

Differences in 1-Year Persistence Rates for Black Students at Texas Community Colleges over Time

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Abstract: Examined in this study was the extent to which differences were present in the total 1-year persistence rates of Black students at Texas community colleges. In particular, the extent to which differences existed in the total 1-year persistence rates of Black students between the 1999-2000 and 2006-2007 academic years, between the 2006-2007 and 2013-2014 academic years, and between the 1999-2000 and 2013-2014 academic years was addressed. Inferential statistical procedures revealed the presence of statistically significant differences in the total 1-year persistence rates of Black students. Over a 14-year time period, unfortunately, the total 1-year persistence rates were stagnant for Black students at Texas community colleges despite efforts to increase retention rates. Implications of the findings are discussed and recommendations for further research were formulated.

Keywords: Black students, community college, graduation rates, 1-year persistence rates, stayed, and transferred

INTRODUCTION

The re-emergence of performance funding for community colleges is evident as many current policies and procedures especially related to the importance of persistence and retention have evolved [1]. This trend has emerged resulting in a push to implement programs concerned with college completion and retention that are linked to performance formal funding. According to Carnevale and Rose [2], the United States is failing at producing enough graduates to keep up with workforce demands. As a result of this situation, state legislators and policymakers expect that performance funding will eliminate this problem by aligning states with monetary incentives for colleges to increase degree completion in a timely fashion [3].

Community colleges are being challenged to measure their institution's success by their graduation completion rates [4]. Recently, in the state of interest for this investigation, the Texas Higher Education Coordinating Board introduced formula funding to increase student success to \$215 per point for community colleges [5]. Due to fact an alarming rate of community college students are not finishing with a degree or certificate, Rosenbaum, Redline, and Stephan [6] analyzed this epidemic and titled it "The Unfinished Revolution". Because the causes of this situation are difficult to determine, they started with analyzing the characteristics of the type of students enrolled at community colleges and determined that they enrolled more students with lower grades. Consequently, if community colleges did not exist these students would not be attending college elsewhere.

Tinto [7] revealed that more than half of all students, approximately 56%, depart college after their freshman year of college. Of importance for this investigation is the fact that the graduation rates of Black students in Texas decreased by 6.9%, a greater

decrease than for any other ethnic/racial groups. This decline in the graduation rates of Black students has occurred despite implementing the Texas' Closing the Gaps program in an attempt to increase college enrollment, graduation, and retention rates [8].

According to Braxton [9], when it pertains to increasing persistence, the integration and involvement of college students is one of the most important determining factors identified by various researchers. How connected students are to a college is also a factor that can determine if students persist or drop out [10]. Student departure can be as a result of various reasons but Tinto [11] explained:

Broadly understood, [the model] argues that individual departure from institutions can be viewed as arising out of a longitudinal process of interactions between an individual with given attributes, skills, financial resources, prior educational experiences, and dispositions (intentions and commitments) and other members of the academic and social systems of the institution. The individual's experience in those systems, as indicated by his/her intellectual (academic) and social (personal) integration, continually modifies his or her intentions and commitments. . . . [The] model posits that, other things being equal, the lower the degree of one's social and intellectual integration into the academic and social communities of the college, the greater the likelihood of departure. (pp. 115-116)

Terrell and Strayhorn [12] revealed that Black students in college can persist just as well as their White counterparts with critical supports. Furthermore, a Black student having an established relationship with a faculty member increases their chances for remaining a

college student. Social integration of Black students provides the support that is needed for Black students to excel and should relate to the student's experiences that were brought with them.

Specialized programming of student activities might be able to address deficiencies not fulfilled. The climate of the institution must be welcoming for Black students allowing them to become comfortable in their learning environment [12]. Black students feel that they belong at an institution by having staff and faculty who understand their concerns rather personal, financial, cultural, or racial [13]. Considering that graduation rates for Black students at Texas community colleges continue to decrease [8], focusing on the concerns of Black students in a holistic manner may be necessary for them to progress and persist to graduation.

Addressing why so many Black students are overrepresented in remediation when beginning at Texas community colleges is essential. The current academic system is not working for Black students because far too many Black students require remediation in both reading and mathematics, 59%, in comparison to White students at 50% and Hispanic students at 54% [14]. To eliminate the amount of time that Black students are in remediation, Complete College America [14] recommended integrated tutoring in remedial classes as a game changer for increasing persistence rates of Black students. With this integration, these students will be able to move forward faster through the remediation series of classes with the extra academic support needed to excel.

According to Rankin *et al.*, [8], Texas community colleges are now currently working with Complete College America to address deficiencies in students not persisting and graduating especially for Black students because they have fallen behind more so than any other ethnic/racial group. Restructuring will include "metrics and performance funding, intrusive advising, career counseling, co-requisite remediation, 15 to Finish, Guided Pathways to Success, and structured schedules" [14]. By implementing these programs, graduation completion rates are expected to increase allowing for Black students to reach their academic, personal, and career goals.

Statement of the Problem

Because limited attention has been directed toward decreasing graduation rates at Texas community colleges for over 10 years, the effectiveness of how students persist to graduation rates is on the radar of legislators, taxpayers, and administrators affecting future financial assistance [8]. According to Moosai *et al.*, [4], community colleges are being challenged to measure their institution's success by their graduation completion rates. The National Center for Education Statistics [15] reported the 2012 national graduation rate averages of community college students were 31%

for all institutions, 24.6% for Black students, 36.4% for Hispanic students, and 30.2% for White students. Consequently, in Texas the percentage of Black students who persist to graduation at Texas community colleges is lower than any other ethnic/racial group [8]. Persistence rates for Black students remain a problem nationally even though community colleges provide them a better opportunity for higher education [16].

Significance of the Study

With graduation rates, retention, and persistence for community colleges at the forefront of transformation, a large body of research exists in relation to declining numbers of graduates for community colleges. The statistics for Black students exposes that a distinct problem exists with them not excelling academically. Currently, the percentage of Black student graduates fall at the bottom of all ethnic/racial groups and the statistics show a continuous decline in persistence. The findings of this study may encourage community colleges to take this issue seriously. Community college leaders need to review their current design of their support systems allowing for a new design to meet the pressing needs of Black students. The future funding of Texas community colleges will be based on performance so by increasing persistence, retention, and graduation rates; they will continue to thrive financially for their communities.

Purpose of the Study

Because of budget cuts by the government, the importance of graduation will be emphasized and considered to be a priority. Texas community colleges must effectively use state and institutional resources for the benefit of working efficiently to graduate students. The purpose of this study was to examine the total 1-year persistence rates of Black students at Texas community colleges to determine whether changes had occurred over time. The knowledge gained from this study will build a foundation for community college administrators, faculty, and staff to focus on increasing persistence rates for Black students. In particular, analyzing multiple years of data may provide evidence of any trends that might be present.

Research Questions

The following research questions were addressed in this study: (a) What are the differences in the total 1-year persistence rates of Black students between the 1999-2000 academic year and the 2006-2007 academic year at Texas community colleges?; (b) What are the differences in the total 1-year persistence rates of Black students between the 2006-2007 academic year and the 2013-2014 academic year at Texas community colleges?; and (c) What are the difference in the total 1-year persistence rates of Black students between the 1999-2000 academic year and the 2013-2014 academic year at Texas community colleges?

Method

Participants

Participants in this study were Black students in Texas community colleges who were enrolled in the 1999-2000 and 2006-2007 academic years, in the 2006-2007 and 2013-2014 academic years, and in the 1999-2000 and 2013-2014 academic years. Data were downloaded from 69 Texas community colleges that provided data in the 1999-2000 and 2006-2007 academic years on the 1-year persistence rates of their Black students. Data were downloaded from community colleges 70 Texas community colleges in the 2006-2007 and 2013-2014 academic years that provided data on the 1-year persistence rates of their Black students. Data were downloaded from 69 Texas community colleges in the 1999-2000 and 2013-2014 academic years that provided data on the 1-year persistence rates of their Black students.

The term, 1-year persistence rate, describes a student who continues attending college to obtain a degree from one year to the next year [17]. Readers should note that the 1-year persistence rate data that were analyzed herein were total persistence rates, regardless of the institutional status of students. Persistence rate data, in Texas, are reported in three ways: (a) for students who stay at the same community college from one year to the next year; (b) for student who transfer to another community college after having been enrolled in a different community college the previous year; and (c) for students who are at a community college one year after having been at a community college the previous year. It is the last persistence rate information that was analyzed in this investigation.

Instrumentation and Procedures

Data were obtained from the Texas Higher Education Coordinating Board Interactive Accountability System database, and then imported into the Statistical Package for Social Sciences (SPSS) software program. After the Texas Higher Education Coordinating Board data file was converted into a SPSS data file, labels were given to relevant variables used in this investigation. Because student data were reported to the Texas Higher Education Coordinating Board directly from community colleges, minimal errors in the data are assumed to be present.

RESULTS

Prior to conducting inferential statistics procedures to answer the three research questions, the underlying assumptions of data normality were checked to determine the extent to which the data were normally distributed. An examination of 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) revealed serious departures from normality for the dependent variables, total 1-year total persistence rates of Black students enrolled in Texas community colleges. Six of the eight coefficients were outside of normality of +/-3 [18].

Because the data for the total 1-year persistence rates for Texas community colleges in the 1999 and 2014 academic years were not normally distributed, a nonparametric statistical procedure had to be utilized [19]. Accordingly, a nonparametric Wilcoxon's dependent samples *t*-test [20] was used to address the research question. A dependent samples *t*-test was an appropriate inferential statistical procedure to calculate when the variables (i.e., total 1-year persistence rates) are related [19]. In this investigation, the total 1-year persistence rates for Texas community colleges in the 1999 and 2014 academic years were at the interval/ratio level of measurement.

For the first question regarding the total 1-year persistence rates of Texas Black community college students between the 1999-2000 and 2006-2007 academic years, the Wilcoxon's dependent samples *t*-test yielded a statistically significant difference, $z = -2.09$, $p = .04$. The effect size associated with this difference, Cohen's *d*, was 0.14, below small [21]. The total 1-year persistence rates of Black students decreased 2.02% between the 1999-2000 and 2006-2007 academic years. Presented in Table 1 are the means and standard deviations for the total 1-year persistence rates of Texas Black community college students enrolled in the 1999-2000 and 2006-2007 academic years.

Table-1: Descriptive Statistics for the Total 1-year Persistence Rates in the 1999-2000 and 2006-2007 Academic Years at Texas Community Colleges

Academic Year	<i>M</i> %	<i>SD</i> %
1999-2000	55.01	16.63
2006-2007	52.80	13.85

For the second question regarding the total 1-year persistence rates of Texas Black community college students between the 2006-2007 and 2013-2014 academic years, the Wilcoxon's dependent samples *t*-test did not yield a statistically significant difference, $z = 1.01$, $p = .31$. The total 1-year persistence rates for Black students were similar in the 2006-2007 and 2013-2014 academic years. Presented in Table-2 are the means and standard deviations for the total 1-year persistence rates of Texas Black community college students enrolled in the 2006-2007 and 2013-2014 academic years.

Table-2: Descriptive Statistics for the Total 1-year Persistence Rates in the 2006-2007 and 2013-2014 Academic Years at Texas Community Colleges

Academic Year	<i>M</i> %	<i>SD</i> %
2006-2007	52.19	14.67

2013-2014	54.67	14.63
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For the last question regarding total 1-year persistence rates of Texas community college students enrolled in the 1999-2000 and 2013-2014 academic years, the Wilcoxon’s dependent samples *t*-test yielded a statistically significant difference, $z = -2.16$, $p = .03$. The effect size associated with this difference, Cohen’s *d*, was 0.04, a below small effect size (Cohen, 1988). The total 1-year persistence rates of Black students decreased between the 1999-2000 and 2013-2014 academic years. Black students in the 1999-2000 academic year had a statistically significantly higher total 1-year persistence rate than did Black students in the 2013-2014 academic year. Presented in Table 3 are the means and standard deviations for the total 1-year persistence rates of Texas Black community college students in the 1999-2000 and 2013-2014 academic years.

Table-3: Descriptive Statistics for the Total 1-year Persistence Rates in the 1999-2000 and 2013-2014 Academic Years at Texas Community Colleges

Academic Year	M%	SD%
1999-2000	55.01	16.63
2013-2014	54.34	14.47

DISCUSSION

In this study, the degree to which differences were present in total 1-year persistence rates of Black students at Texas community colleges was examined between the 1999-2000 and 2006-2007 academic year; 2006-2007 and 2013-2014 academic year; and 1999-2000 and 2013-2014 academic year. During the 1999-2000 and 2006-2007 academic years, a statistically significant difference was present with the total 1-year persistence rate decreasing by 2.02%. For the 2006-2007 and 2013-2014 academic years statistically significant differences were not revealed. Finally, for the 1999-2000 and 2013-2014 academic year comparisons, a statistically significant higher total 1-year persistence rate was present in the 1999-2000 academic year.

The total 1-year persistence rates have remained stagnant over a 14-year time period for Black community college students. As a result of this situation, Texas community colleges will need to evaluate how they are helping Black students to persist to graduation. A focused attempt on helping Black students persist to obtaining their education at Texas community colleges will be essential for meeting workforce demands and state funding requirements. Hopefully, vital statistical data has been provided in this investigation that documents that Black students need more help to persist to graduation.

Because of the increasing demands of the workforce requiring trained and competent workers, community colleges across the nation are challenged

with providing students training to meet these demands. As a result of the open-door policy at most community colleges any student will be provided the opportunity to access an education whether if it is a certificate or 2-year degree. For high school graduates, the community college serves as an affordable and convenient option for obtaining an education. According to the 2003 U.S. Department of Education Report, 83.5% of White high school graduates attend college within eight years of graduating high school as opposed to the rate of Black and Hispanic students attending which is 3% lower.

CONCLUSION

Community colleges are seeing record numbers of students entering their systems as the cost of college increases. For funding purposes, the enrollment numbers will no longer be the only measure for community colleges. Graduation rates overall for community colleges are being examined and nationwide the percentage of graduates from community colleges is at 34% for students who attend community colleges within eight years of high school [6]. When students leave the community college without a degree or certificate in hand it is of no benefit to our society. In Texas, Black students have the lowest graduation rate of any ethnic group [8]. Essentially, these data will be necessary for invigorating a change for helping Black students persist at Texas community colleges by administrators, staff, and faculty.

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