



## **DIFFERENCES IN ADVANCED PLACEMENT EXAM RESULTS FOR BLACK STUDENTS ACROSS THREE STATES**

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### **Abstract**

Differences in Advanced Placement exam results for Black students in Texas, Georgia, and California were examined. Existing data from the College Board 2010 Report were used to compare overall Advanced Placement exam performance and individual Advanced Placement exam performance in English Language, U.S. History, and Calculus AB. Statistically significant differences were present in the performance on Black students on the overall Advanced Placement exam, as well as the three individual AP exams among the three states. Effect sizes for the statistically significant differences were small to trivial. With Advanced Placement exams being the same across the country, these findings depict differential performance for Black students as a function of the state in which they lived.

*Keywords:* Advanced Placement exams, Black student performance, three state comparisons

### **INTRODUCTION**

No academic program has grown to such massive proportions at such a fast rate as Advanced Placement. It has become extremely popular with the best high schools, students who want to enroll in a competitive university, and parents who want to lower their college tuition expenses. The College Board defined Advanced Placement (AP) as an arduous educational program that offers over 30 courses, developed in collaboration with college instructors, to assure the content meets college standards (College Board, 2010). Administrators at poor high schools embrace the AP program because they believe that even struggling students can benefit from the rigor of college-level coursework. Originally designed to give the highest achieving students at choice high schools a chance for college credit in 1955, AP courses were offered to provide challenging classes as preparation for college as well as get a head start on earning college credit.

As the AP Program added college-level work in a variety of subjects, more high schools and more parents demanded access. This increased access has resulted in a dramatic increase in the number of minority students enrolling in AP courses. In fact, the College Board has in place the *AP Equity Policy Statement*:





The College Board and the Advanced Placement Program encourage teachers, AP Coordinators, and school administrators to make equitable access a guiding principle for their AP Programs. The College Board is committed to the principle that all students deserve an opportunity to participate in rigorous and academic challenging course and programs. All students who are willing to accept the challenge of a rigorous academic curriculum should be considered for admission to AP courses. The Board encourages the elimination of barriers that restrict access for AP courses to students from ethnic, racial, and socioeconomic groups that have been traditionally underrepresented in the AP Program. Schools should make every effort to ensure that their AP classes reflect the diversity of their student population. (College Board, 2008)

However, continued focus on underrepresented students is evidence of concern of program participation and success. VanSciver (2006) posited that even with the College Board's equity policy, minority and economically disadvantaged students are not enrolling in AP courses in the percentages equal to their representation in their local school population.

Why we should be concerned with the disproportionate representation of minorities and in particular, Black students, in AP courses is obvious when reviewing the benefits of participation. According to Solorazano and Ornelas (2004), Advanced Placement courses, along with grade point averages (GPAs) and standardized exams are considered major factors in gaining admission to colleges and universities. In addition, the presence of AP courses on a student's high school transcript provides several benefits in the college selection process: (a) AP courses are an indicator of college level curriculum; (b) students who enroll in AP courses have a GPA higher than the norm; and (c) students who enroll in AP courses usually take the AP exams, which can result in college credits for scores of 3 or higher (College Board, 2008; Solorazano and Ornelas, 2004). The College Board (2009) indicated that 85% of college admissions and scholarship decisions are associated with taking AP classes and reaching benchmark on an AP exam. Lavin-Loucks (2006) documented that earning an AP examination grade was a predictor of completing a bachelor's degree, and that students who attained a 3 or higher on an AP exam were more successful in college than students who did not achieve at this level.

The College Board (2010) reported that from the class of 2009, students who participated in rigorous coursework or AP English classes received 60 points more in critical reading and 59 points greater in writing than the average score of all students on the SAT. Comparable results were indicated for students who took AP math. Their SAT math results were 79 points higher than the average math score of students who did not participate in advanced math curriculum (College Board, 2010). Therefore, AP courses provide a jump on college and can act as an early predictor of college success.

Gaston Caperton, President of the College Board, emphasized the economic benefit of AP in addition to the academic advantages. He stated

"In these times of economic distress, as family budgets are squeezed and financial aid resources are spread thin, rigorous courses like AP that prepare students for the demands of college and foster an increased likelihood of on-time graduation can be a very valuable resource for families" (Lewin, 2009, A19).

The achievement gap is traditionally simply defined as the difference between the scores of Black and White public school students. The College Board (2010) further





defines an equity and excellence gap when traditionally underserved students comprise a smaller percentage of the successful student group than the percentage these students represent in the graduating class. The Board notes the increasing number of Black students participating in AP but an examination of the numbers still reveals evidence of an underserved population.

Of the 2009 high school graduates who participated in AP courses, 14.5% were Black—of which, 8.2% took the AP exam; and 28% (of the 8%) achieved the benchmark score of 3 or more on at least one AP test area. As compared to Mexican Americans/Hispanics and other races, the number of Black students participating in an AP course was considerably less. Over the past six years, a 3.3% increase occurred in the overall participation in AP courses; of which, Black students' involvement in these courses increased only 2.2%. In addition, over 60% of Black students achieved an AP exam result below the benchmark score of 3 (College Board, 2010).

The data illustrate a problem that requires examination. Troubling ethnic and racial gaps remain. Blacks are seriously underrepresented in the AP program and testing. Exam participation for Blacks, while improved since the 1980s, has largely failed to narrow the gap in AP exam success and participation to that of Whites. At the same time, Asians represent only 5% of the 2009 graduating class but 10% of the AP exam population (College Board, 2010). Hispanic students showed equal representation whereas White students' level of AP exam participation (59.4%) is just shy of their representation of the student population, 61.6% (College Board, 2010). Blacks are still less likely to have passed, or even to have taken an AP exam than White, Hispanic, or Asian students. From the College Board 2010 Report, Hawaii and Montana were the only states to have eliminated the equity and excellence gap for Black students.

Reviewing the data of AP achievement by Black students in three distinct states provides a unique view of the status of Black students in the U.S. A plethora of research studies on states with large numbers of minority populations exist. Texas, California, and Georgia are representative of such states that have large minority populations.

In Texas, Moore and Slate (2008) examined enrollment in AP classes, specifically looking at gender and racial composition of students attending schools. They investigated AP enrollment and student success rates for 2004-2005 and 2005-2006 school terms. Data from the Academic Excellence Indicator System provided from the Texas Education Agency for more than 1,200 school districts were analyzed. Their findings revealed that Black students were behind all groups in terms of AP participation and level of achievement on the AP exams. For 2004-2005, 10.85% of AP test takers were Black students compared to 11.47% Hispanic students and 14.60% White students whereas for 2005-2006, a slight increase (0.33%) occurred in the number of Blacks taking an AP course over the previous year (Moore & Slate, 2008).

To expand AP participation and to make it more of an integral part of high school curriculum, incentives to succeed on the AP exams have shown up in several school districts across the U.S. In the Houston Independent School District (HISD), test fees were paid for individual students by the district for the first time last year. These





incentives resulted in a 43% increase in exam participation. But the increased rate of participation did not result in higher exam scores for HISD students (Ravat, 2011). In Skyline High School in Dallas, Texas, successful students earn \$100 for each exam passed. The pass-for pay system is funded by private dollars and also provides financial rewards to teachers of successful AP students. The same funding procedure is also in place for high school students in The Woodlands, Texas.

Many individuals support these pass-for-pay programs because they are race-neutral and steer Black and other minority students to college. Most of the financial sponsors target disadvantaged areas where AP participation is low (Cavanaugh, 2003). Additionally, the Texas Education Agency offers high school financial incentives for every student who passes an AP exam and has covered part of the exam fee for individual students. Many Texas colleges and universities, including the University of Texas, conducts workshops for AP high school teachers while offering them stipends to attend the training. Some school districts in other states, such as Northern Valley Regional High School in New Jersey, have required students in AP course to take the AP exam or fail the class.

In California, Solorzano and Ornelas (2004) examined 50 public high schools' AP enrollment using California Department of Education's data for 2000-2001. A large disparity was present between the number of Black students enrolled in AP courses compared to all the other racial groups. The authors conducted additional studies of the largest school district in California—the Los Angeles Unified School District (LAUSD). Blacks comprised of 14% of the district's high school population but only 8% of those students enrolled in AP classes; Latino students made up 66% of the LAUSD's high school student enrollment but only 49% of the district's AP enrollment; Asian students encompassed 9% of the student enrollment and 21% of AP enrollment; and White students comprised 12% of the overall student population, with 22% of this group enrolled in AP courses. Additional results indicated that students in predominantly urban, low-income, Black, and Latino communities were excessively underrepresented in AP courses. In addition, the authors pointed out that attending high schools with high student enrollment in AP classes did not improve the level of AP access for Blacks and Latinos (Solorzano & Ornelas, 2004).

Presently, California is a state that has active AP participation, with one in five graduates passing an AP exam last year (Lewin, 2009). The escalation of AP participation in California can be traced back to the story of an East Los Angeles math teacher, Jaime Escalante. The movie *Stand and Deliver* portrayed the story of his success with poor Latino kids. He demonstrated that given time, attention and encouragement, these students could be successful on the AP calculus exam. Now, California is one of the top 10 states with the largest percentage of graduating seniors scoring 3+ on AP exams (College Board, 2010).

Since the 2004-2005 school year, Georgia has seen a 97% increase in students passing AP exams compared to a 52% increase nationwide (Downey, 2010). Georgia minority students have increased their participation in and their performance on AP exams over the last year. Black student test-takers increased 19.2% compared to the national increase of 13.9%. Success on AP exams also increased for Black students





with a 15.2% increase in scores of 3 or higher for Black Georgia test-takers (College Board, 2010). Last year, Georgia and Texas had a higher percentage of graduating seniors who had taken at least one AP exam (29%) versus 26% nationally. Georgia also had a higher pass rate on the AP exams than the national average (SREB, 2010). Georgia was commended by the College Board and the National Governors' Association for participating in special initiatives to expand access to AP courses. Over a three-year period, Georgia more than doubled the number of minority students in AP courses.

Through research conducted by Ohrt et al. (2009), Black students' participation in AP coursework has steadily increased over the past decade; however, the level of achievement among this student population continues to be much lower than other student groups. Bushong (2009) echoed the same results. With the recent publication of *The 6th Annual AP Report to the Nation* by the College Board, it is noteworthy that although more Black students from the class of 2010 completed AP exams than in previous years, they continued to be underrepresented in the overall number of AP participants.

Critical race theory (CRT) is an applicable framework for this study because race is examined as a major component of everyday interactions in the United States. Primarily, CRT unmaskes the hidden structural boundaries that prohibits some people from experiencing what should be available to all—while seeking to identify those individuals who are perpetrating inequality and injustice. Critical race theory is committed to advocating for justice for those persons who are oppressed by the decisions made by others. Critical race theory “spotlights the form and function of dispossession, disenfranchisement, and discrimination across a range of social institutions, and then seeks to give voice to those who are victimized and displaced” (Trevino, Harris, & Wallace, 2008, p. 8).

Astramovich and Harris (2007) contended that Black students often experience oppressive practices both inside and outside schools that may affect their ability to pursue high-level courses such as AP curriculum and college level courses. Nieto (2004) stated that retention, standardized testing, tracking, and disciplinary actions have been practices that may have been implemented in a manner that is potentially oppressive to Black and other minority students. In addition, Potts (2003) ascertained that Black students were also disproportionately represented in higher level educational programs and were more likely to be placed in special education classes—therefore, being labeled as students with learning disabilities.

The purpose of this study was to determine the extent to which differences were present for Black students across three states (i.e., Texas, California, and Georgia) in overall AP exam performance and then in three specific AP exams (i.e., English Language, U.S. History, and Calculus AB). In addition, data were examined to determine which of the three states had the highest percentage of Black students who received a score of 3 or higher on the exams mentioned above. Finally, an investigation of overall differences in AP scores for Black students from Texas, California, and Georgia was conducted.





According to Toppo (2008), the United States educational system is declining on every level. Without an educated workforce, the U.S. will not be able to compete in the global economy nor fill some of the fastest growing jobs—especially positions in areas of technology, science, and math (Leach, 2010). As a result, foreign markets will capture high paying and skilled jobs, while the economic status of U.S. citizens will decline (Leach, 2010). The 2008 Education Digest Statistics report acknowledged that college retention, drop-out rates, and the overall education of our youth has global implications. For example, the U. S. ranked 15th among the 29 countries with a student population of 18 to 24-year-old students in higher education; ranked 10th among 24 to 34-year-olds; and is the highest ranking country whose adult population (ages 35 and older) has college degrees (Digest of Education Statistics, 2008).

Therefore, this research will provide data and analysis exploring AP equity and access gap for Black students. In addition, differences that exist among Black students' AP achievement and participation between three states will be revealed. This information can be used to propel legislators, educators, parents, and Black students towards a rapid closure to the AP equity and achievement gap.

The following research questions were addressed in this study: (a) What are the differences in the overall AP exam scores among Black students in Texas, California, and Georgia?; (b) What are the differences in English Language AP exam scores among Black students in Texas, California, and Georgia?; (c) What are the differences in U.S. History AP exam scores among Black students in Texas, California, and Georgia?; and (d) What are the differences in Calculus AB AP exam scores among Black students in Texas, California, and Georgia?

## **METHOD**

This study was a causal-comparative study in which archival data present at The College Board website were analyzed. As such, descriptive data consisting of the numbers of Black students who completed Advanced Placement exams during the May, 2009 administration were analyzed to determine whether differences were present in student performance as a function of the state in which they lived. Being a causal-comparative study in which archival data were analyzed, readers should be cautious in the extent to which they make generalizations. Cause and effect interpretations should, in particular, be avoided.

The sample consisted of 57,774 Black high school students from Texas, California, and Georgia, who completed an AP exam during 2009 (College Board, 2010). According to the College Board (2010) Report, the above mentioned states were among those states with the largest number of Black students who experienced success in AP during 2009. Therefore, data from AP exams results in English Language, Calculus AB, and U.S. History for Texas, California, and Georgia were used in this study.

Archival ordinal data from the College Board 2010 report were used to compare Black students' AP exam outcomes for Texas, California, and Georgia. Readers are referred to the College Board website researchers' icon for access to their dataset. For





information about the score reliability and score validity, readers are again directed to the College Board website. Test scores ranged from 1 (lowest) to 5 (highest) and were present in the form of the total number of students who obtained one of these scores for each of the AP exams. The College Board designated a score of 3 as the benchmark by which success on the exam is measured (College Board, 2008). A Pearson chi-square on-line calculator was used to perform comparisons between Black students who completed AP exams in: (a) Texas/California; (b) Texas/Georgia; (c) Georgia/California; and (d) overall for these three states. This instrument was also used to compare the number of Black students who achieved the benchmark of 3 or higher on at least one of the AP exams, by these states. The College Board (2008) does not provide psychometric information (i.e., score reliabilities and score validities) regarding Advanced Placement exams. Therefore, instrument score reliability and instrument score validity is unknown.

The data made available by The College Board on Advanced Placement exam results were frequency data for each of the five exam scores students could receive. That is, the number of Black students who received a 5, a 4, a 3, a 2, and a 1 for each AP exam, as well across all AP exams, was present in The College Board national dataset. As such, the optimal statistical procedure that can be used for categorical data (i.e., the three states) and for frequency data (i.e., numbers of Black students at each of the five exam scores) is a Pearson chi-square. Thus, Pearson chi-square inferential statistical procedures were conducted to address each of the research questions previously delineated.

## **FINDINGS AND COMMENTS**

Pearson chi-square procedures were conducted to ascertain if statistically significant differences existed in Black students' performance across three states (i.e., Texas, California, and Georgia) on overall AP exams and then in three selected AP exams (i.e., English Language, Calculus AB, and U.S. History). Because the chi-square procedure was repeated for the overall AP performance and for each AP exam, the Bonferroni correction procedure was applied to the traditional alpha level of .05 (i.e.,  $.05/2 = .025$ ) for all research questions (Chandler, 1995). Thus, the corrected alpha level utilized to determine statistical significance in this study was .025 (Chandler, 1995).

For the first research question, a statistically significant difference existed in the overall AP exam performance for Black students as a function of the state in which they lived. That is, the AP performance of Black students in Texas and in Georgia was statistically significantly different,  $X^2(4, N = 43046) = 16.58, p = .002$ . The Cramer's *V*, or effect size was .02, or trivial (Cohen, 1988). The same result was present between Black students in Texas and in California,  $X^2(4, N = 36778) = 1090.38, p < .001$ . This time, the Cramer's *V* was small, .17 (Cohen, 1988). The overall AP exam performance also differed between Black students in California and in Georgia,  $X^2(4, N = 35724) = 887.21, p < .001$ . The Cramer's *V* was again small, .16 (Cohen, 1988). California had the highest percentage of Black students to achieve a 3 or higher on the overall AP

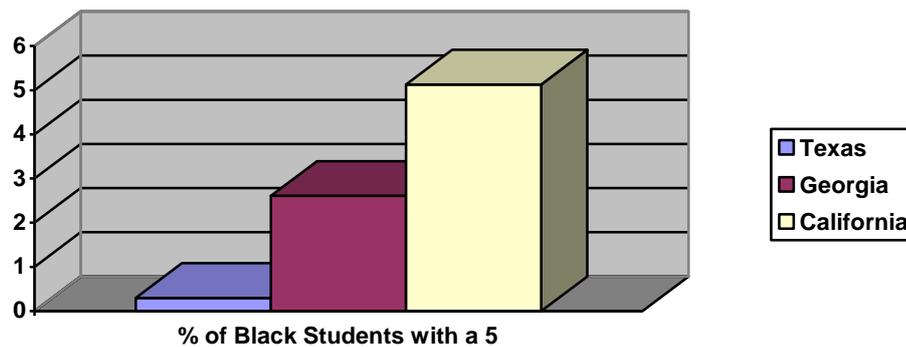


exam performance. Table 1 shows that Texas had the largest number of Black students (22,050) who completed at least one AP exam in 2009.

**Table 1:** Overall Frequencies and Percentages of Advanced Placement Exam Scores for Black Students by State

| AP Exam Scores | Texas                 | Georgia               | California           |
|----------------|-----------------------|-----------------------|----------------------|
| 5              | 0.3%<br>(n = 603)     | 2.61%<br>(n = 548)    | 5.13%<br>(n = 755)   |
| 4              | 0.70%<br>(n = 1553)   | 7.39%<br>(n = 1552)   | 11.24%<br>(n = 1656) |
| 3              | 14.28%<br>(n = 3148)  | 14.97%<br>(n = 3144)  | 20.80%<br>(n = 3063) |
| 2              | 24.40%<br>(n = 5380)  | 25.18%<br>(n = 5287)  | 27.39%<br>(n = 4034) |
| 1              | 51.64%<br>(n = 11386) | 49.84%<br>(n = 10465) | 35.44%<br>(n = 5220) |

**Percent of Black Students in Texas, Georgia, and California Who Obtained an Overall AP Exam Score of 5**



**Figure 1.** Percent of Black students by state who obtained an overall AP exam score of 5

Statistically significant differences existed among Black students in all states to states comparisons. For research question two, the Pearson chi-square results for English Language were: (a) Texas/Georgia,  $X^2(4, N = 7024) = 39.02, p < .001$ , with a .07 trivial effect size; (b) Texas/California,  $X^2(4, N = 6871) = 265.54, p < .001$ , effect



size was small, .20; and (c) California/Georgia,  $X^2(4, N = 4795) = 102.99, p < .001$ , effect size was small, .14 (Cohen, 1988). California had the highest percentage of Black students (40.51%) who had a score of 3 or higher on the English Language AP exam. Of the three states, Texas had the most Black students who took this exam. Table 2 provides descriptive statistics for each state.

**Table 2:** Frequencies and Percentages of Advanced Placement Exam Scores for Black Students in English Language by State

| English Language AP Exam Scores | Texas                | Georgia             | California          |
|---------------------------------|----------------------|---------------------|---------------------|
| 5                               | 2.02%<br>(n = 92)    | 1.94%<br>(n = 48)   | 3.40%<br>(n = 79)   |
| 4                               | 6.79%<br>(n = 309)   | 6.87%<br>(n = 170)  | 11.00%<br>(n = 255) |
| 3                               | 16.81%<br>(n = 765)  | 20.05%<br>(n = 496) | 26.19%<br>(n = 608) |
| 2                               | 35.23%<br>(n = 1603) | 38.92%<br>(n = 963) | 37.87%<br>(n = 879) |
| 1                               | 39.36%<br>(n = 1791) | 32.21%<br>(n = 797) | 21.54%<br>(n = 500) |

Compared in research question three were Black students' test results on the AP U.S. History exam. The results were: (a) Texas/Georgia,  $X^2(4, N = 6554) = 68.77, p < .001$ , effect size was small, .10; (b) Texas/California,  $X^2(4, N = 5687) = 317.60, p < .001$ , effect size was small, .23; and (c) California/Georgia,  $X^2(4, N = 5111) = 128.56, p < .001$ ; effect size was small, .16 (Cohen, 1988). Black students in California (35.90%) had the highest percentage of students who scored 3 or higher on this exam compared to Texas and Georgia. Texas had the fewest test-takers of the three states. Table 3 shows descriptive statistics for variables contained in this question.

The fourth research question involved Black students who took the AP exam for Calculus AB. Results for the three comparisons were statistically significant: (a) Texas/Georgia,  $X^2(4, N = 2249) = 14.06, p = .007$ , effect size was trivial, .08; (b) Texas/California,  $X^2(4, N = 2045) = 17.44, p = .002$ , effect size was trivial, .09; and (c) California/Georgia,  $X^2(4, N = 2170) = 58.64, p < .001$ ; effect size was small, .16 (Cohen, 1988). Table 4 reveals that California had the highest percentage (33.29%) of students who scored 3 or higher on the AP Calculus AB exam and represented the largest group among the three states.





**Table 3:** Frequencies and Percentages of Advanced Placement Exam Scores for Black Students in U.S. History by State

| <b>U.S. History</b>   | <b>Texas</b>         | <b>Georgia</b>       | <b>California</b>   |
|-----------------------|----------------------|----------------------|---------------------|
| <b>AP Exam Scores</b> |                      |                      |                     |
| 5                     | 1.82%<br>(n = 65)    | 2.11%<br>(n = 63)    | 3.82%<br>(n = 81)   |
| 4                     | 6.31%<br>(n = 225)   | 6.66%<br>(n = 199)   | 12.06%<br>(n = 256) |
| 3                     | 11.47%<br>(n = 409)  | 14.82%<br>(n = 443)  | 20.02%<br>(n = 425) |
| 2                     | 24.29%<br>(n = 866)  | 30.34%<br>(n = 907)  | 31.38%<br>(n = 666) |
| 1                     | 56.10%<br>(n = 2000) | 46.07%<br>(n = 1377) | 32.70%<br>(n = 694) |

**Table 4:** Frequencies and Percentages of Advanced Placement Exam Scores for Black Students in Calculus AB by State

| <b>Calculus AB</b>    | <b>Texas</b>        | <b>Georgia</b>      | <b>California</b>   |
|-----------------------|---------------------|---------------------|---------------------|
| <b>AP Exam Scores</b> |                     |                     |                     |
| 5                     | 5.36%<br>(n = 57)   | 4.21%<br>(n = 50)   | 8.95%<br>(n = 88)   |
| 4                     | 8.85%<br>(n = 94)   | 7.00%<br>(n = 83)   | 10.58%<br>(n = 104) |
| 3                     | 12.14%<br>(n = 129) | 9.77%<br>(n = 116)  | 13.84%<br>(n = 136) |
| 2                     | 10.83%<br>(n = 115) | 8.76%<br>(n = 104)  | 11.60%<br>(n = 114) |
| 1                     | 55.83%<br>(n = 182) | 70.26%<br>(n = 834) | 55.03%<br>(n = 541) |





## CONCLUSIONS AND RECOMMENDATIONS

From this study support previous research, which revealed that although the number of Black students involved in AP courses has increased, a disparity in participation and achievement, for this group, continues to prevail (College Board, 2010; Moore & Slate, 2008). Results of the 2010 College Board Report disclosed that over 50% of Black students taking AP exams scored below the benchmark of 3-with the majority achieving a score of 1. The College Board (2010) agreed that access to AP courses for Black and other underrepresented students has been limited. However, states and educators are making progress towards increasing the number of students allowed to take AP classes. As a result, 15.9% of the 2009 public school graduating class (compared to 12.7% in 2004) who had access to AP classes received a 3 or higher score on the exam, indicating a 3.2% increase in the number of students reaching AP benchmarks in 2009 as compared to 2004. Although Black students made up 14.5% of the total 2009 high graduation class, they represented only 8.2% of the students who completed an AP exam. Of the 8.2% of Black students taking an AP exam, 28% received a score of 3 or higher (College Board, 2010).

Some researchers have focused on the disparity and what is needed to ameliorate the academic problems of Black and other minority students. For example, Whiting and Ford (2009) created the Vanderbilt University Achievement Gap Project in an attempt to offer solutions and to raise consciousness concerning the disparity in academic achievement between minority students and their White peers (Brobeck, 2005). Whiting and Ford (2009) contended that the problem was not just academic but instead was extremely complex. They argued that multiple gaps were under discussion: the expectation gap, the opportunity gap, the funding gap, the health gap, and the teacher quality gap (Brobeck, 2005). Whiting and Ford (2009) suggested that what goes on at home can be just as important as what goes on at school. If correct, efforts to close the achievement gap must be comprehensive and cross-disciplinary (Crowner, 2007)

Roderick, Nagaoka, and Coca (2009) pointed out that preparing students for post-secondary education requires schools to allow more students access to AP and other rigorous coursework. In addition, Black students are the least of all groups represented in AP courses and subsequently the least number of students taking the AP exams (Whiting & Ford, 2009). Whiting and Ford (2009) determined that the discrepancy in the number of Black students in AP and gifted classes is largely due to the attitudes, knowledge, and skill level of educators.

Speculation and theory abound regarding the cause of and the cure for the achievement gap between Black and White students. In Barton and Coley's (2009) report, *Parsing the Achievement Gap II*, several correlates of academic achievement were identified. The authors identified measurable differences among minority groups as compared to the White majority including the rigor level of the curriculum. Packer, the Executive Director of the AP Program for the College Board, argued that the racial gap in AP stemmed from systemic problems that must be fixed beginning in elementary school (Hayes, 2007).





Menson et al. (2009) ascertained that educators were not doing enough to include Black students in AP classes and therefore were widening the educational achievement gap among this student population. Moore and Slate (2008) revealed that among White and Hispanics students in Texas, Black students were the least represented in AP classes and had the lowest achievement on AP exams. Moore and Slate's (2008) findings were consistent with statistics provided by the College Board (2010).

Although findings from this study look grim for Black students, the College Board is leading the charge to close the AP equity and excellence gap for all underrepresented groups. The College Board (2010), in partnership with the National Governors Association for Best Practices (NGA Center), initiated a program in 2005 to support restructuring high schools in the United States. Fifty-one schools in six states—Alabama, Georgia, Kentucky, Maine, Nevada, and Wisconsin—participated in the pilot; and received funding to (a) increase minority and low-income students' access to AP courses; (b) create motivation strategies; and (c) expand the competency levels of both teachers and students. Within one year (from May 2008 to May 2009), Black and Latino students' AP results in math, science, and English increased by 13% in all states, and by 17% in those states that received funding for the expansion project. Of the 51 schools participating in this pilot, six schools made noticeable efforts to include Black students and nine schools increased in their attempts to add Latinos (College Board, 2010).

Some individuals argue that access and participation in AP classes will not solve the achievement gap problem. Strong concerns exist that the AP program will become diluted as it becomes more widespread. In a new book (Klopfenstein and Thomas, 2010), the authors warned that it was unlikely that many of the students who were the target of such an AP expansion would actually benefit. Klopfenstein and Thomas (2010) reported the results of one study in which AP courses did not result in helping students graduate early from school. Dual-credit programs were promoted as more successful for early graduation than were AP courses or AP exams. They also criticized the AP Program because many students who take the courses do not take the exam and of those students who do, many fail the exam. An examination of the data revealed that students who took AP courses were no more likely to graduate from college unless they also passed the exam.

Geiser and Santelices (2004), research fellows at the Center for Studies in Higher Education at the University of California-Berkeley, came to the stark conclusion that in California little to no relationship exists between simply taking an AP course and students' first- and second-year college GPAs. However, scoring high on the AP exam results in the opposite conclusion. Unfortunately, not all of the students who take the AP courses actually take the exam and an even smaller percentage pass at a high rate. We contend that regardless of the criticism, no student is hurt by participating in an AP course or by taking the AP exam and failing it.

Additional research is needed in several areas. For the AP Program to serve its purpose, targeted research on access and achievement of Black students and other minorities is warranted. Research to determine the extent to which a lack of student participation is based on such factors as low student motivation, absence of parental





guidance, or lack of teacher training is also warranted. Also, further investigation of the College Board pilot program is warranted; specifically to ascertain how the Board plans to expand the AP program into other states with low AP access rates for Black students and the corresponding results of such expansion. The College Board has recently taken steps to review program quality by announcing a certification program requiring high schools to be audited by the College Board. Therefore, criticism about the quality of the AP curriculum and teacher training is a subject for further study.

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## ÜÇ FARKLI AMERİKAN EYALETİNDE AFRO-AMERİKAN (AFRİKA KÖKENLİ AMERİKALI) ÖĞRENCİLERİN İLERİ YERLEŞTİRME SINAVLARI'NDAKİ BAŞARILARININ KARŞILAŞTIRILMASI

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### Genişletilmiş Özet

**Problem:** İleri Yerleştirme (Advanced Placement) kursları, Amerika Birleşik Devletleri'nde özellikle üst düzey liselerde verilen üniversite seviyesindeki dersleri içermekte ve çoğunlukla kaliteli üniversitelere gitmek isteyen öğrenciler tarafından alınmaktadır. Ancak, geleneksel olarak Afro-Amerikan öğrencilerin bu kursları alma ve başarılı olma oranlarının, diğer öğrenci gruplarıyla karşılaştırıldığında çok düşük düzeyde olduğu bilinmektedir. Bu çalışma, ABD'nin üç eyaletindeki (Teksas, Georgia ve Kaliforniya) Afro-Amerikan öğrencilerin İleri Yerleştirme sınavlarındaki başarı ve erişim farklılıklarını incelemektedir. Bu çalışmanın sonuçları, kanun yapıcıları, eğitimcileri, velileri ve Afro-Amerikan öğrencileri İleri Yerleştirme sınavlarındaki başarı farklılıklarının kapatılması konusunda gayret sarf etmeye sevk edebilmek için kullanılabilir. Bu amaçla, çalışmada şu sorulara cevap aramaktadır: (a) Genel olarak, Teksas, Kaliforniya ve Georgia eyaletlerinde bulunan Afro-Amerikan öğrencilerin İleri Yerleştirme sınavlarında aldıkları puanlar arasında farklılık var mıdır? (b) İleri Yerleştirme sınavının İngilizce kısmında, Teksas, Kaliforniya, and Georgia eyaletlerinde bulunan Afro-Amerikan öğrenciler arasında farklılık var mıdır? (c) İleri Yerleştirme sınavının Amerikan Tarihi kısmında, Teksas, Kaliforniya ve Georgia eyaletlerinde bulunan Afro-Amerikan öğrenciler arasında farklılık var mıdır? (d) İleri Yerleştirme sınavının Matematik kısmında, Teksas, Kaliforniya ve Georgia eyaletlerinde bulunan Afro-Amerikan öğrenciler arasında farklılık var mıdır?

**Yöntem:** Bu çalışmada nicel araştırma yöntemi kullanılmıştır. Çalışmanın örneklemini Teksas, Kaliforniya ve Georgia eyaletlerinde 2009 yılı içerisinde İleri Yerleştirme sınavına giren 57,774 Afro-Amerikan lise öğrencisi oluşturmaktadır. İleri Yerleştirme sınavlarında öğrenciler 1 (en düşük)'den 5 (en yüksek)'e kadar notlarla değerlendirilmektedir, 3 ise temel başarı ölçütü olarak görülmektedir. Araştırmada kullanılan veriler, Üniversiteler Kurulu (College Board) tarafından hazırlanan 2010 raporundan elde edilmiştir. Farklı eyaletlerde, İleri Yerleştirme kurslarını tamamlayan Afro-Amerikan öğrenci sayılarının karşılaştırılması için Pearson Ki Kare tekniğinden yararlanılmıştır. Aynı teknik, en az bir İleri Yerleştirme testinde 3 veya daha yüksek not alan Afro-Amerikan öğrencilerin sayılarının karşılaştırılması için de kullanılmıştır.

**Bulgular:** Öğrencilerin genel performansı açısından bakıldığında, farklı eyaletlerde yaşayan Afro-Amerikan öğrencilerin başarıları arasında istatistiksel olarak anlamlı bir farklılık bulunmuştur. Sonuçlara göre, 3 ve daha yüksek puan alan öğrenci oranının en yüksek olduğu eyalet Kaliforniya'dır. Benzer olarak, İngilizce, Amerikan





Tarihi ve Matematik alanlarında da öğrencilerin performansları arasında istatistiksel olarak anlamlı bir farklılık bulunmuştur. Her üç alanda da Kaliforniya eyaletinde bulunan öğrencilerin daha başarılı oldukları gözlenmiştir.

**Öneriler:** İleri Yerleştirme programının başarılı olabilmesi için bu konuda daha fazla araştırmaya ihtiyaç duyulmaktadır. Özellikle, Afro-Amrikan ve diğer azınlık öğrencilerin bu programa erişim ve başarı düzeylerinin incelenmesi önem taşımaktadır. Bunun yanında, düşük öğrenci katılımına neden olabilecek öğrenci motivasyonu, veli rehberliği ve öğretmen eğitimi gibi faktörlerin ileriki araştırmalarda göz önünde tutulması gereklidir.

**Anahtar Kelimeler:** İleri Yerleştirme Sınavları, Afro-Amerikan öğrencilerin performansları, üç eyaletin karşılaştırılması

