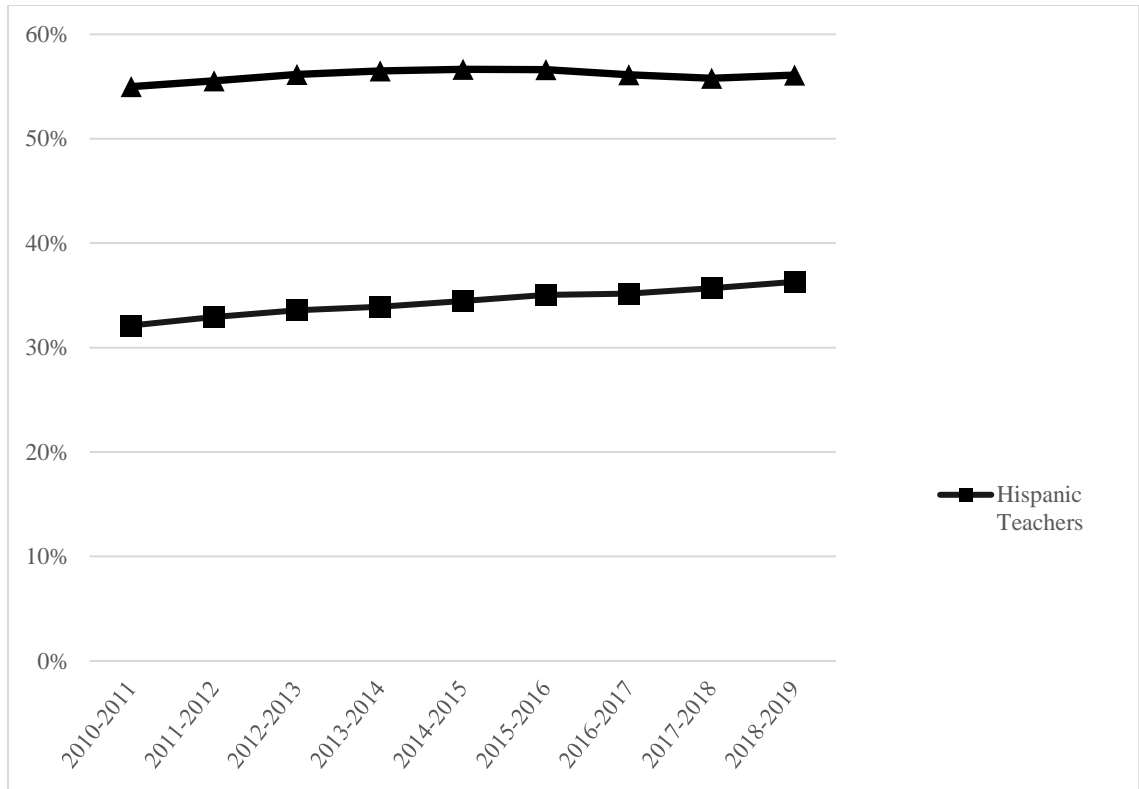


Figure 2.6. Relationship of the percentages of Hispanic teachers and Hispanic students in Texas public elementary schools from the 2010-2011 school year through the 2018-2019 school year.

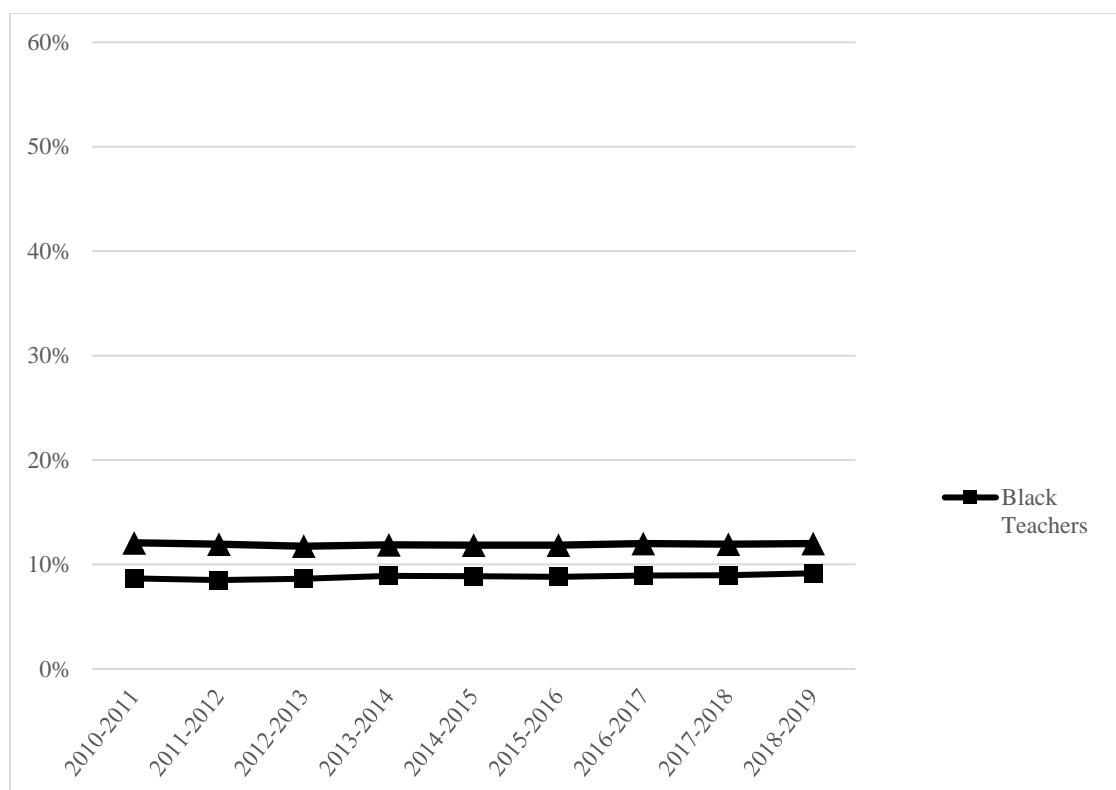


Figure 2.7. Relationship of the percentages of Black teachers and Black students in Texas public elementary schools from the 2010-2011 school year through the 2018-2019 school year.

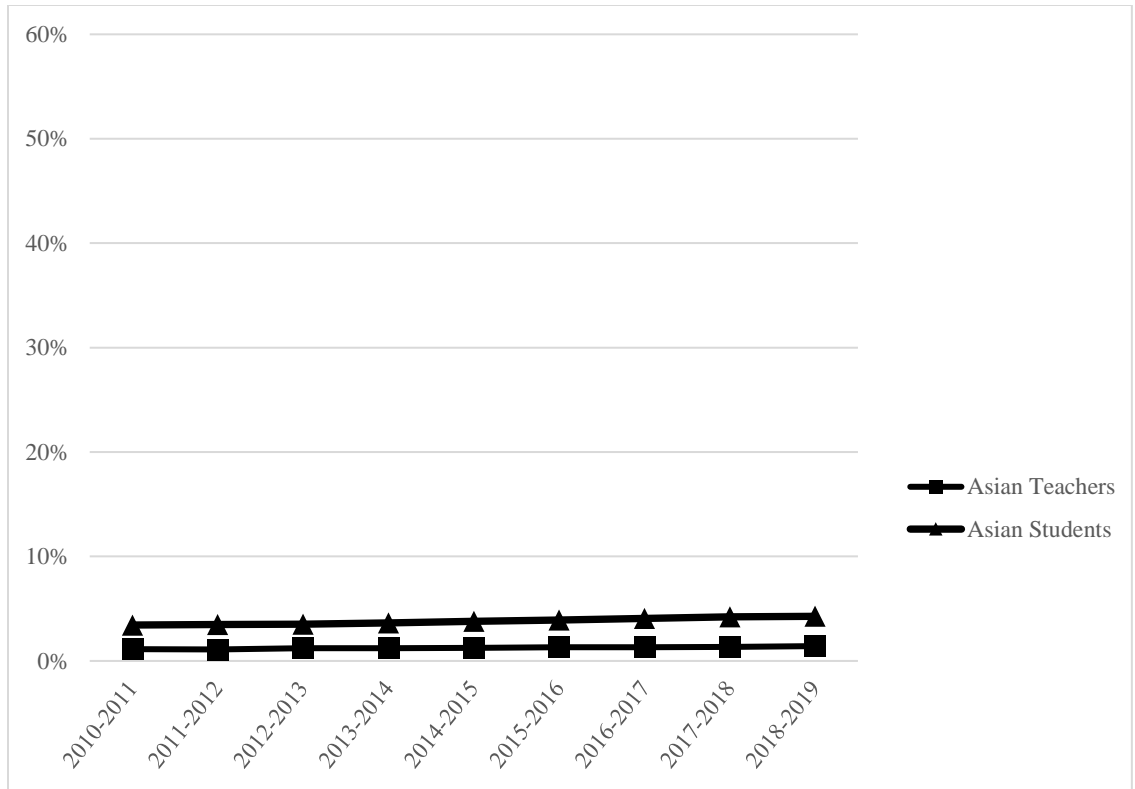


Figure 2.8. Relationship of the percentages of Asian teachers and Asian students in Texas public elementary schools from the 2010-2011 school year through the 2018-2019 school year.

CHAPTER III

TEXAS PUBLIC MIDDLE SCHOOL TEACHER AND STUDENT RACIAL/ETHNIC COMPOSITION: A LONGITUDINAL INVESTIGATION

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

Abstract

In this multiyear, statewide, descriptive analysis, the ethnic/racial diversity of teachers and of students in Texas public middle schools was examined for the 2010-2011 school year through the 2018-2019 school year. Consistent decreases were established in the average percentages of White teachers and of White students in Texas public middle schools over the 9 school years examined. The average percentages of Asian and Hispanic students and teachers increased from 2010-2011 to 2018-2019 whereas Black student average percentages decreased with the exception of two years of the study. Inequalities of interest were present in this study as some school years reflected larger average percentages of students of color compared to the percentages of teachers of color. Also discussed are recommendations for future research and implications for local and statewide policy and practice.

Keywords: Asian, Black, Hispanic, Middle school, Race/Ethnicity, Texas Academic Performance Report, Texas Education Agency, White

TEXAS PUBLIC MIDDLE SCHOOL TEACHER AND STUDENT RACIAL/ETHNIC COMPOSITION: A LONGITUDINAL

The population of Texas, and its public school student enrollment has been rapidly growing and increasing in diversity (Kauffman, 2019). For the past decade (i.e., 2008-2009 to 2018-2019), Texas public schools have had an increase of overall student enrollment of 14.4%, or 682,339 total students (Texas Education Agency, 2019b). During the 2018-2019 school year, Texas public middle schools had 155,207 Black students, 12.67% of the state's student population; 646,047 Hispanic students, 52.53% of the state's student population; and 339,812 White students, 27.67% of the state's public school student population (Texas Education Agency, 2019b). For the same school year, across all grade levels, not just middle school grades, Texas reported having 358,450 public school teachers; 10.6% were Black, 27.7% were Hispanic, and 58.4% were White (Texas Education Agency, 2019a). As evidenced by the statistics above, Texas has a diverse educational environment.

In the most comprehensive study conducted to date in the state of interest for this investigation, Texas, Bone (2011) analyzed the ethnic/racial demographic characteristics of middle school students and teachers over an 11-year time period (i.e., 1999-2000 to 2009-2010). The percentage of Black teachers in Texas public middle schools grew from 8.10% to 10.31% for the span of the 11-school years. During this same time, Black Texas public middle school students represented between 13.10% and 15.38% of the middle school population (Bone, 2011). A notable characteristic of Black public middle school teachers and students is the low average percentage increase (Bone, 2011) during a period of growth and increasing diversity in the Texas population (Kauffman, 2019).

Hispanic public middle school teachers in Texas represented 12.66% of the middle school teachers in 1999-2000 and 21.23% in 2009-2010. Over the last 50 years Hispanic students have grown from 20% of the total student population in Texas to 48% of the total student population (Kauffman, 2019). The average percentage of Hispanic student enrollment grew from 36.06% to 46.11% of the Texas public middle school population for the 11-school year study.

Bone (2011) also documented that the average percentages of White public middle school teachers remained much higher than the percentages of teachers of color previously mentioned. White teachers in Texas public middle schools represented 78.35% of the public middle school teachers in the 1999-2000 school year and 68.25% in the 2009-2010 school year (Bone, 2011). In the 1999-2000 school year, White students made up an average of 47.43% of the Texas public middle school student population; by the 2009-2010 school year they were only 37.18% of the State's middle school population (Bone, 2011).

In a similar study conducted by Khan (2014), she examined the percentages of ethnic/racial minority teachers in Texas public elementary, middle, and high schools for the 2002-2003 school year through the 2012-2013 school year. Khan (2014) established that the average percentage of White teachers well exceeded the average percentage of ethnic/minority teachers. During the decade that was addressed, the average percentage of Black teachers in Texas public middle schools grew from 8.5% in the 2002-2003 school year to 11.2% in the 2012-2013 school year. Reflected in Khan's (2014) study was an increase in the average percentage of Hispanic teachers in Texas public middle schools from 16.3% to 22.2% during the examined time span. White Texas public

middle school teachers experienced a consistent decline in average percentage of middle school teachers (Khan, 2014). In 2002-2003 the average percentage of White public middle school teachers was 74.2%, and in the 2012-2013 school year the average percentage of White public middle school teachers was 65.4% (Khan, 2014). Based on the evidence from the 11-year period which was analyzed, efforts to diversify the ethnicity/race of public middle school teachers in Texas have not been successful (Khan, 2014). The failure to provide equity in the ethnicity/race of middle school teachers may have substantial influences on the social, emotional, and academic experiences of Texas's public middle school students.

Juvonen, Kogachi, and Graham (2018) conducted a study in which social-emotional and ethnic/racial perspectives of middle school students from various ethnic/racial backgrounds were examined. Middle school students understand the value of respect by fellow classmates and are sensitive to being patronized (Francis et al., 2019). Within a multi-period school day, students may experience a myriad of ethnic/racial make-ups within each of their courses, and these potential inequalities may increase racial tensions and attitudes toward different ethnic/racial groups (Juvonen et al., 2018). Utilizing a nationally representative data set of middle school students, Wright, Gottfried, and Le (2017) examined the relationship between teachers and students who share the same ethnic/racial demography and how that relationship influences middle school students' socioemotional health. Wright et al. (2017) determined that when the ethnicity/race of teachers matches that of their students, those teachers are more likely than non-ethnoracial teachers to describe their students as having less external behavior issues.

Francis et al. (2019) explained that middle school students displayed a view that higher expectations were present for perceived top ethnic/racial groups. Those top ethnic/racial groups were identified by students as having pedagogical experiences which included more rigorous expectations, stronger teacher encouragement, and student driven learning opportunities (Francis et al., 2019). Banerjee (2019) described that teachers of the same ethnic/racial background of their students may be better equipped to influence social and intellectual experiences within classrooms for those students than teachers of a different ethnic/racial background.

Vinopal and Holt (2019) suggested that the presence of more teachers with a similar ethnicity/race to that of their students is correlated with academic improvement. The realization that teachers are important to student outcomes has increased attention on to their presence and work in public schools (Morley, 2019). Kondo (2019) pointed out that cultivating a perspective of inclusivity is a challenging undertaking for all teachers, especially teachers of color. According to Utt and Tochluk (2020), too few White teachers have a good understanding of how their ethnic/racial identity influences their classroom instruction. In a time where public school student populations are becoming increasingly diverse, a public-school administrator's focus to increase teacher diversity often identifies teachers as the solution to the problems of public-school education (Kondo, 2019). As Kondo (2019) documented, some of the demands that public school teachers face are associated with ethnic/racial demography. Vinopal and Holt (2019) explained that teacher training, such as implicit bias training, may be beneficial to both preservice teachers and currently employed teachers of all ethnic/racial groups.

Egalite et al. (2015) conducted a longitudinal 8-year study in which the Florida Department of Education data were analyzed. In the study, students who had poor academic achievement performed better on state examinations in both reading and mathematics when assigned to a classroom teacher throughout the school year who shared the same ethnic/racial traits than did academically struggling students who were assigned to teachers who were not ethnic/racial matches (Egalite et al., 2015). Reasons why students of color have shown improved academic performance when assigned to a teacher of color are explained by Gottfried, Kirksey, and Wright (2019) as being two-fold. The first reason given by Gottfried et al. (2019) was that teachers who do not match the ethnicity/race of their students are potentially dispositioned to display neutrality toward students who are not ethnic/racial matches with them. The second reason is that teachers who are not ethnic/racial matches with their students of color are less likely to have a cultural understanding, especially related to providing classroom instruction to students of color (Gottfried et al., 2019). Schroeder-Arce (2018) expressed that for teachers to prepare to be culturally responsive, they must first examine their own cultural and ethnic/racial identity. Glock and Schuchart (2019) who examined the ethnic/racial match of teachers and students through a vignette study, determined that students may benefit from being assigned to a teacher who is an ethnic/racial match, but only when the students and teachers actually share the same ethnic/racial background.

Statement of the Problem

Middle school education is an important juncture in the educational career of students. Therefore, a need exists to cultivate positive student attitudes about school so that students can potentially enter high school with confidence in their academic and

social ability (Riegle-Crumb, Morton, Nguyen, & Dasgupta, 2019; Shapiro & Sax, 2011). For the first time, in the fall of 2014, students of color outnumbered White students in U.S. K-12 public schools (Egalite & Kisida, 2018). This trend continues to more recent years as the Texas Hispanic students make up roughly 52% of student enrollment in Grade 6, 7, and 8; whereas Black students make up just over 12% and White students make up 28% of the student population in those same grade levels (Texas Education Agency, 2019b).

Because of these changes in the ethnic/racial composition of the middle school student body across Texas, it is imperative that the demography of the state's middle school teachers be examined. Even though knowledge and understanding of diversity is essential for all educators, practical or personal experiences in communities and schools with large minority demographics is also important to being successful as an educator in Texas given its evolving student demography (Schroeder-Arce, 2018). Therefore, determining the relationship between the ethnicity/race of Texas public middle school teachers and students can assist in ensuring that the state's middle school population have a strong academic, social, and cultural foundation as they enter their all-important high school academic careers.

Purpose of the Study

The overall purpose of this study was to examine the racial/ethnic demographic characteristics of teachers and students in Texas public middle schools. The first specific purpose was to describe the ethnic/racial demographic characteristics of teachers in Texas middle public 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 middle 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 middle 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 middle schools from the 2010-2011 school year through the 2018-2019 school year.

Significance of the Study

Middle school education marks a substantial point in the education of American students; students are expected to develop academic and social skills that will allow for high school success (Andrews & Gutwein, 2020). Also, during this influential age student-teacher relationships become extremely important, as students are gathering their sociocultural understanding in addition to approaching significant academic benchmarks (Prewett, Bergin, & Huang, 2019). Teachers who do not match the racial/ethnic demography of their students often focus on implied/stereotypical deficits of minority students which can have damaging consequences (Utt & Tochluk, 2020). Through their study, Holt and Gershenson (2019) explained that students who are assigned to a teacher who does not share their ethnic/racial demography demonstrated more negative school behaviors, and those students also displayed a greater likelihood of being chronically absent and being suspended than their counterparts who had teachers with matching racial/ethnic demographic characteristics. Because middle school can be a time of social and academic exploration and learning for all students, researchers must use this

statistical study to review campus and district teacher-hiring practices to ensure that Texas is meeting the needs of its rapidly diversifying middle school student population.

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 middle 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 middle 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 middle 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 middle 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 middle schools for each school year from the 2010-2011 school year through the 2018-2019 school year?

Method

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).

Participants and Instrumentation

Two sets of participants were present in this investigation. The first set of participants were all Texas teachers employed in Texas public middle schools for the 2010-2011 through the 2018-2019 school years. The second set of participants were students enrolled in a Texas public middle schools during the 2010-2011 school year 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 by the Texas Education Agency and made available by individual school district 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.

Results

The first research question regarding the ethnic/racial composition of the Texas public middle school teaching population was answered through descriptive statistics. Specifically calculated were the *M*, *Mdn*, and *SD*. Descriptive statistics for Asian, Black, Hispanic, and White Texas public middle school teachers are respectively depicted in Tables 3.1, 3.2, 3.3, and 3.4

Insert Tables 3.1, 3.2, 3.3, and 3.4 about here

The majority of teachers in Texas public middle schools were White, with their percentages ranging from 66.42% to 60.41% over the 9 school years of data that were analyzed. The percentage of Hispanic teachers grew from 20.24% to 24.42% over the course of this 9-year study. The average percentage of Black teachers in Texas public middle schools steadily increased from 10.04% in 2010-2011 school year to 12.14% in 2018-2019. Asian teacher percentages fluctuated from an average percentage high of 1.32% in the 2019-2019 school year to 1.05% in the 2013-2014 school year. The median percentages of White, Hispanic, Black, and Asian Texas public middle school teachers are delineated in Figure 3.1.

Insert Figure 3.1 about here

The median percentage for White teachers was 77.29% in 2010-2011 and decreased to 69.00% in 2018-2019. Hispanic teachers had a median percentage of 8.17% in 2010-2011 which grew to 13.15% in the 2018-2019 school year. From 2010-2011 through 2018-2019 the median percentage of Black teachers increased less than a percentage point from 3.51% to 4.45% over the 9 years examined. From 2010-2011 through 2018-2019, the median percentage of Asian public middle school teachers in Texas was 0.00%.

For the second research question, descriptive statistics were calculated for Asian, Black, Hispanic, and White students in Texas public middle schools. These descriptive statistics were calculated for the 9-school years spanning from the 2010-2011 school year

through the 2018-2019 school year, and are contained, respectively, in Tables 3.5, 3.6, 3.7, and 3.8

Insert Tables 3.5, 3.6, 3.7, and 3.8 about here

Hispanic students composed the largest average percentage of Texas public middle school students spanning from the 2010-2011 school year through the 2018-2019 school year. Hispanic student percentages grew from 48.62% in 2010-2011 to 52.65% in 2018-2019. The next highest average percentage was that of White students. Over the 9 school years which were examined, White student percentages declined by 4.73%, from 34.77% in 2010-2011 to 30.04% in 2018-2019. The average percentages for Black students decreased from 11.89% in 2010-2011 to 10.80% in 2016-2017. However, from 2016-2017 to 2018-2019 the average percentage of Black students grew by almost a half of a percent. The percentage of Asian students grew by just over three-quarters of a percent from 2.61% in 2010-2011 to 3.39% in 2018-2019. The median percentage of White, Hispanic, Black, and Asian Texas public middle school students are delineated in Figure 3.2.

Insert Figure 3.2 about here

The median percentage of Hispanic students in Texas public middle schools was 42.50% in 2010-2011 and increased to 49.40% in 2018-2019. White students in Texas public middle schools had steadily declining median percentages, from 30.80% in 2010-

2011 to 24.60% in 2018-2019. The lowest median percentage for Black students in Texas public middle schools was 5.50% in the 2014-2015 school year, and the highest median percentage for Black students was 5.90% in the 2010-2011 and the 2011-2012 school years. Median percentages for Asian students were reflective of a slow growth over the 9-school year studies. Asian public middle school students in Texas had median of percentages of 0.60% in 2010-2011, 0.70% in each school year spanning from 2011-2012 through 2015-2016, and 0.80% each school year from 2016-2017 through 2018-2019.

To answer the third research question related to the degree to which a trend was present in the ethnic/racial diversity of teachers in Texas public middle schools, the previously discussed descriptive statistics were used to generate Figure 3.3. As depicted in Figure 3.3, readers can see that the percentage of White teachers consistently decreased over the 9 school years. A steady increase was documented for the percentage of Hispanic teachers. With respect to the percentage of Black teachers, a flat line was present and reflective of small consistent percentages over time. A slight increase was documented for the percentage of Asian teachers employed over the 9 school years analyzed.

 Insert Figure 3.3 about here

To determine the presence of a trend in the ethnic/racial makeup of student enrollment in Texas public middle schools, descriptive statistics for the 2010-2011 school year through the 2018-2019 school year were reviewed. The average percentage of White students declined by 4.73% over the course of this study. An increase of 4.03%

was documented for the average percentages of Hispanic students during the 9 years examined. Black Texas public middle school student percentages fluctuated incrementally throughout this study causing their line to remain flat. Asian students had an overall growth of less than a quarter of a percent across the duration of the 9-school years analyzed. Shown in Figure 3.4 is a gap between the average percentages of Hispanic students and the declining average percentages of White students, a slowly diminishing gap between the declining percentages of White students and the rising average percentages of Black students, and a consistently small and periodically increasing average percentage of Asian students.

Insert Figure 3.4 about here

The previously discussed descriptive statistics were examined and used to address the fifth research question about the relationship between the ethnic/racial diversity of teachers and the ethnic/racial diversity of students in Texas public middle schools. The average percentages of White teachers and White students both decreased over the 9 years of this study. With White teacher percentages being an average of 31.20% higher than that of White students, White teachers were the only teacher ethnic/racial group to consistently have a higher average percentage than that of their student counterparts. Both Hispanic teacher and Hispanic student average percentages increased, with Hispanic student percentages being larger than Hispanic teachers by an average of 28.62%. Though Black student percentages varied throughout the course of the study, Black teacher percentages progressively increased. From 2010-2011 through 2013-2014 Black

student percentages were an average of 1.20% greater than Black teachers. For a span of 5-school years from 2014-2015 through 2018-2019, average percentages for Black teachers were on average 0.54% larger than Black student average percentages.

Documented for Asian students and teachers were small consistent percentage increases, with Asian student percentages being on average 1.82% greater than the percentages of Asian Teachers. The relationships between the average percentages of White, Hispanic, Black, and Asian teachers and students in Texas public middle schools are respectively illustrated in Figures 3.5, 3.6, 3.7, and 3.8.

Insert Figures 3.5, 3.6, 3.7, and 3.8 about here

Discussion

In this longitudinal study, the ethnic/racial diversity of teachers and students in Texas public middle schools was examined for the 2010-2011 school year through the 2018-2019 school year. White teachers were the only ethnic/racial teacher group in which their average percentages were greater than the average percentages of their student counterparts for each year of the study. Although White teachers and White student data revealed consistent year-to-year decreases in their respective average percentages, the average percentages of White teachers were 31.20% higher than the average percentage of White students. White teacher percentages decreased from 66.42% in 2010-2011 to 60.41% in 2018-2019, and White student percentages decreased from 34.77% in 2010-2011 to 30.04% in 2018-2019. Readers should make note of the decreasing percentage gap between White teachers and Hispanic teachers in Texas public

middle schools, but they should also recognize the minimal growth of Black and Asian public middle school teachers in the state. From 2010-2011 through 2018-2019, average percentages for Hispanic, Black, and Asian students all revealed growth. For Texas public middle schools, Hispanic students had the largest percentages for the school years examined.

Connections to Existing Literature

Results of this longitudinal descriptive analysis were consistent with the results of preceding studies in which the ethnic/racial composition of Texas public middle schools were analyzed. Bone (2011) and Khan (2014) each conducted longitudinal studies of teacher and student diversity and established the presence of consistent decreases in the percentages of White middle school teachers and students. Bone (2011) and Khan (2014) also documented substantial increases in the average percentages of Hispanic teachers and Hispanic students, as well as small percentage increases for Black and Asian students and teachers. Kauffman (2019) explained the growth in diversity in which Texas public schools are experiencing. Corroborated in this study was the growth in diversity of Texas public middle schools as the analyzed data revealed the rising percentages of students of color in public middle schools across the state.

Francis et al. (2019) explained that middle school students believed that the perceived top ethnic/groups received more rigorous academic experiences. Based on the results of this study, the students who are the largest portion of the student population are Hispanic students, and they may be having a difficult time receiving the most rigorous education as the largest percentage of the teaching population may not be able to relate to them on a socio-cultural level. It was documented by Banerjee (2019) that teachers who

match their student in ethnicity/race are potentially better prepared to assist students with social and intellectual classroom academic experiences. Vinopal and Holt (2019) stated that when ethnic/racial congruence is present between students and teachers, students often show academic improvement. Based upon the research findings of both Banerjee (2019) and Vinopal and Holt (2019), combined with the results of this multiyear study, Texas public middle school administrators need to focus on hiring teachers whose ethnic/racial makeup is congruent with that of their student population to assist in academic growth.

When addressing the consistent high average percentages of White teachers, it is relevant to view this concern through the theoretical frameworks of this study. The findings delineated in this study provide backing to Homosocial Theory as educational leaders who are responsible for hiring are still more comfortable in hiring teachers who share similar ethnicity/race as themselves (Kanter, 1977). Social Closure theory is also supported as the availability of employment opportunities for teachers of color remain limited in the State of Texas with 60.12% of principals in Texas public schools being White (Smith, 2020). As established herein, ethnic/racial diversity appears to be becoming less of a hindrance to employment for Texas public middle school teachers of color. Simi and Matusitz (2016) noted that large ethnoracial gaps exist which must continue to be decreased so that the needs of the diversifying Texas middle school population can be met (Kaufman, 2019).

Implications for Policy and Practice

When examining the results of this longitudinal descriptive study, several recommendations can be made to effectively implement this information into policy and

practice. This statistical analysis will hopefully induce conversations aimed at more rapidly diversifying the Texas public middle school teaching population in the state by improving both state and local educational hiring practices. Also, a thorough examination of this research should encourage districts and individual campuses to review the significance of students of color having access to teachers who are ethnic/racial matches as it pertains to their academic and socioemotional health during the pivotal middle school age years. Wright et al. (2017) and Francis et al. (2019) placed emphasis on the need of students of color to be educated by teachers of color, and explained how matching ethnic/racial teacher-student relationships can positively influence the socioemotional health and academic outcomes for middle school students.

Based on the statistical information contained in this study, educational leaders should create accountability standards that hold those individuals responsible for hiring teachers to ensure ethnic/racial diversity among staff members is a priority. The failure of districts and campuses to place ethnoracial diversity at the forefront of their hiring practices, advertises a sentiment wherein cultural diversity is not a district/campus priority. Stakeholders may derive that their district/campus is devaluing the importance of employing teachers and/or sufficiently educating students of color. Utilizing the statistical information in this study, educational governing agencies at the state and local level should create measurable standards that focus on the improvement of procedures and expectations of recruitment and hiring related to teachers of color. Procedures should be established and monitored with fidelity that will ensure an appropriate level of progress is being made to achieve a more equitable diversity of demography to match that of students in public middle school campuses throughout the state.

Egalite et al. (2015), Juvonen et al. (2017), Wright et al. (2018), and Francis et al. (2019), all explained how middle school students of color benefit, both socioemotionally and academically, from being assigned to classroom teachers of color. Administrators in Texas public middle schools must become more cognizant of their campus demography during employee hiring and recruitment activities so that they can hire an instructional staff who will be more capable of meeting the various needs of the students who they serve. It is also important that the focus of this study, and others similar to it, do not turn political in nature, but increase the attention on ensuring the appropriate teachers are employed to promote academic success and emotional health for public middle school students in Texas.

Recommendations for Future Research

Centered on the results of this statewide longitudinal descriptive study, several recommendations for future research can be made. The issue of ethnic/racial teacher and student matching must be reviewed in depth given that the socioemotional and academic benefits for public middle school students have been repeatedly documented. Educational researchers are urged to conduct this study across other grade levels in the state. The outcomes of this study, conducted with a focus on Texas public elementary and high schools, would be of great value to local and state legislators. It would provide those individuals who are in positions to make substantial change with essential information as they make decisions which will affect the state's diversifying student population and the employment of teachers of color. Because the extent to which the results of this study can be applied to private and charter middle schools is currently not known, an additional recommendation would be to conduct this study in both private and

charter schools and the elementary, middle, and high school levels. This study would also be valuable for educational leaders and legislators in states other than Texas. It is also no know to what degree the results of this descriptive study of Texas public middle schools would compare in other states.

Being able to examine the association between the demographics of administrative personnel, instructional staff, and students would produce a more comprehensive understanding of the issues associated with recruitment and hiring of teachers of color. In efforts to provide a broader understanding of campus and district hiring practices, it would be advantageous to conduct this study and focus on the relationship among the demographics of public school administrators, teachers, and students at the public elementary, middle, and high school level. The extent to which the ethnic/racial composition of administrators influences the hiring of teachers of color, and thus the academic success and the socioemotional health of middle school students, is not currently understood. It is also suggested that educational researchers review the relationships, both in Texas and in other states, of the ethnicity/race of administrators, teachers, and students at private and charter schools.

Also, the academic and socioemotional benefits associated with public school teacher and student gender matching is not common knowledge. Conducting a study focused on the gender diversity of teachers and students in Texas public elementary, middle, and high schools would also be of value to state and local educational administrators. The potential effects of gender matching on the academic success of public school students in Texas and in other states, has yet to be established. Correspondingly, future researchers are encouraged to analyze gender diversity for

teachers and students in Texas and other states at both private and charter schools at their elementary, middle, and high school levels.

Conclusion

This multiyear statewide descriptive analysis, which covered the 2010-2011 school year through the 2018-2019 school year, examined the ethnic/racial diversity of Texas public middle school teachers and students. The average percentages of White teachers and students decreased over the 9-school years studied. However, the average percentages for White teachers was still the highest of the four ethnic/racial groups analyzed with their percentage ranging from 66.42% to 60.41%. Hispanic teachers and students each had consistent increases in their average percentages over the course of this study. Hispanic students significantly outpaced their teacher counterparts and had the highest average percentages of the four ethnic/racial student groups examined. Hispanic student average percentages grew from 48.62% to 52.65% over the duration of this analysis. Black students experienced varying average percentages for the 9-school years that were reviewed, but the average percentages of Black teachers reflected consistent minimal growth from 10.04% to 12.14%. While Asian students represented average percentages that increased from 2.61% to 3.39%, the average percentages of Asian teachers showed periodic growth and increase and trailed behind Asian student percentages for each of the 9-school years. Given the discrepancies between the percentages of teachers of color and students of color, educational leaders are urged to engage in efforts to increase the diversity of their teacher workforce.

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Table 3.1

Descriptive Statistics for the Percentages of White Teachers in Texas Public Middle 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 | 1,034 | 77.29 | 66.42 | 29.36 |
| 2011-2012 | 1,040 | 76.64 | 66.08 | 29.65 |
| 2012-2013 | 1,051 | 76.00 | 65.45 | 29.72 |
| 2013-2014 | 1,048 | 75.33 | 64.89 | 29.54 |
| 2014-2015 | 1,056 | 74.05 | 63.70 | 29.61 |
| 2015-2016 | 1,074 | 73.30 | 62.99 | 30.06 |
| 2016-2017 | 1,080 | 71.70 | 62.02 | 29.97 |
| 2017-2018 | 1,096 | 69.35 | 61.09 | 30.01 |
| 2018-2019 | 1,126 | 69.00 | 60.41 | 29.73 |

Table 3.2

Descriptive Statistics for the Percentages of Hispanic Teachers in Texas Public Middle 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 | 1,034 | 8.17 | 20.24 | 27.03 |
| 2011-2012 | 1,040 | 8.60 | 20.70 | 27.51 |
| 2012-2013 | 1,051 | 9.20 | 20.97 | 27.59 |
| 2013-2014 | 1,048 | 9.41 | 21.58 | 27.87 |
| 2014-2015 | 1,056 | 9.85 | 22.10 | 27.97 |
| 2015-2016 | 1,074 | 10.40 | 22.71 | 28.21 |
| 2016-2017 | 1,080 | 11.55 | 23.51 | 28.26 |
| 2017-2018 | 1,096 | 12.20 | 24.33 | 28.55 |
| 2018-2019 | 1,126 | 13.15 | 24.42 | 27.98 |

Table 3.3

Descriptive Statistics for the Percentages of Black Teachers in Texas Public Middle 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 | 1,034 | 3.51 | 10.04 | 17.12 |
| 2011-2012 | 1,040 | 3.37 | 10.12 | 17.24 |
| 2012-2013 | 1,051 | 3.20 | 10.54 | 17.52 |
| 2013-2014 | 1,048 | 3.77 | 10.85 | 17.40 |
| 2014-2015 | 1,056 | 3.95 | 11.29 | 17.76 |
| 2015-2016 | 1,074 | 4.20 | 11.36 | 17.95 |
| 2016-2017 | 1,080 | 3.95 | 11.40 | 18.15 |
| 2017-2018 | 1,096 | 4.40 | 11.54 | 18.03 |
| 2018-2019 | 1,126 | 4.45 | 12.14 | 18.56 |

Table 3.4

*Descriptive Statistics for Percentage of Asian Teachers in Texas Public Middle Schools
from the 2010-2011 School Year Through the 2018-2019 School Year*

| Year | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-----------|---------------------|------------|-----------|------------|
| 2010-2011 | 1,034 | 0.00 | 1.31 | 4.42 |
| 2011-2012 | 1,040 | 0.00 | 1.21 | 3.31 |
| 2012-2013 | 1,051 | 0.00 | 1.11 | 2.53 |
| 2013-2014 | 1,048 | 0.00 | 1.05 | 2.03 |
| 2014-2015 | 1,056 | 0.00 | 1.10 | 2.18 |
| 2015-2016 | 1,074 | 0.00 | 1.18 | 2.37 |
| 2016-2017 | 1,080 | 0.00 | 1.19 | 2.39 |
| 2017-2018 | 1,096 | 0.00 | 1.21 | 2.39 |
| 2018-2019 | 1,126 | 0.00 | 1.32 | 2.87 |

Table 3.5

Descriptive Statistics for the Percentages of Hispanic Students in Texas Public Middle 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 | 1,037 | 42.50 | 48.62 | 30.71 |
| 2011-2012 | 1,044 | 43.15 | 49.29 | 30.49 |
| 2012-2013 | 1,053 | 44.50 | 49.87 | 30.33 |
| 2013-2014 | 1,052 | 45.25 | 50.60 | 30.13 |
| 2014-2015 | 1,060 | 46.90 | 51.18 | 29.84 |
| 2015-2016 | 1,080 | 47.25 | 51.76 | 29.67 |
| 2016-2017 | 1,085 | 47.30 | 51.95 | 29.49 |
| 2017-2018 | 1,101 | 48.20 | 52.24 | 29.36 |
| 2018-2019 | 1,131 | 49.40 | 52.65 | 28.83 |

Table 3.6

Descriptive Statistics for the Percentages of White Students in Texas Public Middle 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 | 1,037 | 30.80 | 34.77 | 28.77 |
| 2011-2012 | 1,044 | 30.60 | 34.35 | 28.50 |
| 2012-2013 | 1,053 | 29.20 | 33.64 | 28.26 |
| 2013-2014 | 1,052 | 28.05 | 32.94 | 27.96 |
| 2014-2015 | 1,060 | 27.25 | 32.35 | 27.60 |
| 2015-2016 | 1,080 | 26.10 | 31.80 | 27.13 |
| 2016-2017 | 1,085 | 26.40 | 31.47 | 26.77 |
| 2017-2018 | 1,101 | 25.00 | 30.89 | 26.50 |
| 2018-2019 | 1,131 | 24.60 | 30.04 | 25.93 |

Table 3.7

Descriptive Statistics for the Percentages of Black Students in Texas Public Middle 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 | 1,037 | 5.90 | 11.89 | 16.23 |
| 2011-2012 | 1,044 | 5.90 | 11.54 | 15.62 |
| 2012-2013 | 1,053 | 5.70 | 11.54 | 15.53 |
| 2013-2014 | 1,052 | 5.70 | 11.39 | 15.12 |
| 2014-2015 | 1,060 | 5.50 | 11.17 | 14.79 |
| 2015-2016 | 1,080 | 5.55 | 10.92 | 14.38 |
| 2016-2017 | 1,085 | 5.60 | 10.80 | 14.24 |
| 2017-2018 | 1,101 | 5.60 | 10.94 | 14.38 |
| 2018-2019 | 1,131 | 5.70 | 11.21 | 14.48 |

Table 3.8

*Descriptive Statistics for Percentage of Asian Students in Texas Public Middle Schools
from the 2010-2011 School Year Through the 2018-2019 School Year*

| Year | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-----------|---------------------|------------|-----------|------------|
| 2010-2011 | 1,037 | 0.60 | 2.61 | 5.32 |
| 2011-2012 | 1,044 | 0.70 | 2.68 | 5.50 |
| 2012-2013 | 1,053 | 0.70 | 2.77 | 5.77 |
| 2013-2014 | 1,052 | 0.70 | 2.87 | 6.08 |
| 2014-2015 | 1,060 | 0.70 | 3.00 | 6.46 |
| 2015-2016 | 1,080 | 0.70 | 3.13 | 6.75 |
| 2016-2017 | 1,085 | 0.80 | 3.24 | 7.09 |
| 2017-2018 | 1,101 | 0.80 | 3.34 | 7.32 |
| 2018-2019 | 1,131 | 0.80 | 3.39 | 7.68 |

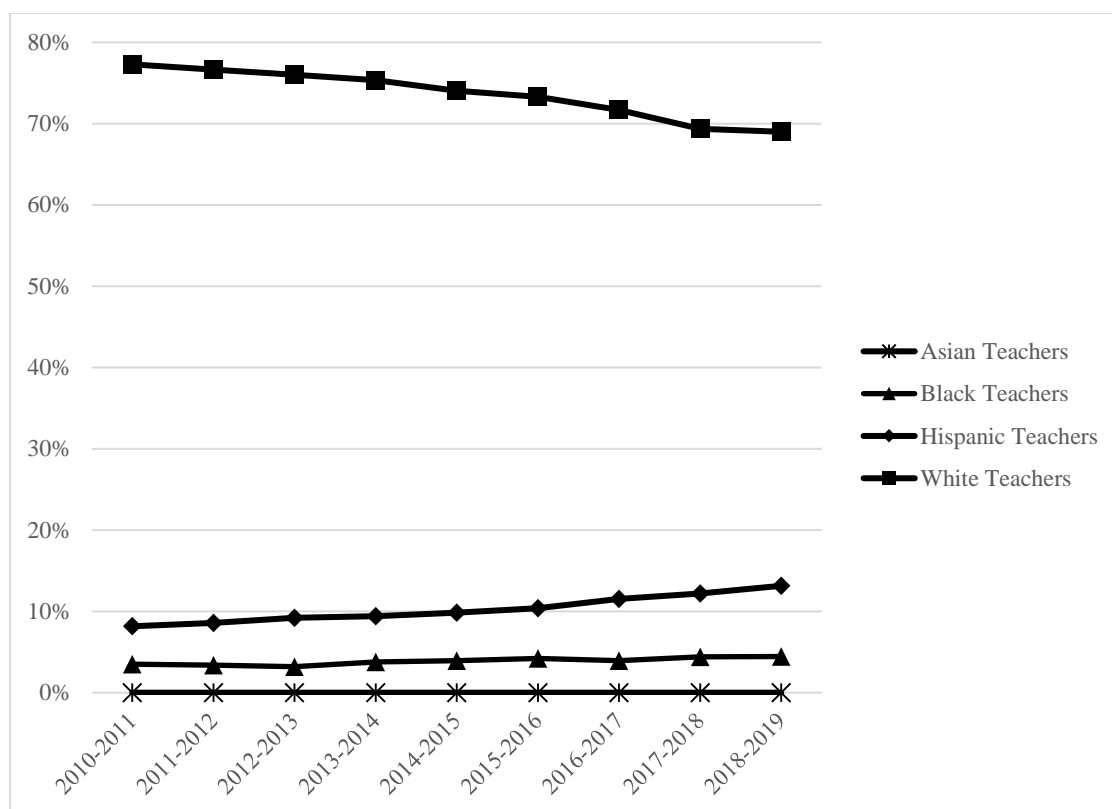


Figure 3.1. Median percentages of teachers in Texas public middle schools from the 2010-2011 school year through the 2018-2019 school year.

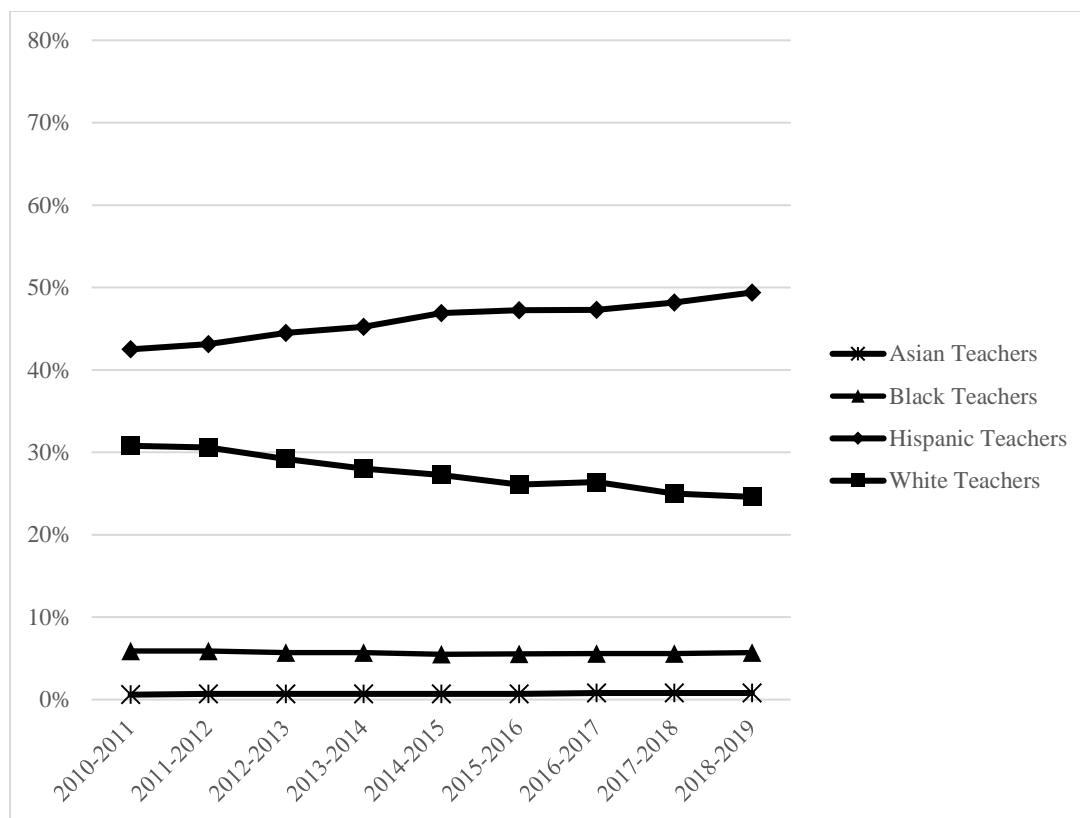


Figure 3.2. Median percentages of students in Texas public middle schools from the 2010-2011 school year through the 2018-2019 school year.

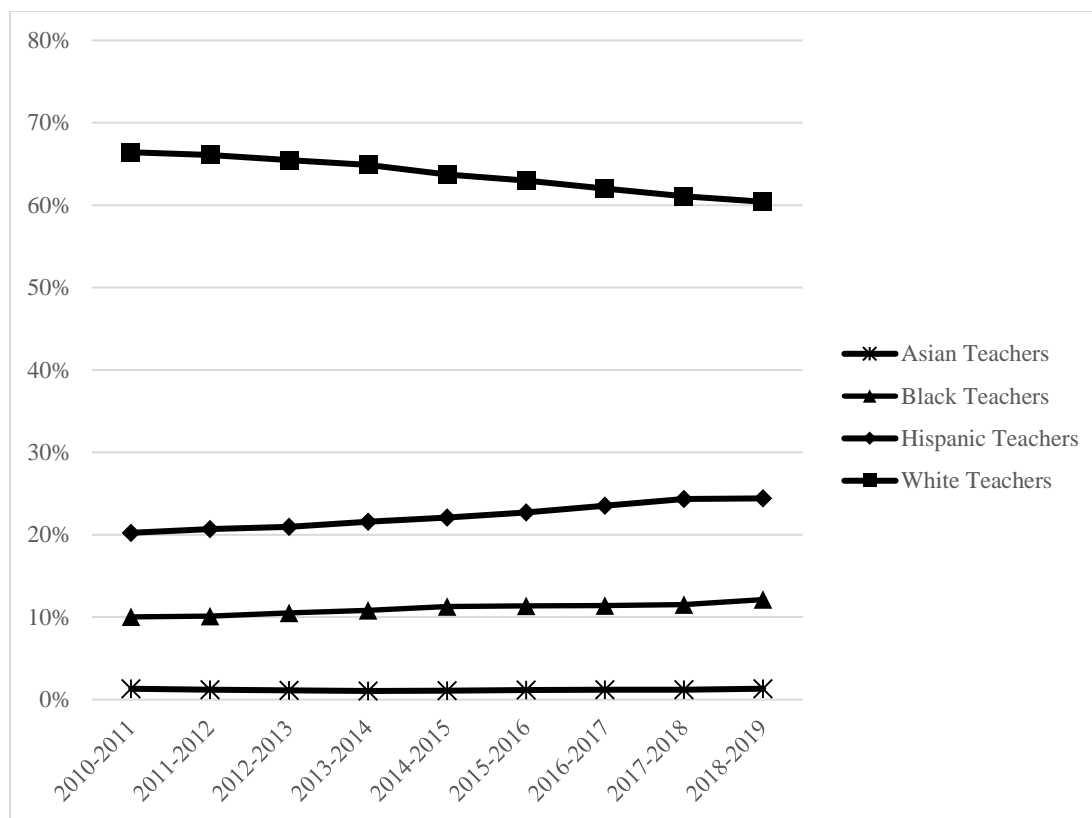


Figure 3.3. Percentages of teachers in Texas public middle schools from the 2010-2011 school year through the 2018-2019 school year.

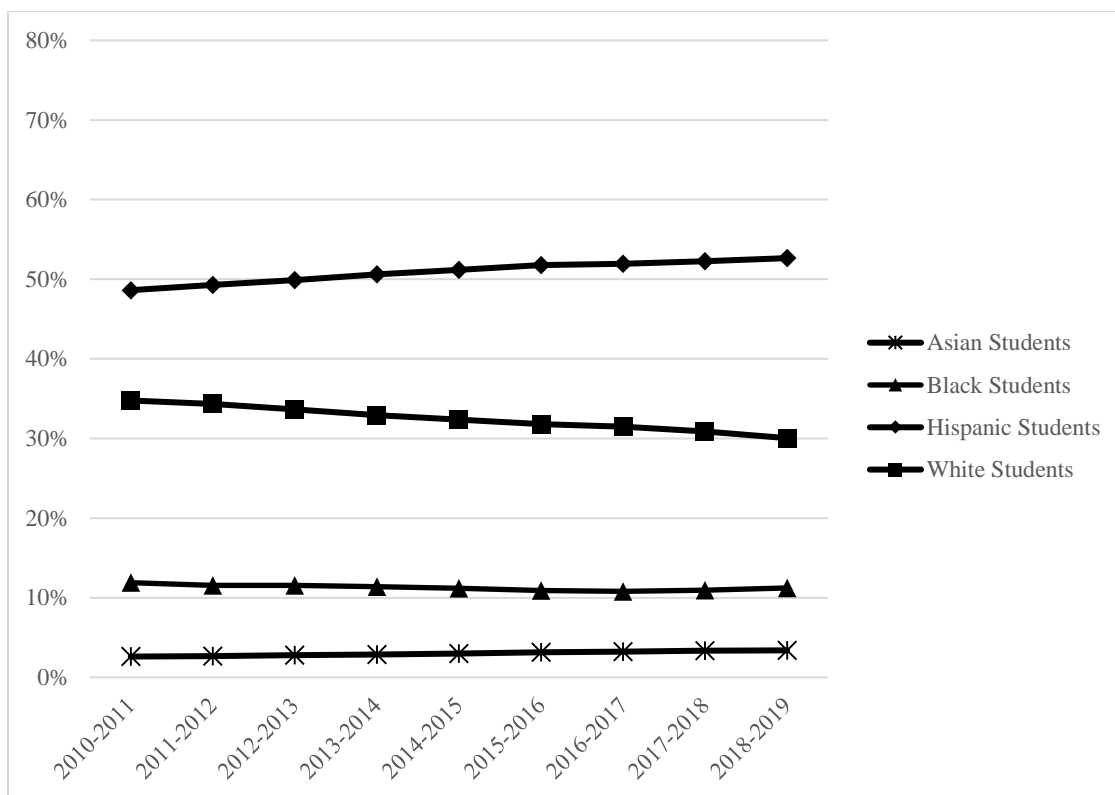


Figure 3.4. Percentages of students in Texas public middle schools from the 2010-2011 school year through the 2018-2019 school year.

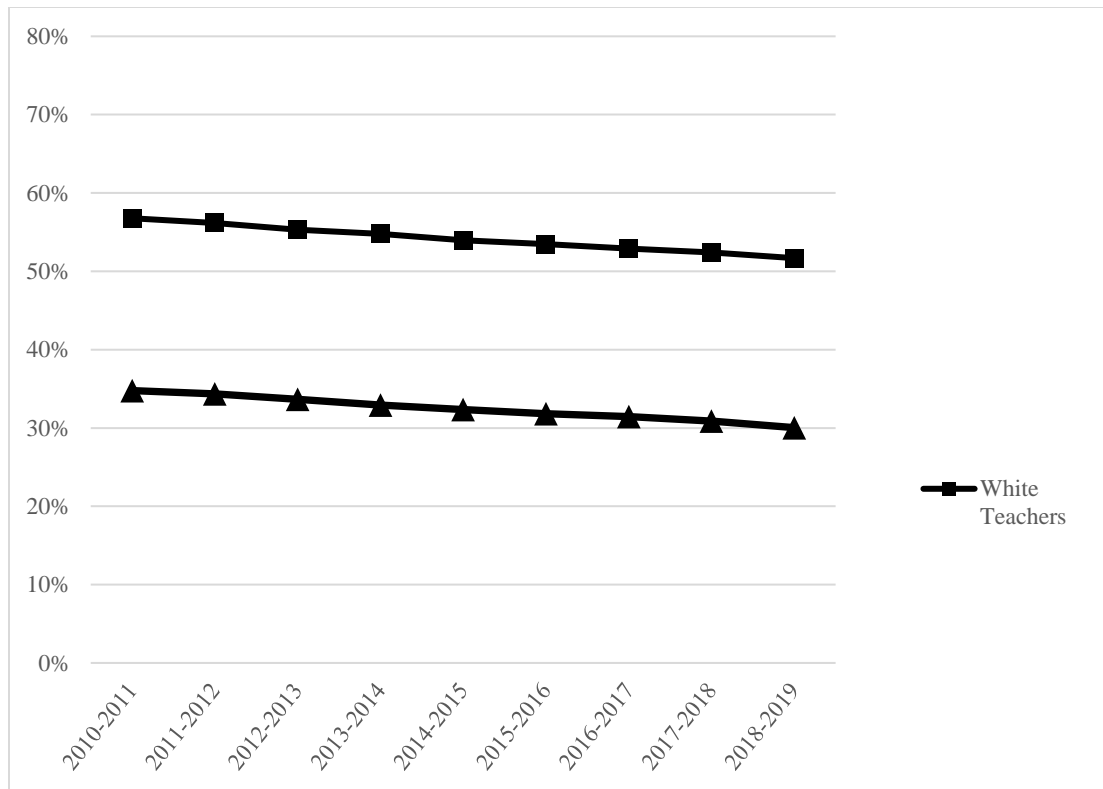


Figure 3.5. Relationship of the percentages of White teachers and White students in Texas public middle schools from the 2010-2011 school year through the 2018-2019 school year.

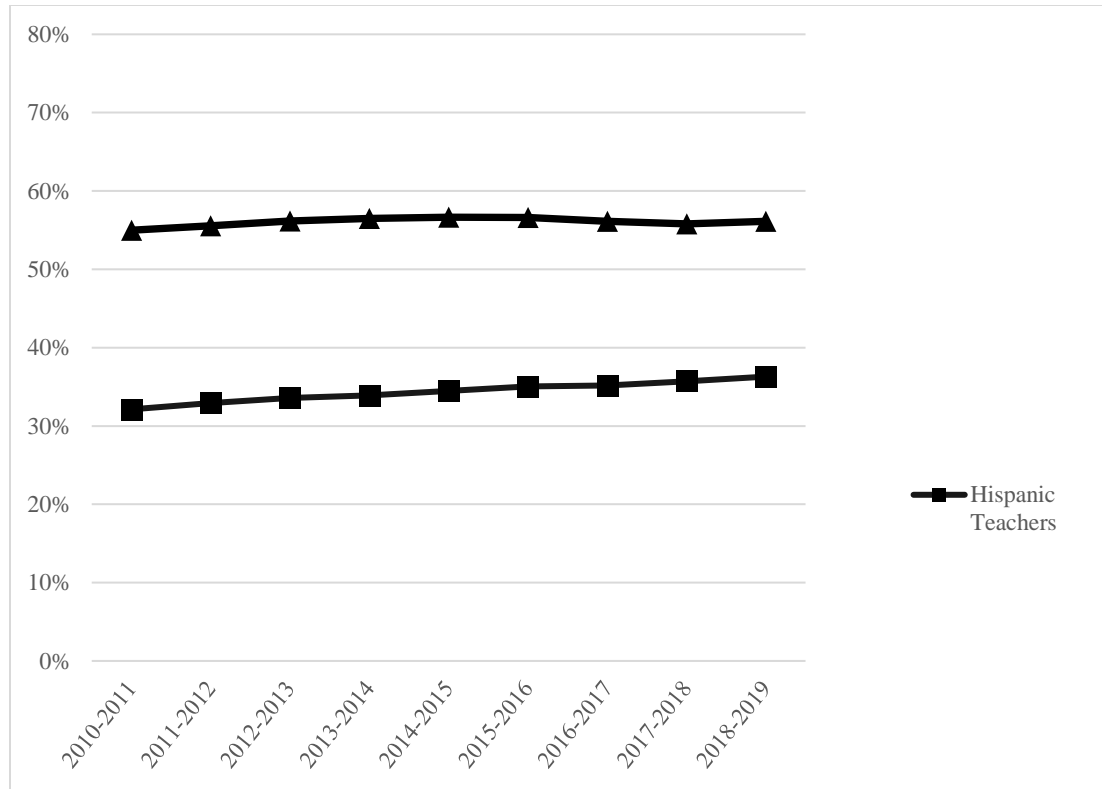


Figure 3.6. Relationship of the percentages of Hispanic teachers and Hispanic students in Texas public middle schools from the 2010-2011 school year through the 2018-2019 school year.

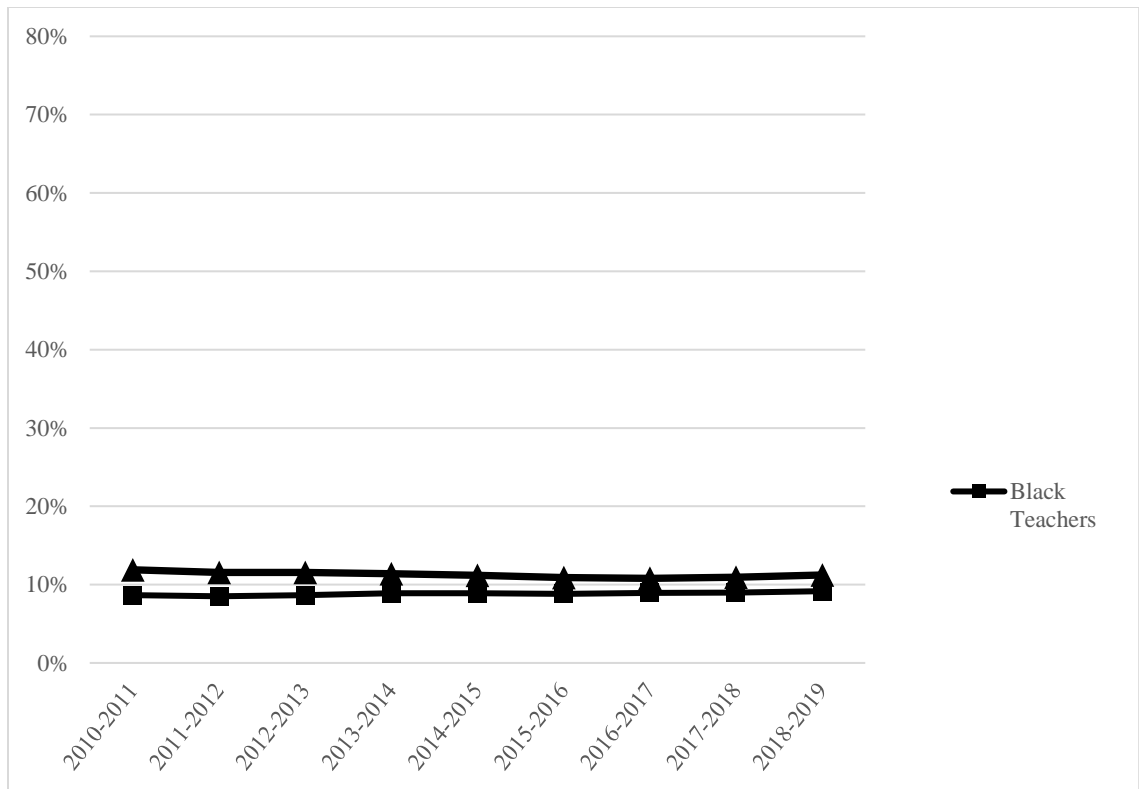


Figure 3.7. Relationship of the percentages of Black teachers and Black students in Texas public middle schools from the 2010-2011 school year through the 2018-2019 school year.

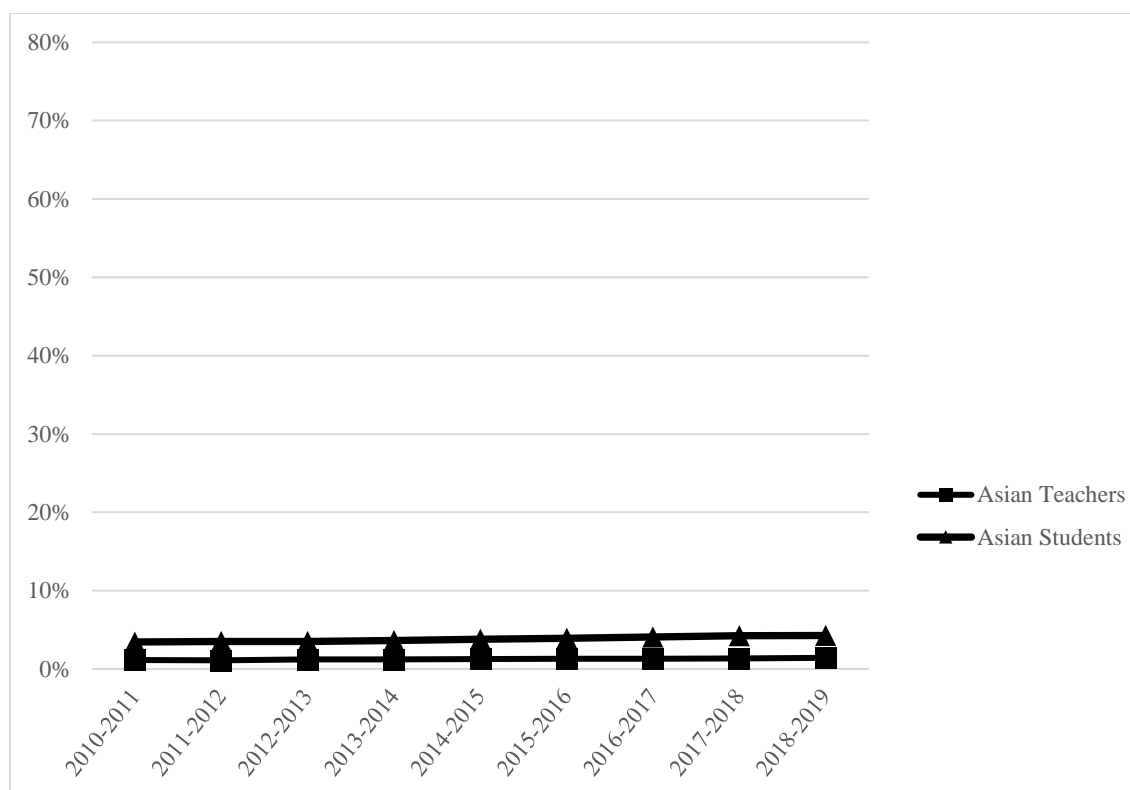


Figure 3.8. Relationship of the percentages of Asian teachers and Asian students in Texas public middle schools from the 2010-2011 school year through the 2018-2019 school year.

CHAPTER IV

A DESCRIPTIVE ANALYSIS OF THE ETHNIC/RACIAL MAKEUP OF TEXAS PUBLIC HIGH SCHOOL TEACHERS AND STUDENTS OVER TIME

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

Abstract

In this longitudinal, statewide, descriptive analysis, high school teacher and student ethnic/racial diversity was examined for the 2010-2011 school year through the 2018-2019 school year. 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 years 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

A DESCRIPTIVE ANALYSIS OF THE ETHNIC/RACIAL MAKEUP OF TEXAS PUBLIC HIGH SCHOOL TEACHERS AND STUDENTS OVER TIME

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, & 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's (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 et al., 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 et al., 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, 2018). Transition disruptions are constant with the life course theory in which physical, emotional, social, cognitive, and physical development are interrelated (Benner et al., 2018). 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 & Martinez-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.

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 teachers 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 ethnic/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 to their ethnicity/race.

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.

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, 2019). 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.

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?

Method

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).

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.

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*. For Asian, Black, Hispanic, and White Texas public high school teachers, descriptive statistics are respectively depicted in Tables 4.1, 4.2, 4.3, and 4.4.

Insert Tables 4.1, 4.2, 4.3, and 4.4 about here

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 4.1 are the median percentages for White, Hispanic, Black, and Asian teacher in Texas public high schools.

Insert Figure 4.1 about here

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 teachers increased by less than a percentage point, 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 4.5, 4.6, 4.7, and 4.8 are the descriptive statistics for the 9-school years (i.e. 2010-2011 through 2018-2019).

Insert Tables 4.5, 4.6, 4.7, and 4.8 about here

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 2010-2011 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 4.2 are median percentages of White, Hispanic, Black, and Asian students in public Texas high schools.

Insert Figure 4.2 about here

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 4.3. As illustrated in Figure 4.3, 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.

Insert Figure 4.3 about here

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 4.4 is a difference between the rising average percentages of Hispanic students and the declining 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.

Insert Figure 4.4 about here

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 4.5, 4.6, 4.7, and 4.8 contain the average percentages of the public high school students and teachers in Texas.

Insert Figures 4.5, 4.6, 4.7, and .8 about here

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.

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., 2018). 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 & Matuzitz, 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.

Implications for Policy and Practice

In consideration of the results of this multi-year study, several recommendations can 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. (2018), Yarnell and Bohrnstedt (2018), and Plachowski (2019) each explained 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

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 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 other 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 are 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.

Conclusion

This longitudinal statewide descriptive analysis spanned the 2010-2011 school year through the 2018-2019 school year 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.

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Table 4.1

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 4.2

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 4.3

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 4.4

*Descriptive Statistics for Percentage of Asian Teachers in Texas Public High Schools
from the 2010-2011 School Year Through the 2018-2019 School Year*

| Year | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-----------|---------------------|------------|-----------|------------|
| 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 |

Table 4.5

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 | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-------------|---------------------|------------|-----------|------------|
| 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 4.6

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 | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-------------|---------------------|------------|-----------|------------|
| 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 4.7

*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 | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-------------|---------------------|------------|-----------|------------|
| 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 4.8

*Descriptive Statistics for Percentage of Asian Students in Texas Public High Schools
from the 2010-2011 School Year Through the 2018-2019 School Year*

| Year | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-----------|---------------------|------------|-----------|------------|
| 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 |

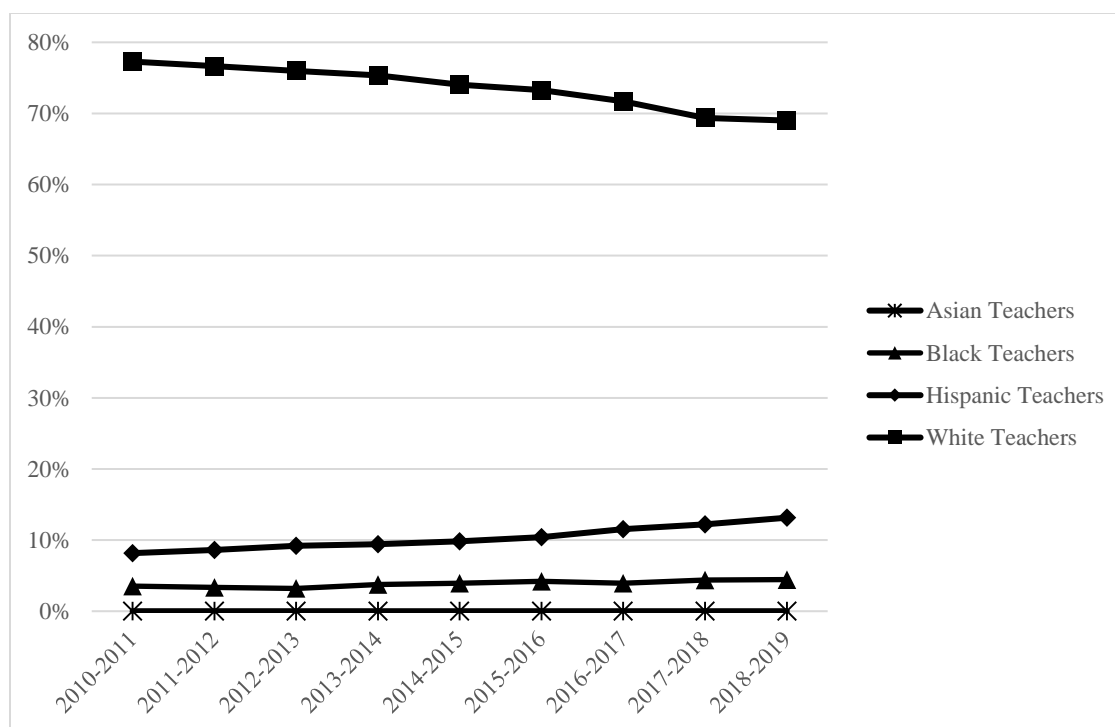


Figure 4.1. Median percentages of teachers in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

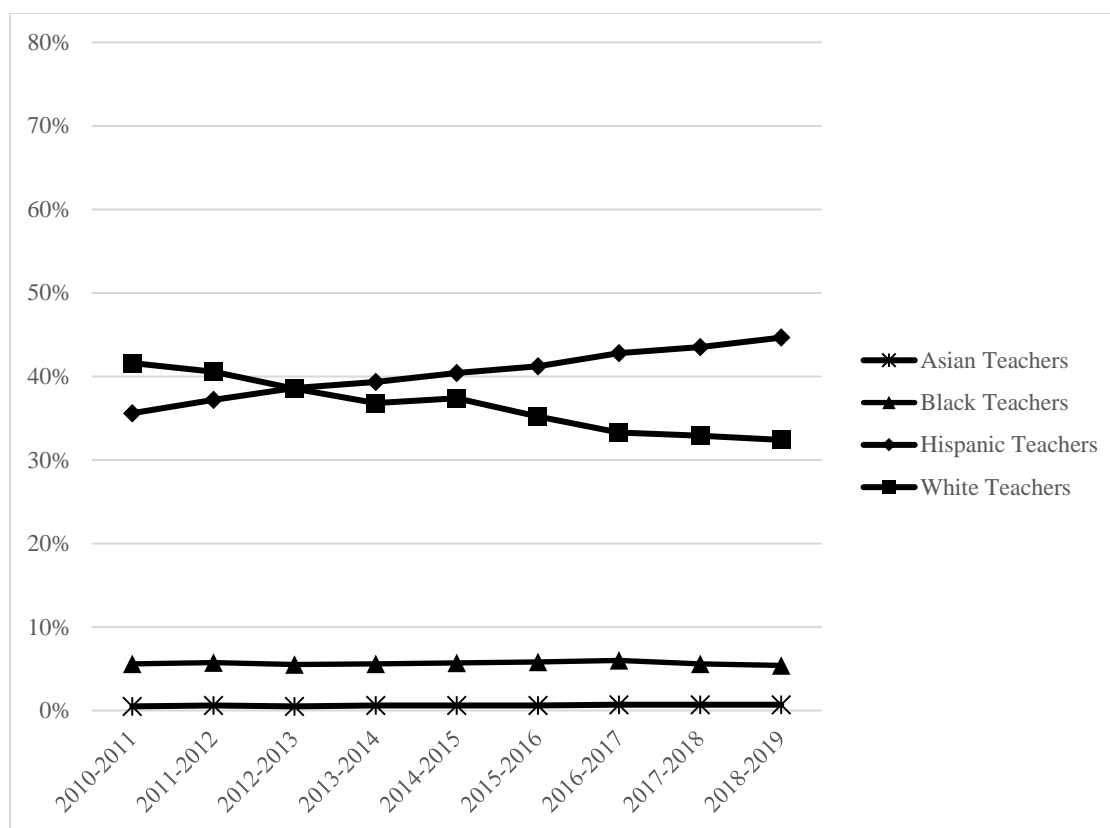


Figure 4.2. Median percentages of students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

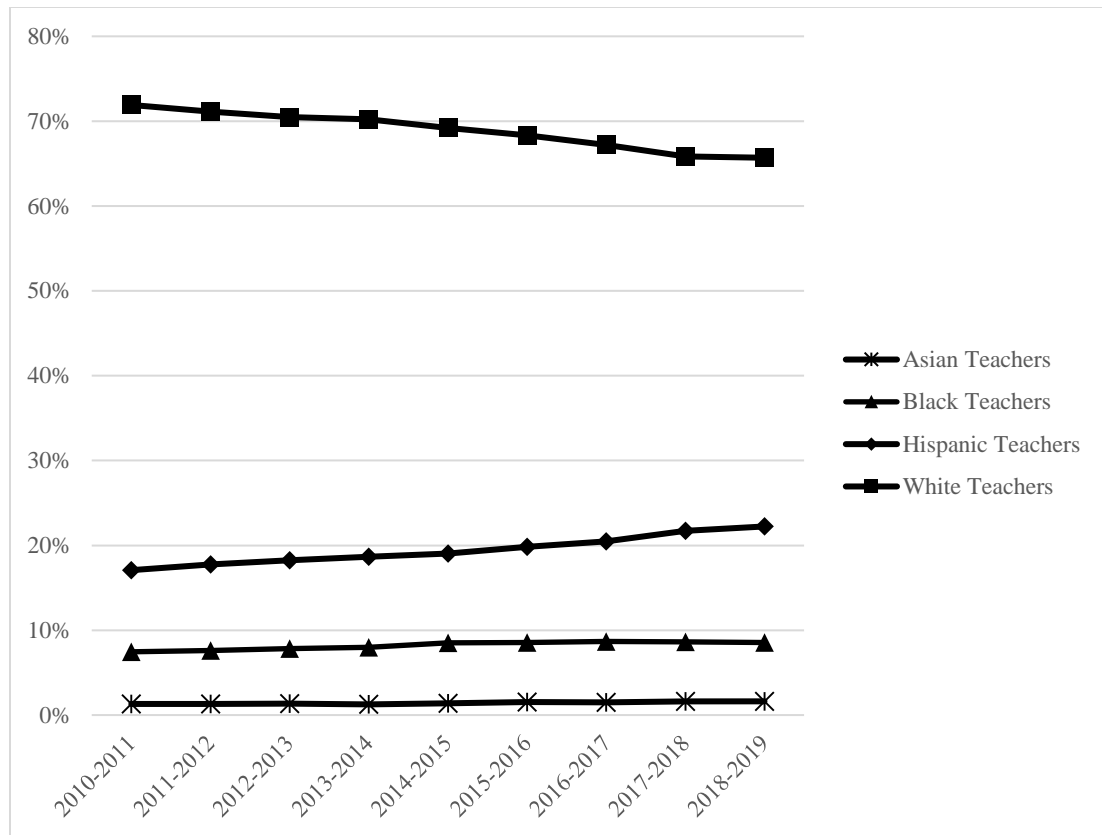


Figure 4.3. Percentages of teachers in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

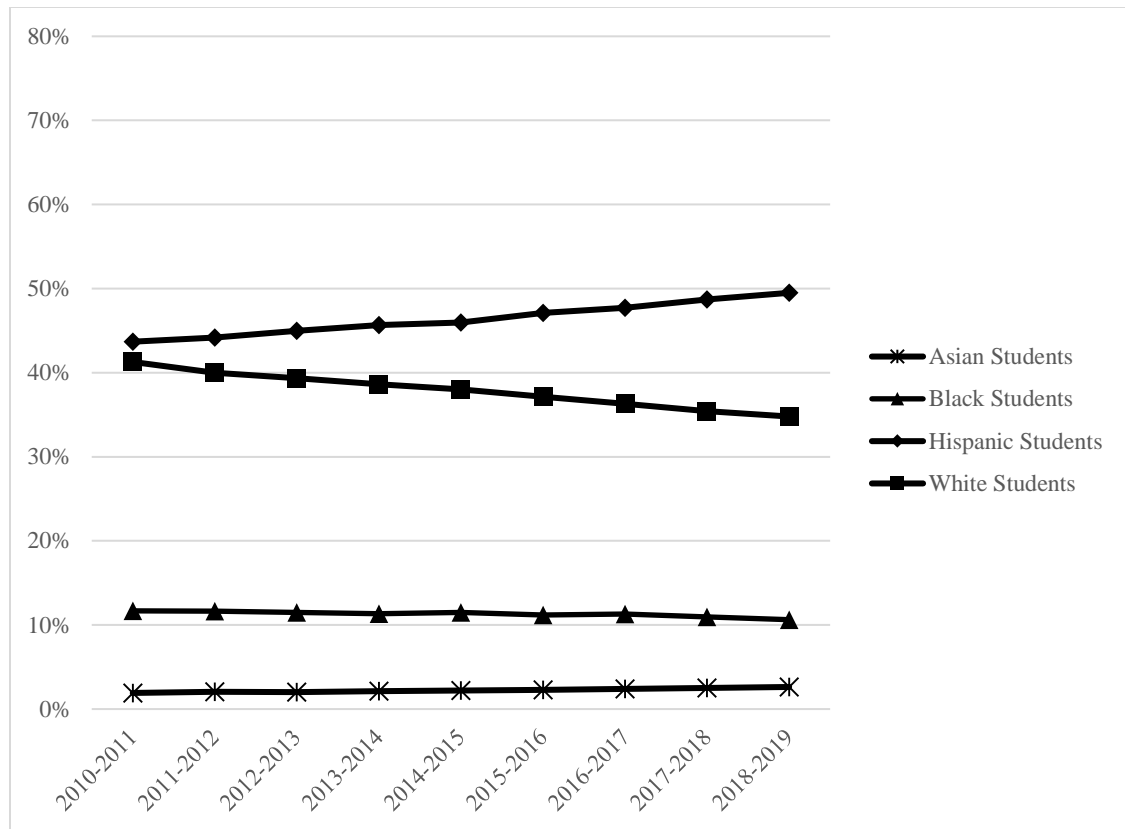


Figure 4.4. Percentages of students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

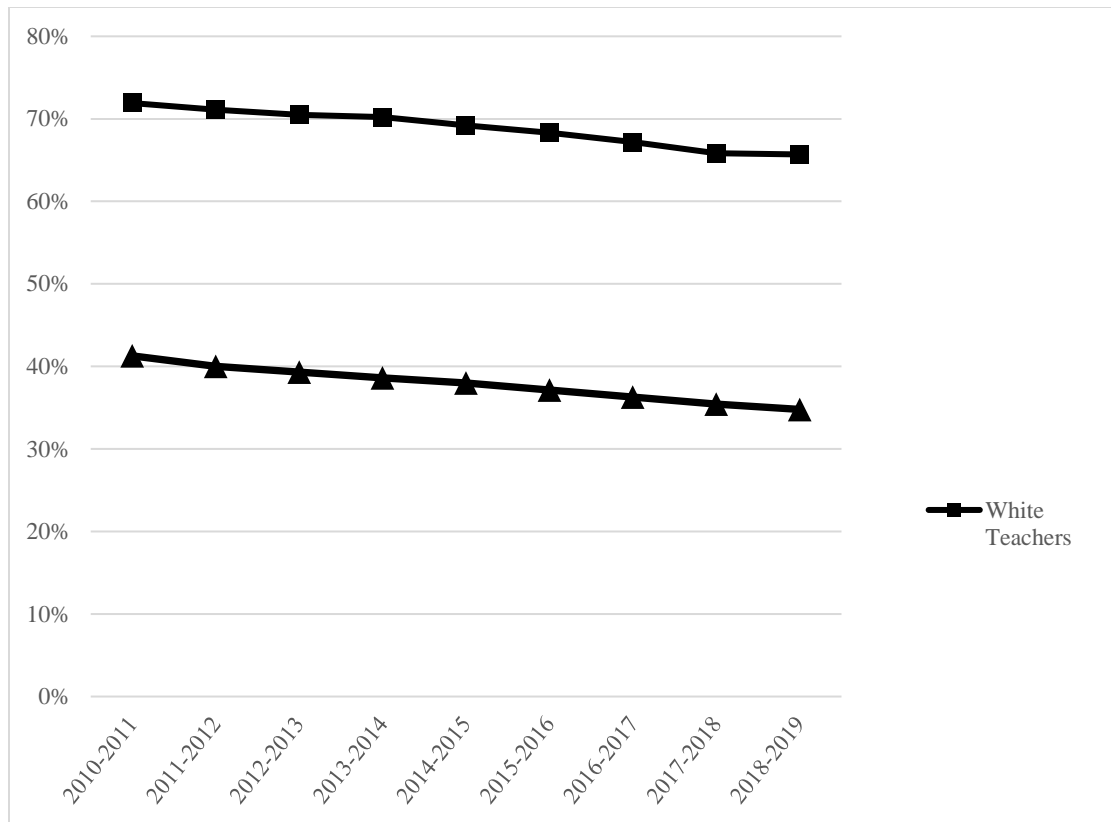


Figure 4.5. Relationship of the percentages of White teachers and White students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

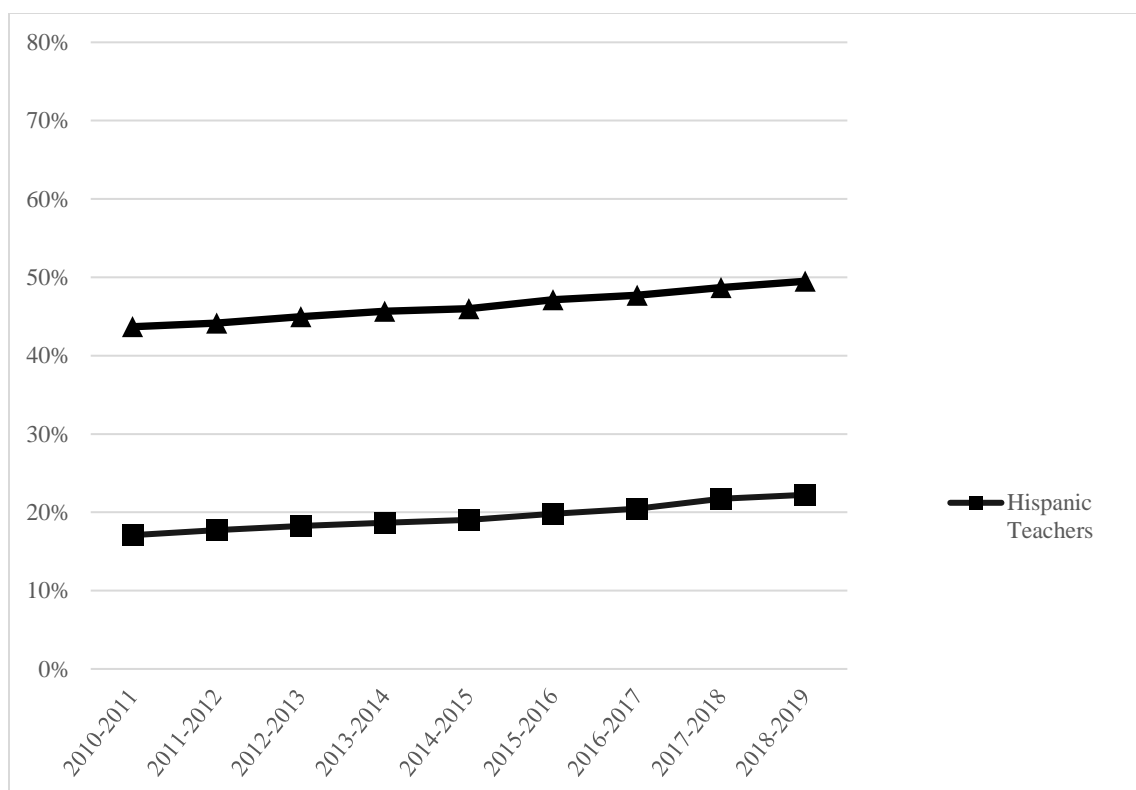


Figure 4.6. Relationship of the percentages of Hispanic teachers and Hispanic students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

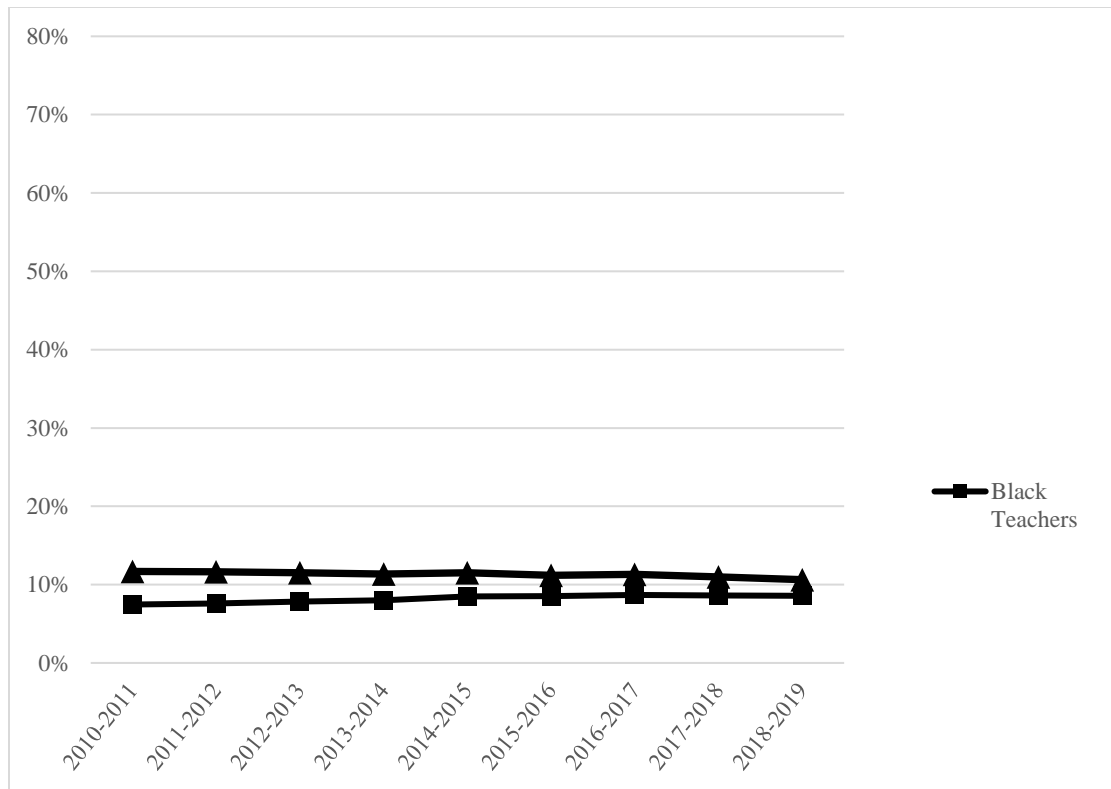


Figure 4.7. Relationship of the percentages of Black teachers and Black students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

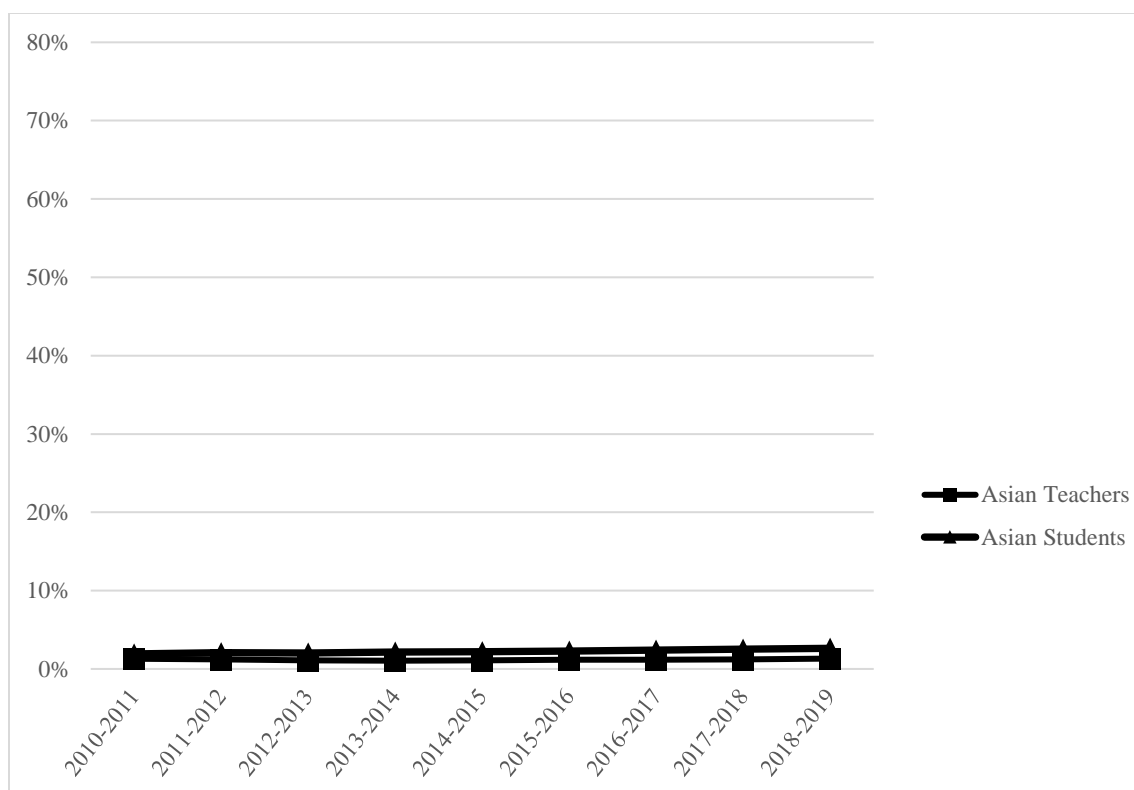


Figure 4.8. Relationship of the percentages of Asian teachers and Asian students in Texas public high schools from the 2010-2011 school year through the 2018-2019 school year.

CHAPTER V

DISCUSSION

The overall purpose of this journal-ready dissertation was to describe the racial/ethnic demographic characteristics of students and teachers in Texas public elementary, middle, and high schools. The first specific purpose was to describe the ethnic/racial demographic characteristics of students and teachers in Texas elementary public schools for the 2010-2011 through the 2018-2019 school years. A second purpose was to determine the ethnic/racial demographic characteristics of students and teachers in Texas public middle schools for the 2010-2011 through the 2018-2019 school years. A third purpose was to identify the ethnic/racial demographic characteristics of students and teachers in Texas public high schools for the 2010-2011 through the 2018-2019 school years. A final purpose was to identify the degree to which trends might be present in the ethnic/racial membership of students and teachers in Texas public elementary, middle, and high schools over a 9 school year time period.

In this chapter, the results of each of the three studies are individually discussed and compared. In addition, implications of the findings in this journal-ready dissertation are provided. To conclude this chapter, a summary is provided.

Summary: Elementary Teacher and Student Ethnic/Racial Demographics

In the first study of this journal-ready dissertation, the ethnicity/race of Texas public elementary teachers and students for the 2010-2011 school year through the 2018-2019 school years were analyzed. Archival data for 9 school years were downloaded from the Texas Education Agency database, and the *M*, *Mdn*, and *SD* were calculated. Average percentages for White teachers ranged from an average high of 56.77% in the

2010-2011 school year to a low of 51.68% in the 2018-2019 school year. Though Hispanic teacher percentages moved closer to the percentages of White teachers, a considerable gap still remains to be closed. Hispanic teacher percentages were at their lowest in the 2010-2011 school year at 32.12%, and at their highest in the 2018-2019 school year at 36.30%. Inconsistent growth of Black teacher percentages was observed over the 9-school years. During the 2011-2012 school year, Black teachers had their lowest percentage at 8.51%, and their highest percentage was in the 2018-2019 school year at 9.16%. For the 9 school years, Asian teachers displayed consistent growth as their percentages ranged from 1.12% in the 2010-2011 school year to 1.42% during the 2018-2019 school year.

In regard to the average percentages of the four ethnic/racial student groups, Hispanic students represented the largest group. Hispanic student percentages grew from 54.99% in the 2010-2011 school year to 56.11% in the 2018-2019 school year. The next largest ethnic/racial group was White students whose percentages consistently decreased from 27.32% in the 2010-2011 school year to 24.59% in the 2018-2019 school year. Black student percentages varied for the 9 school years as they ranged from a low of 11.75% in the 2012-2013 school year and a high of 12.08% in the 2010-2011 school year. Finally, Asian student percentages grew less than a percentage from 3.44% in 2010-2011 to 4.27% in 2018-2019.

Summary: Middle School Teacher and Student Ethnic/Racial Demographics

In the second study, the ethnic/racial composition of Texas public middle school teachers and students was analyzed for the 2010-2011 school year through the 2018-2019 school year. Nine years of archival data related to public middle school teacher and student demographics were downloaded from the Texas Education Agency database. From the acquired data, descriptive statistics were calculated. For the 9 school years White teacher percentages were larger than the other three ethnic/racial teacher groups. Even though White Texas middle school teachers were the most represented teacher group, their percentages consistently declined from 66.42% in 2010-2011 to 60.41% in 2018-2019. Hispanic teachers were the second largest ethnic/racial group examined. Hispanic teacher percentages consistently increased from 20.24% in the 2010-2011 school year to 24.42% in the 2018-2019 school year. The percentages for Black teachers consistently grew over the 9 school years. For the 2010-2011 school year the average percentage of Black teachers was 10.04%, and for the 2018-2019 school year their average percentage was 12.14%. The average percentages for Asian teachers varied over the 9 school years. The average percentage low for Asian teachers was 1.05% in 2010-2011 and the average percentage high was 1.32% in 2018-2019.

When examining student percentages, Hispanic students were documented as having the largest average percentage of all four ethnic/racial student groups analyzed. Hispanic student percentages increased from 48.62% in the 2010-2011 school year to 52.65% in the 2018-2019 school year. The next largest student group was White students whose percentages consistently decreased over the 9 school years. The highest White student average percentage was 34.77% in the 2010-2011 school year and the lowest

average percentage was 30.04% in the 2018-2019 school year. Black student percentages fluctuated over the 9 school years with an average percentage high of 11.89% in 2010-2011, and an average percentage low of 10.80% in 2016-2017. The percentage of Asian students in Texas public middle schools steadily increased from 2.61% in the 2010-2011 school year to 3.39% in the 2018-2019 school year.

Summary: High School Teacher and Student Ethnic/Racial Demographics

The focus in the third study was on the ethnic/racial composition of teachers and students in Texas public high schools for a 9 school year period from the 2010-2011 school year through the 2018-2019 school year. Archival data acquired from the Texas Education Agency were examined for the 9 school years and descriptive statistics were calculated. For the school years examined, White teachers had the highest average percentage of all four ethnic/racial teacher groups at the Texas public high school level. White teacher percentages were 71.91% in 2010-2011 and decreased to 65.99% in 2018-2019. Hispanic teacher percentages had consistent growth over the course of this study, from 17.07% in the 2010-2011 school year to 22.23% in the 2018-2019 school year. For Black teachers in Texas public high school, slight persistent growth was documented. Black teacher percentages increased from 7.46% to 8.57% over the 9-school years examined. The average percentage of Asian teachers fluctuated from a low of 1.26% in 2013-2014 to a high of 2.62% in 2018-2019.

In regard to public high school students in Texas, Hispanic students represented the largest average percentages of all four ethnic/racial groups that were analyzed. Hispanic student percentages increased steadily from 43.69% in 2010-2011 to 49.50% in 2018-2019. The next highest average percentages belonged to White students whose

percentages consistently decreased from 41.28% during the 2010-2011 school year to 34.79% in the 2018-2019 school year. Also experiencing consistent decreases over the course of the study were Black students. Black student percentages declined from 11.68% 2010-2011 to 10.63% in 2018-2019. Asian student percentages grew minimally from 1.92% in 2010-2011 to 2.63% in 2018-2019.

Comparison of White Teacher Results Across All Academic Levels

When analyzing the results for White teachers across all three studies, they experienced a decline in their average percentages in each school year in each of the three studies conducted. Table 5.1 contains the combined descriptive statistics of White public school teachers across all three school levels for the 2010-2011 school year through the 2014-2015 school year.

Table 5.1

*Descriptive Statistics for the Percentages of White Teachers in Texas Public Schools
from the 2010-2011 School Year Through the 2014-2015 School Year*

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-------------------------------|---------------------|------------|-----------|------------|
| 2010-2011 | | | | |
| Elementary Schools | 2,584 | 63.35 | 56.77 | 32.54 |
| Middle Schools | 1,034 | 77.29 | 66.42 | 29.36 |
| High Schools | 1,139 | 81.84 | 71.91 | 26.30 |
| 2011-2012 | | | | |
| Elementary Schools | 2,598 | 63.34 | 56.16 | 32.54 |
| Middle Schools | 1,040 | 76.64 | 66.08 | 29.65 |
| High Schools | 1,154 | 81.49 | 71.11 | 26.82 |
| 2012-2013 | | | | |
| Elementary Schools | 2,664 | 60.80 | 55.29 | 32.45 |
| Middle Schools | 1,051 | 76.00 | 65.45 | 29.72 |
| High Schools | 1,161 | 81.20 | 70.48 | 27.13 |
| 2013-2014 | | | | |
| Elementary Schools | 2,685 | 60.16 | 54.76 | 32.19 |
| Middle Schools | 1,048 | 75.33 | 64.89 | 29.54 |
| High Schools | 1,173 | 81.24 | 70.22 | 26.88 |
| 2014-2015 | | | | |
| Elementary Schools | 2,708 | 58.95 | 53.98 | 31.89 |
| Middle Schools | 1,056 | 74.05 | 63.70 | 29.61 |
| High Schools | 1,177 | 79.70 | 69.19 | 27.12 |

White teachers in Texas public high schools had the largest overall decrease of their average percentages over the 9 school years of 6.22%. At the high school level, White teachers averaged a decrease of 0.78% between each of the 9 school years. The largest decrease for White public high school teachers occurred between the 2016-2017 and 2017-2018 school years when the average percentage of White teachers decreased by 1.35%. The smallest decrease experienced by White high school teachers occurred between the 2017-2018 and 2018-2019 school years when percentages decreased by only 0.16%. The descriptive statistics for White teachers for the 2015-2016 school year through the 2018-2019 school year are revealed in Table 5.2.

Table 5.2

*Descriptive Statistics for the Percentages of White Teachers in Texas Public Schools
from the 2015-2016 School Year Through the 2018-2019 School Year*

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|-------------------------------|---------------------|------------|-----------|------------|
| 2015-2016 | | | | |
| Elementary Schools | 2,761 | 57.50 | 53.47 | 31.85 |
| Middle Schools | 1,074 | 73.30 | 62.99 | 30.06 |
| High Schools | 1,203 | 78.80 | 68.33 | 27.76 |
| 2016-2017 | | | | |
| Elementary Schools | 2,809 | 56.80 | 52.90 | 31.84 |
| Middle Schools | 1,080 | 71.70 | 62.02 | 29.97 |
| High Schools | 1,208 | 77.30 | 67.20 | 28.09 |
| 2017-2018 | | | | |
| Elementary Schools | 2,820 | 55.70 | 52.41 | 31.90 |
| Middle Schools | 1,096 | 69.35 | 61.09 | 30.01 |
| High Schools | 1,213 | 75.70 | 65.85 | 28.09 |
| 2018-2019 | | | | |
| Elementary Schools | 2,879 | 54.70 | 51.68 | 31.93 |
| Middle Schools | 1,126 | 69.00 | 60.41 | 29.73 |
| High Schools | 1,205 | 74.80 | 65.69 | 27.90 |

The school level with the next largest overall decrease of average percentages were White teachers at the Texas public middle school level. Their percentages decreased by 6.01% overall as they averaged a decrease of 0.75% between each of the 9 school years examined in this study. The biggest decrease experienced by White public middle school teachers in Texas was between the 2013-2014 school year and the 2014-2015 school year as their average percentage decreased by 1.19%. The smallest decline of average percentages for White middle school teachers was 0.34% between the 2010-2011 school year and the 2011-2012 school year.

White Texas public elementary school teachers had the least amount of average percentage declines among White teachers at the three school levels over the course of

this study. White elementary school teacher percentages decreased by 5.09% over the 9 school years analyzed. The largest decrease of White public elementary school teachers in Texas was 0.87% between the 2011-2012 and 2012-2013 school years. The smallest decline of average percentages for White elementary school teachers was 0.49% from the 2016-2017 school year to the 2018-2018 school year. The decrease of percentages of White Texas public school teachers is illustrated in Figure 5.1.

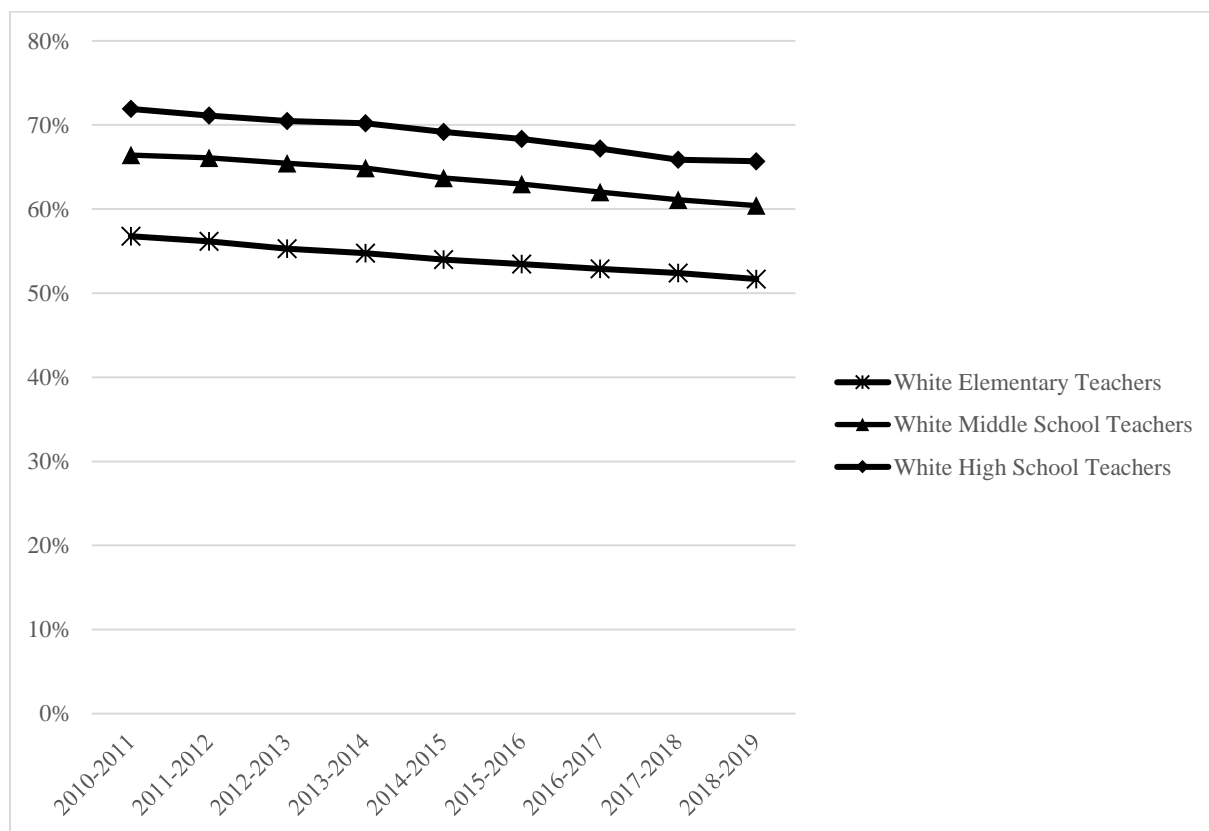


Figure 5.1. Percentages of White teachers in Texas public elementary, middle, and high schools from the 2010-2011 school year through the 2018-2019 school year.

Comparison of Hispanic Teacher Results Across All Academic Levels

Hispanic teachers in Texas public schools experienced consistent growth of their average percentages in each of the three studies. Contained in Table 5.3 are the descriptive statistics for Hispanic public school teachers at the elementary, middle, and

high school levels in Texas for the 2010-2011 school year through the 2014-2015 school year.

Table 5.3

Descriptive Statistics for the Percentages of Hispanic Teachers in Texas Public Schools from the 2010-2011 School Year Through the 2014-2015 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2010-2011 | | | | |
| Elementary Schools | 2,584 | 21.45 | 32.12 | 31.35 |
| Middle Schools | 1,034 | 8.17 | 20.24 | 27.03 |
| High Schools | 1,139 | 8.11 | 17.08 | 23.06 |
| 2011-2012 | | | | |
| Elementary Schools | 2,598 | 22.86 | 32.03 | 31.40 |
| Middle Schools | 1,040 | 8.60 | 20.70 | 27.51 |
| High Schools | 1,154 | 8.35 | 17.74 | 23.80 |
| 2012-2013 | | | | |
| Elementary Schools | 2,664 | 24.10 | 33.57 | 31.21 |
| Middle Schools | 1,051 | 9.20 | 20.97 | 27.59 |
| High Schools | 1,161 | 8.80 | 18.26 | 23.95 |
| 2013-2014 | | | | |
| Elementary Schools | 2,685 | 24.90 | 33.91 | 31.22 |
| Middle Schools | 1,048 | 9.41 | 21.58 | 27.87 |
| High Schools | 1,173 | 9.04 | 18.66 | 24.05 |
| 2014-2015 | | | | |
| Elementary Schools | 2,708 | 24.85 | 34.48 | 31.30 |
| Middle Schools | 1,056 | 9.85 | 22.10 | 27.97 |
| High Schools | 1,177 | 9.40 | 19.05 | 24.14 |

Hispanic public school teachers at the Texas high school level had the largest overall increase of Hispanic teacher employment of the three school levels examined in the three studies. Overall, Hispanic high school teachers had a growth of 5.15% over the 9 school years analyzed, and they averaged an increase of 0.64% each school year. The largest growth was between the 2016-2017 school year and 2017-2018 school year when the average percentage of Texas public high school Hispanic teachers grew by 1.23%.

The smallest average percentage growth from one school year to the next was 0.39%, and that growth occurred from the 2013-2014 school year to the 2014-2015 school year. The descriptive statistics for Hispanic teachers at the three school levels for the 2015-2016 school year through the 2018-2019 school year are contained in Table 5.4.

Table 5.4

Descriptive Statistics for the Percentages of Hispanic Teachers in Texas Public Schools from the 2015-2016 School Year Through the 2018-2019 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2015-2016 | | | | |
| Elementary Schools | 2,761 | 26.40 | 35.05 | 31.21 |
| Middle Schools | 1,074 | 10.40 | 22.71 | 28.21 |
| High Schools | 1,203 | 9.80 | 19.82 | 25.16 |
| 2016-2017 | | | | |
| Elementary Schools | 2,809 | 26.70 | 35.17 | 31.12 |
| Middle Schools | 1,080 | 11.55 | 23.51 | 28.26 |
| High Schools | 1,208 | 10.30 | 20.48 | 25.39 |
| 2017-2018 | | | | |
| Elementary Schools | 2,820 | 27.10 | 35.70 | 31.35 |
| Middle Schools | 1,096 | 12.20 | 24.33 | 28.55 |
| High Schools | 1,213 | 11.30 | 21.71 | 25.96 |
| 2018-2019 | | | | |
| Elementary Schools | 2,879 | 28.10 | 36.30 | 31.22 |
| Middle Schools | 1,126 | 13.15 | 24.42 | 27.98 |
| High Schools | 1,205 | 11.70 | 22.23 | 25.85 |

Average percentages for Hispanic teachers at the elementary school level and at the middle school level had identical overall increases documented for their respective studies. Hispanic teachers at both the elementary and middle school levels had overall increases of 4.18% over the 9 school years. Also, Texas public elementary and middle school Hispanic teachers each increased by an average of 0.52% between each school year from the 2010-2011 school year through the 2018-2019 school year. The largest

margin of growth for Hispanic elementary teachers was 0.81% from the 2010-2011 school year to the 2011-2012 school year. The smallest school year-to-school year growth of Hispanic elementary teachers was 0.12% from the 2015-2016 school year to the 2016-2017 school year. For Texas public middle school Hispanic teachers, the largest margin of growth and the smallest margin of growth occurred in consecutive school years. The largest growth occurred from the 2016-2017 school year to the 2017-2018 school year as average percentages of Hispanic public middle school teachers increased by 0.82%. The smallest amount of growth for Hispanic public middle school teachers was 0.09% from the 2017-2018 school year to the 2018-2019 school year. Depicted in Figure 5.2 is the trend of increasing average percentages for Hispanic public school teachers in elementary, middle, and high schools in Texas.

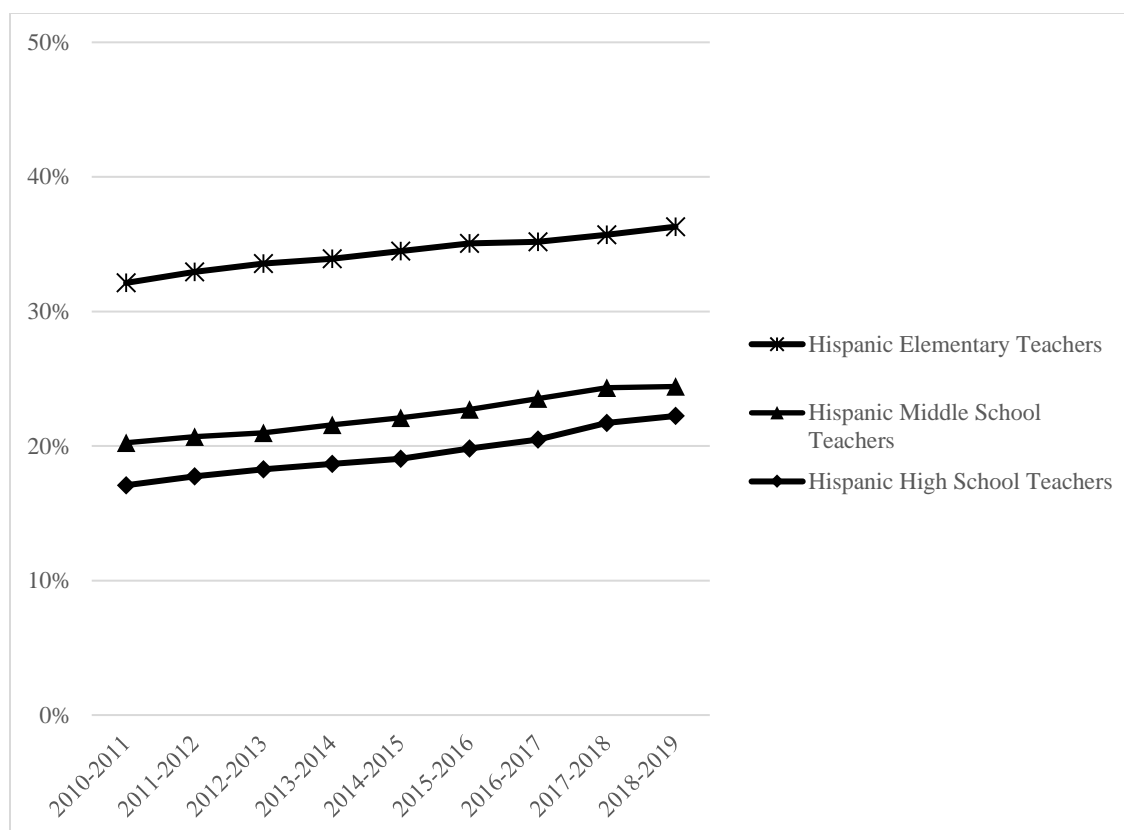


Figure 5.2. Percentages of Hispanic teachers in Texas public elementary, middle, and high schools from the 2010-2011 school year through the 2018-2019 school year.

Comparison of Black Teacher Results Across All Academic Levels

Black Texas public school teacher average percentages fluctuated in each study with the exception of Texas public middle schools. Contained in Table 5.5 are the descriptive statistics for Black teachers in Texas public schools at the elementary, middle, and high school level for the 2010-2011 school year through the 2014-2015 school year. The fluctuation of the employment trends of Black teachers at each public school academic level are detailed for the 2010-2011 school year through the 2018-2019 school year.

Table 5.5

Descriptive Statistics for the Percentages of Black Teachers in Texas Public Schools from the 2010-2011 School Year Through the 2014-2015 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2010-2011 | | | | |
| Elementary Schools | 2,584 | 2.37 | 8.67 | 16.86 |
| Middle Schools | 1,034 | 3.51 | 10.04 | 17.12 |
| High Schools | 1,139 | 2.45 | 7.46 | 13.88 |
| 2011-2012 | | | | |
| Elementary Schools | 2,598 | 2.38 | 8.51 | 16.35 |
| Middle Schools | 1,040 | 3.37 | 10.12 | 17.24 |
| High Schools | 1,154 | 2.55 | 7.60 | 13.86 |
| 2012-2013 | | | | |
| Elementary Schools | 2,664 | 2.40 | 8.64 | 16.19 |
| Middle Schools | 1,051 | 3.20 | 10.54 | 17.52 |
| High Schools | 1,161 | 2.60 | 7.82 | 14.26 |
| 2013-2014 | | | | |
| Elementary Schools | 2,685 | 2.54 | 8.90 | 16.34 |
| Middle Schools | 1,048 | 3.77 | 10.85 | 17.40 |
| High Schools | 1,173 | 2.93 | 7.98 | 13.90 |
| 2014-2015 | | | | |
| Elementary Schools | 2,708 | 2.50 | 8.89 | 16.14 |
| Middle Schools | 1,056 | 3.95 | 11.29 | 17.76 |
| High Schools | 1,177 | 3.10 | 8.51 | 14.22 |

Black Texas public middle school teachers had the largest overall average percentage growth of Black teachers at any of the three academic levels for the 9 school years examined. Black middle school teachers had an overall increase of their average percentages of 2.10% from 2010-2011 through 2018-2019. Black middle school teachers were the only group of Black teachers studied that experienced consistent growth through the school years analyzed, with their average percentages growing by an average of 0.26% from school year-to school year. The largest growth between any two school years was 0.60% between the 2017-2018 school year and the 2018-2019 school year, and

the smallest documented increase was 0.04% between the 2015-2016 school year and the 2016-2017. Delineated in Table 5.6 are the descriptive statistics for the 2015-2016 school year through the 2018-2019 school year for Hispanic public school teachers at the three school levels.

Table 5.6

Descriptive Statistics for the Percentages of Black Teachers in Texas Public Schools from the 2015-2016 School Year Through the 2018-2019 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2015-2016 | | | | |
| Elementary Schools | 2,761 | 2.60 | 8.83 | 16.05 |
| Middle Schools | 1,074 | 4.20 | 11.36 | 17.95 |
| High Schools | 1,203 | 3.10 | 8.54 | 14.28 |
| 2016-2017 | | | | |
| Elementary Schools | 2,809 | 2.70 | 8.93 | 16.12 |
| Middle Schools | 1,080 | 3.95 | 11.40 | 18.15 |
| High Schools | 1,208 | 3.00 | 8.68 | 14.75 |
| 2017-2018 | | | | |
| Elementary Schools | 2,820 | 2.70 | 8.97 | 16.05 |
| Middle Schools | 1,096 | 4.40 | 11.54 | 18.03 |
| High Schools | 1,213 | 3.20 | 8.61 | 14.28 |
| 2018-2019 | | | | |
| Elementary Schools | 2,879 | 2.70 | 9.16 | 16.22 |
| Middle Schools | 1,126 | 4.45 | 12.14 | 18.56 |
| High Schools | 1,205 | 3.20 | 8.57 | 13.91 |

Black teachers who were employed at Texas public high school had the next highest overall average percentage increase among Black teachers at the elementary, middle, and high school levels. Overall, Black Texas public high school teachers had an average increase of 1.11%. From school year-to-school year, Black teacher average percentages fluctuated between increases and decreases. The greatest average percentage growth of Black middle school teachers was 0.53% from the 2013-2014 school year to

the 2014-2015 school year. Although overall growth was documented, from 2016-2017 to 2017-2018 and from 2017-2018 to 2018-2019, the percentages of Black middle school teachers decreased respectively by 0.07% and 0.04%.

Texas public elementary Black teachers also experienced inconsistent growth over the course of the 9 school years examined, but they did have an overall documented increase of 0.49%. The largest increase for Black elementary teachers between any two school years was 0.26% from 2012-2013 to 2013-2014. However, Black Texas public elementary school teacher average percentages decreased from the 2010-2011 school year to 2011-2012 school year, from the 2013-2014 school year to the 2014-2015 school year, and from the 2014-2015 school year to the 2015-2016 school year. The largest of the documented school year-to-school year decreases was 0.16% from 2010-2011 to 2011-2012. Shown in Figure 5.3 are the trends of Black teacher average percentages for the 9 school years analyzed for Black Texas public elementary, middle, and high school teachers.

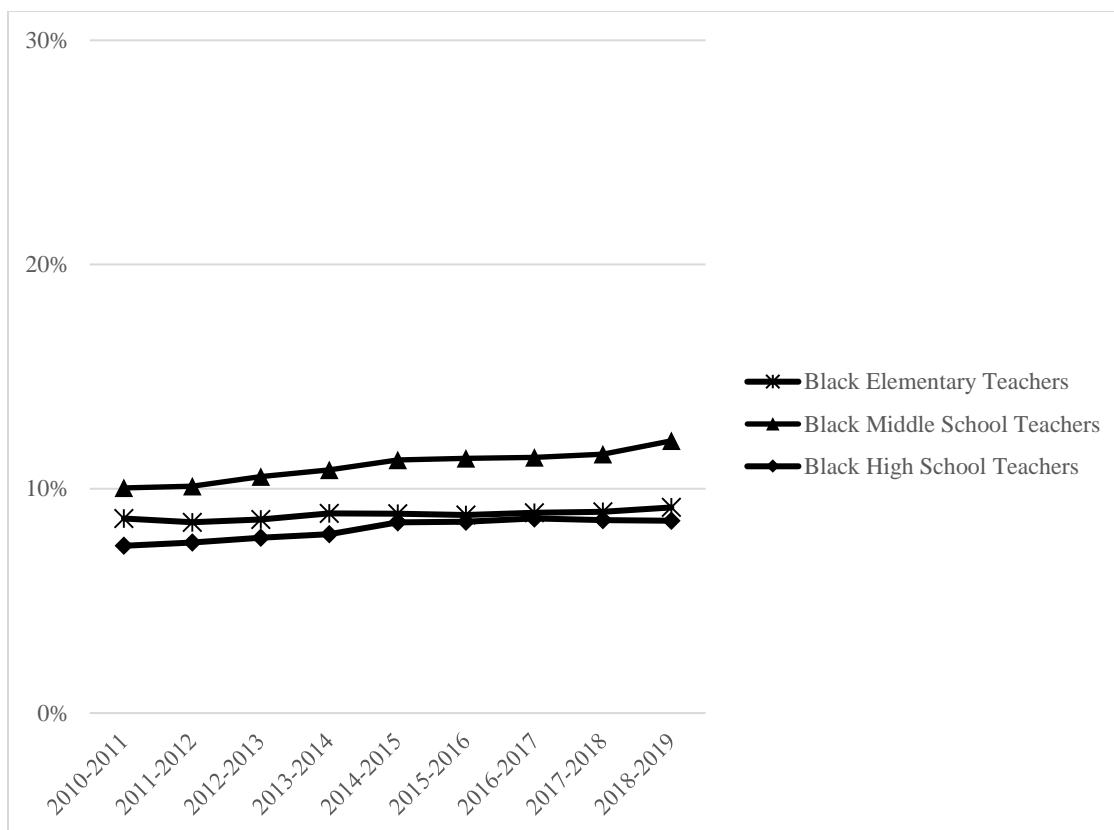


Figure 5.3. Percentages of Black teachers in Texas public elementary, middle, and high schools from the 2010-2011 school year through the 2018-2019 school year.

Comparison of Asian Teacher Results Across All Academic Levels

Asian teachers in Texas public schools had inconsistent growth at each grade level examined. While these fluctuations in the average percentages of Asian teachers were inconsistent, Asian teacher percentages did have overall growth over the 9 school years. Delineated in Table 5.7 are the descriptive statistics for Asian public school teachers in Texas for the 2010-2011 school year through the 2014-2015 school year.

Table 5.7

Descriptive Statistics for the Percentages of Asian Teachers in Texas Public Schools from the 2010-2011 School Year Through the 2014-2015 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2010-2011 | | | | |
| Elementary Schools | 2,584 | 0.00 | 1.12 | 2.81 |
| Middle Schools | 1,034 | 0.00 | 1.31 | 4.42 |
| High Schools | 1,139 | 0.00 | 1.33 | 4.04 |
| 2011-2012 | | | | |
| Elementary Schools | 2,598 | 0.00 | 1.10 | 2.77 |
| Middle Schools | 1,040 | 0.00 | 1.21 | 3.31 |
| High Schools | 1,154 | 0.00 | 1.31 | 2.85 |
| 2012-2013 | | | | |
| Elementary Schools | 2,664 | 0.00 | 1.21 | 2.98 |
| Middle Schools | 1,051 | 0.00 | 1.11 | 2.53 |
| High Schools | 1,161 | 0.00 | 1.35 | 2.90 |
| 2013-2014 | | | | |
| Elementary Schools | 2,685 | 0.00 | 1.21 | 2.55 |
| Middle Schools | 1,048 | 0.00 | 1.05 | 2.03 |
| High Schools | 1,173 | 0.00 | 1.26 | 3.18 |
| 2014-2015 | | | | |
| Elementary Schools | 2,708 | 0.00 | 1.25 | 2.64 |
| Middle Schools | 1,056 | 0.00 | 1.10 | 2.18 |
| High Schools | 1,177 | 0.00 | 1.38 | 3.06 |

Asian teachers at the Texas public high school level had the largest overall growth, with an overall increase of 0.36%. Asian high school teachers had the largest school year-to-school year growth from the 2014-2015 school year to the 2015-2016 school year of 0.15%. Average percentages for Asian high school teachers decreased from 2010-2011 to 2011-2012, from 2012-2013 to 2013-2014, and from 2015-2016 to 2016-2017. The largest decrease in average percentages was 0.09% which occurred from the 2012-2013 school year to the 2013-2014 school year. The descriptive statistics for

the 2015-2016 school year through the 2018-2019 school year for Asian public school teachers are contained in Table 5.8.

Table 5.8

Descriptive Statistics for the Percentages of Asian Teachers in Texas Public Schools from the 2015-2016 School Year Through the 2018-2019 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2015-2016 | | | | |
| Elementary Schools | 2,761 | 0.00 | 1.31 | 2.78 |
| Middle Schools | 1,074 | 0.00 | 1.18 | 2.37 |
| High Schools | 1,203 | 0.00 | 1.53 | 4.19 |
| 2016-2017 | | | | |
| Elementary Schools | 2,809 | 0.00 | 1.30 | 2.46 |
| Middle Schools | 1,080 | 0.00 | 1.19 | 2.39 |
| High Schools | 1,208 | 0.00 | 1.49 | 3.08 |
| 2017-2018 | | | | |
| Elementary Schools | 2,820 | 0.00 | 1.35 | 2.71 |
| Middle Schools | 1,096 | 0.00 | 1.21 | 2.39 |
| High Schools | 1,213 | 0.00 | 1.60 | 3.41 |
| 2018-2019 | | | | |
| Elementary Schools | 2,879 | 0.00 | 1.42 | 2.61 |
| Middle Schools | 1,126 | 0.00 | 1.32 | 2.87 |
| High Schools | 1,205 | 0.00 | 1.62 | 3.40 |

Asian public elementary teachers had the next highest overall growth over the 9 school years examined with growth of 0.32%. The largest growth between any two school years was 0.11% and occurred from the 2011-2012 school year to the 2012-2013 school year. From 2012-2013 to 2013-2014, no change was present in the average percentages of Asian elementary teachers as their percentage remained at 1.21% for consecutive school years. A decrease in percentages was documented from 2010-2011 to 2011-2012 and from 2015-2016 to 2016-2017.

Asian teachers in Texas public middle schools had an increase over the 9 school years examined of 0.27%. The largest average percentage increase was 0.11% and occurred from the 2017-2018 school year to the 2018-2019 school year. Asian middle school teacher percentages decreased by 0.10% in consecutive school years from 2010-2011 to 2011-2012 and from 2011-2012 to 2012-2013. Depicted in Figure 5.4 is the slight growth of Asian teachers at the public elementary, middle, and high school level in Texas.

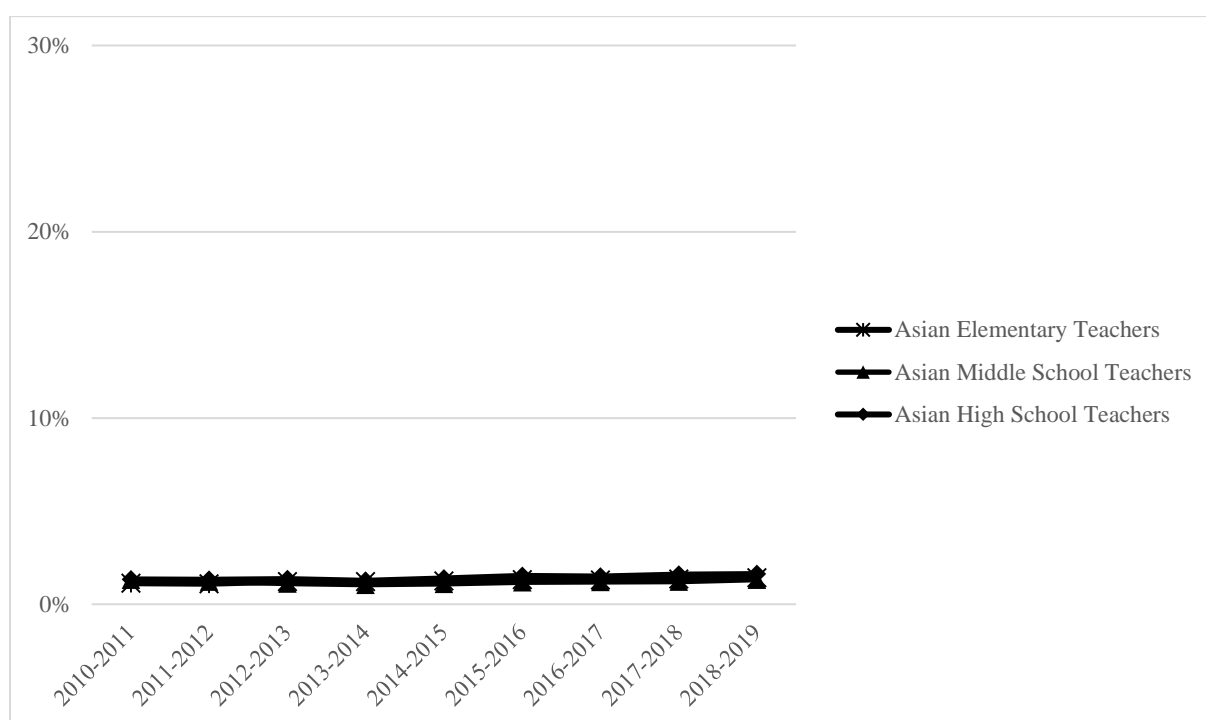


Figure 5.4. Percentages of Asian teachers in Texas public elementary, middle, and high schools from the 2010-2011 school year through the 2018-2019 school year.

Comparison of Hispanic Student Results Across All Academic Levels

As the average percentages of Hispanic public school students in Texas were analyzed, a substantial amount of growth of the population was documented. Table 5.9 contains the descriptive statistics of Hispanic public school students for the elementary,

middle, and high school level in Texas for the 2010-2011 school year through the 2014-2015 school year.

Table 5.9

Descriptive Statistics for the Percentages of Hispanic Students in Texas Public Schools from the 2010-2011 School Year Through the 2014-2015 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2010-2011 | | | | |
| Elementary Schools | 2,585 | 54.00 | 54.99 | 31.64 |
| Middle Schools | 1,037 | 42.50 | 48.62 | 30.71 |
| High Schools | 1,157 | 35.60 | 43.69 | 29.67 |
| 2011-2012 | | | | |
| Elementary Schools | 2,599 | 55.50 | 55.56 | 31.29 |
| Middle Schools | 1,044 | 43.15 | 49.29 | 30.49 |
| High Schools | 1,172 | 37.20 | 44.17 | 29.59 |
| 2012-2013 | | | | |
| Elementary Schools | 2,668 | 55.80 | 56.16 | 31.05 |
| Middle Schools | 1,053 | 44.50 | 49.87 | 30.33 |
| High Schools | 1,186 | 38.60 | 44.98 | 29.63 |
| 2013-2014 | | | | |
| Elementary Schools | 2,687 | 57.00 | 56.51 | 30.88 |
| Middle Schools | 1,052 | 45.25 | 50.60 | 30.13 |
| High Schools | 1,196 | 39.35 | 45.68 | 29.27 |
| 2014-2015 | | | | |
| Elementary Schools | 2,713 | 57.20 | 56.65 | 30.76 |
| Middle Schools | 1,060 | 46.90 | 51.18 | 29.84 |
| High Schools | 1,195 | 40.40 | 45.98 | 29.03 |

For the 9 school years examined, Hispanic students at the high school level had the largest overall growth of the three groups of Hispanic students. Average percentages for Hispanic high school students increased by 5.81%. Hispanic high school student average percentages increased each school year by an average of 0.72%. The largest school year-to school year increase occurred from the 2014-2015 school year to the 2015-2016 school year when the average percentages for Hispanic students increased by

1.14%. From the 2013-2014 school year to the 2014-2015 school year, high school Hispanic students had their smallest margin of increase as their percentages increased by 0.30%.

Table 5.10

Descriptive Statistics for the Percentages of Hispanic Students in Texas Public Schools from the 2015-2016 School Year Through the 2018-2019 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2015-2016 | | | | |
| Middle Schools | 1,080 | 47.25 | 51.76 | 29.67 |
| High Schools | 1,221 | 41.20 | 47.12 | 29.25 |
| 2016-2017 | | | | |
| Elementary Schools | 2,810 | 55.90 | 56.14 | 30.30 |
| Middle Schools | 1,085 | 47.30 | 51.95 | 29.49 |
| High Schools | 1,229 | 42.80 | 47.71 | 29.16 |
| 2017-2018 | | | | |
| Elementary Schools | 2,821 | 55.40 | 55.79 | 30.29 |
| Middle Schools | 1,101 | 48.20 | 52.24 | 29.36 |
| High Schools | 1,229 | 43.50 | 48.70 | 29.00 |
| 2018-2019 | | | | |
| Elementary Schools | 2,880 | 55.95 | 56.11 | 30.01 |
| Middle Schools | 1,131 | 49.40 | 52.65 | 28.83 |
| High Schools | 1,218 | 44.65 | 49.50 | 28.74 |

The next largest overall growth among Hispanic students was for Hispanic public middle school students. Over the course of this study, from the 2010-2011 school year through the 2018-2019 school year, public middle school Hispanic student average percentages increased by 4.03%. At the middle school level, Hispanic student percentages consistently increased by an average of 0.50% each school year examined. The greatest margin of increase occurred from the 2012-2013 school year to the 2013-2014 school year when Hispanic middle school student percentages increased by 0.73%. The smallest school year-to-school year growth was documented from the 2015-2016

school year to the 2016-2017 school year as Hispanic student average percentages increased 0.16%.

The only Hispanic student group to experience inconsistent growth of their average percentages were Hispanic students at the Texas public elementary level. The percentage of Hispanic elementary students increased a total of 1.66% from the 2010-2011 school year to the 2014-2015 school year. However, from the 2015-2016 school year to the 2018-2019 school year Hispanic elementary student percentages decreased by 0.51%. The largest margin of increase between school years was between the 2010-2011 school year and the 2011-2012 school year when the average percentages of Hispanic elementary students increased 0.56%. The largest decrease in Hispanic elementary student average percentages was 0.48% and took place from the 2015-2016 school year to the 2016-2017 school year. Even with the fluctuations of average percentages, Texas public elementary Hispanic students had an overall growth of 1.12%. Depicted in Figure 5.5 is the consistent overall increase of the average percentages of Hispanic students in Texas public school at the elementary, middle, and high school levels.

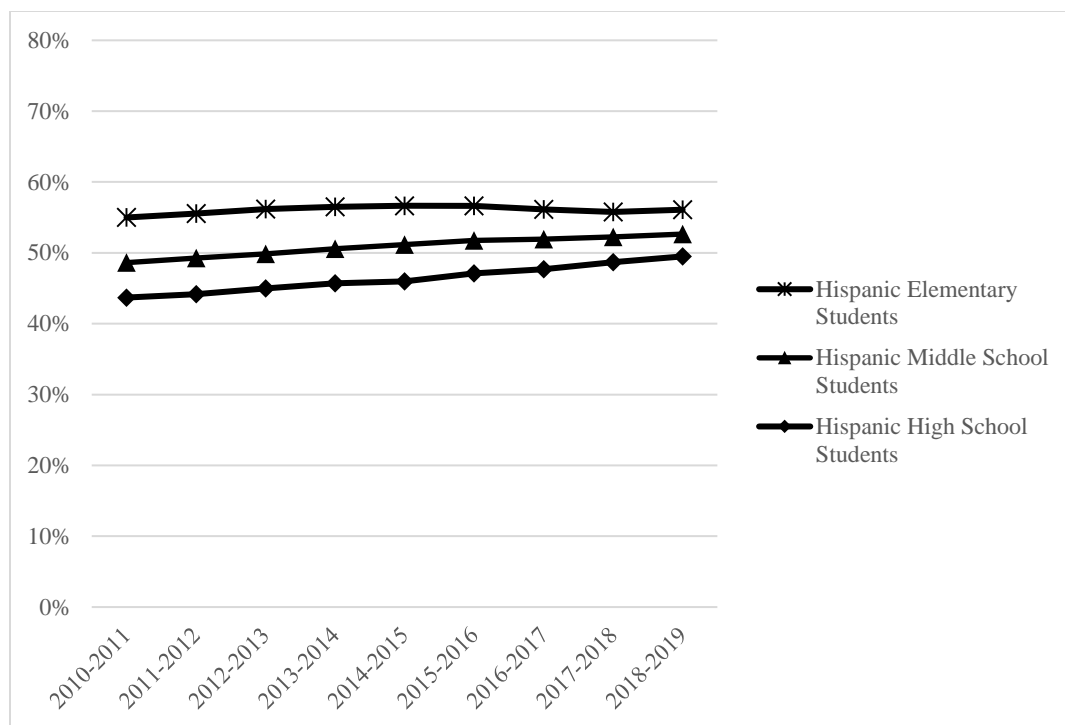


Figure 5.5. Percentages of Hispanic students in Texas public elementary, middle, and high schools from the 2010-2011 school year through the 2018-2019 school year.

Comparison of White Student Results Across All Academic Levels

The average percentage of White students consistently decreased over the course of each of the three studies from the 2010-2011 school year to the 2018-2019 school year. Even as the average percentages of White students decreased, they still did not represent the smallest ethnic/racial group percentages which were examined. Table 5.1 contains the descriptive statistics for White students at the public elementary, middle, and high school level in Texas.

Table 5.11

Descriptive Statistics for the Percentages of White Students in Texas Public Schools from the 2010-2011 School Year Through the 2014-2015 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2010-2011 | | | | |
| Elementary Schools | 2,585 | 17.50 | 27.32 | 27.00 |
| Middle Schools | 1,037 | 30.80 | 34.77 | 28.77 |
| High Schools | 1,157 | 41.60 | 41.28 | 29.16 |
| 2011-2012 | | | | |
| Elementary Schools | 2,599 | 17.10 | 26.75 | 26.51 |
| Middle Schools | 1,044 | 30.60 | 34.35 | 28.50 |
| High Schools | 1,172 | 40.55 | 39.99 | 29.11 |
| 2012-2013 | | | | |
| Elementary Schools | 2,668 | 16.30 | 26.25 | 26.21 |
| Middle Schools | 1,053 | 29.20 | 33.64 | 28.26 |
| High Schools | 1,186 | 38.55 | 39.33 | 28.94 |
| 2013-2014 | | | | |
| Elementary Schools | 2,687 | 15.30 | 25.56 | 25.83 |
| Middle Schools | 1,052 | 28.05 | 32.94 | 27.96 |
| High Schools | 1,196 | 36.80 | 38.63 | 28.55 |
| 2014-2015 | | | | |
| Elementary Schools | 2,713 | 14.80 | 25.17 | 25.52 |
| Middle Schools | 1,060 | 27.25 | 32.35 | 27.60 |
| High Schools | 1,195 | 37.40 | 38.01 | 28.32 |

White students at Texas public high schools experienced the largest decrease of their average percentages of White students studied in all three analyses. Overall White high school student percentages decreased by 6.49% for the 9 school years examined. The largest decrease was from the 2010-2011 school year to the 2011-2012 school year when the average percentage of White high school students decreased by 1.29%. The smallest decrease of average percentages for White students was from the 2013-2014 to the 2014-2015 school year when percentages declined 0.62%. Revealed in Table 5.12 are

the descriptive statistics for White students at Texas public schools from the 2015-2016 school year to the 2018-2019 school year.

Table 5.12

Descriptive Statistics for the Percentages of White Students in Texas Public Schools from the 2015-2016 School Year Through the 2018-2019 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2015-2016 | | | | |
| Elementary Schools | 2,770 | 15.30 | 24.94 | 24.91 |
| Middle Schools | 1,080 | 26.10 | 31.80 | 27.13 |
| High Schools | 1,221 | 35.20 | 37.14 | 28.23 |
| 2016-2017 | | | | |
| Elementary Schools | 2,810 | 15.70 | 24.94 | 24.66 |
| Middle Schools | 1,085 | 26.40 | 31.47 | 26.77 |
| High Schools | 1,229 | 33.30 | 36.30 | 28.19 |
| 2017-2018 | | | | |
| Elementary Schools | 2,821 | 16.40 | 25.09 | 24.67 |
| Middle Schools | 1,101 | 25.00 | 30.89 | 26.50 |
| High Schools | 1,229 | 32.90 | 35.42 | 27.76 |
| 2018-2019 | | | | |
| Elementary Schools | 2,880 | 15.50 | 24.59 | 24.31 |
| Middle Schools | 1,131 | 24.60 | 30.04 | 25.93 |
| High Schools | 1,218 | 32.40 | 34.79 | 27.40 |

The White student group with the next largest average percentage decrease over the 9 school years analyzed were White students at Texas public middle schools. The average percentages of White middle school students decreased overall by 4.73% over the course of this study. The largest decrease between any two school years was 0.71% from the 2011-2012 school year to the 2012-2016 school year. From the 2015-2016 school year to the 2016-2017 school year, White student percentages had their smallest school year-to-school year decrease of 0.33% for the 9 school years.

White students in public elementary schools in Texas had a decrease of their overall percentages of 2.73% from the 2010-2011 school year to the 2018-2019 school year. The average percentages of White elementary students are the only White student group to show an increase in percentages between any two school years. From the 2015-2016 school year to the 2017-2018 school year, the average percentages of White elementary students increased by 0.15%. The largest school year-to-school year decrease of average percentages was 0.33% from the 2010-2011 school year to the 2011-2012 school year. From 2016-2017 school year to the 2017-2018 school year, the smallest decrease between any two school years of 0.33% was noted. Depicted in Figure 5.6 is the trend of decreasing percentages for White students enrolled in Texas public elementary, middle, and high school for the 2010-2011 school year through the 2018-2019 school year.

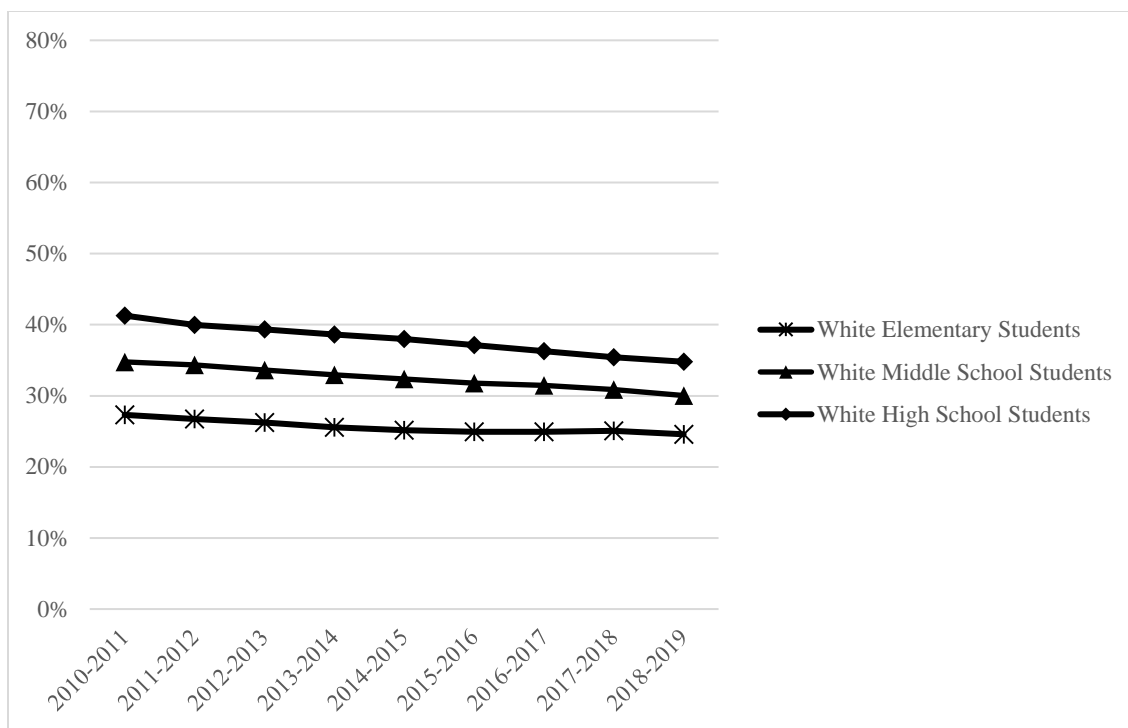


Figure 5.6. Percentages of White students in Texas public elementary, middle, and high schools from the 2010-2011 school year through the 2018-2019 school year.

Comparison of Black Student Results Across All Academic Levels

Black Texas public school student average percentages varied between growth and decline in each study conducted for Texas public schools. The fluctuations of average percentages are detailed for the 9 school years examined in this section. Table 5.13 contains the descriptive statistics for Black students in Texas public schools at the elementary, middle, and high school level for the 2010-2011 school year through the 2014-2015 school year.

Table 5.13

Descriptive Statistics for the Percentages of Black Students in Texas Public Schools from the 2010-2011 School Year Through the 2014-2015 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2010-2011 | | | | |
| Elementary Schools | 2,585 | 5.50 | 12.08 | 17.54 |
| Middle Schools | 1,037 | 5.90 | 11.89 | 16.23 |
| High Schools | 1,157 | 5.60 | 11.68 | 15.82 |
| 2011-2012 | | | | |
| Elementary Schools | 2,599 | 5.50 | 11.95 | 17.14 |
| Middle Schools | 1,044 | 5.90 | 11.54 | 15.62 |
| High Schools | 1,172 | 5.75 | 11.65 | 15.62 |
| 2012-2013 | | | | |
| Elementary Schools | 2,668 | 5.40 | 11.75 | 16.79 |
| Middle Schools | 1,053 | 5.70 | 11.54 | 15.53 |
| High Schools | 1,186 | 5.50 | 11.51 | 15.86 |
| 2013-2014 | | | | |
| Elementary Schools | 2,687 | 5.40 | 11.87 | 16.85 |
| Middle Schools | 1,052 | 5.70 | 11.39 | 15.12 |
| High Schools | 1,196 | 5.60 | 11.34 | 15.42 |
| 2014-2015 | | | | |
| Elementary Schools | 2,713 | 5.50 | 11.84 | 16.64 |
| Middle Schools | 1,060 | 5.50 | 11.17 | 14.79 |
| High Schools | 1,195 | 5.70 | 11.51 | 15.44 |

Texas public high schools had the largest documented decline of Black student average percentages. Black high school student percentages declined by 1.06% over the 9 school years. The largest decline of average percentages for Black students occurred from the 2014-2015 school year to the 2015-2016 school year and from the 2017-2018 school year to the 2018-2019 school year when average percentages decreased by 0.34% respectively between the two sets of school years. The smallest margin of decrease was 0.03% from the 2010-2011 school year to the 2011-2012 school year. Two instances, 2012-2013 to 2013-2014 and 2015-2016 to 2016-2017, were noted in which Black high school students had an increase of their percentages over the course of the 9 school year

study. The largest percentage increase was from the 2012-2013 school year to the 2013-2014 school year when Texas Black public high school student percentages grew 0.17%.

Table 5.14

Descriptive Statistics for the Percentages of Black Students in Texas Public Schools from the 2015-2016 School Year Through the 2018-2019 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2015-2016 | | | | |
| Elementary Schools | 2,770 | 5.50 | 11.86 | 16.56 |
| Middle Schools | 1,080 | 5.55 | 10.92 | 14.38 |
| High Schools | 1,221 | 5.80 | 11.18 | 14.61 |
| 2016-2017 | | | | |
| Elementary Schools | 2,810 | 5.70 | 12.02 | 16.47 |
| Middle Schools | 1,085 | 5.60 | 10.80 | 14.24 |
| High Schools | 1,229 | 6.00 | 11.30 | 14.98 |
| 2017-2018 | | | | |
| Elementary Schools | 2,821 | 5.70 | 11.95 | 16.35 |
| Middle Schools | 1,101 | 5.60 | 10.94 | 14.38 |
| High Schools | 1,229 | 5.60 | 10.97 | 14.25 |
| 2018-2019 | | | | |
| Elementary Schools | 2,880 | 6.00 | 12.00 | 15.95 |
| Middle Schools | 1,131 | 5.70 | 11.21 | 14.48 |
| High Schools | 1,218 | 5.40 | 10.63 | 13.85 |

Texas Black students who were enrolled in public middle schools had an overall average percentage decrease over the 9 school years of 0.68%. The largest decrease in average percentages of 0.35% for Black middle school students took place from the 2010-2011 school year to the 2011-2012 school year. The smallest decrease was 0.12% from the 2015-2016 school year to the 2016-2017 school year. From the 2011-2012 school year to the 2012-2013 school year, little change occurred in their average percentages. Black middle school student average percentages had growths of 0.14%

from 2016-2017 school year to the 2017-2018 school year, and of 0.27% from the 2017-2018 school year to the 2018-2019 school year.

Black students who were enrolled in Texas public elementary schools had an overall decrease in their average percentages of 0.08% from the 2010-2011 school year to the 2011-2012 school year. The largest decrease of average percentages between any two school years was 0.20% from the 2011-2012 school year to the 2012-2013 school year. The smallest margin of decrease was 0.03 % from the 2013-2014 school year to the 2014-2015 school year. Average percentages for Black elementary school students increased in multiple years of this study. The largest increase was 0.16% from the 2015-2016 school year to the 2016-2017 school year. Depicted in Figure 5.7 is the slight trend of overall decreasing average percentages for Black Texas public elementary, middle, and high school students.

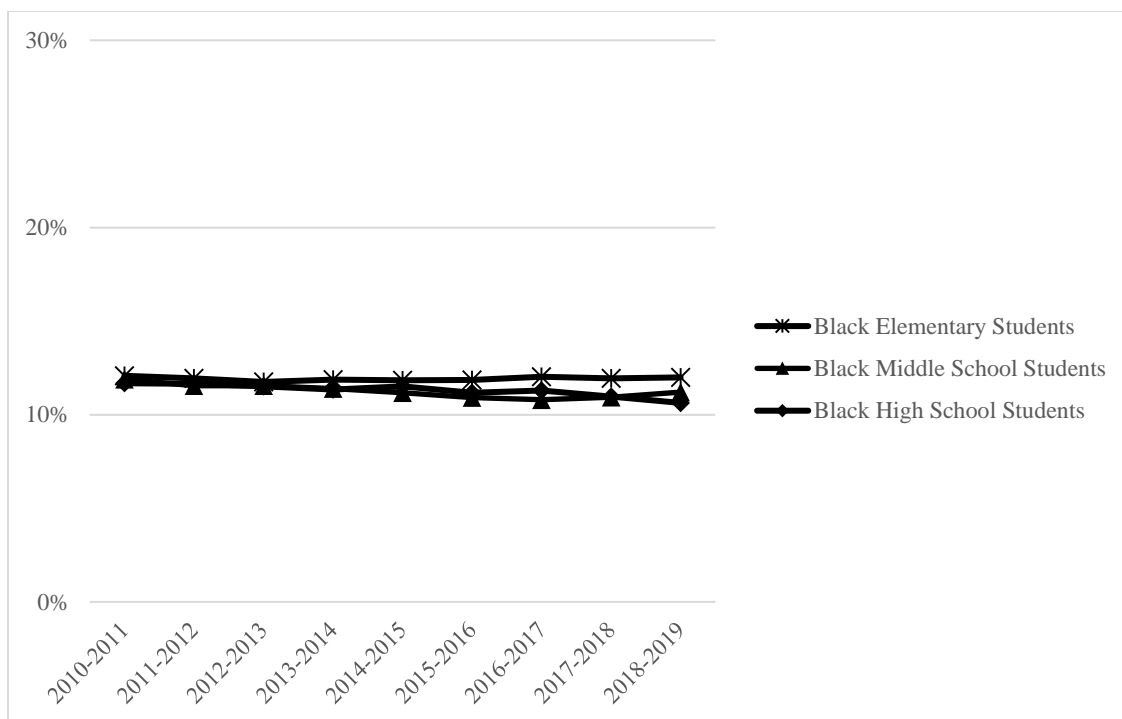


Figure 5.7. Percentages of Black students in Texas public elementary, middle, and high schools from the 2010-2011 school year through the 2018-2019 school year.

Comparison of Asian Student Results Across All Academic Levels

The average percentages for Asian students at Texas public elementary, middle, and high schools only minimally increased across the three studies for the 9 school years. Documented increases were minimal, but they remained consistent over the course of the studies. Presented in Table 5.15 are the descriptive statistics for Asian students at the elementary, middle, and high school level.

Table 5.15

Descriptive Statistics for the Percentages of Asian Students in Texas Public Schools from the 2010-2011 School Year Through the 2014-2015 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2010-2011 | | | | |
| Elementary Schools | 2,585 | 0.70 | 3.44 | 7.15 |
| Middle Schools | 1,037 | 0.60 | 2.61 | 5.32 |
| High Schools | 1,157 | 0.50 | 1.92 | 4.25 |
| 2011-2012 | | | | |
| Elementary Schools | 2,599 | 0.70 | 3.50 | 7.41 |
| Middle Schools | 1,044 | 0.70 | 2.68 | 5.50 |
| High Schools | 1,172 | 0.60 | 2.07 | 4.62 |
| 2012-2013 | | | | |
| Elementary Schools | 2,668 | 0.70 | 3.52 | 7.60 |
| Middle Schools | 1,053 | 0.70 | 2.77 | 5.77 |
| High Schools | 1,186 | 0.50 | 2.03 | 4.55 |
| 2013-2014 | | | | |
| Elementary Schools | 2,687 | 0.70 | 3.63 | 7.83 |
| Middle Schools | 1,052 | 0.70 | 2.87 | 6.08 |
| High Schools | 1,196 | 0.60 | 2.15 | 4.76 |
| 2014-2015 | | | | |
| Elementary Schools | 2,713 | 0.80 | 3.79 | 8.27 |
| Middle Schools | 1,060 | 0.70 | 3.00 | 6.46 |
| High Schools | 1,195 | 0.60 | 2.21 | 4.91 |

Asian students enrolled in Texas public elementary schools from the 2010-2011 school year to the 2018-2019 had the largest average percentage increase of all three studies that were conducted. Overall, Asian elementary student percentages increased 0.83% over the course of the study. The percentages for Asian public elementary students consistently increased by an average of 0.10% for the 9 school years. The largest increase between any two school years was 0.17% from the 2015-2016 school year to the 2016-2017 school year. The smallest school year-to-school year growth was 0.02% from the 2011-2012 school year to the 2012-2013 school year. Table 5.16

contains the descriptive statistics for Asian students enrolled in Texas public elementary, middle, and high schools for the 2015-2016 school year to the 2018-2019 school year.

Table 5.16

Descriptive Statistics for the Percentages of Asian Students in Texas Public Schools from the 2015-2016 School Year Through the 2018-2019 School Year

| School Year by Grade Level | <i>n</i> of schools | <i>Mdn</i> | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|------------|-----------|------------|
| 2015-2016 | | | | |
| Elementary Schools | 2,770 | 0.80 | 3.91 | 8.60 |
| Middle Schools | 1,080 | 0.70 | 3.13 | 6.75 |
| High Schools | 1,221 | 0.60 | 2.30 | 5.09 |
| 2016-2017 | | | | |
| Elementary Schools | 2,810 | 0.80 | 4.08 | 8.90 |
| Middle Schools | 1,085 | 0.80 | 3.24 | 7.09 |
| High Schools | 1,229 | 0.70 | 2.41 | 5.32 |
| 2017-2018 | | | | |
| Elementary Schools | 2,821 | 0.90 | 4.23 | 9.19 |
| Middle Schools | 1,101 | 0.80 | 3.34 | 7.32 |
| High Schools | 1,229 | 0.70 | 2.53 | 4.90 |
| 2018-2019 | | | | |
| Elementary Schools | 2,880 | 0.80 | 4.27 | 9.43 |
| Middle Schools | 1,131 | 0.80 | 3.39 | 7.68 |
| High Schools | 1,218 | 0.70 | 2.63 | 5.71 |

The second highest overall growth among Asian students belonged to Asian students who were enrolled in Texas public middle schools. From the 2010-2011 school year to the 2018-2019 school year, Asian middle school student percentages had an overall increase of 0.78%. For the 9 school years analyzed, average percentages for Asian elementary students increased by an average of 0.10% each school year. The largest increase between school years was 0.13% and it occurred from the 2013-2014 school year to the 2014-2015 school year and from the 2014-2015 school year to the

2015-2016 school year. From the 2017-2018 school year to the 2018-2019 school year, Asian elementary students had their smallest school year growth of 0.05%.

Asian students at Texas public high schools had an overall increase of their average percentages of 0.71%. Among the 9 school years for Asian high school students, only a single school year-to school year decrease was documented of 0.04% from the 2011-2012 school year to the 2012-2013 school year. The largest margin of growth between any two school years was 0.12% from the 2012-2013 school year to the 2013-2014 school year and the 2016-2017 school year to the 2017-2018 school year. The smallest increase was 0.05% from the 2013-2014 school year to the 2015-2015 school year. Depicted in Figure 5.8 is the trend of slight consistent increases of the average percentages of Asian students at the Texas public elementary, middle, and high school for 9 school years reviewed in the three studies.

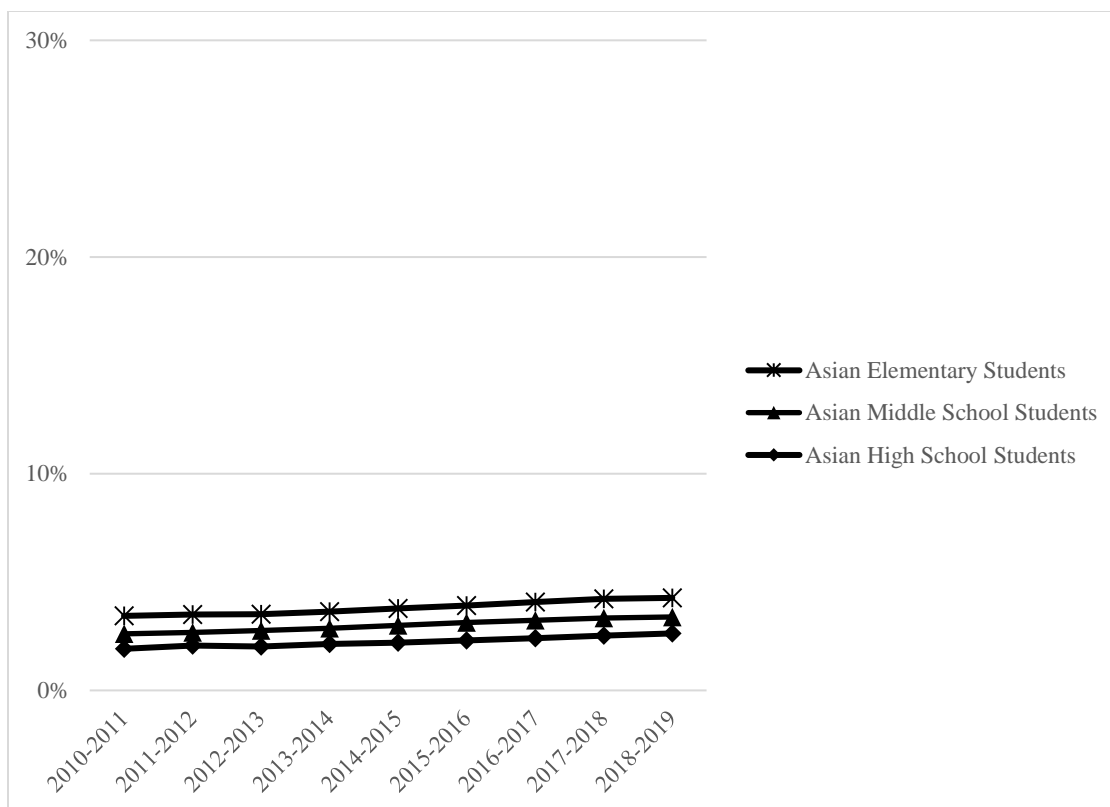


Figure 5.8. Percentages of Asian students in Texas public elementary, middle, and high schools from the 2010-2011 school year through the 2018-2019 school year.

Teacher/Student Ethnic/Racial Comparison across All Academic Levels

The average percentages for White teachers at Texas public elementary, middle, and high schools outpaced the percentages of White students. White teachers were the only ethnic/racial teacher group whose average percentages were greater than their student counterparts in each of the three studies. At the elementary level White teacher percentages were an average of 28.53% greater than the percentages of White students. The largest difference between White elementary teachers and White elementary students was 29.45% during the 2010-2011 school year, and the smallest difference was 27.07% during the 2018-2019 school year. Texas public White middle school teacher percentages were on average 31.20% greater than the average percentages of White

middle school students over the 9 school years. During the 2013-2014 school year, the greatest difference was documented between White middle school teachers and White middle school students, with teacher percentages being 31.95% greater than student percentages. From the 2010-2011 school year to the 2018-2019 school year, White teachers at Texas public high schools had average percentages that were on average 31.02% larger than White Texas public high school students. The largest gap between teachers and students occurred during the 2013-2014 school year when teacher percentages were 31.59% larger than student percentages. The smallest difference between White high school teachers and students was 30.43% during the 2017-2018 school year.

When examining the percentages of Hispanic teachers and students at the Texas public elementary, middle, and high school level, student percentages were greater than teacher percentages at each examined grade level. At the elementary level, Hispanic student percentages were, on average, 18.31% larger than the percentages for Hispanic teachers. The largest difference for an individual school year was during the 2010-2011 school year when student percentages were 23.87% larger than teacher percentages. The smallest difference was during the 2018-2019 school year as Hispanic elementary student percentages were 19.81% larger than Hispanic elementary teacher percentages. Hispanic middle school student percentages were an average of 28.62% larger than the average percentages for Hispanic middle school teachers. During the 2015-2015 school year, the largest difference was Hispanic student percentages were 29.08% larger than Hispanic teachers. During the 2017-2018 school year the smallest difference was documented when Hispanic student percentages were 27.91% more than Hispanic middle school teacher

percentages. At the Texas public high school level, Hispanic student percentages were an average of 26.94% greater than the percentages of Hispanic high school teachers. The greatest difference in which Hispanic student percentages were larger than Hispanic High school teacher percentages was 27.30% during the 2015-2016 school year, and the smallest document difference was 26.43% during the 2011-2012 school year.

Black students in Texas public elementary and high schools were documented as having greater average percentages than Black teachers. For Black students at Texas public middle schools, several school years were noted in which teacher percentages were greater than student percentages. Black elementary student percentages were an average of 3.09% greater than the average percentages of Black elementary teachers. The greatest difference was during the 2011-2012 school year when Black student percentages were 3.44% larger than Black teachers, and the smallest difference was in the 2018-2019 school year when Black student percentages were 2.84% greater than Black elementary teachers. At the Texas public middle school level Black student percentages were greater than Black teacher percentages from the 2010-2011 school year through the 2013-2014 school year by an average of 1.20%. The largest difference among the four years in which student percentages were larger than teacher percentages was 1.85% during the 2010-2011 school year. From the 2014-2015 school year through the 2018-2019 school year, Black middle school teacher percentages were, on average, 0.54% larger than Black middle school student percentages. The largest difference in which Black teacher percentages were greater than Black student percentages was the 2018-2019 school year when the teacher average percentage was 0.93% more than the student average percentage. Black Texas high school student percentages were greater than Black

high school teacher percentages each of the 9 school year reviewed by an average of 3.11%. The largest difference occurred during the 2010-2011 school year Black high school student percentages at the high school level was 4.22% more than Black high school teacher percentages, and the smallest difference was during the 2018-2019 school year when Black student percentages were higher than Black teacher percentages by 2.06%.

The average percentages of Asian students were larger than the average percentages of Asian teacher for each school year examined in each of the three studies. Asian students at Texas public elementary schools represented average percentages which are an average of 2.57% greater than the percentages for Asian teachers at the public elementary level. The largest difference among average percentages for the elementary level was 2.88% during the 2017-2018 school year, and the smallest was during the 2012-2013 school year when Asian elementary student percentages were 2.31% larger than Asian elementary school teachers. Asian students in Texas public middle school had documented percentages which were an average of 1.82% more than those of Asian teachers at Texas public middle schools over the 9 school years reviewed. During the 2018-2018 school year, the largest gap was documented as Asian middle school student percentages were 2.13% greater than Asian middle school teachers. In the 2010-2011 school year, the difference in average percentages was the lowest at 1.30% with Asian students being more prevalent than Asian teachers in Texas public middle schools. In Texas public high schools, Asian student percentages were an average of 0.82% larger than Asian teachers over the course of the 9 school years analyzed. The largest gap present in the high school study was 1.01% as Asian student percentages were

greater than their teacher counterparts in the 2018-2019 school year, and the smallest gap was 0.59% in the 2010-2011 school year with Asian student percentages besting Asian teachers.

Implications for Policy and Practice

Based upon the results of statewide, multiyear study, several recommendations can be made regarding implications for policy and practice related to the ethnic/racial composition of teachers and students in public schools. First, the outcomes revealed in this study should allow for conversations to be had regarding hiring practice and efforts to diversify further teacher populations at Texas public, middle, and high schools to become more parallel with respective student populations.

Also, this study contains information which supports the healthy socioemotional development of students of color when matched with teachers of a similar ethnicity/racial makeup. Lifelong benefits for student of color when they are provided the opportunity to be educated by teachers of similar ethnoracial composition during public grade school. Additionally, accountability standards should be developed to ensure that local school district, campuses, and state education agencies are held responsible for employing quality teachers who will ensure ethnic/racial diversity at Texas public school campuses that are compatible with the ethnoracial demography of the student populations. By not establishing ethnic/racial diversity as a focus at the state or district level conveys the idea that ethnoracial diversity is not of state or local educational significance. Based on the results contained in this study, educational agencies and districts should work collaboratively to develop standards, which can be enforced with fidelity and that will promote the recruitment and hiring of classroom instructors of color at Texas public

schools. Also, metrics should be developed to ensure that school districts and campuses are hiring teachers of ethnic/racial backgrounds at appropriate percentages which meet the ethnic/racial percentage makeup of the students in a particular district or on an individual campus.

In perusing a greater awareness of individual campus and district demography in Texas public elementary, middle, and high schools, educational administrators can then cultivate a learning environment that is best for all students. It is important that the focus remain on improving the academic achievement of students of color in Texas public schools. They should consistently be provided the ability to have a free and fair public education in which the teachers who are best suited to address their cultural curiosities, encourage their academic success, and prepare them for postsecondary social and academic life are employed at percentages that are comparable to those of students.

Recommendations for Future Research and Practice

Based on the outcomes presented in the three studies in this journal-ready dissertation, several suggestions for further research in regard to the ethnic/racial composition of Texas public elementary, middle, and high schools can be made. Researchers should conduct this study at the elementary, middle, and high school level at private and charter schools in Texas and in other states. Herein only Texas public school data were analyzed. Accordingly, it is not known the degree to which the finding of these studies can be applied to private schools, charter schools, and schools of various levels in states other than Texas.

Regarding the recruitment and hiring of teachers of color, an examination of the possible presence of a relationship among the ethnic/racial composition of educational

administrative leaders, teachers, and students at the elementary, middle, and high school level would be useful. It is not known the degree to which the demography of school administrators influences the employment of teachers of color and potentially the academic outcomes of students of color. Researchers are urged to study the interactions of the ethnoracial demography of teachers, students, and educational administrators in private and charter schools too.

An analysis of the effect of gender matching on student academic success and socioemotional health have yet to be determined. It would benefit schools at elementary, middle, and high schools at the public, private, and charter school level to determine the significance of gender matching between students and teachers. To add additional depth to this study, it would be recommended to also analyze gender matching among administrators, staff, and students to determine the extent to which a link might be present to student academic and social health.

Conclusion

The purpose of this longitudinal, statewide journal-ready dissertations is to provide a description of the ethnic/racial composition of Texas public elementary, middle, and high school teachers and students from the 2010-2011 school year to the 2018-2019 school year. An additional purpose was to identify trends in the ethnoracial makeup of teachers and students at each Texas public school level for the 9 school years. Even after extensive efforts to diversify the teacher workforce in Texas, much work remains. Discrepancies were documented between higher percentages of White teachers than percentages of teachers of color and students of color and White students. The

Texas teacher workforce still remains largely White, whereas the Texas student population consists primarily of students of color.

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APPENDIX



Date: Jun 19, 2020 4:48 PM CDT

TO: Alan Moye John Slate

FROM: SHSU IRB

PROJECT TITLE: Ethnic/Racial Composition of Texas Public School Teachers and Students: A Multi-Year Descriptive Analysis

PROTOCOL #: IRB-2020-172

SUBMISSION TYPE: Initial

ACTION: Exempt

DECISION DATE: June 19, 2020

EXEMPT REVIEW CATEGORY: Category 4. Secondary research for which consent is not required: Secondary research uses of identifiable private information or identifiable biospecimens, if at least one of the following criteria is met:

- (i) The identifiable private information or identifiable biospecimens are publicly available;
- (ii) Information, which may include information about biospecimens, is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained directly or through identifiers linked to the subjects, the investigator does not contact the subjects, and the investigator will not re-identify subjects;
- (iii) The research involves only information collection and analysis involving the investigator's use of identifiable health information when that use is regulated under 45 CFR parts 160 and 164, subparts A and E, for the purposes of "health care operations" or "research" as those terms are defined at 45 CFR 164.501 or for "public health activities and purposes" as described under 45 CFR 164.512(b); or
- (iv) The research is conducted by, or on behalf of, a Federal department or agency using government-generated or government-collected information obtained for nonresearch activities, if the research generates identifiable private information that is or will be maintained on information technology that is subject to and in compliance with section 208(b) of the E-Government Act of 2002, 44 U.S.C. 3501 note, if all of the identifiable private information collected, used, or generated as part of the activity will be maintained in systems of records subject to the Privacy Act of 1974, 5 U.S.C. 552a, and, if applicable, the information used in the research was collected subject to the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 et seq.

Greetings,

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

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

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

It is the PI's responsibility to consult with the IRB whenever questions arise about whether planned changes to an exempt study might make that study nonexempt human subjects research.

In this case, please make available sufficient information to the IRB so it can make a correct determination.

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

Sincerely,

Chase Young, Ph.D.

Chair, IRB

Hannah R. Gerber, Ph.D.

Co-Chair, IRB

VITA

Alan K Moye

Educational History

Doctorate of Education – Educational Leadership, In Progress

Sam Houston State University, Huntsville, Texas

Dissertation: *Ethnic/Racial Composition of Texas Public School Teachers and Students: A Multi-Year Descriptive Analysis*

Master of Education in Sports Management, August 2010

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Bachelor of Science in Secondary Education, May 2009

Baylor University, Waco, Texas

Professional Experience

Principal, Woodcreek Middle School, Humble ISD, Humble, Texas

(2019 – Present)

Associate Principal, North Shore Senior High (10-11), Galena Park ISD, Houston, Texas

(2018 - 2019)

Lead Assistant Principal, North Shore Senior High (10-11), Galena Park ISD, Houston, Texas

(2017 - 2018)

Assistant Principal, North Shore Senior High (9), Galena Park ISD, Houston, Texas

(2014 – 2017)

Teacher/Asst. Baseball Coach, North Shore Senior High School, Galena Park ISD, Houston, TX

(2012 – 2014)

Teacher/Baseball Coach/Asst. Football, Porter High School, New Caney ISD, New Caney, TX

(2010 – 2012)

Scholarly Research Activity

Moye, A. K., & Slate, J. R. (2020). Differences in the percentages of Black teachers by academic distinction performances in Texas high schools. In J. R. Slate (Ed), *Exemplars of conducting archival data analyses: A collection of K-12 and higher education studies*. Nova Publishers. ISBN: 978-1-53617-092-4

Presentations

- Moye, A. K. (2009, February). *Baylor University's school of education program*. Information presented at the Association of Teacher Educators (ATE) National Conference, Dallas, TX.
- Moye, A. K. (2014, August). *CHAMPS & STOIC: New teacher practical classroom application*. Presented at Galena Park Independent School District New Teacher Training, Houston, TX.
- Moye, A. K. (2015, January). *CHAMPS & STOIC: New teacher practical classroom application*. Presented at Galena Park Independent School District New Teacher Training, Houston, TX.
- Moye, A. K. (2015, August). *CHAMPS & STOIC: New teacher practical classroom application*. Presented at Galena Park Independent School District New Teacher Training, Houston, TX.
- Moye, A. K. (2017, August). *CHAMPS & STOIC: New teacher practical classroom application*. Presented at Galena Park Independent School District New Teacher Training, Houston, TX.
- Moye, A. K. (2019, September) *Differences in the percentages of Black teacher by Academic Distinction in Texas high schools*. Research presenter for the Graduate Research Exchange (GRE) of the Texas Council of Professors of Educational Administration (TCPEA) Conference held in conjunction with TASA/TASB Convention, Dallas, TX.