

# Differences in the Ethnic/Racial Diversity of Texas Community College Students over Time: A Multiyear, Statewide Investigation

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**Abstract:** In this statewide, multiyear analysis, the degree to which the ethnic/racial diversity of Texas community college students changed from the 1999-2000 academic year through the 2014-2015 academic year was determined. Statistically significant increases were present with respect to the percentage of Hispanic students who were enrolled in Texas community colleges during this time period. With respect to the percentage of White students who were enrolled in Texas community colleges, their percentages statistically significantly decreased over this time period. The percentages of Asian and Black students enrolled in Texas community colleges remained unchanged over this time period. Implications for policy and recommendations for future research were made.

**Keywords:** Community Colleges, Community College Students, Ethnicity/Race, Texas, Asian, White, Hispanic, Black

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## 1. Introduction

In 2016, nearly half of all undergraduate students enrolled in American higher education attended community colleges (American Association of Community Colleges, 2016). According to the American Association of Community Colleges (2015), nearly 7.4 million students attended community colleges nationally and first-time freshmen students represented 17% of the total for-credit enrollment that year. Of the total percentage of first-time community college students new to higher education, 16% were White, 19% were Hispanic, 15% were Asian, and 19% were Black (American Association of Community Colleges, 2015). The National Center for Education Statistics (2014) reported an estimated 10.8 million undergraduate students were enrolled full-time in higher education institutions. Enrollment at 2-year institutions is expected to increase nationally by 21% between the 2014 and 2025 academic years (National Center for Education Statistics, 2015).

Higher education has expanded over the years, drawing

students from diverse ethnic/racial backgrounds, different socio-economic statuses, and non-traditional backgrounds into the community college environment (Attewell & Douglas, 2014). According to the National Center for Education Statistics (2015), 57.6% of students enrolled in postsecondary education were White, 14.1% were Black, 17.3% were Hispanic, and 6.3% were Asian. Although total enrollment increased by 37% between 2000 and 2010, enrollment decreased by 4% between 2010 and 2014. In fall 2014, female students comprised 56% of total enrollment at 9.7 million students, whereas male students constituted 44% of the total undergraduate enrollment at 7.6 million students (Kena et al., 2016).

Of the 17.3 million undergraduate students in fall 2014, some 9.6 million were White, 3.0 million were Hispanic, 2.4 million were Black, 1.0 million were Asian, 0.1 million were American Indian/Alaska Native, and 0.1 million were Pacific Islander (Kena et al., 2016). Between 2000 and 2014, Hispanic enrollment more than doubled (a 119% increase from 1.4 million to 3.0 million students), Black enrollment increased by 57% (from 1.5 million to 2.4 million students),

and White enrollment increased by 7% (from 9.0 million to 9.6 million students). Despite the general increases, the number of undergraduate students was lower in 2014 than in 2010 for most groups. The sole exception was Hispanic students, whose enrollment increased by 16% during this period (Kena et al., 2016). In fall 2014, 10.8 million full-time and 6.5 million part-time students were enrolled in postsecondary institutions. Enrollment for both full-time and part-time students has generally increased since 2000, particularly between 2000 and 2010, when full-time enrollment increased by 45% and part-time enrollment increased by 27% (Kena et al., 2016). However, full-time enrollment was 6% lower in 2014 than in 2010, and part-time enrollment was 2% lower in 2014 than in 2010.

Between 2014 and 2025, full-time enrollment is projected to increase by 14% (from 10.8 million to 12.3 million students) and part-time enrollment is projected to increase by 15% (from 6.5 million to 7.5 million students). In fall 2014, the 10.6 million students at 4-year institutions constituted 61% of undergraduate enrollment; the remaining 39% (6.7 million students) were enrolled at 2-year institutions (Kena et al., 2016). Between 2000 and 2010, enrollment increased by 44% at 4-year institutions and by 29% at 2-year institutions. More recently, enrollment patterns have shifted. Enrollment was 2% higher at 4-year institutions and 13% lower at 2-year institutions in 2014 than in 2010 (Kena et al., 2016). Between 2010 and 2014, public 4-year institutions had the highest percentage increase in enrollment (6%) among all types of institutions by control and level, and private for-profit 2-year institutions had the highest percentage decrease (34%). Between 2014 and 2025, enrollment at 2-year institutions is projected to increase by 21% to 8.2 million students, while enrollment at 4-year institutions is projected to increase by 10% to 11.6 million students (Kena et al., 2016).

Traditionally, American community colleges have been positioned to deliver academic and workforce programs while serving a diverse student population comprised of 6% Asian, 49% White, 22% Hispanic, and 14% Black (American Association of Community Colleges, 2016). Enrollment at 2-year institutions decreased 3.5% during the fall 2013 and fall 2014 (American Association of Community Colleges, 2015). In the fall 2013, national enrollment in community colleges was equally divided among minority students and White students with 7.5 million students attending community colleges (American Association of Community Colleges, 2015). Minority enrollment included 6% Asian student, 21% Hispanic students, and 14% Black students (American Association of Community Colleges, 2015).

The demographic and ethnic/racial membership of the United States population has undergone enormous changes during the past two decades. Hispanics and Asians are the fastest growing ethnic/racial groups in the United States, increasing much more rapidly than White students and Black students (Aud, Fox, & KewalRawani, 2010). Cohn and Caumont (2016) projected that the United States will be more ethnically/racially diverse in the coming decades because of increased immigration from Latin America and Asia. An

estimated 57% of all Hispanic students, 52% of all Black students, 43% of all Asian students, and 62% of Native American students who were enrolled in postsecondary education settings were enrolled in community colleges (American Association of Community Colleges, 2016). Crostra (2014) described the revolving door and multiple student enrollment entrance points experienced by community colleges in which students continuously shift their enrollment status from full-time to part-time or even skipping out of semesters at different stages of their academic journey. Full-time community college enrollment increased from 2.0 to 3.3 million students between 2000 and 2010 (Ma & Baum, 2016). Between 2010 and 2014, full-time enrollment at community colleges decreased from 29% to 25% (Ma & Baum, 2016). For example, only 9.5% of Black students successfully completed a degree and certificate within 3 years and only 20% of this population completed their degree and certificate within 6 years (Complete College Texas, 2013). In addition, only 14.7% of Hispanic students completed their associate degree and certificates within 3-years and only 28.3% completed their associate degrees and certificates within 6-years (Complete College Texas, 2013).

The graduation rates for Texas community college students are dismal (Complete College Texas, 2013). The 2-year college completion rate for all community college students is 13.6% within 4-years and 24.4% within 6 years (Complete College Texas, 2013). Black community college students have 11% graduation rates within 4 years and only 17.3% within 6-year rates (Complete College Texas, 2013). Hispanic students have 11.9% graduation rates within 4 years and 18.4% graduation rates within 6 years (Complete College Texas, 2013).

### 1.1. Statement of the Problem

According to White et al. (2016), Texas is experiencing a major demographic shift because of domestic migration and immigration influencing the state. The current population in Texas is 27.9 million citizens. The State of Texas is also gaining around a quarter million additional residents annually. In the year 2000, the population in Texas was approximately 20.8 million. By 2016, the population growth rate in Texas surpassed all other states and increased to 27.9 million residents in a 10-year period. The total population in Texas has grown from 7.7 million residents in 1950 to 27.9 million residents in 2016 (White et al., 2016). In the meantime, community college enrollment in the state of Texas increased from 617,507 students in 2008 to 732,281 students in fall 2016 (Texas Higher Education Coordinating Board, 2016). White et al. (2016) have projected that Texas public and independent 2-year and 4-year institutions will increase from the 1.495 million enrollees in fall 2016 to 1.513 million in 2017 (or 90,000 more students than in 2010, and 297,000 more since 2005). Texas 2-year public colleges have grown more rapidly than universities since the mid-1960's and are expected to continue to have more students than universities, despite the declines in student enrollment from 2011 to 2014 (Texas Higher Education Coordinating Board, 2017). The Texas Higher Education Coordinating

Board reported that Black student enrollment was 7.2% of the Black population in fall of 2015, which was 1.9 and 1.8 percentage points higher than were the enrollment rates for White and Hispanic students, respectively. The participation rate of White students decreased for the 5th year in a row in 2015 to 5.3%. The Texas Higher Education Coordinating Board also reported that Hispanic student participation has increased every year since 2000.

## 1.2. Purpose of the Study

The purpose of this multiyear analysis was to examine the degree to which changes had occurred in the ethnic/racial diversity of students who were enrolled at Texas community colleges between the 1999-2000 academic year and the 2014-2015 academic year. Specifically, the ethnic/racial diversity changes (i.e., Asian, White, Hispanic, and Black) of students who were enrolled in Texas community colleges in the 1999-2000 academic year through the 2014-2015 academic years were examined. Differences in the enrollment percentages of Asian, Black, White, and Hispanic students in Texas community colleges between the 1999-2000 and the 2014-2015 academic years were calculated. Through the analysis of 16 years of Texas statewide data, any trends that might be present in student ethnic/racial diversity were identified.

## 1.3. Significance of the Study

Addressed in this research investigation was the degree to which student ethnic/racial diversity had changed over time. Such information that could be used by policymakers and by educational leaders to determine the efficacy of existing programs that are designed to increase diversity. Russo (2011) highlighted that because a large majority of undergraduate students are attending community colleges, it is essential to consider "two-year college enrollment in the context of evaluating policies targeting college attendance" (p. 2). Holland (2015) documented that first-generation college students face unique challenges and obstacles in their learning environment, including different "expectations for study skills, knowing how to use a library effectively, identifying mentors, receiving career advice, balancing school, work and potential extracurricular activities, or even psychological questions about one's confidence and motivation" (p. 251).

Klineberg (2016) reported that:

If too many African-Americans and Latinos continue to grow up in Texas unprepared to succeed in the new economy, it is difficult to envision a prosperous future for the state as a whole. And the only viable answer is to invest in the skills of this rising generation, to ensure that all of the state's young people are given full access to the tools they will need to thrive in today's economy. If the education and income gaps can be bridged, Texas will be able to capitalize fully on the advantages of having a young, multicultural and multilingual workforce and will be well positioned for competitive success as a major international player on the world stage and as a model for all of America as the 21st century unfolds. (p. 14)

## 1.4. Research Questions

The research questions that were addressed in this investigation were: (a) What is the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of Texas community college students who were enrolled in the 1999-2000 academic year?; (b) What is the difference in the enrollment percentages of Texas community college Asian students between the 1999-2000 and the 2007-2008 academic years and between the 2007-2008 and the 2014-2015 academic years and between the 1999-2000 and the 2014-2015 academic year?; (c) What is the difference in the enrollment percentages of Texas community college White students between the 1999-2000 and the 2007-2008 academic years and between the 2007-2008 and the 2014-2015 academic years and between the 1999-2000 and the 2014-2015 academic year?; (d) What is the difference in the enrollment percentages of Texas community college Hispanic students between the 1999-2000 and the 2007-2008 academic years and between the 2007-2008 and the 2014-2015 academic years and between the 1999-2000 and the 2014-2015 academic year?; (e) What is the difference in the enrollment percentages of Texas community college Black college students between the 1999-2000 and the 2007-2008 academic years and between the 2007-2008 and the 2014-2015 academic years and between the 1999-2000 and the 2014-2015 academic year?; and (f) What trends are present in the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of Texas community college students during the 1999-2000 through the 2014-2015 academic years?

## 2. Method

### 2.1. Research Design

A non-experimental causal-comparative research design (Creswell, 2009; Johnson & Christensen, 2012) was used for this study. In non-experimental causal-comparative research, it is not possible to manipulate the independent variable. In this empirical multiyear study, the independent and dependent variables had already occurred. The independent variable involved in this research article was the specific academic year in which students were enrolled in a Texas community college. In this investigation, data were obtained for the 1999-2000 through the 2014-2015 academic years. The dependent variables were the numbers of students by their ethnicity/race who were enrolled in a Texas community college during this time period. These numbers were converted into percentages of the total student enrollment who were Black, Hispanic, White, or Asian.

In this multiyear analysis, whose data were analyzed were Texas community college students, regardless of whether they were enrolled full-time or part-time. The primary focus of this empirical investigation was on examining the extent in which the degree to which changes had occurred in the ethnic/racial diversity of Texas community college students. Following statistical analyses of the 1999-2000 through the 2014-2015 academic years, the degree to which trends were

present in the ethnic/racial diversity of Texas community college students was determined.

## 2.2. Participants and Instrumentation

In this investigation, data from the Texas Higher Education Coordinating Board Interactive Accountability System were downloaded using an excel worksheet. Specifically downloaded were Texas statewide data for the 1999-2000 through the 2014-2015 academic years. For each of these academic years, the numbers of students by their ethnicity/race who were enrolled in a Texas community college during this time period were obtained. These numbers were converted into percentages of the total student enrollment who were Black, Hispanic, White, or Asian. The primary focus of this empirical investigation was on examining the extent in which the degree to which changes had occurred in the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of Texas community college students over time.

## 3. Results

In the first research question, the ethnic/racial diversity of Texas community college students who were enrolled in the 1999-2000 through the 2014-2015 academic years was calculated. Student enrollment numbers downloaded from the Texas Higher Education Coordinating Board Interactive Accountability System were converted to percentages, prior to calculating the descriptive statistics for the first research question. The average numbers and total numbers of Texas community college students were calculated for each of the academic years of data analyzed in this article. Readers are directed to Tables 1 through 6 for the average fall enrollment numbers and total fall enrollment numbers by student ethnicity/race for Texas community college students for the academic years of data that were analyzed in this investigation.

**Table 1.** Descriptive Statistics by Ethnicity/Race for Texas Community College Students in the 1999-2000, 2000-2001 and 2001-2002 Academic Years.

Academic Year and Ethnicity/Race	<i>M</i>	<i>SD</i>	Sum
1999-2000			
Asian	59.74	126.05	4,301
White	1027.03	962.31	73,946
Hispanic	594.71	1081.73	42,819
Black	185.96	231.12	13,889
2000-2001			
Asian	63.78	123.86	4,592
White	1093.22	970.56	78,712
Hispanic	624.33	1115.43	44,952
Black	201.18	208.23	14,485
2001-2002			
Asian	71.14	140.52	5,122
White	1141.71	942.18	82,203
Hispanic	685.78	1201.77	49,376
Black	221.49	225.32	15,947

**Table 2.** Descriptive Statistics by Ethnicity/Race for Texas Community College Students in the 2002-2003, 2003-2004 and 2004-2005 Academic Years.

Academic Year and Ethnicity/Race	<i>M</i>	<i>SD</i>	Sum
2002-2003			
Asian	73.22	137.77	5,272
White	1201.07	1014.28	86,477
Hispanic	733.19	1283.03	52,790
Black	246.03	253.62	17,714
2003-2004			
Asian	74.92	146.16	5,394
White	1207.82	1029.09	89,963
Hispanic	771.83	1328.28	55,572
Black	254.61	267.93	18,332
2004-2005			
Asian	79.88	181.56	5,751
White	1184.71	1053.10	85,299
Hispanic	781.58	1300.71	56,274
Black	256.64	275.15	18,478

**Table 3.** Descriptive Statistics by Ethnicity/Race for Texas Community College Students in the 2005-2006, 2006-2007 and 2007-2008 Academic Years.

Academic Year and Ethnicity/Race	<i>M</i>	<i>SD</i>	Sum
2005-2006			
Asian	79.19	152.66	5,702
White	1149.60	1068.39	82,771
Hispanic	787.33	1245.64	56,688
Black	250.01	268.25	18,001
2006-2007			
Asian	84.93	162.58	6,115
White	1144.83	1074.66	82,428
Hispanic	774.53	1190.07	55,766
Black	254.92	274.78	18,354
2007-2008			
Asian	88.44	172.33	6,368
White	1139.85	1095.18	82,069
Hispanic	802.79	1207.10	57,801
Black	266.18	287.61	19,165

**Table 4.** Descriptive Statistics by Ethnicity/Race for Texas Community College Students in the 2008-2009, 2009-2010 and 2010-2011 Academic Years.

Academic Year and Ethnicity/Race	<i>M</i>	<i>SD</i>	Sum
2008-2009			
Asian	94.68	166.05	6,817
White	1246.46	1185.41	89,745
Hispanic	937.14	1428.49	67,474
Black	320.38	345.63	23,067
2009-2010			
Asian	106.54	195.09	7,761
White	1216.13	1135.54	87,651
Hispanic	1034.42	1473.09	74,478
Black	357.87	410.728	25,767
2010-2011			
Asian	103.97	202.196	7,486
White	1093.53	1011.12	78,734
Hispanic	1035.10	1497.51	74,527
Black	373.47	451.49	26,890

**Table 5.** Descriptive Statistics by Ethnicity/Race for Texas Community College Students in the 2011-2012, 2012-2013 and 2013-2014 Academic Years.

Academic Year and Ethnicity/Race	M	SD	Sum
2011-2012			
Asian	91.12	183.16	6,652
White	1003.05	1006.79	73,223
Hispanic	972.11	1392.36	70,964
Black	348.18	447.33	25,417
2012-2013			
Asian	89.08	175.75	6,503
White	930.59	963.00	67,933
Hispanic	947.23	1339.23	69,148
Black	337.34	433.10	24,626
2013-2014			
Asian	87.81	167.00	6,410
White	849.38	911.84	62,005
Hispanic	910.40	1273.79	66,459
Black	313.14	410.76	22,859

**Table 6.** Descriptive Statistics by Ethnicity/Race for Texas Community College Students in the 2014-2015 Academic Year.

Academic Year and Ethnicity/Race	M	SD	Sum
2014-2015			
Asian	86.03	170.12	6,366
White	788.51	901.27	58,350
Hispanic	894.27	1249.13	66,176
Black	280.04	364.23	20,723

In the 1999-2000 academic year, 58% of Texas community college students were White, followed by 24% Hispanic, 11% Black, and 2.5% Asian. Similar percentages were present in the 2000-2001 academic year with the highest percentage of students being White, 57%, followed by Hispanic, 25%, Black, 12%, and Asian, 2.4%. These percentages remained very stable through the 2004-2005 academic year. In the 2008-2009 academic year, the percentage of White student enrollment, 49%, dropped below 50%, with Hispanic students now at 31% of the student enrollment at Texas community colleges. Black students, 13%, and Asian students, 3%, constituted the two smallest ethnic/racial groups of students. Over the next several years, the percentage of White students steadily decreased and the percentage of Hispanic students steadily increased. The percentages of Black and Asian students remained constant during this time period. In the 2013-2014 academic year, the percentage of White students, 39%, dropped below 40% and the percentage of Hispanic students was 37% of the student enrollment, followed by Black students, 14%, and Asian students, 3%. Of note is the 2014-2015 academic year because this year was the first one in which the percentage of Hispanic students, 38%, was equal to the percentage of White students, 38%. Tables 7 through 12 contain the descriptive statistics regarding the ethnic/racial diversity of Texas community college students in the 1999-2000 through the 2014-2015 academic years.

**Table 7.** Percentages by Ethnicity/Race for Texas Community College Students in the 1999-2000, 2000-2001, and 2001-2002 Academic Years

Academic Year and Ethnicity/Race	M%	SD%
1999-2000		
Asian	2.52	2.91

Academic Year and Ethnicity/Race	M%	SD%
White	57.69	21.97
Hispanic	24.41	23.52
Black	11.48	9.61
2000-2001		
Asian	2.43	3.04
White	56.84	21.79
Hispanic	24.51	23.41
Black	11.62	9.50
2001-2002		
Asian	2.63	3.26
White	56.06	21.41
Hispanic	25.13	22.98
Black	11.62	9.47

**Table 8.** Percentages by Ethnicity/Race for Texas Community College Students in the 2002-2003, 2003-2004 and 2004-2005 Academic Years.

Academic Year and Ethnicity/Race	M%	SD%
2002-2003		
Asian	2.58	3.13
White	55.59	21.19
Hispanic	25.56	22.92
Black	11.93	9.43
2003-2004		
Asian	2.54	3.10
White	54.70	2.13
Hispanic	26.62	22.73
Black	11.94	9.68
2004-2005		
Asian	2.67	3.24
White	53.94	21.13
Hispanic	27.14	22.56
Black	12.13	9.88

**Table 9.** Percentages by Ethnicity/Race for Texas Community College Students in the 2005-2006, 2006-2007 and 2007-2008 Academic Years.

Academic Year and Ethnicity/Race	M%	SD%
2005-2006		
Asian	2.82	3.15
White	52.22	20.88
Hispanic	28.62	22.31
Black	11.89	9.71
2006-2007		
Asian	2.91	3.17
White	51.99	20.83
Hispanic	28.74	21.94
Black	11.91	9.72
2007-2008		
Asian	2.96	3.17
White	50.29	20.52
Hispanic	29.61	21.88
Black	12.25	9.69

**Table 10.** Percentages by Ethnicity/Race for Texas Community College Students in the 2008-2009, 2009-2010 and 2010-2011 Academic Years.

Academic Year and Ethnicity/Race	M%	SD%
2008-2009		
Asian	2.94	2.92
White	48.79	20.14
Hispanic	30.69	21.84
Black	13.13	10.12
2009-2010		
Asian	3.15	3.89
White	45.42	19.40
Hispanic	31.67	20.96
Black	13.12	10.37

Academic Year and Ethnicity/Race	M%	SD%
2010-2011		
Asian	3.11	3.91
White	42.77	18.91
Hispanic	33.79	20.79
Black	14.09	11.05

**Table 11.** Percentages by Ethnicity/Race for Texas Community College Students in the 2011-2012, 2012-2013 and 2013-2014 Academic Years.

Academic Year and Ethnicity/Race	M%	SD%
2011-2012		
Asian	2.85	3.12
White	41.93	18.89
Hispanic	34.62	21.02
Black	14.23	10.96
2012-2013		
Asian	2.97	3.31
White	40.40	18.73
Hispanic	36.09	21.28
Black	14.25	10.70
2013-2014		
Asian	3.19	3.43
White	38.78	18.11
Hispanic	37.17	20.80
Black	13.91	9.99

**Table 12.** Percentages by Ethnicity/Race for Texas Community College Students in the 2014-2015 Academic Year.

Academic Year and Ethnicity/Race	M%	SD%
2014-2015		
Asian	3.26	3.51
White	37.91	18.01
Hispanic	38.10	21.09
Black	13.21	9.33

Prior to conducting inferential statistics to answer research questions two through five, checks were conducted to determine the extent to which these data were normally distributed (Onwuegbuzie & Daniel, 2002). Although some of the data were not normally distributed, a decision was made to use parametric dependent sample *t*-tests to answer the research questions. As noted in each research question, three comparisons were made: (a) between the 1999-2000 and the 2007-2008 academic years; (b) between the 2007-2008 and the 2014-2015 academic years; and (c) between the 1999-2000 and the 2014-2015 academic years. With respect to Asian students, the parametric dependent samples *t*-test revealed a statistically significant difference in their percentage,  $t(68) = -2.03$ ,  $p = .05$ , between the 1999-2000 and the 2007-2008 academic years (see Tables 7 and 9 for the statistics for these two academic years). This difference represented a small effect size (Cohen's *d*) of 0.25 (Cohen, 1988). The percentage of Asian in college students in 1999-2000 was 2.5% as compared to 3% in the 2007-2008 academic year. Readers are directed to Tables 7 and 9 for the descriptive statistics for Asian student percentages in these two academic years. The parametric dependent samples *t*-test did not reveal a statistically significant difference in the percentage of Asian college students,  $t(70) = -0.65$ ,  $p = .51$ , between the 2007-2008 and the 2014-2015 academic years. The percentage of Asian college students 2.9% in the 2007-

2008 academic year and 3.2% in the 2014-2015 academic year. Again, similar percentages of Asian college students were present in both of these academic years. Tables 9 and 12 contain the descriptive statistics for Asian student percentages in these two academic years. Finally for the 1999-2000 and the 2014-2015 comparison, a statistically significant difference was yielded in the percentage of Asian students,  $t(68) = -2.08$ ,  $p = .04$ . This difference represented a small effect size (Cohen's *d*) of 0.25 (Cohen, 1988). A lower percentage of Asian students, 2.5%, were present in the 1999-2000 academic year compared to 3% in the 2014-2015 academic year. The descriptive statistics for Asian student percentages in these two academic years are presented in Tables 7 and 12.

Concerning the percentage of White community college students, the parametric dependent samples *t*-test revealed a statistically significant difference in their percentage,  $t(68) = 9.31$ ,  $p < .001$ , between the 1999-2000 and the 2007-2008 academic years. This difference represented a large effect size (Cohen's *d*) of 1.12 (Cohen, 1988). A lower percentage of White college students, 50%, were present in the 2007-2008 academic year than in the 1999-2000 academic year, 58%. Tables 7 and 9 contain the descriptive statistics for White student percentages in these two academic years. For the 2007-2008 and the 2014-2015 academic year comparison, a statistically significant difference was yielded in the percentage of White students who were enrolled at Texas community colleges,  $t(70) = 14.50$ ,  $p < .001$ . This difference represented a large effect size (Cohen's *d*) of 1.72 (Cohen, 1988). The percentage of White students decreased from 50% in the 2007-2008 academic year to 38% in the 2014-2015 academic year. Delineated in Tables 9 and 12 for the descriptive statistics for White student percentages in these two academic years. With respect to the 1999-2000 and the 2014-2015 academic year comparison, a statistically significant difference was revealed in the percentage of White students,  $t(68) = 16.38$ ,  $p < .001$ . This difference represented a large effect size (Cohen's *d*) of 1.97 (Cohen, 1988). The percentage of White students steadily decreased from 58% in the 1999-2000 academic year to 38% in the 2014-2015 academic year. The descriptive statistics for White student percentages in these two academic years are revealed in Tables 7 and 12.

Concerning the enrollment of Hispanic college students, a parametric dependent samples *t*-test revealed a statistically significant difference in their percentage,  $t(68) = -9.54$ ,  $p < .001$ , between the 1999-2000 and the 2007-2008 academic years. This difference represented a large effect size (Cohen's *d*) of 1.14 (Cohen, 1988). The percentage of Hispanic students increased from 24% in the 1999-2000 academic year to 30% in the 2007-2008 academic year. Readers are directed to Tables 7 and 9 for the descriptive statistics for Hispanic student percentages in these two academic years. Regarding the 2007-2008 and the 2014-2015 academic year comparison, a statistically significant difference was revealed in the percentage of Hispanic students,  $t(70) = -12.54$ ,  $p < .001$ . This difference represented a large effect size (Cohen's *d*) of 1.48

(Cohen, 1988). The percentage of Hispanic students increased from 30% in the 2007-2008 academic year to 38% in the 2014-2015 academic year. Presented in Tables 9 and 12 for the descriptive statistics for Hispanic student percentages in these two academic years. Finally, for the 1999-2000 and the 2014-2015 academic year comparison, a statistically significant difference was revealed in the percentage of Hispanic students,  $t(68) = -14.21, p < .001$ . This difference represented a large effect size (Cohen's  $d$ ) of 1.71 (Cohen, 1988). The percentage of Hispanic students increased from 24% in the 1999-2000 academic year to 38% in the 2014-2015 academic year. Tables 7 and 12 contain the descriptive statistics for Hispanic student percentages in these two academic years.

With respect to the enrollment of Black students, a parametric dependent samples  $t$ -test did not reveal a statistically significant difference in their percentage,  $t(68) = -1.83, p = .07$ , between the 1999-2000 and the 2007-2008 academic years. Similar percentages of Black students were present, 11% and 12%, respectively in the 1999-2000 and the 2007-2008 academic years. Tables 7 and 9 contain the descriptive statistics for Black student percentages in these two academic years. Concerning the 2007-2008 and 2014-2015 academic year comparison, a statistically significant difference was not yielded in the percentage of Black students,  $t(70) = -1.63, p = .10$ . Again, similar percentages of Black students were present in both of these academic years with 12% in 2007-2008 and 13% in 2014-2015. Delineated in Tables 7 and 9 are the descriptive statistics for Black student percentages in these two academic years. Finally for the 1999-2000 and the 2014-2015 comparison, a statistically significant difference was yielded in the percentage of Black students,  $t(68) = -2.32, p = .02$ . This difference represented a small effect size (Cohen's  $d$ ) of 0.28 (Cohen, 1988). The percentage of Black students increased from 11.4% in the 1999-2000 academic year to 13.2% in the 2014-2015 academic year. The descriptive statistics for Black student percentages in these two academic years are presented in Tables 7 and 12.

## 4. Discussion

In this multiyear, statewide, the extent to which changes had occurred in the ethnic/racial diversity of Texas community college students, regardless of their enrollment status, from the 1999-2000 through the 2014-2015 academic years was addressed. For the 16 years of data that were analyzed, statistically significant differences were present with respect to the percentage of Hispanic students who were enrolled in Texas community colleges. The percentage of Texas Hispanic community college students steadily increased over this time period. Concomitant with this increase in the percentage of Hispanic students was a statistically significant decrease in the percentages of White students who were enrolled in Texas community colleges. No changes were noted with respect to the percentage of Texas community college students who were either Black or Asian. Both the percentages of Texas community college student

enrollment who were Black or Asian remained constant over this 16-year time period.

### 4.1. Connections with Existing Literature

In 2016, nearly half of all undergraduate students enrolled in American higher education attended community colleges (American Association of Community Colleges, 2016). According to the American Association of Community Colleges (2015), nearly 7.4 million students attended community colleges nationally and first-time freshmen students represented 17% of the total for-credit enrollment that year. Of the total percentage of first-time community college students new to higher education, 16% were White, 19% were Hispanic, 15% were Asian, and 19% were Black (American Association of Community Colleges, 2015). The Texas Higher Education Coordinating Board also reported that Hispanic student participation has increased every year since 2000. As such, results of this empirical, multiyear Texas statewide investigation are congruent with the extant literature

### 4.2. Implications for Policy and Practice

The College Board (2010) highlighted that "many minority groups, including traditionally disadvantaged groups, are participating in college in record numbers. Crosta (2014) emphasized that historically, the enrollment patterns of community college students have been difficult to track and evaluate since students continuously "switch into and out of full-time and part-time status, and they frequently skip semesters" (p. 1). In this investigation, the degree to which the ethnic/racial diversity of Texas community college students had changed from the 1999-2000 through the 2014-2015 academic years was addressed. Based upon results of this study, several implications for policy and for practice can be made. First, educational leaders and researchers are encouraged to use the findings from this investigation to evaluate the efficacy of statewide programs and initiatives to improve the ethnic/racial diversity of community college students. Second, educational leaders and researchers are encouraged to monitor the ethnic/racial diversity at Texas community colleges, but also at Texas 4-year universities. Third, the ethnic/racial diversity of community college students should be compared with the ethnic/racial diversity of the Texas population. To what extent is the ethnic/racial diversity of Texas community college students similar or dissimilar to the ethnic/racial diversity of the Texas population?

### 4.3. Recommendations for Future Research

In this statewide, multiyear analysis, the extent to which changes occurred in the ethnic/racial diversity of Texas community college students, regardless of their enrollment status, was addressed. Based upon the results of this study, several recommendations for further research can be made. First, researchers are encouraged to replicate this investigation in other states to determine the extent to which changes occurred in the ethnic/racial diversity of student populations at community colleges. Second, researchers are

encouraged to replicate this investigation at Texas 4-year institutions. The extent to which results of this investigation based on community college students would be generalizable to 4-year institutions is not known. A third recommendation is for researchers to examine the ethnic/racial diversity of community college students by their enrollment status. That is, have changes occurred in the ethnic/racial diversity of community college students who are enrolled on a full-time basis? Similarly, have changes occurred in the ethnic/racial diversity of community college students who are enrolled on a part-time basis? Empirical investigations into student enrollment status could provide useful information to educational leaders and policymakers.

## 5. Conclusion

The purpose of this research study was to determine the extent to which the ethnic/racial diversity of Texas community college students had changed from the 1999-2000 through the 2014-2015 academic years. Over this 16-year time period, the percentage of Hispanic students enrolled at Texas community college students statistically significantly increased, whereas the percentage of White students statistically significantly decreased. No changes were noted with respect to either Black or Asian college students during this time period. Although some improvement was noted in the ethnic-racial diversity of Texas community college students, more work remains. Educational leaders are encouraged to continue their efforts to improve student access to postsecondary settings, as well as their efforts in improving student completion.

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