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## ANALYSIS OF HISPANIC SCHOOL AND COLLEGE ENROLLMENT IN SOUTH CAROLINA: 2010-2014

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### Abstract

The article focused on the analysis of Hispanic school and college enrollment in South Carolina (SC), 2010-2014. Datasets were obtained for selected counties of South Carolina from the U.S. Census Bureau the period of 2010 to 2014 and were grouped into four geographical regions for the analyses at the regional level. Distribution of total enrollment was divided into three groups, Elem-Mid School, High School, and College. Descriptive, graphical, and correlational analyses were used to analyze the data. The results showed that the Coastal region in SC had the highest distribution of Hispanics; as the Hispanic population increased, school enrollment increased in SC; the increase in enrollment in Elem-Mid school in all regions indicated an increase in the younger population; and Hispanic enrollment in precollege increased in SC, but decreased for the US. These results have implications for understanding Hispanic enrollment and in developing educational policies, especially in South Carolina.

**Keywords:** Hispanic Population, Precollege Enrollment, College Enrollment, South Carolina School Enrollment, U.S. School Enrollment

### Introduction

Over the past decade, a number of public Historical Black Universities and Colleges (HBCUs) have had to face budget reductions regarding funding from their states. Therefore, Wiltz (2016) reported that because of this development, more such institutions that are state-supported are now beginning to seek other students to make up the difference in funding reductions. In this regard, they are recruiting non-African-American students, such as whites, Asians, and Latinos. State-funded HBCUs do not have hefty budgets and endowments similar to majority state institutions; they are forced to find creative ways of income generation and adoption of innovative ways of marketing their universities with appropriate program offerings to attract deserving students, such as from the Hispanic population. For instance, Kenny (2016) reported an increase in numbers of Latinos attending HBCUs, and stated that HBCUs are becoming more student-focused, and employing professors who are more culturally sensitive. These factors are making HBCUs more appealing to Latino students.

According to the U.S. Census Bureau (2014a), the median age of the Hispanic population in South Carolina was 25.6 years in 2010 and 25.5 years in 2011 and 2012. It increased slightly to 25.8 years in 2013 and 25.9 years in 2014. So, almost half of the Hispanic population in South Carolina is of school-college age. Hence, in the state of South Carolina, the college enrollment rate of Hispanic high school graduates is increasing. South Carolina State University, which is the only state-supported 1890 Land Grant University, a HBCU, in the state should consider this population as potential students to attend the University. Besides, generating revenue it will assist in marketing the university itself as well as making ends meet in a time of tight state budgets and changing racial and ethnic demographics. Therefore, the authors were motivated to

conduct a longitudinal study on the enrollment of Hispanic students in the public schools and colleges of South Carolina.

The primary objective of the study was to analyze the Hispanic school and college enrollment in South Carolina, 2010-2014. Secondary objectives were to (1) compare the percentages of the enrollment in proportion to the Hispanic population into three school groups to get a picture of demographic distribution of the enrollment, and (2) compare the enrollment in these school groups with the corresponding national enrollment.

### **Literature Review**

The Hispanic population has been rapidly growing in the U.S. for the past 25 years and has increased by 58% from 22.4 million in 1990 to 35.3 million in 2000. As a result, the Hispanic population, which was 9% of the total 248 million U.S. residents in 1990, increased to about 13% of the total 281.4 million U.S. residents in 2000. By 2010, the Hispanic population reached to 50.5 million accounting for 16% of the total U.S. population of 308.7 million. Between 2000 and 2010, the growth of the Hispanic population was 15.2 million and over half of the 27.3 million growth of the total U.S. population. Thus, the Hispanic population increased by 43% between 2000 and 2010, while the total U.S. population increased by 10% (Ennis et al., 2011; Guzmán, 2001).

Ennis et al. and Guzmán further stated that more than three-quarters of Hispanics lived in the West or South although all the states experienced growth between 2000 and 2010. The Hispanic population doubled in the South including South Carolina. Furthermore, South Carolina showed the fastest growth of 148% in the South, increasing the Hispanic population from 95,000 in 2000 to 236,000 in 2010. In 2000, the Hispanic population was about 2% of the total population of South Carolina, which increased to 5% in 2010. Guzmán (2001) also reported that the median age of Hispanics was 25.9 years in 2000, compared to the median age for the entire U.S. population, which was 35.3 years in 2000, a reflection of the youthfulness of the former population.

According to the National Center for Education Statistics (2016), enrollment of Hispanic students in public elementary and secondary schools in the U.S. increased from 9.0 million in 2003 to 12.5 million in 2013. During this period, the percentage of Hispanic students enrolled in public schools increased from 19 to 25%. It estimated that enrollment for Hispanics will increase to 14.7 million by 2025.

Lopez and Fry (2013) assessed the Hispanic College enrollment rate in the US. The results showed that during the period of 12 years, from 2000 to 2012, the Hispanic high school dropout rate fell more than 50%, from 32% to 15%, and among public school students nationwide in 2012, 25% were Hispanics. The number of young (ages 18 to 24 years) Hispanics enrolled in college increased from 12% in 2008 to 15% in 2010 and 19% in 2012.

According to Lopez and Fry (2013), Schhneider et al. (2006), and Fry (2011), despite the rapid growth in college enrollment, Hispanics were not the largest minority group enrolling in four-year colleges in the U.S. before 2010. In 2012, the college enrollment rate of Hispanic high school graduates ages 18 to 24 increased to 49%, greater than that of the white non-Hispanic high school graduates, which was 47%.

A number of factors and barriers have contributed to the underrepresentation of Hispanic students among school and college graduates. The High school dropout rate for foreign-born Hispanics was 43% in 2000 because many adolescent immigrants never entered the U.S. educational system. Low parental educational and English proficiency level combined with limited economical and social resources affect the involvement of immigrant children in early literacy activities. Furthermore, several factors such as teacher stereotyping in elementary schools, the quality of relationships between Hispanic students and non-Hispanic teachers, and limited guidance for high school or college coursework contribute to the low rate of school and college attendance. Approximately 80% of all English Language Learners (ELL) in the U.S. were Hispanics in 2000. There is, therefore, the need for more ELL programs and teachers with degrees in English as a second language or bilingual education to encourage more Hispanic students to enroll in school (Cervantes, 2010; Schhneider et al., 2006; Tienda and Mitchell, 2006).

## Methodology

### Data Sources and Collection

Data on the number of Hispanic students who enrolled in pre-college schools, from grades 1 to 12, and colleges, up to graduate school, in counties of South Carolina were retrieved from the U.S. Census Bureau (2015). Datasets were constructed from these estimates for years 2010, 2011, 2012, 2013, and 2014. The counties in the study were grouped into four geographical regions: Piedmont, Midlands, Pee-Dee, and Coastal: Piedmont: Anderson, Greenville, Laurens, Oconee, Pickens, Spartanburg, and York; Midlands: Aiken, Greenwood, Lexington, Lancaster, Orangeburg, Richland; Pee-Dee: Darlington, Florence, Horry, and Sumter; and Coastal: Beaufort, Berkeley, Charleston, and Dorchester. Additionally, three school groups were created as (1) Elem-Mid School: grades 1-8, (2) High School: grades 9-12, and (3) College: all colleges up to graduate school. Datasets were constructed for the three school groups for the period of 2010-2014 and the four regions. Also, data sets were also constructed for the U.S. for these three school groups for the period of 2010-2014 from the data provided by the U.S. Census Bureau (2014b).

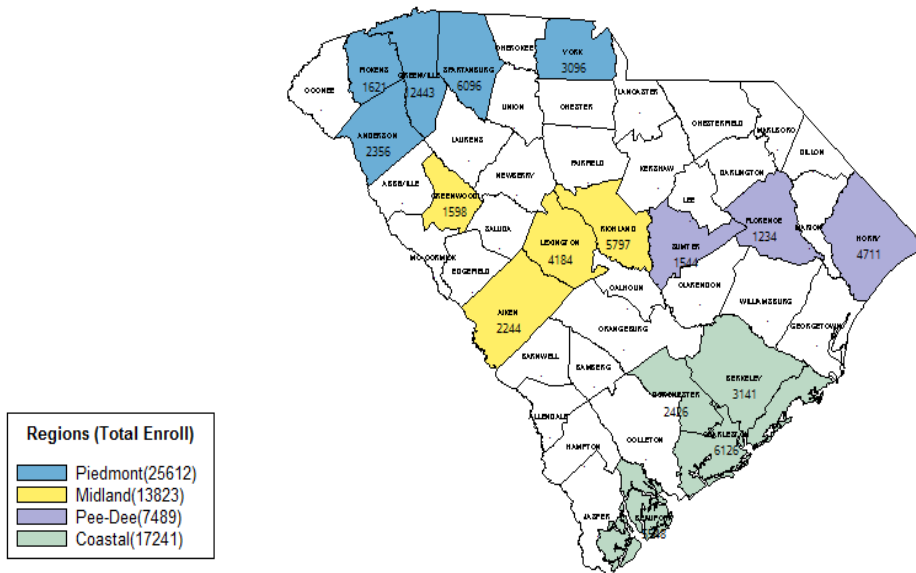
### Data Analysis

SAS software (SAS Institute Inc., 2007) was used to generate the results of this longitudinal study. A map was developed to display a distribution of three-school groups (pre-college) and college enrollment of Hispanic students in 2014 in the selected counties grouped into the four geographic regions. Correlation analyses were conducted to examine relationships between Hispanic precollege and college enrollments and the Hispanic population in each of the four regions, as well as for the state of South Carolina for the period 2010-2014. Stack and cluster graphs were also generated for Hispanic enrollment rates for the precollege groups for 2013 and 2014. Furthermore, correlational were conducted between the Hispanic precollege and college enrollment rates in South Carolina and the national enrollment rate for the period 2010-2014.

## Results and Discussion

Figure 1 presents the map showing the distribution of Hispanic precollege and college enrollment rates in South Carolina in 2014; that is, from grade 1 to graduate school. The data show that the Piedmont region had the highest enrollment (25,612), followed by Coastal (17,241), Midlands (13,823), and Pee Dee (7,489). Charleston County in the Coastal region had

the highest enrollment of 6,126. The distribution may imply there may be “interests” attracting the Hispanics to these particular regions or counties.



Source: US Census Bureau  
Developed by using SAS 9.4

Figure 1. Distribution of Hispanic Precollege-College Enrollment Rates in South Carolina in 2014

Table 1 shows the results of the correlation analyses between Hispanic precollege (Elem-Mid School and High School) and college enrollments and the Hispanic population in each of the four regions, as well as for the state of South Carolina for the period 2010-2014. The results show that there was a positive and statistically significant correlation between Hispanic precollege and college enrollments and the Hispanic population in South Carolina ( $r = 0.93$ ,  $p < 0.05$ ). For the regions also, all showed statistically significant and positive correlations between Hispanic student precollege and college enrollments and Hispanic population. Respectively, the results were  $r = 0.93$ ,  $p < 0.05$  for Piedmont;  $r = 0.99$ ,  $p < 0.01$  for Midlands;  $r = 0.88$ ,  $p < 0.05$  for Pee Dee, and  $r = 0.97$ ,  $p < 0.01$  for Coastal. The results imply that as the Hispanic population increases school enrollment also increases for the South Carolina and its selected regions.

Table 1. Correlation between Hispanic Precollege-College Enrollment and the Hispanic Population in Regions and State based on the period of 2010-2014

		<b>Enrollment</b>				
		<b>State</b>	<b>Piedmont</b>	<b>Midlands</b>	<b>Pee-Dee</b>	<b>Coastal</b>
<b>Population</b>	<b>State</b>	0.92910 0.0224**				
	<b>Piedmont</b>		0.86051 0.0612*			
	<b>Midlands</b>			0.98585 0.0020***		
	<b>Pee-Dee</b>				0.87954 0.0493**	
	<b>Coastal</b>					0.97439 0.0049***

\*\*\*Significant at the 1% level    \*\*Significant at the 5% level    \*Significant at the 10% level

Figure 2 presents the stack and cluster graphs for Hispanic precollege and college enrollments for 2013 and 2014. In the Piedmont region, the percentage of Hispanic students enrolled in the Elem-Mid and College groups increased, but slightly decreased for the High school group between 2013 and 2014 (respectively, 17.10, 4.46, 8.34 vs. 17.52, 6.56, 8.22). The Midlands region showed a reverse pattern with a decrease in percentage enrollment for the Elem-Mid and College groups and a slight increase in percentage for the High school group between 2013 and 2014 (respectively, 18.18, 8.91, 5.39 vs. 16.50, 7.82, 5.72). Percentages of Hispanic Students enrolled in all school groups increased for the Coastal region between 2013 and 2014 (respectively, 15.06, 7.14, 5.28 vs. 16.41, 9.35, 5.66). In the Pee Dee region, percentages of Hispanic student enrollment remarkably increased for the Elem-Mid and High School groups but decreased for the College group between 2013 and 2014 (respectively, 15.72, 2.49, 7.09 vs. 18.01, 8.18, 4.47).

Increase in enrollment in the Elem-Mid school group reflects the increase in younger population in the region. Thus, in all four geographic regions, more than 50% of Hispanic students enrolled in the Elem-Mid school group in both years. Interestingly, college enrollment in the year 2014 was the least among all school groups for all regions except the Midlands region.

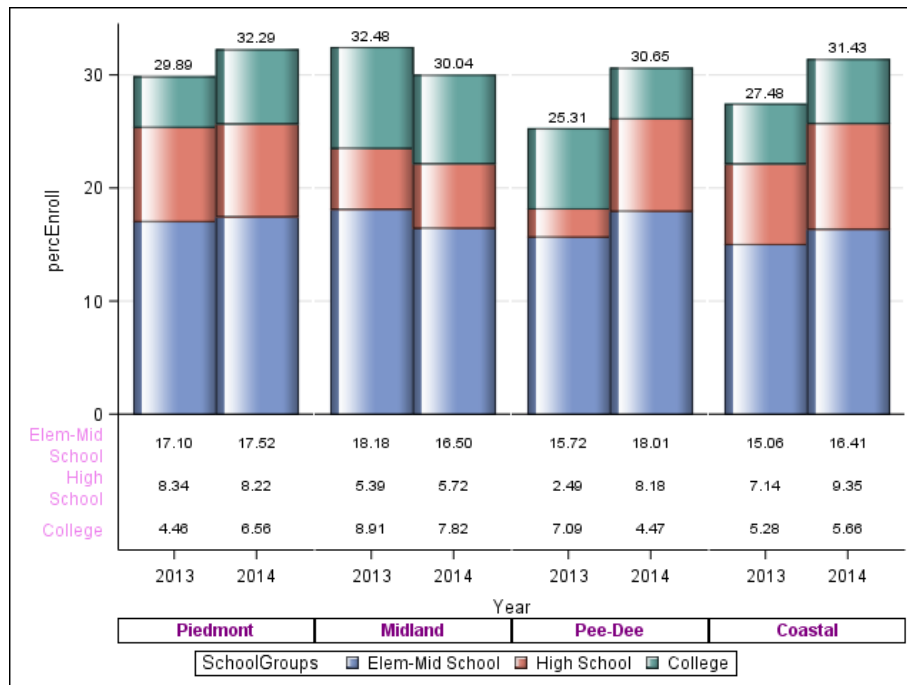


Figure 2. Comparison of Hispanic School-College Enrollment in South Carolina, by Regions and School Groups, 2013-2014

Table 2 shows the results of the correlational analysis between the Hispanic precollege and college enrollment rates in South Carolina and the national enrollment rates for the period 2010-2014. The results show that there was a negative and statistically significant relationship between Hispanic high school enrollment in South Carolina and U.S. high school enrollment ( $r = -0.91$ ,  $p < 0.05$ ). The correlation between the South Carolina elementary-middle school enrollment and U.S. elementary-middle school enrollment although not statistically significant, was also negative ( $r = 0.71$ ,  $p > 0.10$ ). However, the correlation between the South Carolina college enrollment and the U.S. college enrollment was positive and not statistically significant ( $r = 0.60$ ,  $p > 0.10$ ). The results indicate that the growth of Hispanic precollege (grades 1 to 12) enrollment was not in the same direction for South Carolina and the U.S. Therefore, an in-depth comparison for each year was made by developing a composite graph to check the pattern for all three-school groups in both South Carolina and the U.S.

Figure 3 reflects the comparison of enrollment of Hispanic students in South Carolina and the U.S. for the school groups (Elem-Mid, High School, and College). The Figure shows that the enrollment of Hispanic students in the Elem-Mid group was higher for South Carolina than the U.S. in all years under consideration, 2010-2014. In 2010, both enrollments were quite identical, 15.9% for South Carolina and 15.8% for the US. However, beyond that the difference increased, as the enrollment reached just above 17% in South Carolina and decreased to 15.4% in the U.S. When enrollments in high schools were compared, enrollment in South Carolina was 5.6% and was less than the enrollment in the U.S., 7.7%, for 2010-2012. Nonetheless, the enrollment in South Carolina jumped to 7.1% in 2013 and 8% in 2014, surpassing the U.S. enrollment (7.5%) in 2014. In fact, enrollment in the U.S. slowly but steadily decreased from 2010 to 2014.

Table 2. Correlation between Hispanic School-College Enrollment of South Carolina and the US based on the period of 2010-2014

	South Carolina Elem-Mid School	South Carolina High School	South Carolina College
US Elem-Mid School	-0.71300 0.1764		
US High School		-0.90711 0.0335*	
US College			0.59892 0.2859

\*\*: sig at the 5% level

Hispanic college enrollment in South Carolina was the lowest (4.8%) in 2010; however, it sharply increased in 2011 (6.6%) and in 2012 (7.3%), exceeding the overall U.S. enrollment by 0.2% in 2012. After 2012, it showed a fluctuation for South Carolina, going down to 5.9% in 2013 and then increasing to 6.4% in 2014, but still staying below the US enrollment since 2013. Interestingly, in 2013, the percentage of enrollment was sharply increased in the High School group but sharply decreased in the College group for South Carolina, indicating a major change in the Hispanic community in South Carolina from 2012 to 2013.

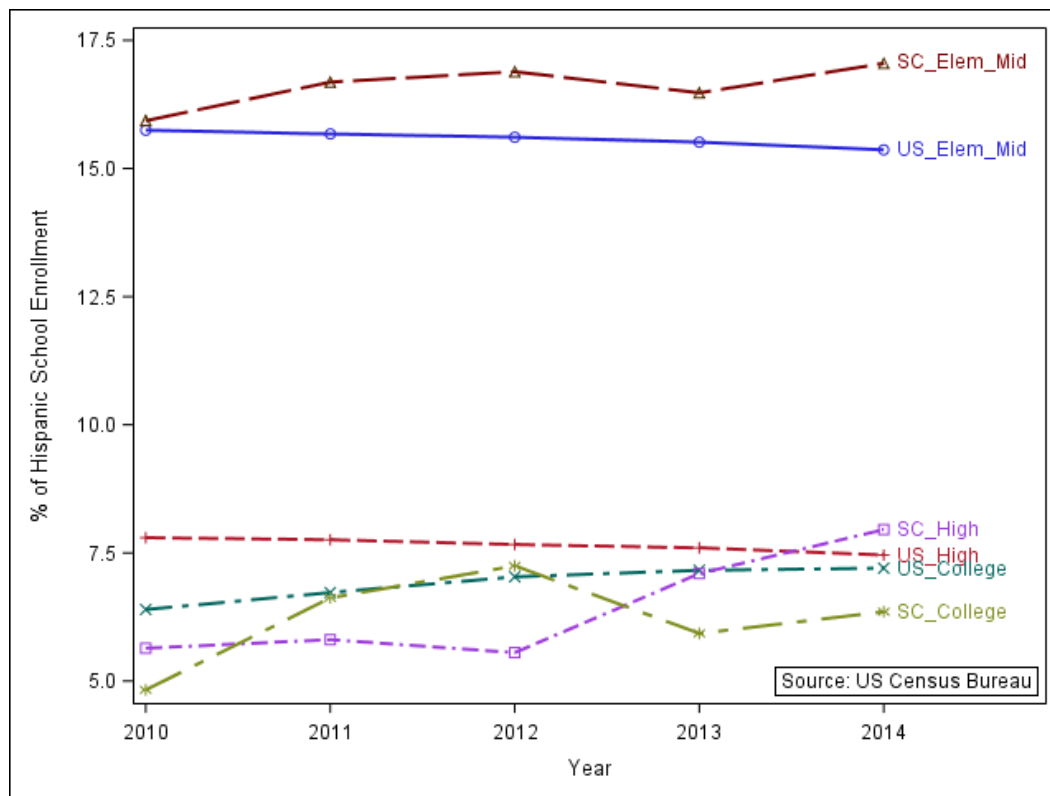


Figure 3. Comparison of School and College Enrollment of Hispanic Students in South Carolina and the U.S.



### Conclusion

The main objective of the study was to analyze the Hispanic school and college enrollment in South Carolina, 2010-2014. Secondary objectives were to (1) compare the percentages of the enrollment in proportion to the Hispanic population into three school groups to get a picture of the demographic distribution of the enrollment, and (2) compare the enrollment in these school groups with the corresponding national enrollment. The data were obtained from secondary sources, and analyzed by using descriptive, graphical, or correlational analysis. The results revealed positive and significant correlations between Hispanic precollege and college enrollments and the Hispanic population of the selected regions of South Carolina for 2010-2014. An increase in the young Hispanic population may be a reason to the increase in enrollment of young Hispanics in Elementary and Middle schools. Also, as enrollment for pre-college increased for Hispanic students in South Carolina, enrollment for precollege students for Hispanic students for the U.S. as a whole decreased.

Further research may be needed to examine the causes for the precipitous decrease in the percentage of college enrollment of the Hispanic students in the Pee Dee region and slight drop in the Midlands regions from 2013 to 2014. Furthermore, as the percentage of enrollment in schools, from elementary to high school, was higher in South Carolina than in the U.S., more attention needs to be given to increase enrollment of young Hispanics in colleges of South Carolina. That said, HBCUs could find innovative ways to enroll more Hispanic students. The results of the study will be valuable in understanding the trend and progress of enrollment of Hispanic students, and also, help develop the appropriate educational policies for Hispanic student enrollment, especially in South Carolina.

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