

RESEARCH ARTICLE

Differences in 1-year persistence rates by the institutional status of Hispanic community college students: A Texas, multiyear analysis

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Abstract: In this investigation, the 1-year persistence rates of Hispanic students in Texas community colleges were analyzed for the 2007-2008 through the 2013-2014 academic years. Of particular interest was whether the 1-year persistence rates of Hispanic students different by their institutional status (*i.e.*, stayed at the same community college or transferred to a different community college). Inferential statistical analyses revealed the presence of statistically significant differences in the 1-year persistence rates of Hispanic students in Texas community colleges by institutional status in the 2007-2008, 2008-2009, 2009-2010, 2011-2012, 2012-2013, and 2013-2014 academic years. The 1-year persistence rates were higher for Hispanic Texas community college students when they stayed at the same community college rather than when they transferred to a different community college. The 1-year persistence rates of Hispanic students who stayed at the same Texas community college ranged from a low of 54% to a high of 60%. In comparison, the 1-year persistence rates of Hispanic students who transferred to a different Texas community college ranged from a low of 42% to a high of 51%.

Keywords: Hispanic students, 1-year persistence rates, Texas, community colleges, transferred, stayed

1 Introduction

The majority of young adults in the United States recognize the value of obtaining a college education^[1,2]. Receiving a postsecondary degree is frequently viewed as a powerful force that leads to better paying jobs and enhances the quality of a person's life^[1,3]. Access to a higher education and degree obtainment is often compared to achieving the American Dream^[4]. Educational attainment for underrepresented populations, especially Hispanic students, is an important issue in American postsecondary education^[5]. To provide a foundation for the reader, research related to community college enrollments, particularly as it pertains to Hispanic students, is presented in the next section.

1.1 Community college enrollments

In 2009, President Obama challenged community colleges to produce an additional five million completers by

2020^[6]. To meet this challenge, student retention and transfer rates at community colleges must dramatically improve^[6]. Furthermore, community colleges will have to become more effective in assisting Black and Hispanic and low-income students in completing programs and in closing student achievement gaps^[6].

As open-door institutions, community colleges strive to assist underrepresented students in overcoming the challenges they face^[7]. During their quest to obtain a college degree, college students face a plethora of obstacles and challenges. Many students lack academic preparation, work while going to school, and have to manage family responsibilities^[8]. Students attending community colleges primarily represent first-generation college students, adult learners, low-income, and other underrepresented subpopulations, including Hispanics^[9].

Many community college students are overwhelmed by the challenges they face and therefore do not persist. Wolniak, Mayhew, and Engberg (2012)^[10] noted that the current understanding of student persistence is grounded in Tinto's integration theory. Tinto (1993)^[11] asserted that although 25% of students withdraw due to failing academically, more than 75% of students drop out of college due to difficulties in adjusting to the "organization of educational institutions, their formal structures, resources, and patterns of association".

Community colleges currently enroll over one-half of all beginning higher education students^[4,7,9]. Of note is

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that a large percentage of Black and Hispanic students enroll at community colleges rather than at 4-year universities^[12]. Researchers (e.g., Crisp and Nora, 2010; Hernandez, Slateb and Joyner, 2015; Voorhees, 2001) have documented that Hispanic students have a greater likelihood of beginning their college education at community colleges^[13–15]. Almost one-half of Hispanic college students attend public 2-year schools^[16]. In Texas, the state of interest for this investigation, community colleges have been challenged with record enrollments and an unprecedented demographic shift^[14,16]. With respect to the state of interest for this investigation, Texas, Hispanics accounted for 27% of the higher education enrollment^[17].

1.2 Diversity of students attending community colleges

Hernandez *et al.* (2015)^[14] noted that Hispanics in the United States have experienced considerable growth during the last decade. Moreover, Hernandez *et al.* (2015)^[14] stated that “from 2000-2010, the Hispanic population grew 43%, increasing from 35.3 million to 50.5 million in numeric growth”. With respect to the state of interest in this investigation, the Hispanic population in Texas has substantially increased in the past two decades. Murdock (2011)^[18] documented that from 2000-2010, the Hispanic population in Texas grew 41.8%, increasing from 6.6 million to 9.4 million individuals.

From 2009-2010, Hispanic enrollment in colleges in the United States surged 24%^[19]. Fry (2011)^[19] suggested that population growth, increasing Hispanic high school completion rates, and the Hispanic enrollment of college eligible students accounted for the college enrollment growth of Hispanics. In 2013, 2.2 million Hispanics were enrolled in higher education institutions, compared to 728,000 individuals who were enrolled in 1993^[16]. Moreover, Hispanic students represent the largest minority group on college campuses in the United States^[16].

College enrollment rates for Hispanics are relatively low when compared to the college enrollment rates for White and Black students^[20]. Ryu (2010)^[17] documented that although college enrollment rates for Hispanics between the ages of 18-24 experienced an increase, Hispanics trailed behind at 28%, versus Asians with 63%, Whites with 45%, and Blacks with 34%. The relatively low college enrollment rates for Hispanics have been attributed to the fact that in comparison to other ethnic/racial groups, Hispanics are less likely to complete high school^[21].

Although the number of Hispanics graduating from high school has increased, Hispanic students are not enrolling in higher education at desired rates. In 2009, only 13.3% of Hispanics in the United States were reported to have a college degree^[22]. In 2013, only 15% of Hispanics

between the ages of 25 to 29 have a bachelors degree or higher, compared to 40% of Whites, 20% of Blacks, and 60% of Asians^[16]. This gap is attributed to the fact that Hispanics are less likely to enroll in a 4-year college and enroll full-time^[16] than are members of other ethnic/racial groups.

1.3 Hispanic student persistence

Over the past 30 years, efforts have been made to increase the number of Hispanic students attending college^[23]. However, as Kezar and Eckel (2007)^[23] noted, “bringing students into higher education is not the same thing as ensuring that they will succeed”. Moreover, Van Dermerwe (2011)^[24] posited that once students enroll in an institution of higher education, no guarantee exists that students will persevere. As evidence of this statement, the persistence rates of Hispanic students continue to fall behind the persistence rates of White and Asian students^[16,23].

Zarate and Burciaga (2010)^[25] documented the presence of several factors contributing to the enrollment and retention gaps between Hispanic and other ethnic/racial groups. Included factors were high Hispanic high school dropout rates, lower participation in college preparation curriculum, unequal resources, less access to financial aid, and lack of timely financial aid knowledge to Hispanic families^[25–27]. Although the high school dropout rate for Hispanics has dramatically decreased from 32% in 2000 to 14% in 2013, the rate remains higher than it is for Blacks, 8%, Whites, 5%, and Asians, 4%^[16]. Furthermore, Hispanic students often face deferred enrollment in college, increased financial responsibility, and residing with family while in college^[28].

Samuel and Scott (2014)^[29] noted several personal challenges facing Hispanics planning to attend college: poor academic preparation, first-generation status, misinformation, and financial constraints. One reason finances are a cause of reduced retention for Hispanic students is because many need to work while attending college^[29]. Samuel and Scott (2014)^[29] noted that the majority of students were paying for college with cash, as many Hispanics do not take advantage of available financial aid. Students surveyed suggested that meal plans, on-campus childcare, mandatory orientation, and work-study opportunities were most influential in increasing retention. Samuel and Scott (2014)^[29] argued the importance of community colleges in creating institutional practices to support the retention of Hispanic students.

Transferring to another institution has also been linked to student persistence. To determine the relationship between persistence rates of students who stayed at the same institution compared to the persistence rates of students

who transferred to other institutions, Fauria and Slate (2014)^[3] analyzed the 1-year persistence rates of White, Black, Hispanic, and Asian students who were enrolled in 4-year institutions in Texas for the 2000 and 2011 academic years. Fauria and Slate (2014)^[3] documented that the persistence rates for all four ethnic/racial groups were lower in the 2000 and the 2011 academic years when students transferred to other institutions, compared to students staying at the same institution. Regardless of ethnicity/race, students were much less likely to persist if they transferred to another institution after 1-year. Fauria and Slate (2014)^[3] expressed the need for additional research to explore “discrepancies in persistence rates between racial groups”.

In a recent study in the state of interest for this investigation, Moss and Slate (2016)^[30] analyzed the 1-year persistence rates of Black and White students enrolled in Texas community colleges in the 2000 and 2013 academic years. Moss and Slate (2016)^[30] analyzed the 1-year persistence rates of Black and White students who were enrolled at the same community college and the 1-year persistence rates of Black and White students who transferred to a different community college. The 1-year persistence rates for Black and White students were statistically significantly higher in the 2000 and the 2013 academic years when students remained at the same community college. Moreover, White students were more successful than Black students when they remained at the same institution and when they transferred to a different community college.

Spangler and Slate (2015)^[12] investigated the graduation and persistence rates of Texas community college students for the 2000 through the 2010 academic years. They examined graduation and persistence rates by ethnic/racial membership (*i.e.*, White, Black, Hispanic, and Asian). Spangler and Slate (2015)^[12] revealed an increase in the persistence and graduation rates of White, Black, Hispanic, and Asian students from the 2000 to 2010 academic year. Moreover, they documented the presence of statistically significant differences in graduation and persistence rates between White students and Black and Hispanic students^[12].

Despite enrollment gains in the past decade, White students consistently outperform Blacks and Hispanics in enrollment and academic performance^[26]. The existence of achievement gaps in higher education is well documented in the existing research literature^[27]. Reid and Moore (2008)^[8] identified the variety of challenges that many low-income and Black and Hispanic students face. Tutoring, advanced placement classes, college preparation classes, and high school leadership programs helped prepare students for college success^[8].

Fauria and Slate (2014)^[3] noted that programs such as the No Child Left Behind Act and affirmative action were initially developed to increase the numbers of underrepresented groups such as Black and Hispanic students who enrolled in higher education. Although the number of diverse students in higher education has increased, the extent to which targeted groups are persisting and graduating from college has not substantially increased. Thus “ensuring quality and success across this continuum is what student retention research is all about” (Kezar and Eckel, 2007)^[23].

1.4 Statement of the problem

The numbers of racially/ethnically diverse students in higher education have increased. It estimated that by the year 2050, 30% of the United States population will be Hispanic^[13]. As the demographic shift continues to spread throughout the United States, especially in Texas, a new problem for the Hispanic student population has developed. The question remains why so many Hispanic community college students do not obtain a college degree.

Higher education participation and persistence rates of Hispanic community college students in Texas continue to fall behind other ethnic/racial groups^[3,14]. Murdock (2011)^[18] claimed that the educational success of Hispanics is imperative to the future economic success of Texas. To ensure that Hispanic community college students persist in accomplishing their educational goals, higher education institutions must recognize and address the distinctive needs of underrepresented students. Boggs (2011)^[6] argued that community colleges need to become more effective in closing achievement gaps that exist for minority students.

1.5 Purpose of the study

The purpose of this study was to examine the extent to which differences were present in the 1-year persistence rates of Hispanic students who were enrolled at Texas community colleges in the 2007-2008 through the 2013-2014 academic years. Specifically addressed were the 1-year persistence rates by student institutional status (*i.e.*, stayed or transferred) for Hispanic students who were enrolled in Texas 2-year community colleges. Moreover, the extent to which differences were present in the 1-year persistence rates of Hispanic students who either stayed at the same Texas community college or transferred to a different Texas community college was analyzed. The final purpose was to ascertain the extent to which the 1-year persistence rates of Hispanic students changed over the 7 years of data analyzed.

1.6 Significance of the study

Student success in college is one of the “most visible issues that attract attention from a wide spectrum of constituencies”^[31]. Specifically, community colleges are challenged to develop practices and policies that will best assist nontraditional students to reach their academic and career goals, despite their ethnic background^[32]. By evaluating the 1-year persistence rates of Hispanic community college students, the effect of remaining at the same campus versus transferring to other institutions was explored. The results of this study may assist community college administrators in developing effective strategies designed to strengthen institutional effectiveness for Hispanic community college students^[33]. The ethnic/racial group of Hispanic students was selected for this investigation because of their high enrollment numbers and percentages in Texas community colleges, as well as their increasingly high percentages of the Texas population.

1.7 Research questions

The following research questions were addressed in this study: (a) What is the difference in the 1-year persistence rates by institutional status (*i.e.*, stayed or transferred) for Hispanic students who were enrolled in Texas community colleges? and (b) To what extent are trends present in the 1-year persistence rates by student institutional status (*i.e.*, stayed or transferred) for Hispanic students who were enrolled in Texas community colleges? The first research question was repeated for the 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, and 2013-2014 academic years. The second research question involved results from all 7 academic years.

2 Method

2.1 Research design

A nonexperimental, causal comparative research design^[34] was used to address the research questions present in this study. A causal comparative research design allows the relationship between “one or more categorical independent variables and one or more quantitative dependent variables” to be examined^[34]. The independent variable in this study was student institutional status, that is, whether the student stayed at the same community college or transferred to a different community college. The dependent variables in this study were the 1-year persistence rates for each academic year. Because archival data were obtained and analyzed in this investigation, both the independent variable and the dependent variables had already occurred and, therefore, could not be manipulated. As such, a causal comparative, or after the fact,

research design was inherent in the nature of this research investigation.

2.2 Participants

The data that were analyzed in this research investigation were downloaded from the Texas Higher Education Coordinating Board Interactive Accountability System database. Data were grouped by ethnicity (*i.e.*, Hispanic) and academic year. Data on these groups of students from all 2-year public community colleges in the State of Texas, who attended college during the 2007-2008 through the 2013-2014 academic years, were used in this investigation. The 2013-2014 academic year was the most recent academic year of data made available by the Texas Higher Education Coordinating Board Interactive Accountability System. Although more recent years of data would have been preferred for this investigation, those data were simply not available at the State of Texas website.

2.3 Instrumentation and procedures

Data were downloaded from the Texas Higher Education Coordinating Board Interactive Accountability System. In this system, data on all 2-year community colleges in the State of Texas are represented. Community colleges in Texas comprised the participants for this study. During the 2007-2008 academic year, the Texas Higher Education Coordinating Board Interactive Accountability System dataset indicated that 69 community colleges were present. In the 2013-2014 academic year, 72 community colleges provided data that were analyzed. The data for student ethnicity/race and 1-year persistence rates were downloaded from the Texas Higher Education Coordinating Board Interactive Accountability database in an Excel format and then converted into a SPSS dataset.

3 Results

Prior to conducting inferential statistics to determine whether statistically significant differences were present between the 1-year persistence rates of Hispanic students who stayed at the same community college compared to Hispanic students who transferred to another community college, checks were conducted to determine the extent to which the data were normally distributed. The standardized skewness coefficients (*i.e.*, the skewness value divided by its standard error) and the standardized kurtosis coefficients (*i.e.*, the kurtosis value divided by its standard error) were calculated^[35]. The majority of these coefficients were well within the range of ± 3 , which was indicative of normally distributed data. As such, parametric dependent samples t-tests were used to answer the research questions. Statistical results will now be

presented by academic year.

For the 2007-2008 academic year, the parametric dependent samples t-test revealed a statistically significant difference in the 1-year persistence rates, $t(69) = -5.29$, $p < 0.001$, between Hispanic students who stayed at the same Texas community college and Hispanic students who transferred to a different Texas community college after one year. This difference represented a near-large effect size (Cohen's d) of 0.79^[36]. The 1-year persistence rates of Hispanic students who stayed at the same Texas community college were 16% higher than the 1-year persistence rates of Hispanic students who transferred to a different Texas community college. Readers are directed to [Table 1](#) for the descriptive statistics for this analysis.

Table 1. Descriptive statistics for the 1-year persistence rates of Hispanic community college students by their institutional status in the 2007-2008 academic year

Institutional Status	<i>n</i> of community colleges	<i>M%</i>	<i>SD%</i>
Stayed	70	57.68	10.79
Transferred	70	41.76	26.37

Concerning the 2008-2009 academic year, the parametric dependent samples t-test revealed a statistically significant difference in the 1-year persistence rates, $t(70) = 2.42$, $p < 0.001$, between Hispanic students who stayed at the same Texas community college and Hispanic students who transferred to a different Texas community college after one year. This difference represented a small effect size (Cohen's d) of 0.38^[36]. The 1-year persistence rates of Hispanic students who stayed at the same Texas community college were almost 10% higher than the 1-year persistence rates of Hispanic students who transferred to a different Texas community college. Delineated in [Table 2](#) are the descriptive statistics for this analysis.

Table 2. Descriptive statistics for the 1-year persistence rates of Hispanic community college students by their institutional status in the 2008-2009 academic year

Institutional Status	<i>n</i> of community colleges	<i>M%</i>	<i>SD%</i>
Stayed	71	57.11	9.68
Transferred	71	48.96	28.81

With respect to the 2009-2010 academic year, the parametric dependent samples t-test revealed a statistically significant difference in the 1-year persistence rates, $t(70) = 2.17$, $p < 0.001$, between Hispanic students who stayed at the same Texas community college and Hispanic students who transferred to a different Texas community college after one year. This difference represented a small effect size (Cohen's d) of 0.34^[36]. The 1-year persistence rates of Hispanic students who stayed at the same Texas

community college were over 6% higher than the 1-year persistence rates of Hispanic students who transferred to a different Texas community college. [Table 3](#) contains the descriptive statistics for this analysis.

Table 3. Descriptive statistics for the 1-year persistence rates of Hispanic community college students by their institutional status in the 2009-2010 academic year

Institutional Status	<i>n</i> of community colleges	<i>M%</i>	<i>SD%</i>
Stayed	71	57.27	9.73
Transferred	71	50.31	27.02

For the 2010-2011 academic year, the parametric dependent samples t-test did not reveal a statistically significant difference in the 1-year persistence rates, $t(70) = -1.62$, $p = 0.11$, between Hispanic students who stayed at the same Texas community college and Hispanic students who transferred to a different Texas community college after one year. The 1-year persistence rates were similar for Hispanic students who stayed at the same Texas community college and for Hispanic students who transferred to a different Texas community college. Readers are directed to [Table 4](#) for the descriptive statistics for this analysis.

Table 4. Descriptive statistics for the 1-year persistence rates of Hispanic community college students by their institutional status in the 2010-2011 academic year

Institutional Status	<i>n</i> of community colleges	<i>M%</i>	<i>SD%</i>
Stayed	71	54.40	8.95
Transferred	71	49.08	28.56

Concerning the 2011-2012 academic year, the parametric dependent samples t-test revealed a statistically significant difference in the 1-year persistence rates, $t(71) = 3.30$, $p < 0.001$, between Hispanic students who stayed at the same Texas community college and Hispanic students who transferred to a different Texas community college after one year. This difference represented a moderate effect size (Cohen's d) of 0.52^[36]. The 1-year persistence rates of Hispanic students who stayed at the same Texas community college were nearly 11% higher than the 1-year persistence rates of Hispanic students who transferred to a different Texas community college. [Table 5](#) contains the descriptive statistics for this analysis.

With respect to the 2012-2013 academic year, the parametric dependent samples t-test revealed a statistically significant difference in the 1-year persistence rates, $t(71) = 2.97$, $p < 0.001$, between Hispanic students who stayed at the same Texas community college and Hispanic students who transferred to a different Texas community

Table 5. Descriptive statistics for the 1-year persistence rates of Hispanic community college students by their institutional status in the 2011-2012 academic year

Institutional Status	n of community colleges	M%	SD%
Stayed	72	56.30	9.63
Transferred	72	45.39	28.15

college after one year. This difference represented a small effect size (Cohen’s d) of 0.48^[36]. The 1-year persistence rates of Hispanic students who stayed at the same Texas community college were over 10% higher than the 1-year persistence rates of Hispanic students who transferred to a different Texas community college. Revealed in Table 6 are the descriptive statistics for this analysis.

Table 6. Descriptive statistics for the 1-year persistence rates of Hispanic community college students by their institutional status in the 2012-2013 academic year

Institutional Status	n of community colleges	M%	SD%
Stayed	72	58.04	10.05
Transferred	72	47.64	28.97

For the 2013-2014 academic year, the parametric dependent samples t-test revealed a statistically significant difference in the 1-year persistence rates, $t(71) = -2.63$, $p < 0.001$, between Hispanic students who stayed at the same Texas community college and Hispanic students who transferred to a different Texas community college after one year. This difference represented a small effect size (Cohen’s d) of 0.42^[36]. The 1-year persistence rates of Hispanic students who stayed at the same Texas community college were over 8% higher than the 1-year persistence rates of Hispanic students who transferred to a different Texas community college. Presented in Table 7 are the descriptive statistics for this analysis.

Table 7. Descriptive statistics for the 1-year persistence rates of Hispanic community college students by their institutional status in the 2013-2014 academic year

Institutional Status	n of community colleges	M%	SD%
Stayed	72	59.76	7.71
Transferred	72	51.09	28.09

The final research question regarding an analysis of seven years of data for Hispanic students who stayed at the same Texas community college and for Hispanic students who transferred to a different community college will now be addressed. As indicated in Figure 1, trends were present in the 1-year persistence rates by student institutional status (*i.e.*, stayed or transferred) for Hispanic

students who were enrolled in Texas community colleges. The 1-year persistence rates of Hispanic students who stayed at the same Texas community college were consistently higher than the 1-year persistence rates of Hispanic students who transferred to a different Texas community college. Over the seven years of data analyzed herein, the 1-year persistence rates of Hispanic students who stayed at the same Texas community college, increased by 2%. During the same 7-year time period, the 1-year persistence rates of Hispanic students who transferred to a different Texas community college fluctuated; however, readers should also note that the 1-year persistence rates for Hispanic students who transferred to a different Texas community college increased by 9%.

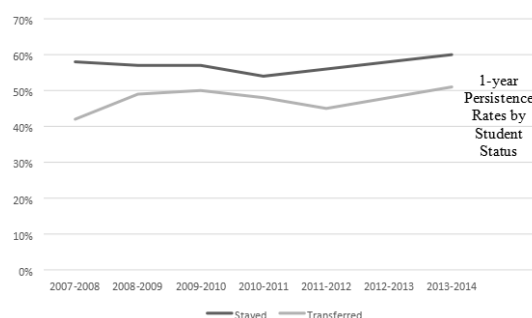


Figure 1. Trends in the 1-year persistence rates of Hispanic students who stayed or transferred to a different Texas community college in the 2007-2008 through the 2013-2014 academic years

4 Discussion

In this investigation, the degree to which differences were present in the 1-year persistence rates by institutional status (*i.e.*, stayed or transferred) was addressed for Hispanic students in Texas community colleges. Seven years of archival data from the Texas Higher Education Coordinating Board Interactive Accountability System were obtained and examined to determine whether the 1-year persistence rates of Hispanic students in Texas community colleges differed by student institutional status. In the 2007-2008 academic year, a total of 70 Texas community colleges provided data. For the 2008-2009 through the 2010-2011 academic years, 71 Texas community colleges provided data. Lastly, during the 2011-2012 through the 2013-2014 academic years, data were available from 72 Texas community colleges. For the seven years of academic data that were analyzed, statistically significant differences were present in the 2007-2008, 2008-2009, 2009-2010, 2011-2012, 2012-2013, and 2013-2014 academic years. Only in the 2010-2011 academic year was a statistically significant difference not present in the 1-year persistence rates of Hispanic students by their institutional status. Although a statistically significant

difference was not present in the 2010-2011 academic year, the 1-year persistence rates of Hispanic students who stayed at the same community college in Texas were higher than the 1-year persistence rates of Hispanic students who transferred to a different Texas community college. The 1-year persistence rates of Hispanic students who stayed at the same Texas community college ranged from a low of 54% to a high of 60%. In comparison, the 1-year persistence rates of Hispanic students who transferred to a different Texas community college ranged from a low of 42% to a high of 51%. Presented in Table 8 is a summary of the results for the 1-year persistence rates of Hispanic students by their institutional status (*i.e.*, stayed or transferred) in Texas community colleges across all seven academic years.

Table 8. Summary of results for the 1-year persistence rates by institutional status for Hispanic community college students in Texas in the 2007-2008 academic year through the 2013-2014 academic year

Academic Year	Effect Size	Higher Persistence Rate
2007-2008	Moderate	Stayed
2008-2009	Small	Stayed
2009-2010	Small	Stayed
2010-2011	N/A	Stayed
2011-2012	Moderate	Stayed
2012-2013	Small	Stayed
2013-2014	Small	Stayed

4.1 Connections with existing literature

Several researchers^[3,30] have previously analyzed the persistence rates of Hispanic students. In this multiyear, statewide investigation, the 1-year persistence rates of Hispanic students in Texas community colleges were higher when Hispanic students stayed at the same Texas community college than when they transferred to a different Texas community college. These results were consistent with Fauria and Slate (2014)^[3] wherein the 1-year persistence rates of Hispanic students attending 4-year institutions in Texas were lower when students transferred to another institution after 1-year than when they remained at the same 4-year institution. In the 1999-2000 academic year, Fauria and Slate (2014)^[3] noted a 47% difference in the 1-year persistence rate for Hispanic students who stayed at the same institution, compared to Hispanic students who transferred to a different institution. Similarly, in the 2010-2011 academic year, Hispanic students who stayed at the same 4-year institution in Texas had a 51% higher 1-year persistence rate than Hispanic students who transferred to a different postsecondary institution.

Similarly, the results were also consistent with Moss

and Slate (2016)^[30] wherein the 1-year persistence rates for Black and White students were statistically significantly higher when students remained at the same community college than when transferring to a different community college. The 1-year persistence rate for Black students who stayed at the same Texas community college in the 1999-2000 academic year was 36% higher than the 1-year persistence rate for Black students who transferred to a different Texas community college^[30]. In comparison, the 1-year persistence rate for White students who stayed at the same Texas community college in the 1999-2000 academic year was 45% higher than the 1-year persistence rate for Black students who transferred to a different Texas community college^[30]. In academic year 2013, the 1-year persistence rate for Black students who stayed at the same Texas community college was 35% higher than the 1-year persistence rate for Black students who transferred to a different Texas community college^[30]. Moreover, the 1-year persistence rate for White students who stayed at the same Texas community college in academic year 2013 was 41% higher than the 1-year persistence rate for White students who transferred to a different Texas community college^[30].

4.2 Implications for policy and practice

In this investigation, the 1-year persistence rates of Hispanic students in Texas community colleges were lower when Hispanic community college students transferred to a different community college after the first year than when they stayed at the same community college. As documented in this multiyear, statewide investigation, Hispanic community college students are less likely to persist when they transfer to a different community college than when they remain at the same community college. As such, community college leaders are encouraged to conduct an audit of the 1-year persistence rates of their Hispanic students. By examining their 1-year persistence rates, community colleges can then determine the degree to which their existing programs are meeting the needs of their Hispanic students with regard to persistence. Their audit could also provide directions for creating new or modifying their existing programs to meet the needs of their Hispanic students better. Community college leaders are also encouraged to extend their evaluations to other student groups such as Black students and students in poverty. Community colleges with high 1-year persistence rates are encouraged to examine their programs to determine which components are effective in increasing the 1-year persistence rates for Hispanic students. Moreover, community colleges with high 1-year persistence rates should share their efforts with other community colleges. Community colleges that enroll transfer stu-

dents need to develop programs designed to identify the needs of this growing population. Academic counselors at community colleges need to communicate with Hispanic students the importance of remaining at the same community college.

4.3 Recommendations for future research

In this multiyear, statewide investigation, differences in the 1-year persistence rates by institutional status for Hispanic students at Texas community colleges were established. As such, findings from this investigation are supportive of Hernandez *et al.*'s (2015)^[14] recommendation that future research be directed toward the transfer outcomes of Hispanic students attending Texas community colleges. Although the transfer outcomes of Hispanic students were examined in this investigation, researchers should consider extending this study to the 1-year persistence rates of other ethnic/racial groups. Another recommendation is to replicate this investigation in other states to determine the extent to which the results of Hispanic students' 1-year persistence rates might be generalizable to other states, especially in states with a large Hispanic population. Researchers are also encouraged to examine each community college in Texas to identify those colleges with high 1-year persistence rates for Black students who stay at the same campus and for Hispanic students who transfer to a different campus. Similarly, future investigations could also be conducted on Texas community colleges with the lowest 1-year persistence rates of Hispanic students. Researchers interested in a qualitative study should consider obtaining insights from Hispanic students, faculty, staff, and administrators into reasons Hispanic students transfer to different institutions at the same level. In addition, qualitative studies to identify reasons transfer students' 1-year persistence rates are lower than the 1-year persistence rates of students who stayed at the same institution might be useful.

5 Conclusion

In this investigation, the degree to which the 1-year persistence rates of Hispanic students in Texas community colleges differed by student institutional status (*i.e.*, stayed or transferred) was examined. Data were analyzed for the 2007-2008 through the 2013-2014 academic years. Statistically significant differences were present in six of the seven academic years. In all seven academic years, however, the 1-year persistence rates were higher for Hispanic students who stayed at the same Texas community college than for Hispanic students who transferred to a different Texas community college. As such, results from this investigation were congruent with Fauria and Slate's

(2014)^[3] study in that Hispanic students were more likely to persist when they stayed at the same community college than when they transferred to a different community college.

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