

ETHNIC/RACIAL DIVERSITY OF FIRST-TIME IN COLLEGE UNDERGRADUATE
STUDENT ENROLLMENT AT TEXAS COMMUNITY COLLEGES: A
MULTIYEAR, STATEWIDE INVESTIGATION

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DEDICATION

I would like to thank God for providing my family with the strength and guidance to endure this arduous journey. Without God, none of this would have been possible. I am so blessed and grateful to God for allowing me to serve and positively touch the lives of others through education. I want to dedicate this dissertation to the love of my life – my wife and best friend Ayana who always believed in me and motivated me to aim high and never to give up. Through the tears, doubt, and joy, her continuous love, prayers, support, encouragement, and motivation proved to be exactly what I needed to help me get through this journey. I am so thankful for her assistance in helping me to become the man, father, and husband that I am today. Her unwavering faith, love, strength, and support have been priceless to my life. This dissertation is also dedicated to my children Jiovann Carlos, Jamian Emmanuel, and Anaya Kailyn as each of them were the main reason that I decided to pursue my doctoral studies. All three of them served as my intrinsic motivators for me to take on this challenge, and I hope that this experience serves as a gift of inspiration for each of them. Dream big! Know that there is nothing impossible in this world.

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ABSTRACT

Lebron, Juan Carlos, *Ethnic/racial diversity of first-time in college undergraduate student enrollment at Texas community colleges: A multiyear, statewide investigation*. Doctor of Education (Educational Leadership), August 2017, Sam Houston State University, Huntsville, Texas.

Purpose

The purpose of this journal-ready dissertation was to examine the degree to which changes had occurred in the ethnic/racial diversity of first-time in college students who were enrolled full-time in Texas community colleges. Specifically, the ethnic/racial diversity changes (i.e., Asian, White, Hispanic, and Black) of first-time in college full-time students who were enrolled in Texas community colleges in the 1999-2000 academic year through the 2014-2015 academic year were analyzed. The degree to which differences were present in the enrollment percentages of Asian, White, Hispanic and Black first-time in college full-time students who were enrolled in Texas community colleges between the 1999-2000 and the 2014-2015 academic years was examined. The extent to which changes had occurred in the ethnic/racial diversity of first-time in college students who were enrolled part-time in Texas community colleges was examined. The degree to which differences existed in the enrollment percentages of Asian, White, Hispanic, and Black first-time in college part-time students who were enrolled in Texas community colleges between the 1999-2000 and the 2014-2015 academic years was analyzed. An analysis of the trends present in the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of first-time in college full-time and part-time students who were enrolled in Texas community colleges during the 1999-2000 through the 2014-2015 academic years was included in these three investigations.

Method

A causal-comparative research design was used for this study. Archival data from the Texas Higher Education Coordinating Board Interactive Accountability System were downloaded and analyzed for the 1999-2000 through the 2014-2015 academic years.

Findings

Inferential statistical analyses revealed that over this time period, the percentage of Hispanic first-time in college full-time and part-time Texas community college students statistically significantly increased, whereas the percentage of White first-time in college full-time and part-time students statistically significantly decreased. No changes were noted with respect to either Black or Asian first-time in college full-time and part-time college students during this time period. Statistically significant increases were also present with respect to the percentage of Hispanic students (regardless of enrollment status) who were enrolled in Texas community colleges during this time period.

KEY WORDS: Community Colleges, Full-time Students, Part-time Students, First-time in College, Ethnicity/Race, Texas, Asian, White, Hispanic, Black

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CHAPTER I

INTRODUCTION

The development of community colleges is attributed to increased demand and rapid shifts of higher education during the early 20th century (Cohen, Brawer, & Kisker, 2014). The American community college movement dates back to the passage of the Morrill Acts of 1862 (the Land Grant Act) and 1890 which allowed for the establishment of accessible and affordable higher education across the United States (Cohen et al., 2014; Drury, 2003). States were provided the option to purchase land from the federal government with the intention to establish postsecondary education training centers (Spangler, 2012). Publicly supported colleges and universities were established in every state. Small agricultural, mechanical arts, and teacher preparation training centers were established to allow a larger segment of the population and minorities who were previously excluded from higher education with additional options to pursue academic and workforce training (Cohen et al., 2014).

As the enrollment of secondary schools expanded in the early 20th century, access to higher education was established (Cohen et al., 2014). The establishment of the first junior college in America was influenced and led by William Rainey Harper, President of the University of Chicago in 1901. Cohen et al. (2014) stated that a major reason for the creation of community colleges was that Harper and other prominent university leaders wanted universities to “abandon teaching their undergraduate courses and relegate the function of teaching adolescents to a new set of institutions, to be called junior colleges” (p. 6). Harper was instrumental in proposing a leadership plan influenced by the German educational system for universities to supervise and design training options that would

allow high schools to provide lower level postsecondary training options that would cover the freshman and sophomore years of university training (Somerville, 2005). Joliet College was established in 1901 and shortly thereafter began to issue associate of arts degrees for students completing the 2-year academic curriculum (American Association of Community Colleges, 2015b). Graduates from Joliet College could transfer into the University of Chicago after completing their junior division education. (Somerville, 2005).

The junior college movement continued to expand during the early 20th century. Cohen et al. (2014) reported that 20 junior colleges offered a degree or certificate in 1909. The number of junior colleges increased to 170 by the year 1919. By 1930, 440 junior colleges were present across the nation and 610 junior colleges were fully operational by 1940. Enrollment at junior colleges continued to grow as soldiers returning from World War I demanded new training opportunities (Spangler, 2012). Cohen et al. (2014) stated that the junior college expansion movement was influenced by the nation's need to develop a highly skilled workforce, to improve social equality, and to promote upward social mobility and economic wealth by encouraging higher education. In the 1920's, the American Association of Junior Colleges was established and served as the national leadership organization and advocacy platform for junior colleges in American (Drury, 2003).

During the Great Depression of the 1930's, junior colleges experienced a substantial surge in enrollment as institutions began to offer specialized workforce and vocational training programs in an effort to combat high levels of unemployment (American Association of Community Colleges, 2015b; Drury, 2003). The Great

Depression launched a national interest to increase workforce training beyond secondary education and partnerships between educational institutions and industry (Somerville, 2005). In 1944, Congress passed the Serviceman's Readjustment Act (i.e., the G. I. Bill), which provided financial assistance to veterans of World War II and other military personnel who wanted to pursue higher education (American Association of Community Colleges, 2015b). The GI Bill allowed open access to higher education and workforce training to millions of Americans while breaking down gender, ethnic, social, financial and economic barriers (American Association of Community Colleges, 2015b).

In 1947, the President's Commission on Higher Education published the Truman Commission Report which advocated and demanded the establishment of a network of community-based colleges that: (a) would provide minimal or no tuition, (b) serve as cultural centers, (c) be comprehensive in their program offerings with emphasis on civic responsibilities, and (d) would serve the communities in which they were located (American Association of Community Colleges, 2015b). The Truman Commission advocated for equality of educational opportunities and provided educational access to all Americans (Drury, 2003). The phrase of community college was adopted by multiple existing and new public 2-year colleges as a result of the Commission's recommendations (American Association of Community College Association, 2015b).

By 1960, 678 2-year public and private colleges existed in the United States (American Association of Community Colleges, 2015b). During the 1960s, community college enrollment surged as the World War II baby-boomer generation became of age (Drury, 2003). In the 1970s, community college enrollment experienced rapid growth from 2.2 million students in the early 1970s to more than 4.3 million students by 1980

(Kasper, 2002). Kasper (2002) summarized the three major factors that contributed to the enrollment growth: (a) baby-boomers were old enough to attend college, (b) parents advocated for education for their children, and (c) baby-boomers sought draft deferment during the Vietnam Conflict.

Community college enrollment began to decline in the latter part of the 20th century, with enrollment only increasing 23% between 1980 and 1999 (Kasper, 2002). Enrollment at community colleges increased rapidly between 2000 and 2010 (Ma & Baum, 2015). Total community college enrollment increased from 5.7 million to 7.9 million students and full-time enrollment increased from 2.0 million to 3.3 million students between 2000 and 2010 (Ma & Baum, 2015). Juskiewicz (2015) examined the trends in community college enrollment and noted that national enrollment in “post-secondary institutions increased for several years during the recession” (p. 3). Since 2011, the U.S. Department of Education and the National Clearinghouse Research Center have reported consistent declines in postsecondary enrollments (Juskiewicz, 2015).

Review of Literature on First-Time in College Students Enrolled Full-Time in Community Colleges

According to the American Association of Community Colleges (2014), 41% of all first-time students were enrolled in community colleges. Full-time enrollment in higher education increased 45% between the 2000 and 2010 academic years (National Center for Education Statistics, 2015). Full-time enrollment is expected to increase by 14% between the 2014 and the 2025 academic years. At 2-year institutions, enrollment increased nationally by 29% between the 2000 and the 2014 academic years. The National Center for Education Statistics (2016) reported that Hispanics surpassed Blacks

as the country's largest racial/ethnic group other than Whites. The population of Hispanics continues to grow at a faster rate than the overall population, representing 15% of the total U.S. population, with Texas having the highest percentages of the population who were Hispanic (ranging from 36% to 45%). The population of Hispanic first-time students increased in enrollment between 1996 and 2001 (Fry, 2005). According to the American Association of Community Colleges (2015a), Hispanic students, Black students, American Indian students, and students of two or more races enrolled at community colleges were more likely to be first-time students than were White students.

The College Board (2010) highlighted that ethnically diverse students, including traditionally underrepresented and disadvantaged students, are attending postsecondary institutions in record numbers; however, the fastest growing groups include many students with the lowest level of education attainment. Lee and Ransom (2011) reported that:

As of 2008, only 42% of 25 to 34 year olds in the United States had attained an associate degree or higher. Only 30% of Black and 20% of Hispanic students ages 25 to 34 had attained an associate degree or higher in the United States, compared to 49% for White and 71% for Asian students. (p. 9)

The traditional open door policy of community colleges has allowed students from diverse ethnic/racial backgrounds to access post-secondary education, technical schools, and workforce training, including apprenticeships. Horn and Skomsvold (2011) established that 81% of community college students enroll in a postsecondary institution intending on earning a baccalaureate degree or higher. However, if students begin their undergraduate education at a community college, their chances of completing their

undergraduate degree are much lower than are the chances of students who begin their undergraduate education at a 4-year institution (Monaghan & Attewell, 2015). As open admissions institutions, community colleges provide multiple entry points in which large percentages of students begin their collegiate journey requiring remedial and developmental education.

The Texas Higher Education Coordinating Board (2015a) gathered data to develop a 60x30 strategic plan that included the recent demographic shifts and population growth rates taking place within the 25 to 34 year old Hispanic and African-American student populations. Under the 60x30 Texas Plan (2015), educational leaders are focusing on improving the completion rate of students who are members of racial/ethnic groups that traditionally have not earned an associate degree or workforce certificate. Higher education leaders in Texas have documented that not enough progress has occurred to prepare and to measure the continued demographic shifts to ensure that completion rates in Texas are representative of the state's diverse populations (Texas Higher Education Coordinating Board, 2015). Increasing the completion rate and degree attainment of both Black and Hispanic student populations has become an essential priority for higher education administrators across Texas. Higher education administrators have established clearly defined goals to help increase the completion of workforce certificates, associate degrees, and transfer opportunities for students from all racial/ethnic backgrounds in larger numbers to help Texas become globally competitive by the year 2030 (Texas Higher Education Coordinating Board, 2015).

In an analysis of the national completion rates of traditionally aged students who were exclusively enrolled full-time in 2006 at age 24 or younger, Baum, Ma, and Payea

(2013) documented that 78% earned a degree within six years. Of those traditionally aged full-time students, 11% completed their degrees at a different institution other than the one in which they originally enrolled. Adelman (1999, 2006) conceptualized the term “academic momentum” which looked at the trajectory and undergraduate experiences of first-year community college students based on the number of credits earned, academic performance, and the influences of grade point average on student success and completion rates (p. 80). Full-time enrollment involves registering for a minimum course load of 12 credit hours per academic term.

In a recent report by the Community College Research Center, Klempin (2014) contended that federal financial aid guidelines influence national policies requiring students to be enrolled full-time per academic term to receive their maximum financial aid. Klempin (2014) reviewed the effects of “high enrollment intensity (full-time rather than part-time) and high enrollment continuity (enrollment in consecutive semesters without breaks) are strongly correlated with college student success at both two and four-year institutions” (p. 1). In research studies on high enrollment intensity, including full-time students who enroll in consecutive terms, evidence exists that full-time enrollment influences on-time graduation and transfer rates of students in higher education (Adelman, 1999, 2004, 2005, 2006; Attewell, Heil, & Reisel, 2012; Berkner, He, & Cataldi, 2002; Carroll, 1989; Crostra, 2014; Klempin, 2014; McCormick, 1999).

An issue not previously addressed in depth in the research literature is the mixed student enrollment patterns present within community college institutions. Crostra (2014) reported that a gap in the research literature exists on community college student enrollment patterns and the degree to which their enrollment patterns influence

postsecondary outcomes. Particularly not well examined in current research literature are studies focused exclusively on first-time-in-college community college enrollment patterns (Crostra, 2014). Crostra (2014) identified the varied enrollment patterns of first-time-in-college students at five community colleges and documented two positive relationships of on-time degree completion and increased transfer rates. In an analysis of full-time enrollment intensity and transfer rates, Park (2015) established that a “positive relationship exists between engagement (as defined by full-time enrollment) and student success (as defined transfer into a four-year institution)” among community college first-time in college undergraduate students (p. 24). Full-time community college students who attempted 15 credit hours expedited their graduation and were more likely to complete a baccalaureate degree after transferring into a university (Monaghan & Attewell, 2015).

According to Kuh’s (2001) theory of student engagement, students with a higher number of credit hours established stronger collegial relationships with faculty/staff members along with higher levels of connectivity with campus support resources that promote higher completion, persistence, and student success rates. Community college students who spend more time on campus establish essential collegial relationships with faculty, staff, and student support personnel. Park (2015) examined the benefit of increased academic enrollment intensity with first semester community college students and established that full-time students could engage, successfully complete, and transfer to 4-year institutions at a higher rate than students who were not enrolled full-time. These findings were consistent with Adelman (1999, 2004, 2006) and Doyle (2009),

which indicated that increasing student credit load to full-time status will likely increase college student success.

In the State of Texas, the completion rate of first-time students graduating from community colleges within three years has decreased below the national average of 22% (Texas Completes, 2012). The State of Texas is ranked 45th nationally in the number of associate degrees that are attained (Texas Completes, 2012). With respect to enrollment patterns, Texas community college full-time students are 2.5 times more likely to earn an associate degree, 2 times more likely to transfer to a 4-year institution, and 1.4 times more likely to earn a bachelor's degree than students who are enrolled part-time (Texas Completes, 2012).

Review of Literature on First-Time in College Students Enrolled Part-Time in Community Colleges

Horn and Radwin (2014) reported that most measures of success support full-time students, yet approximately 60% of community college students attend college part-time. The population of part-time students enrolled in higher education has continued to increase in the past 30 years (Kember, 1999; MacCann, Fogarty, & Roberts, 2012; O'Toole, Stratton, & Wetzel, 2003; Williams & Kane, 2010). Part-time student enrollment rates at community colleges have traditionally outnumbered full-time student enrollment as 62% of students attending community colleges are enrolled part-time in comparison to 38% of students who are enrolled full-time (American Association of Community Colleges, 2016). Traditionally, more part-time students have enrolled at American community colleges than at 4-year institutions (McCormick, Geis, & Vergun, 1995). Since 1970, part-time enrollment in undergraduate institutions has increased from

32% of total enrollment to 61% of total enrollment in 2016 (American Association of Community Colleges, 2016; O'Toole et al., 2003).

O'Toole et al. (2003, p. 519) documented that “from 1970 to 1998, the number of part-time undergraduates in higher education more than doubled (from 2.8 million to 6 million), while full-time enrollment increased by 48% (from 5.8 million to 8.6 million).” Ma and Baum (2016) reported that community college students are more likely to enroll part time than students who enroll in public 4-year postsecondary institutions, and conversely the proportion of full-time students enrolled in the two-year sector was smaller than the proportion of full-time students at 4-year institutions. According to the American Association of Community Colleges (2015), more than 60% of the 7.4 million community college students who took credit courses in fall 2013 attended college part time. A limited number of empirical investigations have been conducted on part-time student enrollment patterns (MacCann et al., 2012; Williams & Kane, 2010). As a result of former-President Obama's call to increase graduation and completion rates of community college students by an additional 5 million students by the year 2020, more intentional efforts on increasing persistence rates in community colleges have gained national attention (Hall, 2015).

Hall (2015) documented that low persistence and graduation rates of students attending public community colleges is threatening the nation's economy and the mission of the community colleges. Jenkins and Cho (2013) highlighted that although 2-year colleges play an essential role as the gateway to higher education, student completion rates remain low. Copeland, Tietjen-Smith, Waller, and Waller (2008) reported that part-time student enrollment continues to plague 2-year public institutions because of open

enrollment and the diverse needs of students. Texas community college students who complete developmental education courses and persist to certificate and degree completion is extremely low with only 9.1% of this population graduating within three years (Complete College Texas, 2013). In the State of Texas, part-time community college students are completing their 2-year associate degrees in an average of 5.2 years as compared to 4.7 years for full-time students (Complete College Texas, 2013). For Texas community college part-time students, only 7.9% are completing their degrees in 3 years and 24.4% are completing their associate 2-year degrees within 6 years (Complete College Texas, 2013). Community colleges constitute the primary point of access to postsecondary education for low-income, ethnically diverse students. Indeed, low-income, ethnically diverse students are overrepresented at 2-year community colleges and technical schools (Bailey et al., 2004).

Sorey and Duggan (2008) established that community college part-time enrollments increased over 200% between 1970 and 1995. As part-time student enrollments have continued to increase, only 16.5% of part-time community college students graduated from their academic institutions as compared to 43% of full-time students in 2014 (Juszkiewicz, 2015). Chen and Carrol (2007) noted that only three out of every 10 community college students who initiated their collegiate journey at a community college persisted to graduation. Part-time community college students have the lowest persistence and completion rates of all students attending community colleges (Hall, 2015). Horn and Radwin (2014) documented that in the fall of 2012, only 14% of part-time community college students had completed a certificate or an associate degree within six years, and only 13% were still enrolled for an overall 6-year persistence rate of

only 27%. Also, Horn and Radwin (2014) highlighted that part-time community college students took an average of nearly four years to complete their associate degrees, and an average of two years for certificate students to obtain their credentials.

According to the National Clearinghouse Research Center (2011), the southern and western regions of the United States experienced growth in part-time student enrollment from 2006 to 2009, but dropped by 3.8% and 4.5% in 2009 and 2010, respectively. In fall 2016, intensity rates for part-time students showed a decrease in enrollment, with a 3.5% decrease change from the prior year (National Clearinghouse Research Center, 2016). Part-time student populations have traditionally presented higher tendencies to focus on balancing work responsibilities than on academics, resulting in a lower persistence and retention rates (Copeland et al., 2008).

The National Center for Education Statistics (2016) documented that 55% of community college part-time students were traditional students, 24% were ages 25-34, and 21% were at least 35 years old. With respect to part-time enrollment, 5.5% of part-time students were Asian, 15.7% of part-time students were Black, 19% of part-time students were Hispanic, and 56% of students were White (National Center for Education Statistics, 2016). Differences have been established between the graduation rates for part-time community college students versus full-time community college students, with full-time students graduating with five times higher graduation rates than students who were enrolled part-time (McHewitt, 1993). Part-time students differ from their full-time counterparts in that they tend to be older, Hispanic, female, married, and academically disadvantaged (Chen & Carroll, 2007). Not only did part-time students report higher levels of at-risk academic indicators, part-time students also placed higher emphasis on

their work and professional plans than full-time students (Chen & Carroll, 2007).

Adelman (1999) concluded that most researchers had not focused on the continuous enrollment patterns and trajectories of students changing from part-time to full-time status within their academic journey. Adelman (1999) highlighted the lack of studies within the research literature in which the sole focus was placed on part-time student enrollment.

Review of Literature on the Ethnic/Racial Diversity of Community College Students

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. (National Center for Education Statistics, 2015).

Higher education has expanded over the years, drawing students from diverse ethnic/racial backgrounds, different socio-economic groups, 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 post-secondary education were White, 14.1% were Black, 17.3% were Hispanic, and 6.3% were Asian. The total undergraduate enrollment in degree-granting postsecondary institutions increased 31% from 13.2 million in 2000 to 17.3 million in 2014 (Kena et al., 2016). By 2025, total undergraduate enrollment is projected to increase to 19.8 million students (Kena et al., 2016). 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 undergraduate 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 made up 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 undergraduate 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, whereas enrollment at 4-year institutions is projected to increase by 10% to 11.6 million students (Kena et al., 2016).

Typically, American community colleges are positioned to deliver academic and workforce programs while serving a diverse student population comprised of 6% Asian students, 49% White students, 22% Hispanic students, and 14% Black students (American Association of Community Colleges, 2016). Enrollment at 2-year institutions decreased 3.5% during the fall 2013 and fall 2014 semesters (American Association of Community Colleges, 2015). In 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 student enrollment included 6% Asian, 21% Hispanic, and 14% Black student populations (American Association of Community Colleges, 2015).

The 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, and they are increasing much more rapidly than are White and Black ethnic/racial groups (Aud, Fox, & KewalRawani, 2010). Cohn and Caumont (2016) reported that the United States is projected to be more ethnically/racially diverse in the coming decades because of immigration growth 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). Since 2010, national community college enrollment trends have decreased similar to other public and private higher education sectors (Ma & Baum, 2016). Between 2010 and 2014, full-time enrollment at community colleges decreased from 29% to 25% (Ma & Baum, 2016). In the State of Texas, most Hispanic and Black students started at a community colleges, but a small number of them graduate on time even when given three times longer (Complete

College Texas, 2013). Only 9.5% of Black students successfully completed a degree and certificate within 3 years, and only 20% of Black students completed their degree and certificate within 6 years (Complete College Texas, 2013). For Hispanic students in Texas, only 14.7% 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-years. (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).

Statement of the Problem

Most students who enroll in public 2-year colleges do not complete a degree within two years (Radford, Berkner, Wheelles, & Shepherd, 2010). Crosta (2014) reported that enrollment patterns are not traditional because students routinely change their enrollment status from part-time to full-time and vice versa, with many students skipping entire semesters. In addition, Crostra (2014) highlighted the need for institutions to track the multiple and diverse enrollment patterns of community college students in an effort to identify and “distinguish between normal variations in students’ education pathways and the danger signs of potential dropout” (p. 1).

As population growth, ethnic/racial diversity, and student enrollment patterns continue to shift in higher education, community colleges are being asked to develop clearly defined pathways to ensure that students can successfully complete both their academic and workforce goals on time. Bailey et al. (2015) stated, “over 80% of first-time community college students indicate that they intend to earn a bachelor’s degree. Yet, only about a quarter of students transfer within five years, and fewer than 62% earn a bachelor’s degree within six-years of transferring” (p. 27). As legislators and policymakers in Texas continue to expand student success initiatives across its community colleges, an in-depth historical look at the academic performance of our first-time students at Texas community colleges is imperative. As Texas continues to focus on improving student success and college outcomes by implementing student success initiatives (i.e., Closing the Gaps 2015, Achieving the Dream, Texas Completes), the degree to which these initiatives resulted in positive influences on the academic performance of full-time and part-time students at Texas community colleges should be ascertained.

Purpose of the Study

The purpose of this journal-ready dissertation was to examine the degree to which changes had occurred in the ethnic/racial diversity of first-time in college students who were enrolled full-time in Texas community colleges. Specifically, the ethnic/racial diversity changes (i.e., Asian, White, Hispanic, and Black) of first-time in college full-time students who were enrolled in Texas community colleges in the 1999-2000 academic year through the 2014-2015 academic year were analyzed. The degree to which differences were present in the enrollment percentages of Asian, White, Hispanic

and Black first-time in college full-time students who were enrolled in Texas community colleges between the 1999-2000 and the 2014-2015 academic years was examined. The extent to which changes had occurred in the ethnic/racial diversity of first-time in college students who were enrolled part-time in Texas community colleges was examined. The degree to which differences existed in the enrollment percentages of Asian, White, Hispanic, and Black first-time in college part-time students who were enrolled in Texas community colleges between the 1999-2000 and the 2014-2015 academic years was analyzed. An analysis of the trends present in the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of first-time in college full-time and part-time students who were enrolled in Texas community colleges during the 1999-2000 through the 2014-2015 academic years was included in these three investigations.

Significance of the Study

As a result of the three investigations in this journal-ready dissertation, valuable information was obtained on the enrollment patterns and the degree to which differences might be present in the ethnic/racial membership of first-time Texas community college students who were enrolled either full-time or part-time. The information collected will support community college administrators and policymakers to design student success programming, implement specialized academic counseling support efforts, and attempt to improve completion, retention and persistence rates of first-time community college students. In addition, the information collected will assist state policymakers and educational leaders to identify the extent to which state and federal intervention efforts, such as Achieve the Dream, Texas Completes, Closing the Gaps, and other student

success initiatives, have been effective in improving the ethnic/racial diversity of the enrollment of first-time Texas community college students.

Theoretical Framework

Maplethorpe (2007) concluded that status attainment theory and the human capital theory include primary factors that entice students to enroll in postsecondary education institutions. Wang (2012) emphasized the importance of using multiple theoretical framework models when investigating the development of educational expectations. Community college students often face multiple important decisions as they enroll and pursue a higher education. First-time students attending community college have to face challenging enrollment decisions often connected with educational- and workforce-training expectations centered on having to balance personal, family, and workforce responsibilities. The status attainment theory, along with the human capital theory, were used as frameworks in this investigation. Maplethorpe (2007) accentuated that background and life experiences are influential in the enrollment decision-making process and selection of career pathways as students begin their collegiate experience.

As first-time community college students attempt to expand their educational and workforce skill training, their investment and educational expectations are aligned with the desire to connect with higher salary wages and improved career opportunities (Becker, 1976; Stuart, Rios-Aguilar, & Deil-Amen, 2014). Stuart et al. (2014) emphasized that human capital theory has “assisted researchers, educators, and policy makers to better understand why students make investment decisions to improve their productivity” (p. 328). Another aspect to consider is the human capital theory model,

which focuses on students' decisions to attend and persist in college based primarily on the return on the investment (Stuart et al., 2014).

Definition of Terms

Terms essential to the three research studies conducted in this journal-ready dissertation are defined below.

Academic Year

The Texas Higher Education Coordinating Board (2007) defined the academic year as “the 12-month period of time generally extending from September to August” (p. 2).

Asian or Pacific Islander

The Texas Higher Education Coordinating Board (2007) defined Asian as the race of a person having “origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent or Pacific Islands including Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands Thailand, and Vietnam” (p. 6).

Black Non-Hispanic

The Texas Higher Education Coordinating Board (2012) defined Black-Non-Hispanic as the “race of a person having origins in any of the black racial groups of Africa” (p. 8). This individual is a person who has origins in any of the Black racial groups of Africa (except those persons of Hispanic origin).

First-Time Student

The Texas Higher Education Coordinating Board defined a first-time student or a first-time-in-college student as “any undergraduate student entering community college

for the first-time after graduation from high school or who has never attended any college” (2012, p. 32).

Full-time Student

The Texas Higher Education Coordinating Board (2007) defined a full-time student as an “undergraduate student enrolled in 12 or more semester credit hours in a long semester is considered full-time” (p. 41).

Hispanic

The Texas Higher Education Coordinating Board (2007) defined Hispanic as “any person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race” (p. 44).

Part-time Student

The Texas Higher Education Coordinating Board (2007) defined a part-time student as an “undergraduate student enrolled in 11 or less semester credit hours or less than 24 contact hours per week each term” (p. 56).

Race/Ethnicity

The Texas Higher Education Coordinating Board (2007) described race and ethnicity as “categories used to describe groups to which individuals belong, identify with, or belong in the eyes of the community. The categories do not denote scientific definitions of anthropological origins. A person may be counted in only one group” (p. 59).

White Non-Hispanic

The Texas Higher Education Coordinating Board (2007, p. 44) defined White Non-Hispanic as a “person having origins in any of the original peoples of Europe, North Africa, or Middle East (except those of Hispanic origin).”

Delimitations

Multiple delimitations were present for this study. The dataset analyzed for this journal-ready dissertation was obtained from the Texas Higher Education Coordinating Board Interactive Accountability System. The dataset obtained contained information on Texas community colleges only. Only data on the four major ethnic/racial groups (i.e., Asian, White, Hispanic, and Black) in Texas were analyzed. Another limitation was that data were examined for only the 1999-2000 through the 2014-2015 academic years. Accordingly, the degree to which results are generalizable to other postsecondary settings, to other states, and to other ethnic/racial groups is not known.

Limitations

For the purposes of this journal-ready dissertation, the ethnic/racial diversity changes and enrollment percentage changes were analyzed for first-time Texas community college students by full-time enrollment, part-time enrollment, and by ethnicity/race (i.e., Asian, White, Hispanic, and Black). As such, one threat to internal validity in this investigation was the accuracy of compiling and reporting the data by institutions to the Texas Higher Education Coordinating Board Interactive Accountability System. Data compiled by the Texas Higher Education Coordinating Board are self-reported by the community college institutions and systems. The extent to which data were reported accurately by the Texas community colleges to the Texas Higher

Education Coordinating Board could influence the accuracy of the results of the three articles in this journal-ready dissertation.

Assumptions

The accuracy of the data collected and presented by the Texas Higher Education Coordinating Board Interactive Accountability System was the primary assumption for this study. The Texas Higher Education Coordinating Board does not provide a framework or guidelines for community colleges or systems to update or correct data. Dependent upon this investigative study was the accuracy of the data collected and presented by the participating Texas community colleges and the Texas Higher Education Coordinating Board. Any discrepancies or errors in the Texas Higher Education Coordinating Board Interactive Accountability system data will influence the results of this study.

Organization of the Study

In this journal-ready dissertation, three research studies are present. In Chapter I, an overview of the history of the American community college and historical background of Texas community colleges is provided. Moreover, a literature review for each of the three research articles included in this dissertation is presented. In Chapter II, the research questions that were addressed will include identifying the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of first-time in college students who were enrolled full-time in Texas community colleges in the 1999-2000 through the 2014-2015 academic years. Moreover, the degree to which trends might be present in the ethnic/racial diversity of first-time in college students who were enrolled full-time in Texas community colleges during the 1999-2000 through the 2014-2015 academic years

will be determined. In Chapter III of this journal-ready dissertation, the research questions addressed included the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of first-time in college students who were enrolled part-time in Texas community colleges in the 1999-2000 through the 2014-2015 academic years. In addition, the extent to which trends were present in the ethnic/racial diversity of first-time in college students who were enrolled part-time in Texas community colleges during the 1999-2000 through the 2014-2015 academic years will be addressed. In Chapter IV of this journal-ready dissertation, the research questions addressed were on the ethnic/racial diversity of Texas community college students during the 1999-2000 through the 2014-2015 academic years.

Differences in the three research articles were the groups of first-time-in-college Texas community college students as a function of full-time enrollment, part-time enrollment, and as a function of ethnicity/race. In the first journal-ready research investigation, data were analyzed by full-time community college student enrollment. In the second journal-ready research investigation, data were analyzed by part-time community college student enrollment. In the third journal-ready research investigation, data were analyzed by student ethnicity/race (i.e., Asian, White, Hispanic, and Black) of Texas community college students, regardless of their enrollment status. In all three journal-ready investigations, the independent variable analyzed was the specific academic year students were enrolled in a Texas community college. The dependent variables analyzed in this journal-ready investigation were the numbers and percentages of students by ethnicity/race who were enrolled in a Texas community college during this period.

In this journal-ready dissertation, five chapters are present. Included in Chapter I are the background of the study, statement of the problem, purpose of the study, significance of the study, definition of terms, delimitations, limitations, assumptions, and outline of the journal-ready dissertation. Chapter II is the first journal-ready dissertation article involving the ethnic/racial diversity of Texas community college first-time in college students who were enrolled on a full-time basis. Chapter III is the second journal-ready dissertation article involving the ethnicity/racial diversity of Texas community college first-time in college students who were enrolled on a part-time basis. Chapter IV, the third journal-ready dissertation article, is a study of the ethnic/racial diversity of Texas community college students, regardless of their enrollment status. Lastly, in Chapter V, results from each of the three research articles in this journal-ready dissertation were summarized and linked to the existing research literature. In addition, implications for policy and practice, along with recommendations for future research, were provided.

CHAPTER II

DIFFERENCES IN ETHNIC/RACIAL DIVERSITY OF TEXAS COMMUNITY
COLLEGE FIRST-TIME IN COLLEGE FULL-TIME STUDENTS OVER TIME: A
MULTIYEAR, STATEWIDE ANALYSIS

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

Abstract

In this multiyear, statewide empirical investigation, the degree to which ethnic/racial diversity of first-time in college full-time Texas community college students changed from the 1999-2000 through the 2014-2015 academic years was determined. Over this time period, the percentage of Hispanic first-time in college full-time Texas community college students showed a statistically significant increase, whereas the percentage of White first-time in college full-time students statistically significantly decreased. No changes were noted with respect to either Black or Asian first-time in college full-time college students during this time period. Although some improvement was noted in the ethnic-racial diversity of Texas first-time in college full-time students, more work remains. Implications for policy and recommendations for research were provided.

Keywords: Community Colleges, Full-time Students, First-time in College, Ethnicity/Race, Texas, Asian, White, Hispanic, Black

DIFFERENCES IN ETHNIC/RACIAL DIVERSITY OF TEXAS COMMUNITY
COLLEGE FIRST-TIME IN COLLEGE FULL-TIME STUDENTS OVER TIME: A
MULTIYEAR, STATEWIDE ANALYSIS

Over the past 100 years, community colleges have delivered academic programs through open admission policies, low cost tuition, vocational, and specialized workforce training programs that serve as an essential academic pipeline for many students to access postsecondary education (Cohen, Brawer, & Kisker, 2014; Ma & Baum, 2015). The American community college has evolved as a vital economic resource in the commitment of the United States to educate, serve, and provide workforce-training opportunities to all of its citizens (Bailey, Jaggars, & Jenkins, 2015). Dating back to the early years of the 20th century, the mission of American community colleges has played a critical role in shaping the educational landscape of American higher education (Cohen et al., 2014; Cooper, 2010). As open-door institutions, community colleges provide access to higher education to first-time students, low-income families, and adults seeking further workforce training and certification (Ma & Baum, 2015).

These open-door institutions, which are expected to serve all individuals regardless of ethnicity, age, gender, or academic proficiency level, serve as flagships to anyone who has the desire to better his or her economic situation and upward mobility. Cohen et al. (2014) stated that multiple factors such as general population growth, increases in part-time enrollment, financial aid expansion, and non-traditional and minority student enrollment increases are all influential in contributing to increases in community college enrollment. American community colleges have been categorized as essential pipelines that provide access and higher education to a diverse student

population at an affordable cost (Evans et al., 2016). Jones (2013) noted that as society continues to expand, more institutions of higher education are being “called to prepare students to live and work in an increasingly multicultural society” (p. 249). As open-enrollment institutions, community colleges deliver three primary core missions, which include: (a) providing university transfer opportunities, (b) providing workforce training specialization, and (c) providing continuing education opportunities (Bahr, 2013).

According to the American Association of Community Colleges (2014), 41% of all first-time students are enrolled in community colleges. Full-time enrollment in higher education increased 45% between the 2000 and 2010 academic years (National Center for Education Statistics, 2015). Full-time enrollment is expected to increase by 14% between the 2014 and the 2025 academic years. At 2-year institutions, enrollment increased nationally by 29% between the 2000 and the 2014 academic years. The National Center for Education Statistics (2016) reported that Hispanics surpassed Blacks as the country's largest racial/ethnic group other than Whites. The population of Hispanics continues to grow at a faster rate than the overall population, representing 15% of the total U.S. population, with Texas having the highest percentages of the Hispanic population (ranging from 36% to 45%). The population of Hispanic first-time students showed an increase in enrollment between 1996 and 2001 (Fry, 2005). According to the American Association of Community Colleges (2015a), Hispanics, Blacks, American Indian, and students of two or more races who enrolled at community colleges were more likely to be first-time students than White students.

The College Board (2010) highlighted that “many minority groups, including traditionally disadvantaged groups, are participating in college in record numbers.

However, the fastest growing populations in the United States are those minority groups with the lowest levels of educational attainment” (College Board, 2010, p. 18). Lee and Ransom (2011) reported that by 2008, only 42% of 25 to 34 year olds in the U.S. earned an associate degree or higher. Only 30% of Black students and 20% of Hispanic students ages 25 to 34 had attained an associate degree or higher. Data from the same study indicated that 49% of White students and 71% of Asian students had earned an associate degree or higher.

The traditional open door policy of community colleges has allowed students from diverse ethnic/racial backgrounds to access post-secondary education, technical education, and workforce training. Horn and Skomsvold (2011) established that 81% of community college students enroll in a postsecondary institution indicated they wanted to earn a baccalaureate degree or higher. If students begin their undergraduate education at a community college; however, their chances of completing their undergraduate degrees are much lower than are the chances of students who begin their undergraduate education at a 4-year institution (Monaghan & Attewell, 2015). As open admissions institutions, community colleges provide multiple entrance points in which large percentages of students begin their collegiate journey requiring remedial and developmental education.

The Texas Higher Education Coordinating Board (2015a) gathered data to develop a 60x30 strategic plan that included the recent demographic shifts and population growth rates taking place within the 25 to 34 year old Hispanic and African-American student populations. Under the 60x30 Texas Plan (2015), educational leaders are focusing on improving the completion rate of students from racial/ethnic groups that traditionally have not earned an associate degree or workforce certificate. Higher

education leaders in Texas have documented that not enough progress has occurred to prepare for and recognize the continued demographic shifts taking place to ensure that postsecondary completion rates in Texas are representative of the ethnic/racial diversity within the state. (Texas Higher Education Coordinating Board, 2015). Increasing the completion rate and degree attainment of both Black and Hispanic student populations have become an essential priority for higher education administrators across Texas. Higher education administrators have established clearly defined goals to help increase the completion of workforce certificates, associate degrees, and transfer opportunities for students from all racial/ethnic backgrounds to ensure that Texas can be globally competitive by the year 2030 (Texas Higher Education Coordinating Board, 2015).

In an analysis of the national completion rates of traditional college, students (i.e., 18-24 years of age) who were exclusively enrolled full-time in 2006, Baum, Ma, and Payea (2013) documented that 78% earned a degree within six years. Of those traditionally aged full-time students, 11% completed their degrees at a different institution other than the one in which they originally enrolled. Adelman (1999, 2006) conceptualized the term “academic momentum,” which he used to measure the undergraduate experiences of first-year community college students based on the number of credits earned, academic performance, and the influences of grade point average on student success and completion rates (p. 80). Full-time enrollment involves registering for a minimum course load of 12 credit hours per academic term.

In a recent report by the Community College Research Center, Klempin (2014) contended that federal financial aid guidelines influence national policies requiring students to be enrolled full-time per academic term to receive their maximum financial

aid. Klempin (2014) stated, “high enrollment intensity (full-time rather than part-time) and high enrollment continuity (enrollment in consecutive semesters without breaks) are strongly correlated with college student success at both two and four-year institutions” (p. 1). In research studies on high enrollment intensity, including full-time students who enroll in consecutive terms, evidence exists that full-time enrollment influences on-time graduation and transfer rates of students in higher education (Adelman, 1999, 2004, 2005, 2006; Attewell, Heil, & Reisel, 2012; Berkner, He, & Cataldi, 2002; Carroll, 1989; Crostra, 2014; Klempin, 2014; McCormick, 1999).

An issue not addressed in depth in the research literature was the mixed student enrollment patterns present within community college institutions. Crostra (2014) reported that a gap in the research literature exists on community college student enrollment patterns and the degree to which their enrollment patterns influence postsecondary outcomes. Particularly not well examined in the research literature were current studies in which the focus was placed exclusively on first-time-in-college community college enrollment patterns (Crostra, 2014). Crostra (2014) identified the varied enrollment patterns of first-time-in-college students at five community colleges. The researchers documented two positive relationships of on-time degree completion and increased transfer rates. In an analysis of full-time enrollment intensity and transfer rates, Park (2015) established that a positive completion relationship exists between full-time enrollment and transfer into four-year institutions among community college first-time in college students. Full-time community college students who attempted 15 credit hours were able to expedite their graduation and were more likely to complete a baccalaureate degree after transferring into a university (Monaghan & Attewell, 2015).

According to Kuh's (2001) theory of student engagement, students with a higher number of credit hours established stronger collegial relationships with faculty/staff members, along with higher levels of connectivity with campus support resources that promote higher completion, persistence, and student success rates. Community college students who spend larger amounts of time on campus can establish essential collegial relationships with faculty, staff, and student support personnel. Park (2015) examined the benefit of increased academic enrollment intensity with first semester community college students and established that full-time students could engage, successfully complete, and transfer to 4-year institutions at a higher rate than students who were not enrolled full-time. These findings were consistent with Adelman (1999, 2004, 2006) and Doyle (2009), giving further support that individuals who enroll as full-time students and maintain full-time enrollment will likely increase college success and graduation rates.

In Texas, the completion rate of students has decreased below the national average, with only 22% of first-time students attending community colleges graduating in three years (Texas Completes, 2012). The State of Texas is ranked 45th nationally in the number of associate degrees attained (Texas Completes, 2012). With respect to enrollment patterns, Texas community college full-time students are 2.5 times more likely to earn an associate degree, 2 times more likely to transfer to a 4-year institution, and 1.4 times more likely to earn a bachelor's degree than students who are enrolled part-time (Texas Completes, 2012).

Statement of the Problem

Bragg and Durham (2012) emphasized a strong need to understand student diversity at the community college level. By ascertaining student ethnic/racial diversity,

researchers and educational leaders could understand the degree to which existing policies promote and support diverse student access to community colleges. American community colleges serve as a vital pipeline to individuals in our communities who are seeking access to postsecondary education, including first-generation college students, students from low-income families, as well as adults seeking workforce training to gain additional certificate specialization and new credentials (Ma & Baum, 2016). Horn and Nevill (2006) reported that White and Asian students were more likely to attend full-time for a full year than were Black and Hispanic students. Ma and Baum (2016) determined that the national enrollment at 2-year colleges increased by 2.2 million students over a 10-year period. In addition, Ma and Baum (2016) reported that in the fall 2014, “42% of all students and 25% of all full-time students were enrolled in community colleges” (p. 1). Moreover, the American Association of Community Colleges (2017) indicated that 2-year college enrollment declined from 6.3 million students in 2013 to 5.7 million students, showing a 9.6% drop over the three years. Bragg and Durham (2012) noted:

demand and concern for higher education are increasing. Unease about performance is growing among all levels of higher education institutions, specifically community colleges, which are being encouraged to maintain open access while producing many more students who complete and receive a credential. (p. 106)

Bragg and Durham (2012) documented that community colleges have traditionally maintained open-door admission policies to support our historically underserved students. In addition, Bragg and Durham (2012) indicated that if community colleges did not exist,

many ethnically diverse, lower-socioeconomic, first-time-in-college students would not have access to a postsecondary education.

The State of Texas has led the nation in population growth between 2005 and 2013 attracting diverse residents via domestic and international migration (White et al., 2016). As the State of Texas continues to undergo demographic shifts, new academic and economic challenges will continue to govern the call for higher education administrators to provide intentional student support measures and programming that target at-risk student populations (Texas Higher Education Coordinating Board, 2015). These intentional support measures include identification of effective use of funding resources to implement educational support services, implementation of data analytic measures that allow for the development of effective student support services that aid to improve access, completion, graduation, transfer, and overall success rates of our first-time-in-college student populations (Texas Higher Education Coordinating Board, 2015).

The Texas Higher Education Coordinating Board (2015) gathered data to develop a 60x30 TX strategic plan, documenting both the demographic shifts and population growth occurring within multiple segments of student populations. Increasing the completion rate and degree attainment of all students (including the growing Hispanic student population) needs to remain an essential priority for higher education administrators across the State of Texas. Higher education administrators continue to search for clearly defined strategies that aim to improve completion rates of workforce certificates, associate degrees, and improvement of transfer opportunities for students from all ethnic backgrounds in larger numbers to help Texas become globally

competitive by the year 2030 and beyond (Texas Higher Education Coordinating Board, 2015).

Purpose of the Study

The purpose of this study was to examine the degree to which changes had occurred in the ethnic/racial diversity of Texas community college first-time, full-time in college students. Specifically, the ethnic/racial diversity changes (i.e., Asian, White, Hispanic, and Black) of first-time in college students who were enrolled full-time in Texas community colleges in the 1999-2000 academic year through the 2014-2015 academic year were analyzed. Inferential statistical analyses were conducted to ascertain the extent to which the enrollment percentages of Asian, White, Hispanic, and Black Texas community college first-time, full-time in college students had changed between the 1999-2000 and the 2014-2015 academic years.

Significance of the Study

Given the national emphasis and commitment on improving student success in community colleges, strategic and data-driven collective efforts are needed to increase on-time degree completion, persistence, graduation, and transfer rates of all students. As ethnic/diversity, demographic and enrollment patterns continue to shift, community college administrators designed and implemented statewide and national strategic student success initiatives to address the complex challenges facing community colleges in Texas and the nation. According to the Texas Association of Community Colleges (2016), the last decade of student success initiatives allowed institutions to establish critical goals, such as: (a) increasing awareness of the challenges and commitment to college completion; (b) expanding the use of data to assess and monitor student success and

institutional performance; and (c) developing evidence based effective educational practice that involves putting that knowledge into practice and demonstrating encouraging results.

Park (2015) reported that recent developments in federal and state policy have launched an interest to promote, mandate, and encourage community college students to enroll full-time in an effort to accelerate their successful completion and graduation with a bachelor's degree. A national movement has begun with intentional efforts to help students enroll in a maximum credit load that will eventually help them to navigate through their community college education faster, more efficiently, and with higher rates of persistence and engagement in their studies and participation with on campus events and activities. Adelman (2006) highlighted that students who were not enrolled full-time and who enrolled in less than 20 credits during their first year of community college were at a substantial disadvantage of completing and graduating from a community college. Park (2015) documented that few full-time enrollment research studies existed regarding the influence of enrollment patterns on community college students. Through this research study, valuable information was obtained on the relationship of full-time enrollment of Texas first-time community college students. The information gathered in this study will provide higher education leaders and policymakers with additional data regarding the extent in which statewide student success intervention efforts have influenced the enrollment of first-time in college full-time community college students in Texas.

Research Questions

The research questions that will be addressed in this investigation are: (a) What is the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of Texas community college first-time in college full-time students in the 1999-2000 academic year?; (b) What is the difference in the enrollment percentages of Texas Asian community college first-time in college full-time students between the 1999-2000 and the 2007-2008 academic years, between the 2007-2008 and the 2014-2015 academic years, and between the 1999-2000 and the 2014-2015 academic years?; (c) What is the difference in the enrollment percentages of Texas White community college first-time in college full-time students between the 1999-2000 and the 2007-2008 academic years, between the 2007-2008 and the 2014-2015 academic years, and between the 1999-2000 and the 2014-2015 academic years?; (d) What is the difference in the enrollment percentages of Texas Hispanic community college first-time in college full-time students between the 1999-2000 and the 2007-2008 academic years, between the 2007-2008 and the 2014-2015 academic years, and between the 1999-2000 and the 2014-2015 academic years?; (e) What is the difference in the enrollment percentages of Texas Black community college first-time in college full-time students between the 1999-2000 and the 2007-2008 academic years, between the 2007-2008 and the 2014-2015 academic years, and between the 1999-2000 and the 2014-2015 academic years?; and (f) What trends are present in the ethnic/racial diversity of first-time in college full-time students enrolled in Texas community college first-time full-time students in the 1999-2000 through the 2014-2015 academic years? The first research question will be repeated for the 1999-2000 through the 2014-2015 academic years whereas the rest of the research questions, with the exception of the

trends question, will be addressed for three academic year comparisons. The trend question will involve all 16 academic years of data.

Method

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, no manipulation of the independent variable occurs (Johnson & Christensen, 2012). In this empirical multiyear study, the independent and dependent variables had already occurred. The independent variable analyzed 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 present in this investigation 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 Asian, White, Hispanic, or Black. Students whose data were analyzed were only community college students in Texas who were first-time college students who were enrolled full-time in the aforementioned academic years.

The primary focus of this empirical investigation was to examine the degree to which changes occurred in the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of first time in college full-time students at Texas community colleges. Following statistical analyses of the 1999-2000 through the 2014-2015 academic years, the degree to which trends were present in the ethnic/racial of first time in college full-time students enrolled in Texas community colleges were determined.

Participants and Instrumentation

Archival data on all Texas community colleges were obtained for the 1999-2000 through the 2014-2015 academic years from the Texas Higher Education Coordinating Board Interactive Accountability System. Seventy-two community colleges were labeled within the Texas Higher Education Coordinating Board dataset, including nine community college districts. All institutions are required by the Texas Higher Education Coordinating Board to report persistence, completion, enrollment, student ethnicity/race, and graduation rates annually. The Texas Higher Education Coordinating Board aggregates the data and provides the information publicly through the Texas Higher Education Coordinating Board Interactive Accountability System. The instrument used to gather data for this research study was the Texas Higher Education Coordinating Board Interactive Accountability database. The database contained every Texas community college institution, along with descriptive statistical data for all Texas institutions of higher education. Fifteen years of data were available for analysis.

Results

Regarding the first research question, the ethnic/racial diversity of Texas community college first-time in college students who were enrolled full-time was calculated for the 1999-2000 through the 2014-2015 academic years. 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. Readers are directed to Tables 2.1 through 2.6 for the average fall enrollment numbers and total fall enrollment numbers by student

ethnicity/race throughout the academic years of data that were analyzed in this investigation.

Insert Tables 2.1 through 2.6 about here

In the 1999-2000 academic year, 56% of Texas community college first-time full-time students were White, followed by 25% Hispanic, 12% Black, and 2% Asian. Similar percentages were present in the 2000-2001 academic year with the highest percentage of first-time full-time students being White, 55%, followed by Hispanic, 26%, Black, 12%, and Asian, 2%. These percentages remained stable through the 2004-2005 academic year. For the 2006-2007 academic year, the percentage of White student enrollment decreased to 49%, and Hispanic student enrollment increased to 31% of total student enrollment at Texas community colleges. Black students, 12%, and Asian students, 3%, constituted the two smallest ethnic/racial groups. 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. In the 2010-2011 academic year, the percentage of White students decreased to 39%, and the percentage of Hispanic students increased to 37% of total student enrollment, followed by Black students at 15% and Asian students at 3%. Of note is the 2012-2013 academic year because it was the first year in which the percentage of Hispanic students was higher than the percentage of White students, 39% and 37% respectively. In the most recent academic year, 2014-2015, the percentage of Hispanic students was 41% of the total student enrollment, followed by White students at 36%.

Black student and Asian student enrollment remained consistently low at 12% and 3%, respectively. Readers are directed to Tables 2.7 through 2.12 for the descriptive statistics regarding the ethnic/racial diversity of first-time in college full-time Texas community college students from the 1999-2000 through the 2014-2015 academic years.

Insert Tables 2.7 through 2.12 about here

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 yearly 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 who were first-time in college full-time students in Texas community colleges, the parametric dependent samples *t*-test did not reveal a statistically significant difference in their percentage, $t(68) = -1.29, p = .20$, between the 1999-2000 and the 2007-2008 academic years (see Tables 2.7 and 2.9 for the statistics for these two academic years). The percentage of Asian first-time in college full-time students was comparable in both of these academic years. The parametric dependent samples *t*-test did not reveal a statistically significant difference in the percentage of Asian first-time in college full-time students, $t(70) = -0.49, p = .63$, between the 2007-

2008 and the 2014-2015 academic years. The percentage of Asian first-time in college full-time students in the 1999-2000 academic year was 2.31%, 2.63% in the 2007-2008 academic year, and 2.9%, in the 2014-2015 academic year. Again, similar percentages of Asian first-time in college full-time students were present in these academic years. Finally for the 1999-2000 and the 2014-2015 comparison, a statistically significant difference was not yielded in the percentage of Asian first-time in college full-time students, $t(68) = -1.26, p = .21$. Presented in Tables 2.7 and 2.12 are the descriptive statistics for Asian student percentages in these two academic years.

Concerning the percentage of White students who were first-time in college full-time students in Texas community colleges, the parametric dependent samples t -test revealed a statistically significant difference in their percentage, $t(68) = 9.49, p < .001$, 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). In the 2007-2008 academic year, White students represented 47% of first-time in college full-time students which was markedly lower than the 56% of White first-time in college full-time students enrolled in Texas community colleges in the 1999-2000 academic year. Readers are directed to Tables 2.7 and 2.9 for 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 first-time in college full-time students who were enrolled at Texas community colleges, $t(70) = 11.56, p < .001$. This difference represented a large effect size (Cohen's d) of 1.37 (Cohen, 1988). The percentage of White first-time in college full-time students enrolled in Texas community colleges decreased from 47% in the 2007-2008 academic year to 37% in the

2014-2015 academic year. Tables 2.7 and 2.9 contain the descriptive statistics for the 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 first-time in college full-time students, $t(68) = 14.88$, $p < .001$. This difference represented a large effect size (Cohen's d) of 1.79 (Cohen, 1988). The percentage of White first-time in college full-time students enrolled in Texas community colleges steadily decreased from 56% in the 1999-2000 academic year to 36% in the 2014-2015 academic year. Delineated in Tables 2.7 and 2.9 are the descriptive statistics for the White student percentages in these two academic years.

Concerning the enrollment of Hispanic first-time in college full-time students who were enrolled in Texas community colleges, a parametric dependent samples t -test revealed a statistically significant difference in their percentage, $t(68) = -10.63$, $p < .001$, between the 1999-2000 and the 2007-2008 academic years. This difference represented a large effect size (Cohen's d) of 1.27 (Cohen, 1988). The percentage of Hispanic first-time in college full-time students enrolled in Texas community colleges increased from 25% in the 1999-2000 academic year to 33% in the 2007-2008 academic year. Readers are directed to Table 2.7 and 2.9 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 first-time in college full-time students enrolled in Texas community colleges, $t(70) = -9.47$, $p < .001$. This difference represented a large effect size (Cohen's d) of 1.12 (Cohen, 1988). The percentage of Hispanic first-time in college full-time students enrolled in Texas community colleges increased from 33% in the 2007-

2008 academic year to 42% in the 2014-2015 academic year. Tables 2.7 and 2.9 contain the descriptive statistics for the 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 first-time in college full-time students enrolled in Texas community colleges, $t(68) = -12.67, p < .001$. This difference represented a large effect size (Cohen's d) of 1.52 (Cohen, 1988). The percentage of Hispanic first-time in college full-time students enrolled in Texas community colleges increased steadily from 25% in the 1999-2000 academic year to 41% in the 2014-2015 academic year. Revealed in Tables 2.7 and 2.9 are the descriptive statistics for Hispanic student percentages in these two academic years

With respect to the enrollment of Black first-time in college full-time students enrolled in Texas community colleges, a parametric dependent samples t -test did not reveal a statistically significant difference in their percentage, $t(68) = -1.77, p = .08$, between the 1999-2000 and the 2007-2008 academic years. Similar percentages of Black first-time in college full-time students enrolled in Texas community colleges were present, 12% and 13%, respectively, in the 1999-2000 and the 2007-2008 academic years. Tables 2.7 and 2.9 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 first-time in college full-time students enrolled in Texas community colleges, $t(70) = 1.29, p = .20$. Again, similar percentages of Black first-time in college full-time students enrolled in Texas community colleges were present in both of these academic years with 13% in 2007-2008 and 12% in 2014-2015. Presented in Tables 2.7 and 2.9 are

the descriptive statistics for the Black student percentages in these two academic years. Finally for the 1999-2000 and the 2014-2015 comparison, a statistically significant difference was not yielded in the percentage of Black first-time in college full-time students enrolled in Texas community colleges, $t(68) = -0.38, p = .70$. The percentages of Black first-time in college full-time students remained constant over the academic years of data that were analyzed herein. Revealed in Tables 2.7 and Table 2.12 are the descriptive statistics for this analysis.

Discussion

Presented in this investigation was the degree to which ethnic/racial diversity of first-time in college full-time Texas community college students changed from the 1999-2000 through the 2014-2015 academic years. Fifteen years of archival data from the Texas Higher Education Coordinating Board Interactive Accountability System were obtained and analyzed from all Texas community colleges.

For the 16 years of data that were analyzed, statistically significant differences were present with respect to Hispanic first-time in college students who were enrolled full-time in Texas community colleges between the 1999-2000 and 2007-2008 academic years. The percentage of Texas community college students who were first-time in college students who were enrolled in Texas community colleges on a full-time basis and who were Hispanic steadily increased over this time period. Concomitant with this increase in the percentage of Hispanic students was a statistically significant decrease in the percentage rate of White students who were first-time in college and who were enrolled in Texas community colleges on a full-time basis. No changes were noted with respect to the percentage of Texas community college students who were first-time in

college students who were enrolled in Texas community colleges on a full-time basis for either Black or Asian students during this time period.

Connections with Existing Literature

According to the American Association of Community Colleges (2014), 41% of all first-time students enrolled in community colleges. By examining demographic shifts and student ethnic/racial diversity enrollment patterns, educational leaders can evaluate student success initiatives and policies that are needed to assist and support students while increasing and enhancing access to higher education and achieving graduation (Bragg & Durham, 2012). With an estimated 27.9 million citizens in Texas, White et al. (2016) reported that Texas is experiencing a major demographic shift as a result of domestic migration and immigration influencing the state. Texas 2-year public colleges have grown more rapidly than universities since the mid-1960s and these 2-year institutions are expected to experience larger student enrollments than universities, despite the declines in student enrollment from 2011 to 2014 (Texas Higher Education Coordinating Board, 2017).

Bragg and Durham (2012) emphasized a strong need for educational leaders to understand student diversity at the community college level. “If not for community colleges, the overall higher education system would enroll fewer racial and ethnic minorities and fewer low-income, immigrant, and first-time-in-college students, which explains why access has been the quintessential tenet of community colleges for decades” (Bragg & Durham, 2012, p. 108). A gap in the research literature exists on community college student enrollment patterns and the degree to which their enrollment patterns influence postsecondary outcomes (Crostra, 2014). Particularly not well examined in the

research literature are current studies that focus exclusively on first-time-in-college community college enrollment patterns (Crostra, 2014).

Implication for Policy and Practice

In this multiyear, statewide investigation, the degree to which changes occurred in the ethnic/racial diversity of first-time in college full-time students enrolled in Texas community colleges was addressed. Based upon the results of this statewide, multiyear investigation, several implications are present for policy and practice. First, researchers and educational leaders are encouraged to monitor the demographic shifts that continue to take place within first-year student populations at community colleges. Such efforts should be directed toward designing intrusive student support initiatives and expanding recruitment efforts based on demographic shifts. Second, as demographic shifts continue to influence the State of Texas, community college leaders should expand funding opportunities that strategically focus on increasing Hispanic student success, as well as increasing Black student success, in higher education. Third, researchers and educational leaders should evaluate the differences in enrollment percentages over time of multiple ethnic/diverse groups of students to help design different student support initiatives that target the unique needs of first-year students. Fourth, the results of this multi-year investigation can provide researchers and educational leaders with important data and metrics to help improve access, success, and equity within and among community college student populations. Fifth, researchers are encouraged to continue the partnerships between the Texas Higher Education Coordinating Board and the Texas Legislature to design and implement student success initiatives that target goal attainment of specific student populations. Bailey, Jaggars, and Jenkins (2015) emphasized the need for

continued reform within our community college institutions to help students clarify their academic objectives and to implement intrusive student success programs to increase graduation rates with minimal financial costs.

Recommendations for Future Research

In this multiyear, statewide investigation, the degree to which changes occurred in the ethnic/racial diversity of first-time in college full-time students enrolled in Texas community colleges was addressed. Based upon the results of this investigation, several recommendations for further research are apparent. First, researchers are encouraged to replicate this investigation in other states to ascertain whether the results of this multiyear analysis are generalizable outside of Texas. Second, researchers are encouraged to replicate this investigation at Texas 4-year institutions. The extent to which results of this investigation based on community colleges 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 who are first-time in college students who are enrolled part-time. The results of this multiyear analysis were based on first-time in college students who were enrolled in Texas community colleges on a full-time basis. Given that the majority of community college students are enrolled on a part-time basis, the degree to which findings delineated herein would be transferable to community college students who are enrolled in Texas community colleges on a part-time basis is not known.

Fourth, researchers are encouraged to extend the previous recommendation to other states, as well as to 4-year institutions. Finally, researchers are encouraged to examine the ethnic/racial diversity of all students who are enrolled in community

colleges, regardless of their enrollment status. These analyses should be conducted over multiple academic years to ensure that any trends, if present, could be determined.

Conclusion

The purpose of this research study was to determine the extent to which the ethnic/racial diversity of first-time in college full-time Texas community college students had changed from the 1999-2000 through the 2014-2015 academic years. Over this time period, the percentage of Hispanic first-time in college full-time Texas community college students statistically significantly increased, whereas the percentage of White first-time in college full-time students enrolled in Texas community colleges statistically significantly decreased. No changes were noted with respect to either Black or Asian first-time in college full-time college students enrolled in Texas community colleges during this time period.

Though some improvement was noted in the ethnic/racial diversity of Texas first-time in college full-time students, more work remains. Educational leaders at community colleges need to continue their efforts to improve the national graduation rates of community college students. Bailey et al. (2015) accentuated that if community colleges are to improve student graduation rates, a full commitment to overhaul and institutionally restructure traditional approaches to student success must take place with targeted reforms in an effort to assist students more efficiently.

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Table 2.1

Descriptive Statistics for First-Time in College Full-Time Student Enrollment at Texas Community Colleges 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	18.86	37.54	1,358
White	349.94	353.75	25,196
Hispanic	178.13	258.19	12,825
Black	69.03	82.92	4,970
2000-2001			
Asian	19.83	34.48	1,428
White	385.08	450.50	27,726
Hispanic	202.21	304.11	14,559
Black	77.19	89.02	5,558
2001-2002			
Asian	20.61	36.34	1,484
White	367.61	329.44	26,468
Hispanic	223.97	352.20	16,126
Black	77.18	81.07	5,557

Table 2.2

Descriptive Statistics for First-Time in College Full-Time Student Enrollment at Texas Community Colleges 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	19.28	30.54	1,388
White	396.36	437.88	28,538
Hispanic	263.81	563.06	18,994
Black	86.11	98.05	6,200
2003-2004			
Asian	19.96	32.41	1,437
White	363.04	354.48	26,139
Hispanic	248.64	384.66	17,902
Black	85.93	92.40	6,187
2004-2005			
Asian	20.31	37.96	1,462
White	347.46	349.28	25,017
Hispanic	239.25	357.24	17,226
Black	85.63	90.32	6,165

Table 2.3

Descriptive Statistics for First-Time in College Full-Time Student Enrollment at Texas Community Colleges 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	21.82	36.55	1,571
White	348.49	356.07	25,091
Hispanic	243.25	341.79	17,514
Black	83.92	89.51	6,042
2006-2007			
Asian	23.85	42.49	1,717
White	354.06	367.29	25,492
Hispanic	250.53	361.73	18,038
Black	87.96	95.86	6,333
2007-2008			
Asian	22.44	37.70	1,616
White	342.79	340.66	24,681
Hispanic	271.50	371.58	19,548
Black	91.46	110.64	6,585

Table 2.4

Descriptive Statistics for First-Time in College Full-Time Student Enrollment at Texas Community Colleges 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	25.42	41.04	1,830
White	365.94	346.13	26,348
Hispanic	323.79	464.46	23,313
Black	107.56	125.55	7,744
2009-2010			
Asian	25.14	45.95	1,810
White	333.39	283.31	24,004
Hispanic	339.08	430.98	24,414
Black	114.71	139.53	8,259
2010-2011			
Asian	26.53	53.16	1,910
White	310.07	288.47	22,325
Hispanic	349.54	479.07	25,167
Black	120.40	138.79	8,669

Table 2.5

Descriptive Statistics for First-Time in College Full-Time Student Enrollment at Texas Community Colleges in the 2011-2012, 2012-2013, and 2013-2014 Academic Years

Academic Year and Ethnicity/Race	<i>M</i>	<i>SD</i>	Sum
2011-2012			
Asian	25.40	49.22	1,854
White	308.67	418.31	22,533
Hispanic	324.25	423.80	23,670
Black	113.49	159.27	8,285
2012-2013			
Asian	24.82	47.24	1,812
White	297.52	442.96	21,719
Hispanic	318.34	402.71	23,239
Black	110.38	151.87	8,058
2013-2014			
Asian	25.45	47.00	1,828
White	271.89	406.04	19,848
Hispanic	305.37	394.03	22,292
Black	97.18	135.79	7,094

Table 2.6

Descriptive Statistics for First-Time in College Full-Time Student Enrollment at Texas Community Colleges in the 2014-2015 Academic Year

Academic Year and Ethnicity/Race	<i>M</i>	<i>SD</i>	Sum
2014-2015			
Asian	24.46	50.13	1,810
White	242.53	334.13	17,947
Hispanic	288.34	370.71	21,337
Black	89.19	136.37	6,600

Table 2.7

*Descriptive Statistics for First-Time in College Full-Time Student Enrollment**Percentages at Texas Community Colleges in the 1999-2000, 2000-2001, and 2001-2002**Academic Years*

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
1999-2000		
Asian	2.31	2.84
White	56.33	21.85
Hispanic	25.39	23.89
Black	12.16	10.25
2000-2001		
Asian	2.24	2.87
White	55.18	21.70
Hispanic	26.03	23.73
Black	12.48	10.46
2001-2002		
Asian	2.39	3.01
White	54.68	21.33
Hispanic	26.93	23.52
Black	11.89	9.42

Table 2.8

Descriptive Statistics of First-Time in College Full-Time Student Enrollment Percentages at Texas Community Colleges in the 2002-2003, 2003-2004, and 2004-2005 Academic Years

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2002-2003		
Asian	2.24	2.76
White	53.99	21.33
Hispanic	28.07	23.57
Black	12.38	09.96
2003-2004		
Asian	2.35	2.75
White	52.27	21.39
Hispanic	28.74	23.28
Black	12.97	10.68
2004-2005		
Asian	2.31	3.10
White	51.10	21.29
Hispanic	29.58	22.99
Black	13.34	10.97

Table 2.9

Descriptive Statistics of First-Time in College Full-Time Student Enrollment Percentages at Texas Community Colleges in the 2005-2006, 2006-2007, and 2007-2008 Academic Years

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2005-2006		
Asian	2.71	3.39
White	49.83	20.97
Hispanic	30.98	22.53
Black	12.48	10.03
2006-2007		
Asian	2.69	3.12
White	49.58	21.21
Hispanic	30.86	22.50
Black	13	10.85
2007-2008		
Asian	2.63	3.07
White	47.10	20.86
Hispanic	32.97	22.23
Black	13.25	10.54

Table 2.10

Descriptive Statistics of First-Time in College Full-Time Student Enrollment Percentages at Texas Community Colleges in the 2008-2009, 2009-2010, and 2010-2011 Academic Years

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2008-2009		
Asian	2.71	2.82
White	45.42	19.98
Hispanic	34.54	22.18
Black	13.93	11.13
2009-2010		
Asian	2.44	3.02
White	41.40	18.79
Hispanic	35.15	20.89
Black	13.61	10.99
2010-2011		
Asian	2.61	3.36
White	39.02	19.04
Hispanic	37.25	20.99
Black	14.76	11.95

Table 2.11

Descriptive Statistics of First-Time in College Full-Time Student Enrollment Percentages at Texas Community Colleges in the 2011-2012, 2012-2013, and 2013-2014 Academic Years

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2011-2012		
Asian	2.53	3.12
White	39.13	19.09
Hispanic	38.03	22
Black	14.31	11.58
2012-2013		
Asian	2.68	3.40
White	37.24	18.71
Hispanic	39.38	21.79
Black	14.54	11.17
2013-2014		
Asian	2.97	3.44
White	36.29	18.10
Hispanic	40.62	21.19
Black	13.56	9.78

Table 2.12

Descriptive Statistics of First-Time in College Full-Time Student Enrollment Percentages at Texas Community Colleges in the 2014-2015 Academic Year

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2014-2015		
Asian	2.94	3.53
White	35.69	18.17
Hispanic	41.22	21.88
Black	12.66	9.46

CHAPTER IIIETHNIC/RACIAL DIVERSITY OF TEXAS COMMUNITY COLLEGE FIRST-TIME
IN COLLEGE PART-TIME STUDENTS: A MULTIYEAR, STATEWIDE ANALYSIS

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

Abstract

In this article, the extent to which the ethnic/racial diversity of first-time in college students who were enrolled on a part-time basis at Texas community colleges had changed from the 1999-2000 through the 2014-2015 academic years was examined. During this period, the percentage of Hispanic first-time in college students who were enrolled on a part-time basis in Texas community colleges statistically significantly increased, whereas the percentage of White first-time in college students who were enrolled on a part-time basis in Texas community colleges statistically significantly decreased. The percentages of Black and Asian first-time in college part-time students enrolled in Texas community colleges remained consistent over this time period. Although some improvements were present in the ethnic/racial diversity of first-time in college part-time students over this time period, community colleges are encouraged to increase their efforts in this area. Implications for policy and recommendations for future research were made.

Keywords: Community Colleges, Part-time Students, First-time in College, Ethnicity/Race, Texas, Asian, White, Hispanic, Black

ETHNIC/RACIAL DIVERSITY OF TEXAS COMMUNITY COLLEGE FIRST-TIME
IN COLLEGE PART-TIME STUDENTS: A MULTIYEAR, STATEWIDE ANALYSIS

Horn and Radwin (2014) reported that progress and success measures are primarily limited to full-time students, yet 62% of community college students attend part time. The population of part-time students enrolled in higher education has continued to increase throughout the past 30 years (Kember, 1999; MacCann, Fogarty, & Roberts, 2012; O'Toole, Stratton, & Wetzel, 2003; Williams & Kane, 2010). Part-time student enrollment rates at community colleges have traditionally outnumbered full-time student enrollment as 62% of students attending community colleges are enrolled part-time in comparison to 38% of students who are enrolled full-time (American Association of Community Colleges, 2016). Traditionally, more part-time students have enrolled at American community colleges than at 4-year institutions (McCormick, Geis, & Vergun, 1995). Since 1970, part-time enrollment in undergraduate institutions has increased from 32% of total enrollment in 1970 to 61% of total enrollment in 2016 (American Association of Community Colleges, 2016; O'Toole et al., 2003).

O'Toole et al. (2003) documented that the number of part-time college students more than doubled (i.e., from 2.8 million to 6 million), and full-time student enrollment increased from 5.8 million to 8.6 million (i.e., 48%) from 1970 to 1998. Ma and Baum (2016) reported that students who attended community colleges were more likely to attend part time than their peers who attended 4-year institutions. Conversely, the number of full-time students attending community colleges was smaller than the number of full-time students attending 4-year postsecondary institutions. According to the American Association of Community Colleges (2015), more than 60% of the 7.4 million

community college students who took credit courses in fall 2013 attended college part time. A limited number of empirical investigations have been conducted on part-time student enrollment patterns (MacCann et al., 2012; Williams & Kane, 2010). As a result of the former-President Obama administration's call to increase graduation and completion rates of community college students by an additional 5 million students by the year 2020, more intentional efforts on increasing persistence rates in community colleges has gained national attention (Hall, 2015).

Hall (2015) documented that "the low persistence and graduation rate of students in the country's public community colleges is threatening the nation's economy and the mission of the community colleges" (p. 15). Jenkins and Cho (2013) highlighted that although community colleges are the mainstay for many students and play an essential role in expanding access to higher education, persistence and graduation rates remain constantly low. Texas remedial community college students who complete their degrees and certificates within 3 years is extremely low with only 18.1% of college level students and 9.1% of developmental students completing their degrees and certificate credentials within 3 years (Complete College Texas, 2013). In the State of Texas, part-time community college students are completing their 2-year associate degrees in an average of 5.2 years as compared to 4.7 years for full-time students (Complete College Texas, 2013). For Texas community college part-time students, only 7.9% are completing their degrees in 3 years and 24.4% are completing their 2-year associate degrees within 6 years (Complete College Texas, 2013). Bailey et al. (2004) revealed that lower-socioeconomic, ethnically/racially diverse, underserved students are overrepresented in community colleges and technical schools

Sorey and Duggan (2008) established that community college part-time enrollments increased over 200% between 1970 and 1995. As part-time student enrollments have continued to increase, only 16.5% of part-time community college students graduated from their academic institutions as compared to 43% of full-time students in 2014 (Juszkiewicz, 2015). Chen and Carrol (2007) noted that only three out of every 10 community college students who initiated their collegiate journey at a community college persisted to graduation. Part-time community college students have the lowest persistence and completion rates of all students attending community colleges (Hall, 2015). Only 14% of part-time community college students had completed a certificate or an associate degree within six years, and only 13% were still enrolled for an overall 6-year persistence rate of only 27% (Horn & Radwin, 2014). Also, Horn and Radwin highlighted that part-time community college students took an average of nearly four years to complete their associate degrees and an average of two years for certificate completion.

According to the National Clearinghouse Research Center (2011), the southern and western regions of the United States experienced growth in part-time student enrollment from 2006 to 2009, but dropped by 3.8% and 4.5% between 2009 and 2010. Enrollment intensity rates for part-time students showed a decrease in enrollment with a 3.5% decrease from the prior year in fall 2016 (National Clearinghouse Research Center, 2016). Part-time student populations have traditionally presented higher tendencies to focus on balancing work responsibilities than on academics, resulting in a lower persistence and retention rates (Copeland et al., 2008).

The National Center for Education Statistics (2016) documented that 55% of community college part-time students were young adults, 24% were ages 25-34, and 21% were 35-years-old and older. Overall undergraduate enrollment of part-time students in the United States indicated that 5.5% of part-time students are Asian, 15.7% of part-time students are Black, 19% of part-time students are Hispanic, and 56% of part-time students are White (National Center for Education Statistics, 2016). Differences have been established between the graduation rates for part-time community college students versus full-time community college students, with full-time students graduating with five times higher graduation rates than students who were enrolled part-time (McHewitt, 1993). Part-time students differ from their full-time counterparts in that they tend to be older, Hispanic, female, married, and academically disadvantaged (Chen & Carroll, 2007). Not only did part-time students report higher levels of at-risk academic indicators, part-time students also placed higher emphasis on their work and professional plans than full-time students (Chen & Carroll, 2007). Adelman (1999) concluded that most researchers had not focused on the continuous enrollment patterns and trajectories that students take in changing from part-time to full-time status within their academic journey. Adelman (1999) highlighted the lack of studies within the research literature in which the sole focus was placed on part-time student enrollment.

Statement of the Problem

In the United States, an emphasis on improving the on-time degree completion and transfer rates of community college students has dominated the national higher education agenda (O'Banion, 2011). In addition to policymakers, philanthropic groups, such as the Bill & Melinda Gates Foundation and Lumina Foundation, have been

generous with funding for student success causes. Community college leaders continue to tackle the challenges to double the national completion and transfer rates (O'Banion, 2011). In 2010, the American Association of Community Colleges recommended to increase the number of community college students who successfully complete and earn their academic and workforce credentials by 50% by the year 2020. As part of its mission and national agenda, the American Association of Community Colleges (2014) listed its most essential leadership priorities, including: (a) place major emphasis on improving completion rates, (b) improve national college readiness, (c) close the American skills gap, (d) refocus the community college mission and redefine institutional roles, (e) invest in collaborative support structures, (f) target public and private investments strategically, and (g) implement policies and practices that promote rigor and accountability.

Purpose of the Study

The purpose of this causal-comparative quantitative analysis was to examine the degree to which changes might have occurred in the ethnic/racial diversity of first time in college students who were enrolled part-time in Texas community colleges. Specifically, the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of first time in college students who were enrolled part-time in Texas community colleges in the 1999-2000 academic year through the 2014-2015 academic years were analyzed. Inferential statistical analyses were performed to determine the extent to which changes might have occurred in the ethnic/racial diversity of Texas community college first-time in college part-time students from the 1999-2000 to the 2014-2015 academic years. By analyzing

16 years of Texas statewide data, the degree to which trends might be present were determined.

Significance of the Study

In this multiyear investigation, the degree to which changes had occurred in the ethnic/racial composition of first time in college students who were enrolled part-time in Texas community colleges were addressed. As such, these determinations will provide important information to educational leaders and policymakers regarding several important student success initiatives and public policy concerns. In April 2011, the president and CEO of the American Association of Community Colleges, Walter Bumphus, noted that “completion is not as embedded in our community college culture as access is. That is something that we need to change” (Bumpass as cited in O’Banion, 2011, p. 28). Through this research analysis, valuable information will be obtained on the part-time enrollment of Texas first-time community college students.

Research Questions

The research questions that will be addressed in this investigation are: (a) What is the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of Texas community college first-time in college part-time students in the 1999-2000 academic year?; (b) What is the difference in the enrollment percentages of Texas Asian community college first-time in college part-time students between the 1999-2000 and the 2007-2008 academic years, between the 2007-2008 and the 2014-2015 academic years, and between the 1999-2000 and the 2014-2015 academic years?; (c) What is the difference in the enrollment percentages of Texas White community college first-time in college part-time students between the 1999-2000 and the 2007-2008 academic years, between the 2007-

2008 and the 2014-2015 academic years, and between the 1999-2000 and the 2014-2015 academic years?; (d) What is the difference in the enrollment percentages of Texas Hispanic community college first-time in college part-time students between the 1999-2000 and the 2007-2008 academic years, between the 2007-2008 and the 2014-2015 academic years, and between the 1999-2000 and the 2014-2015 academic years?; (e) What is the difference in the enrollment percentages of Texas Black community college first-time in college part-time students between the 1999-2000 and the 2007-2008 academic years, between the 2007-2008 and the 2014-2015 academic years, and between the 1999-2000 and the 2014-2015 academic years?; and (f) What trends are present in the ethnic/racial diversity of first-time in college part-time students enrolled in Texas community college first-time part-time students in the 1999-2000 through the 2014-2015 academic years? The first research question will be repeated for the 1999-2000 through the 2014-2015 academic years, whereas, the rest of the research questions, with the exception of the trends question, will be addressed for three academic year comparisons. The trend question will involve all 16 academic years of data.

Method

Research Design

A non-experimental causal-comparative research design (Creswell, 2009; Johnson & Christensen, 2012) was used in this study. In non-experimental causal-comparative research, the independent variable is not manipulated or cannot be manipulated. In this empirical multiyear study, the independent and dependent variables had already occurred. The independent variable involved in this study was the specific academic year in which first-time in college students who were enrolled in a Texas community college on a part-

time basis. In this investigation, data were obtained for the 1999-2000 through the 2014-2015 academic years. The dependent variables were the numbers of first-time in college students by their ethnicity/race who were enrolled part-time in a Texas community college during this time period. These numbers were converted into percentages of the total student enrollment who were Asian, White, Hispanic, and Black.

In this investigation, the population of interest were Texas community college students who were first-time in college students and who were enrolled on a part-time basis in the academic years previously delineated. The primary focus of this empirical investigation was to examine the extent to which changes might have occurred in the ethnic/racial diversity of first-time in college part-time students at Texas community colleges. Following statistical analyses of the 1999-2000 through the 2014-2015 academic years, the degree to which trends were present in the ethnic/racial of first-time in college part-time students enrolled in Texas community colleges was examined.

Participants and Instrumentation

The Texas Higher Education Coordinating Board Interactive Accountability System was used to retrieve archival data for the 1999-2000 through the 2014-2015 academic years. Data from 72 community colleges were included in this research analysis. Each community college was required to report their persistence, completion, enrollment, student ethnicity/race, and graduation rates annually. The Texas Higher Education Coordinating Board aggregates the data and provides the information publicly through the Texas Higher Education Coordinating Board Interactive Accountability System. The instrument used in this research study was the Texas Higher Education Coordinating Board Interactive Accountability database system. The database contained

every Texas community college institution along with descriptive statistical data for all Texas institutions of higher education. A total of 16 years of data was available for analysis.

Results

In the first research question, the ethnic/racial diversity of Texas community college first-time in college students who were enrolled part-time was calculated for the 1999-2000 through the 2014-2015 academic years. 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 first-time in college part-time students were calculated for each of the academic years of data analyzed in this article. Readers are directed to Tables 3.1 through 3.6 for these descriptive statistics.

Insert Tables 3.1 through 3.6 about here

In the 1999-2000 academic year, 60% of Texas community college first-time in college part-time students were White, followed by 24% Hispanic, 9.7% Black, and 2.4% Asian. Similar percentages were present in the 2000-2001 academic year with the highest percentage of first-time in college part-time students being White, 59%, followed by Hispanic, 26%, Black, 9.9%, and Asian, 2.6%. These percentages remained very stable through the 2004-2005 academic year. In the 2006-2007 academic year, the percentage of White students who were first-time in college part-time enrollment

decreased to 51%, with Hispanic students now at almost one third, 32%, of the first-time in college part-time enrollment at Texas community colleges. Black students, 11%, and Asian students, 3%, continued to constitute the two smallest ethnic/racial groups of first-time in college part-time students.

Over the next several years, the percentage of first-time in college part-time White students steadily decreased and the percentage of Hispanic students steadily increased. The percentages of Black and Asian students remained constant. In the 2010-2011 academic year, the percentage of White students decreased below 40%, 38%, and the percentage of Hispanic students was more than one third, 38%, of the student enrollment, followed by Black students, 15%, and Asian students, 3%. Of note is the 2012-2013 academic year because this year was the first one in which the percentage of Hispanic students, 39%, who were first-time in college part-time students was higher than the percentage of White students, 37%. In the most recent academic year, 2014-2015, the percentage of Hispanic students was 44% of the total enrollment, followed by White students, 34%, and then by Black students, 13%, and then by Asian students, 3%. Readers are directed to Tables 3.7 through 3.12 for the descriptive statistics regarding the ethnic/racial diversity of first-time in college part-time Texas community college students from the 1999-2000 through the 2014-2015 academic years.

Insert Tables 3.7 through 3.12 about here

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 did not reveal a statistically significant difference in their percentage, $t(68) = -1.23, p = .22$, between the 1999-2000 and the 2007-2008 academic years. The percentage of Asian first-time in college part-time students was comparable in both of these academic years. Tables 3.7 and 3.12 contain the descriptive statistics for this analysis. The parametric dependent samples *t*-test did not reveal a statistically significant difference in the percentage of Asian first-time in college part-time students, $t(70) = 1.75, p = .08$, between the 2007-2008 and the 2014-2015 academic years. Again, similar percentages of Asian first-time in college part-time students were present in both of these academic years. Presented in Tables 3.7 and 3.12 are the descriptive statistics for these two academic years. Finally for the 1999-2000 and the 2014-2015 comparison, a statistically significant difference was not yielded in the percentage of Asian first-time in college part-time students, $t(68) = 0.41, p = .68$. In all three comparisons, the percentage of Asian first-time in college part-time students was consistent. Tables 3.7 and 3.12 contain the descriptive statistics for this analysis.

Concerning the percentage of White students who were part-time in college full-time students in Texas community colleges, the parametric dependent samples *t*-test

revealed a statistically significant difference in their percentage, $t(68) = 12.98, p < .001$, between the 1999-2000 and the 2007-2008 academic years. This difference represented a large effect size (Cohen's d) of 1.56 (Cohen, 1988). A lower percentage of White first-time in college part-time student, 47%, were present in the 2007-2008 academic year than in the 1999-2000 academic year, 61%. Presented in Tables 3.7 and 3.12 are 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 first-time in college part-time students who were enrolled at Texas community colleges, $t(70) = 11.21, p < .001$. This difference represented a large effect size (Cohen's d) of 1.33 (Cohen, 1988). The percentage of White first-time in college part-time students decreased from 47% in the 2007-2008 academic year to 34% in the 2014-2015 academic year. Tables 3.7 and 3.12 contain 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 first-time in college part-time students, $t(68) = 19.35, p < .001$. This difference represented a small effect size (Cohen's d) of 0.49 (Cohen, 1988). The percentage of White students steadily decreased from 61% in the 1999-2000 academic year to 34% in the 2014-2015 academic year. Readers are directed to Tables 3.7 and 3.12 for the descriptive statistics for this analysis.

Concerning the enrollment of Hispanic first-time in college part-time students, a parametric dependent samples t -test revealed a statistically significant difference in their percentage, $t(68) = -13.39, p < .001$, between the 1999-2000 and the 2007-2008 academic years. This difference represented a large effect size (Cohen's d) of 1.61 (Cohen, 1988).

The percentage of Hispanic first-time in college part-time student increased from 24% in the 1999-2000 academic year to 44% in the 2007-2008 academic year. Descriptive statistics for this analysis are presented in Table 3.7 and 3.12. Regarding the 2007-2008 and the 2014-2015 academic year comparison, a statistically significant difference was revealed in the percentage of Hispanic first-time in college part-time students, $t(70) = -8.44, p < .001$. This difference represented a large effect size (Cohen's d) of 1.00 (Cohen, 1988). The percentage of Hispanic first-time in college part-time students increased from 35% in the 2007-2008 academic year to 44% in the 2014-2015 academic year. Contained in Tables 3.7 and 3.12 are the descriptive statistics for 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 first-time in college part-time students, $t(68) = -16.17, p < .001$. This difference represented a large effect size (Cohen's d) of 1.94 (Cohen, 1988). The percentage of Hispanic first-time in college part-time students increased from 24% in the 1999-2000 academic year to 44% in the 2014-2015 academic year. Descriptive statistics for this analysis are presented in Table 3.7 and 3.12.

With respect to the enrollment of Black first-time in college part-time students, a parametric dependent samples t -test revealed a statistically significant difference in their percentage, $t(68) = -3.83, p < .001$, between the 1999-2000 and the 2007-2008 academic years. This difference represented a large effect size (Cohen's d) of 1.94 (Cohen, 1988). The percentage of Black first-time in college part-time students increased from 9.7% in 1999-2000 to 12.3% in the 2007-2008 academic year. Readers are directed to Tables 3.7 and 3.9 for 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 first-time in college part-time students, $t(70) = -1.34, p = .19$. Again, similar percentages of Black first-time in college full-time students, 12% and 13% respectively, were present in both of these academic years. Revealed in Tables 3.9 and 3.12 for 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 present in the percentage of Black first-time in college part-time students, $t(68) = -3.62, p < .001$. This difference represented a medium effect size (Cohen's d) of 0.44 (Cohen, 1988). The percentage of Black students increased from 9.7% in the 1999-2000 academic year to 13.2% in the 2014-2015 academic year. The percentages of Black first-time in college part-time students remained constant over the academic years of data that were analyzed herein. Tables 3.7 and 3.12 contain the descriptive statistics for this analysis.

Discussion

In this investigation, the degree to which the ethnic/racial diversity of first-time in college part-time Texas community college students had changed from the 1999-2000 through the 2014-2015 academic years was addressed. Downloaded from the Texas Higher Education Coordinating Board Interactive Accountability System were 16 years of data from all 72 Texas community colleges. For the 16 academic years of Texas statewide data that were analyzed, statistically significant differences were present in the percentages of Hispanic first-time in college students who were enrolled part-time between the 1999-2000 and 2007-2008 academic years. The percentage of Texas Hispanic community college students who were first-time in college students and who

were enrolled on a part-time basis steadily increased over this time period. Concomitant with this statistically significant increase in the percentage of Hispanic students was a statistically significant decrease in the percentages of White students who were first-time in college and who were enrolled on a part-time basis. No changes were noted with respect to the percentage of Texas community college students who were first-time in college students who were enrolled on a part-time basis for either Black or Asian students during this time period.

Connections with Existing Literature

According to the American Association of Community Colleges (2014), 41% of all first-time students attend community colleges. Through analyzing the demographic shifts and student ethnic/racial diversity enrollment patterns, educational leaders can evaluate the efficacy of student success initiatives and policies (Bragg & Durham, 2012). Texas 2-year public colleges have grown more rapidly than universities since the mid-1960s 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). As such, educational leaders clearly need to understand student diversity at the community college levels (Bragg & Durham, 2012). “If not for community colleges, the overall higher education system would enroll fewer racial and ethnic minorities and fewer low-income, immigrant, and first-time-in-college students, which explains why access has been the quintessential tenet of community colleges for decades” (Bragg & Durham, 2012, p. 108).

Implication for Policy and Practice

Congruent with Crostra's (2014) comment that institutions need to track the multiple and diverse enrollment patterns of community college students, results of this Texas statewide investigation provide educational leaders with much needed information. As such, several implications for policy and for practice can be made. First, community college leaders and researchers are encouraged to expand the monitoring of demographic shifts taking place within higher education. Second, the enrollment patterns of first-year student groups should be examined continually to ensure that appropriate academic support resources can be provided to assist students in completing their educational goals. Third, community college leaders are encouraged to continue searching for innovative programs and practices to improve student access to postsecondary institutions and to improve their completion rates, once enrolled. The College Board (2010) highlighted that "many minority groups, including traditionally disadvantaged groups, are participating in college in record numbers. However, the fastest growing populations in the United States are those minority groups with the lowest levels of educational attainment" (College Board, 2010, p. 18).

Recommendations for Future Research

In this multiyear, statewide investigation, the degree to which changes had occurred in the ethnic/racial diversity of first-time in college part-time students was addressed. Based upon the results of this investigation, several recommendations for further research are possible. First, researchers are encouraged to replicate this investigation in other states to ascertain whether the results of this multiyear analysis on first-time in college part-time students would be generalizable outside of Texas. 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 first-time in college students who were enrolled on a part-time basis 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 who are first-time in college students who are enrolled on a full-time basis. The results of this multiyear analysis were based on first-time in college students who were enrolled on a part-time basis. Given that a sizable proportion of community college students are enrolled on a full-time basis, the degree to which findings delineated herein would be transferable to community college students who are enrolled on a full-time basis is not known.

Fourth, researchers are encouraged to extend the previous recommendation to other states, including 4-year institutions. Finally, researchers are encouraged to examine the ethnic/racial diversity of all students enrolled in community colleges, regardless of their enrollment status. These analyses should be conducted over multiple academic years to determine if trends are present.

Conclusion

The purpose of this research study was to determine the extent to which the ethnic/racial diversity of first-time in college part-time Texas community college students had changed from the 1999-2000 through the 2014-2015 academic years. Over this time period, the percentage of Hispanic first-time in college part-time Texas community college students statistically significantly increased, whereas the percentage of White first-time in college part-time students statistically significantly decreased. No changes were noted with respect to either Black or Asian first-time in college part-time college

students during this time period. Although some improvement was noted in the ethnic-racial diversity of Texas first-time in college part-time students, more work remains. Educational leaders at community colleges are encouraged continue to search for efficient and innovative ways to improve the ethnic/racial diversity of community college students.

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Table 3.1

Descriptive Statistics for First-Time in College Part-Time Student Enrollment at Texas Community Colleges 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	23.11	50.69	1,664
White	379.15	310.98	27,299
Hispanic	183.96	253.16	13,245
Black	65	97.30	4,680
2000-2001			
Asian	28.22	55.95	2,032
White	402.40	354.37	28,973
Hispanic	202.07	285.59	14,549
Black	73.85	97.90	5,317
2001-2002			
Asian	23.32	45.69	1,679
White	371.90	332.85	26,777
Hispanic	195.71	237.12	14,091
Black	70.93	89	5,107

Table 3.2

Descriptive Statistics for First-Time in College Part-Time Student Enrollment at Texas Community Colleges 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	23.71	43.92	1,707
White	365.81	329.15	26,338
Hispanic	245.79	447.06	17,697
Black	72.65	89.96	5,231
2003-2004			
Asian	24.81	49.31	1,786
White	373.39	372.79	26,884
Hispanic	227.11	315.10	16,352
Black	77.92	104.68	5,610
2004-2005			
Asian	25.69	46.56	1,850
White	354.33	370.09	25,512
Hispanic	225.44	293.31	16,232
Black	74.62	90.30	5,373

Table 3.3

Descriptive Statistics for First-Time in College Part-Time Student Enrollment at Texas Community Colleges 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	26.25	47.54	1,890
White	338.65	405.02	24,363
Hispanic	232.43	297.43	16,735
Black	78.76	101.62	5,671
2006-2007			
Asian	25.44	46.66	1,832
White	278.06	350.21	20,020
Hispanic	219.88	279.66	15,831
Black	79.40	98.68	5,717
2007-2008			
Asian	30.65	55.77	2,207
White	259.35	231.17	18,673
Hispanic	260.90	313.49	18,785
Black	91.58	121.14	6,594

Table 3.4

Descriptive Statistics for First-Time in College Part-Time Student Enrollment at Texas Community Colleges 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	31.08	58.79	2,238
White	269.11	254.84	19,376
Hispanic	294.85	374.56	21,229
Black	106.72	153.23	7,684
2009-2010			
Asian	37.26	85	2,683
White	279.62	270.85	20,133
Hispanic	342.32	462.66	24,647
Black	134.46	253.29	9,681
2010-2011			
Asian	33.74	77.80	2,429
White	261.75	249.66	18,846
Hispanic	376.47	492.84	27,106
Black	155.74	295.46	11,213

Table 3.5

Descriptive Statistics for First-Time in College Part-Time Student Enrollment at Texas Community Colleges in the 2011-2012, 2012-2013, and 2013-2014 Academic Years

Academic Year and Ethnicity/Race	<i>M</i>	<i>SD</i>	Sum
2011-2012			
Asian	28.45	48.81	2,077
White	250.77	272.07	18,306
Hispanic	353.89	411.03	25,834
Black	135.84	204.31	9,916
2012-2013			
Asian	29.53	48.71	2,156
White	248.14	318.22	18,114
Hispanic	362.53	415.75	26,465
Black	134.88	192.19	9,846
2013-2014			
Asian	29.27	48.88	2,137
White	244.86	307.26	17,875
Hispanic	380	425.08	27,740
Black	131.33	195.70	9,587

Table 3.6

Descriptive Statistics for First-Time in College Part-Time Student Enrollment at Texas Community Colleges in the 2014-2015 Academic Year

Academic Year and Ethnicity/Race	<i>M</i>	<i>SD</i>	Sum
2014-2015			
Asian	31.50	54.41	2,331
White	220.41	236.93	16,310
Hispanic	395.93	451.55	29,299
Black	109.96	151.21	8,137

Table 3.7

*Descriptive Statistics for First-Time in College Part-Time Student Enrollment**Percentages at Texas Community Colleges in the 1999-2000, 2000-2001, and 2001-2002**Academic Years*

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
1999-2000		
Asian	2.41	2.73
White	60.97	22.80
Hispanic	24.20	21.66
Black	9.73	9.99
2000-2001		
Asian	2.59	3.04
White	59	23.09
Hispanic	25.74	22.39
Black	9.90	9.46
2001-2002		
Asian	2.43	2.86
White	57.67	23.29
Hispanic	26.86	22.66
Black	10.19	9.53

Table 3.8

Descriptive Statistics of First-Time in College Part-Time Student Enrollment Percentages at Texas Community Colleges in the 2002-2003, 2003-2004, and 2004-2005 Academic Years

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2002-2003		
Asian	2.49	2.80
White	56.62	22.77
Hispanic	28.25	22.31
Black	10.06	9.17
2003-2004		
Asian	2.43	2.52
White	54.90	23.27
Hispanic	28.84	22.78
Black	10.95	10.60
2004-2005		
Asian	2.48	3
White	53.26	23.05
Hispanic	30.59	22.38
Black	10.60	9.82

Table 3.9

Descriptive Statistics of First-Time in College Part-Time Student Enrollment Percentages at Texas Community Colleges in the 2005-2006, 2006-2007, and 2007-2008 Academic Years

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2005-2006		
Asian	2.54	2.80
White	50.66	22.95
Hispanic	31.88	22.81
Black	11.04	9.54
2006-2007		
Asian	2.79	3.06
White	48.79	21.57
Hispanic	32.78	22.51
Black	11.91	9.03
2007-2008		
Asian	2.474	2.73
White	46.75	21.60
Hispanic	34.55	21.99
Black	12.32	8.53

Table 3.10

Descriptive Statistics of First-Time in College Part-Time Student Enrollment Percentages at Texas Community Colleges in the 2008-2009, 2009-2010, and 2010-2011 Academic Years

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2008-2009		
Asian	2.89	2.86
White	44.85	20.98
Hispanic	35.05	22.01
Black	13.42	9.99
2009-2010		
Asian	2.64	3.50
White	40.34	18.64
Hispanic	36.23	20.15
Black	13.76	10.62
2010-2011		
Asian	2.50	3.03
White	37.98	19.02
Hispanic	37.87	21.68
Black	15.23	12.01

Table 3.11

Descriptive Statistics of First-Time in College Part-Time Student Enrollment Percentages at Texas Community Colleges in the 2011-2012, 2012-2013, and 2013-2014 Academic Years

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2011-2012		
Asian	2.52	2.41
White	37.33	19.34
Hispanic	39.76	22.09
Black	14.50	11.56
2012-2013		
Asian	2.58	2.51
White	35.38	18.71
Hispanic	41.32	20.73
Black	15.03	11.13
2013-2014		
Asian	2.35	2.50
White	35.73	19.13
Hispanic	41.55	20.67
Black	14.19	11.01

Table 3.12

Descriptive Statistics of First-Time in College Part-Time Student Enrollment Percentages at Texas Community Colleges in the 2014-2015 Academic Year

Academic Year and Ethnicity/Race	<i>M%</i>	<i>SD%</i>
2014-2015		
Asian	2.56	2.71
White	34.03	18.81
Hispanic	43.59	22.18
Black	13.32	9.49

CHAPTER IV

DIFFERENCES IN THE ETHNIC/RACIAL DIVERSITY OF TEXAS COMMUNITY

COLLEGE STUDENTS: A STATEWIDE, MULTIYEAR INVESTIGATION

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

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

DIFFERENCES IN THE ETHNIC/RACIAL DIVERSITY OF TEXAS COMMUNITY
COLLEGE STUDENTS: A STATEWIDE, MULTIYEAR INVESTIGATION

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).

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.

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.

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)

Research Questions

The research questions that will be addressed in this investigation are: (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?

Method

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.

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.

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 4.1 through 4.6 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.

Insert Tables 4.1 through 4.6 about here

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 4.7 through 4.12 contain the descriptive statistics regarding the ethnic/racial diversity of Texas community college students in the 1999-2000 through the 2014-2015 academic years.

Insert Tables 4.7 through 4.12 about here

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 4.7 and 4.9 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 4.7 and 4.9 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 4.9 and 4.12 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 4.7 and 4.12.

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 4.7 and 4.9 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 4.9 and 4.12 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 4.7 and 4.12.

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 4.7 and 4.9 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 4.9 and 4.12 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 4.7 and 4.12 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 4.7 and 4.9 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 4.7 and 4.9 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 4.7 and 4.12.

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.

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

Implication 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?

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.

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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Table 4.1

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 4.2

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 4.3

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	78733	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 4.4

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 4.5

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	<i>M</i>	<i>SD</i>	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 4.6

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

Academic Year and Ethnicity/Race	<i>M</i>	<i>SD</i>	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

Table 4.7

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	<i>M%</i>	<i>SD%</i>
1999-2000		
Asian	2.52	2.91
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 4.8

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	<i>M%</i>	<i>SD%</i>
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 4.9

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	<i>M%</i>	<i>SD%</i>
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 4.10

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	<i>M%</i>	<i>SD%</i>
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
2010-2011		
Asian	3.11	3.91
White	42.77	18.91
Hispanic	33.79	20.79
Black	14.09	11.05

Table 4.11

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	<i>M%</i>	<i>SD%</i>
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 4.12

Percentages by Ethnicity/Race for Texas Community College Students in the 2014-2015

Academic Year

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

CHAPTER V

DISCUSSION

The purpose of this journal-ready dissertation was to examine the degree to which changes occurred in the ethnic/racial diversity of first-time in college students who were enrolled full-time in Texas community colleges. Specifically, the ethnic/racial diversity changes (i.e., Asian, White, Hispanic, and Black) of first-time in college full-time students who were enrolled in Texas community colleges in the 1999-2000 academic year through the 2014-2015 academic year were analyzed. The degree to which differences were present in the enrollment percentages of Asian, White, Hispanic and Black first-time in college full-time students who were enrolled in Texas community colleges between the 1999-2000 and the 2014-2015 academic years was examined. The extent to which changes had occurred in the ethnic/racial diversity of first-time in college students who were enrolled part-time in Texas community colleges was examined. The degree to which differences existed in the enrollment percentages of Asian, White, Hispanic, and Black first-time in college part-time students who were enrolled in Texas community colleges between the 1999-2000 and the 2014-2015 academic years was analyzed. An analysis of the trends present in the ethnic/racial diversity (i.e., Asian, White, Hispanic, and Black) of first-time in college full-time and part-time students who were enrolled in Texas community colleges during the 1999-2000 through the 2014-2015 academic years was included in these three investigations. In this chapter, a brief summary of each article is provided. Implications for policy and practice are discussed and recommendations for future research are provided.

Summary of Article One Results

With respect to first-time students who were enrolled on a full-time basis at Texas community colleges, 56% of the student enrollment were White, followed by 25% Hispanic, 12% Black, and 2% Asian in the 1999-2000 academic year. These percentages remained stable through the 2004-2005 academic year. In the 2014-2015 academic year, Hispanic students constituted 41% of the total enrollment, followed by White students, 36%, and then by Black students, 12%, and then by Asian students, 3%.

Concerning the percentage of White students who were first-time in college full-time students in Texas community colleges, the percentage of White first-time in college full-time students decreased from 56% in the 1999-2000 academic year, to 47% in the 2007-2008 academic year, and to 37% in the 2014-2015 academic year. As such, the percentage of the total Texas community college student enrollment who were White first-time in college students who were enrolled on a full-time basis steadily decreased over this 16-year time period.

With respect to the percentage of Hispanic first-time in college students who were enrolled on a full-time basis, their percentage increased from 25% in the 1999-2000 academic year, to 33% in the 2007-2008 academic year, to 42% in the 2014-2015 academic year. In the most recent academic year, the percentage of Hispanic students who were first-time in college students who were enrolled on a full-time basis constituted the largest ethnic/racial group of Texas community college students. Regarding the percentages of Black and Asian first-time in college students who were enrolled on a full-time basis, their percentages remained consistently low over this time period.

Summary of Article Two Results

With respect to first-time students who were enrolled on a part-time basis at Texas community colleges, 61% of the student enrollment were White, followed by 24.2% Hispanic, 9.7% Black, and 2.4% Asian in the 1999-2000 academic year. These percentages remained stable through the 2004-2005 academic year. In the 2014-2015 academic, Hispanic students constituted 44% of the total enrollment, followed by White students, 34%, and then by Black students, 13.3%, and then by Asian students, 2.5%.

Concerning the percentage of White students who were first-time in college part-time students in Texas community colleges, the percentage of White first-time in college part-time students decreased from 60.9% in the 1999-2000 academic year, to 46.7% in the 2007-2008 academic year, and to 34% in the 2014-2015 academic year. As such, the percentage of the total Texas community college student enrollment who were first-time in college White students enrolled on a part-time basis steadily decreased over this 16-year time period. With respect to the percentage of Hispanic first-time in college students enrolled on a part-time basis,, their percentage increased from 24% in the 1999-2000 academic year to 34.5% in the 2007-2008 academic year, and to 43.5% in the 2014-2015 academic year. In the most recent academic year, the percentage of Hispanic students who were first-time in college students enrolled on a part-time basis constituted the largest ethnic/racial group of Texas community college students. Regarding the percentages of Black and Asian first-time in college students enrolled on a part-time basis, their percentages remained consistently low over this time period.

Summary of Article Three Results

With respect to students who were enrolled at Texas community colleges in the 1999-2000 academic year, regardless of whether they were enrolled full-time or part-time, 57.6% of the student enrollment were White, 24.4% were Hispanic, 11.4% were Black, and 2.5% were Asian. These percentages remained stable through the 2004-2005 academic year. In the 2014-2015 academic year, Hispanic students constituted 38.1% of the total enrollment, followed by White students at 37.9%, Black students at 13.2%, and Asian students at 3.2%.

Concerning the percentage of White students enrolled at Texas community colleges regardless of their enrollment status, the percentage of White students decreased from 57.6% in the 1999-2000 academic year, to 50.2% in the 2007-2008 academic year, to 37.9% in the 2014-2015 academic year. As such, the percentage of White Texas community college student enrollment steadily decreased over this 16-year time period. With respect to the percentage of Hispanic students enrolled at Texas community colleges regardless of their enrollment status, the percentage of Hispanic students increased from 24.4% in the 1999-2000 academic year, to 29.6% in the 2007-2008 academic year, to 38.1% in the 2014-2015 academic year, which was the highest percentage of student enrollment at Texas community colleges. The percentages of Black and Asian college students who were enrolled at Texas community colleges remained consistently low over this time period.

Connections with Existing Literature

According to the American Association of Community Colleges (2014), 41% of all first-time students were enrolled in community colleges. As such, educational leaders and policymakers should focus on demographic shifts in student ethnic/racial diversity. Existing student success initiatives and policies should be evaluated to determine the degree to which they assist and support students in achieving their educational goals (Bragg & Durham, 2012). With an estimated 27.9 million citizens in Texas, White et al. (2016) reported that Texas is experiencing a major demographic shift as a result of domestic migration and immigration influencing the state. Texas 2-year public colleges have grown more rapidly than universities since the mid-1960s 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).

Bragg and Durham (2012) emphasized a strong need for educational leaders to understand student diversity at the community college levels, stating:

If not for community colleges, the overall higher education system would enroll fewer racial and ethnic minorities and fewer low-income, immigrant, and first-time-in-college students, which explains why access has been the quintessential tenet of community colleges for decades. (p. 108)

A gap in the research literature exists on community college student enrollment patterns and the degree to which their enrollment patterns influence postsecondary outcomes (Crostra, 2014).

Connections to Theoretical Framework

The status attainment theory and the human capital theory were used as frameworks in this investigation. Maplethorpe (2007) accentuated in status attainment theory that life experiences of individuals are influential in the enrollment decision-making process and selection of career pathways as they enter their collegiate experience. Community college students often face multiple important decisions as they enroll and pursue a higher education. Another aspect to consider, as noted by Stuart et al. (2014), is that the focus in human capital theory is on students' decisions to attend and persist in college based primarily on the return on the investment. Maplethorpe (2007) concluded that status attainment theory and human capital theory involved primary factors that entice students to enroll in postsecondary education institutions.

As first-time community college students attempt to expand their educational and workforce skill training, their investment and educational expectations are aligned with the desire to connect with higher salaries and improved career opportunities (Becker, 1976; Stuart et al., 2014). First-time in college students who enroll in community college face challenging enrollment decisions, which are often connected with educational and workforce training expectations centered on having to balance personal, family, and workforce responsibilities. Stuart et al. (2014) emphasized that human capital theory has “assisted researchers, educators, and policy makers to better understand why students make investment decisions to improve their productivity” (p. 328).

Implications for Policy and for Practice

In this journal-ready dissertation, the degree to which changes occurred in the ethnic/racial diversity of first-time in college full-time students, of first-time in college

part-time students, and of all community college students, regardless of their enrollment status, was addressed. Based upon the results of the articles in this journal-ready dissertation, several implications are present for policy and for practice. First, researchers and educational leaders are encouraged to monitor the demographic shifts that occur within student populations at community colleges. Such efforts should be directed toward designing and implementing intrusive student support initiatives and expanding recruitment efforts based on demographic shifts. Second, as demographic shifts continue to influence the State of Texas, community college leaders should emphasize the need for funding opportunities that strategically focus on increasing Hispanic and Black student success in higher education. Third, researchers and educational leaders are encouraged to evaluate the differences in enrollment percentages over time of multiple ethnic/diverse groups of students to design and implement different student support initiatives that target their unique needs. Fourth, the results of this journal-ready dissertation can provide educational leaders with important data and metrics to improve access, success, and equity among community college student populations. Fifth, researchers are encouraged to continue the partnerships with the Texas Higher Education Coordinating Board and the Texas Legislature to design and implement student success initiatives to attain goals that target specific student populations.

Recommendations for Future Research

In this journal-ready dissertation, the degree to which changes had occurred in the ethnic/racial diversity of first-time in college full-time students, first-time in college part-time students, and community college students, regardless of their enrollment status, was

addressed. Based upon the results of the articles in this journal-ready dissertation, several recommendations for further research can be made. First, researchers are encouraged to replicate each of the three studies in this journal-ready dissertation in other states to ascertain whether the results of these three multiyear analyses are generalizable outside of Texas. Second, researchers are encouraged to replicate these three investigations at Texas 4-year institutions. The extent to which results of these studies based on community colleges would be generalizable to 4-year institutions is not known.

Conclusion

In this journal-ready dissertation, the ethnic/racial diversity of Texas community college students was examined for first-time in college students who were enrolled on a full-time basis; for first-time in college students who were enrolled on a part-time basis; and for community college students, regardless of their enrollment status. Data to answer the research questions posed in the three articles were obtained from the Texas Higher Education Coordinating Board Interactive Accountability System for the 1999-2000 through the 2014-2015 academic years. Over this time period, the percentage of Hispanic first-time in college students who were enrolled on either a full-time or part-time basis statistically significantly increased; whereas, the percentage of White first-time in college students who were enrolled on either a full-time or part-time basis steadily decreased. No changes were noted in the percentages of either Black or Asian Texas community college students during this time period.

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APPENDIX



Institutional Review Board Office of Research and Sponsored Programs 903 Bowers Blvd, Huntsville, TX 77341-2448 Phone: 936.294.4875 Fax: 936.294.3622 irb@shsu.edu www.shsu.edu/~rgs_www/irb/
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DATE: April 14, 2017

TO: Juan Lebron [Faculty Sponsor: Dr. John Slate]

FROM: Sam Houston State University (SHSU) IRB

PROJECT TITLE: *Ethnic/Racial Diversity of First-Time in College Undergraduate Student Enrollment at Texas Community Colleges: A Multiyear, Statewide Investigation [T/D]*

PROTOCOL #: 2017-04-34589

SUBMISSION TYPE: INITIAL REVIEW

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: April 14, 2017

REVIEW CATEGORY: Category 4—research involving existing, publicly available data usually has little, if any, associated risk, particularly if subject identifiers are removed from the data or specimens.

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

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

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

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

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

Sincerely,

Donna Desforges
 IRB Chair, PHSC

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

VITA

Juan Carlos Lebron

Educational History

Doctorate of Education – Educational Leadership, August 2017

Sam Houston State University, Huntsville, TX

Dissertation: Ethnic/racial Diversity of First-time in College Undergraduate Student Enrollment at Texas Community Colleges: A Multiyear, Statewide Investigation.

Education Specialist Degree – Counselor Education, August 2013

Florida Atlantic University, Boca Raton, FL

Masters Degree in Clinical Social Work – July 1998

Florida State University, Tallahassee, FL

Bachelor Degree in Social Work – April 1997

Florida State University, Tallahassee, FL

Associate of Applied Science in Human Services – June 1995

Hillsborough Community College, Tampa, FL

Associate of Arts – June 1995

Hillsborough Community College, Tampa, FL

Professional Experience

Education –

Faculty Counselor/Professor, Lone Star College-Montgomery, Conroe TX, 2007-Present

Adjunct Instructor, Stephen F. Austin State University, The Woodlands TX, 2017-Present

Adjunct Professor, Lone Star College-Montgomery, Conroe TX, 2007-Present

Coordinator of Recruitment & Retention, Texas Southern University, Houston TX, 2006-2007

School Guidance Counselor, Spring Independent School District, Houston TX, 2005-2006

District Counselor, Broward County Public Schools, Ft. Lauderdale, FL 2001-2005

School Social Worker, Broward County Public Schools, Ft. Lauderdale, FL 1999-2001

Coordinator/Academic Support, Florida International University, Miami, FL 1998-1999

Program Coordinator/Advisor, Florida State University, Tallahassee, FL 1996-1998

Summer Enrichment Counselor, Florida State University, Tallahassee, FL 1996-1996

Recognitions

LSC – Leadership, Excellence & Administrative Development Institute Graduate, 2017

Lone Star College Montgomery Faculty Commencement Speaker, 2016

Lone Star College Montgomery Heights of Excellence Student Service Star Award, 2016
 Lone Star College Montgomery Heights of Excellence Shining Star Award, 2016
 Magnolia Independent School District Superintendent's Parent Leadership Graduate,
 2015
 Lone Star College Montgomery Faculty Excellence Award, 2014
 National Institute for Staff and Organizational Development Excellence Award, 2014
 Lone Star College Montgomery New Generation Leadership Program Graduate, 2014
 Lone Star College Montgomery Heights of Excellence President's Star Award, 2014
 Lone Star College Montgomery Student Success and Completion Award, 2012
 Lone Star College System Leadership Academy, 2010-2011
 Outstanding Alumni Award Hillsborough Community College, 2008
 Broward County School Social Work Association Social Worker of the Year, 2005
 Florida State University Seminole Torch Bearers Leadership Award, 1997
 National Collegiate Minority Leadership Award, 1997
 Clinical Excellence in Human Services Award, Hillsborough Community College, 1995

Presentations

Chavez, M., Hayes-Cootz, D., & Lebron, J. (2016, November). *Learning analytics – Fail fast to succeed*. League for Innovations in the Community College STEMTech Conference (STEMTech), Philadelphia, PA.

Chavez, M., Hayes-Cootz, D., & Lebron, J. (2016, November). *How the data brought us together*. League for Innovations in the Community College STEMTech Conference (STEMTech), Philadelphia, PA.

Dixon, D., Lebron, J., Priesmeyer, K., & Stagg, D. (2015, February). *Coping strategies: Stress among select community college leaders in higher education leadership*. Paper presented at the annual conference of the Southeastern Research Association (SERA), San Antonio, TX.

Parker, M., Wilcox, R., Gonzales, V., Jordan, J., Lebron, J., Paitson, D., Valle, R., Combs, J., & Skidmore, S. (2015, February). *Secondary data analysis: Lessons learned in a doctoral level statistics course*. Paper presented at the annual conference of the Southeastern Research Association (SERA), San Antonio, TX.

Professional Affiliations

Southwest Educational Research Association 2014-2015
 The Texas Association of College and University Personnel Administrators, 2013
 Texas College Counseling Association – Board Member-at-Large, 2007-2011
 Texas Counseling Association – 2007-2011
 American School Counselor Association – 2005-2006