

Equity in Offering
Advanced Placement
Courses in California
High Schools

1997 – 2003

Gaining
or Losing
Ground?



Celebrating 20 Years of Progress

TRPI

The Tomás Rivera Policy Institute



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March 2006

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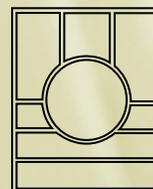
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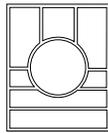
Acknowledgements

We gratefully acknowledge the Ford Foundation whose financial support made this project possible.

Additionally, we would like to give special thanks to several staff members from the Tomás Rivera Policy Institute who provided methodological, editorial and logistical assistance during the course of the project: Gina Caro-Adams, Vice President of Operations and Development, and Sandra Bejarano, Amalia Márquez, and Angelo Reyes, Research Assistants.

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Table Of Contents

Summary.....	1
Introduction.....	2
Background: Advanced Placement Program in California.....	3
TRPI’s Continued Analysis of AP Course Availability.....	4
Methods.....	6
Findings.....	7
AP Courses Offered.....	7
Do Schools With a Higher Proportion of Minority Students Offer Fewer AP Courses?.....	8
Do Schools With More Low-Income Students Offer Fewer AP Courses?.....	12
Does the Availability of AP Courses Vary Across Location?.....	13
AP Course Offering Change Between the Academic Years 1997-1998, 2003-2004.....	13
Conclusion.....	17
Policy Recommendations and Future Research Directions.....	18
Bibliography.....	20
Endnotes.....	20

Summary

Analysis by researchers of the Tomás Rivera Policy Institute (TRPI) on Advanced Placement (AP) courses in California public high schools in the mid-1990s concluded that although high school AP programs offered talented youngsters the opportunity to stretch their mental horizons and preview the challenges of college-level coursework, the programs were not available to all students in the state of California. The findings of this present report indicate that access to AP courses remains an unlikely opportunity for Black and Latino students and many low-income/rural students regardless of ethnicity. AP courses continue to be an inequitable sorting mechanism that limits some groups' college preparation opportunities.

The findings of this present report indicate that access to AP courses remains an unlikely opportunity for Black and Latino students and many low-income/rural students regardless of ethnicity.

Introduction

Advanced Placement courses play an increasingly important role in determining high school students' options for college. In many cases, completion or enrollment in AP courses is viewed as an indicator of a student's willingness to undertake challenging coursework. Since their inception in the 1950s, AP courses have provided students with the opportunity to learn college-level material while still in high school. An integral part of an AP course curriculum is to increase factual knowledge, interpretive understanding and transferable skills that can assist a student in his or her higher education experience.

The benefits of taking AP courses for qualified students are compelling.¹:

- High school students have the opportunity to be intellectually challenged in class.
- Students taking AP courses are getting better prepared for the rigors of college-level coursework.
- Students may earn college credits while still in high school by passing AP standardized examinations after completing an AP class. This benefit can lead to advanced standing upon entering college and can potentially decrease the time needed to graduate and correspondingly lower the cost of a college degree. Alternatively, students entering college with college credit can more easily include a second major in their studies.
- Students taking AP courses are able to increase their Grade Point Average (GPA) and potentially be more competitive for college admission. In many schools, students taking AP courses are often awarded an additional point thus raising their high school grade point average. For example, if a student received a B in an AP course, the numerical grade is recorded as a 4.0 instead of the 3.0.
- When considering college applications, college and university admissions officers look favorably on students who have enrolled in AP classes.
- AP courses offer a national scale of comparison for what constitutes mastery of a subject.

The benefits of taking AP classes in high school clearly indicate that students should take AP courses when possible. Yet, availability of AP courses at schools is what first determines whether a student can even consider taking an AP course. This report focuses on analyzing equitable access to AP courses at California public schools. Specifically, we explore differences in access to AP courses at school with different demographic characteristics of the student body or school location.

¹ Federman & Pachon, 2000; Wiley, 1989; Solorzano & Ornelas, 2002; UCLA Office of Admissions, 2004.

Background: Advanced Placement Program in California

The AP program was initiated during the early 1950s. The program was a response to growing concerns regarding the educational needs of high ability secondary school students. In an attempt to address this phenomenon, two efforts took place simultaneously. The Ford Foundation's Fund for the Advancement of Education sponsored a study in 1951 to determine what students were learning during the last two years of high school and first two years of college. Their sample consisted of three elite high schools (Exeter, Andover, Lawrenceville) and universities (Harvard, Princeton, Yale). Findings from the study suggested that capable students could receive advanced placement in college if achievement examinations were developed.

The second effort, under the leadership of Kenyon College, and sponsored by the Fund for the Advancement of Education, was called the Kenyon Plan. This was a cooperative effort among 12 colleges and 12 secondary schools known as the School and College Study of Admissions with Advanced Standing (SCSAAS). This group developed 11 courses that were then offered by 18 secondary schools. In 1954, the College Board assumed responsibility for the program.²

The College Board today contracts the Educational Testing Service (ETS) to administer and operate the AP program. During the 2003-2004 academic year, 33 different types of AP courses were available at public high schools in the state of California, four more courses than in 1997-1998. The classes are offered in nine subject areas: three in English (one more than in 1997), seven in foreign languages, one in music, two in computer education, five in science (one more than in 1997), three in mathematics, nine in social science (two more than in 1997), and three in art (Table 1).

Over the past four decades, the program has experienced exceptional growth. Today, over 14,000 high schools (60%) in the United States offer AP courses. Over 1 million AP examinations have been administered to over half a million students, and over 3,000 colleges and universities offer advanced standing or course credit based on AP exam grades worldwide.³

Despite the apparent prevalence of AP courses available to students, most high school students in the U.S. do not take AP courses. In many cases this is simply due to their unavailability. In recent developments, the lack of AP courses at schools, predominantly high minority urban schools as well as smaller rural schools, has spurred legal action on behalf of these groups. Two lawsuits (*Daniel et al. v. State of California*; *Castaneda et al. v. University of California Regents*) in California have sought to address the inequity in AP course offerings.⁴

In turn, the College Board has taken steps to improve access to the AP program. These efforts include establishing committees to examine the problem, organizing conferences, and funding for new AP programs at schools. In California, there are statewide efforts to increase access to AP courses online and to train additional teachers to teach AP courses in certain subjects.

² College Board, 1999.

³ Johnson, 2004.

⁴ Solorzano & Ornelas, 2002.

TRPI's Continued Analysis of AP Course Availability

The Tomás Rivera Policy Institute first began its research on AP course availability in 1996. In their report, *An Analysis of Advanced Placement (AP) Courses in California High Schools*,⁵ TRPI researchers examined a sub-sample of school districts in California and found that AP course offerings depended on a number of factors:

- The economic status of the student body related to the number of AP courses the high school offers, controlling for school size. Schools with higher rates of Aid to Families with Dependent Children (AFDC) participation were more likely to offer fewer AP courses.
- Suburban schools offered more AP courses than urban and rural schools.
- Schools making their own decisions to offer AP courses were more likely to have more AP courses than schools where the decision-making power was assigned by the district.
- Contrary to conventional wisdom, budgetary problems and costs associated with offering AP courses were not obstacles to schools offering more AP courses.

Table 1

AP COURSES AND SUBJECTS OFFERED IN CALIFORNIA PUBLIC HIGH SCHOOLS

AP COURSES	SUBJECT AREAS
English Language & Composition	English
English Literature & Composition	English
International English Language	English
French Language	Foreign Language
French Literature	Foreign Language
German Language	Foreign Language
Latin Vergil	Foreign Language
Latin Literature	Foreign Language
Spanish Language	Foreign Language
Spanish Literature	Foreign Language
Music Theory	Music
Computer Science A	Computer Education
Computer Science AB	Computer Education
Calculus AB	Mathematics
Calculus BC	Mathematics
Statistics	Mathematics
General Biology	Science
General Chemistry	Science
Physics B	Science
Physics C	Science
Environmental Science	Science
Macroeconomics Social	Science
Microeconomics Social	Science
Comparative Government & Politics	Social Science
U.S. Government & Politics	Social Science
European History	Social Science
United States History	Social Science
Psychology	Social Science
Human Geography	Social Science
World History	Social Science
History of Art	Art
Studio Art: General Portfolio	Art
Studio Art: Drawing Portfolio	Art

⁵ Pachon, Federman & Castillo, 2000.

Additionally, this 1996 TRPI report also established that AP courses were not distributed equally across California public high schools surveyed and that AP courses play an important role in admissions decisions by the University of California.

In 2000, TRPI revisited the issue and examined all public high schools' AP course offerings in the Fall of 1997. In the research report and policy brief, TRPI again reported that large and suburban schools offered more AP courses. The report restated that schools serving low-income and rural students offered fewer AP courses.

In the 2000 report of AP course availability, TRPI revealed that the concentration of Latino or Black students was negatively correlated to the number of AP courses offered. This report was utilized by the American Civil Liberties Union to bring legal action against the California Department of Education for equitable relief (*Daniel v. State of California*).

In the present analysis, TRPI researchers revisit the issue to measure the changes (if any) in the availability of AP courses in California public schools. A decade has passed since the original TRPI AP report and five years have passed since *Daniel v. State of California (2000)* resulted in a legislative remedy to address inequitable AP access. Continued review of this topic helps shed light on the progress of educational reforms in the most populated state in the nation.

Methods

The data for this study was derived from the California Department of Education's California Basic Educational Data System (CBEDS) and School Fiscal Services. The data gathered is from Fall 2003. The universe in this study includes 1,094 "regular" public high schools in California.¹ Analysis of the data includes descriptive statistical analyses.

Because we are primarily interested in the issue of access, the primary variable of interest is the number of different AP courses — not classes — offered at a school. This is the number of distinct AP subjects offered at a school, e.g. Calculus AB, English Language and Composition, and Biology. One presumably has greater access to AP courses in a school offering single classes of AP Spanish, AP English, and AP Calculus than in one school offering three sections of AP Spanish.

In order to understand who had access to AP courses, we analyzed demographic and location variables. A primary variable of interest was the racial/ethnic composition of the school, specifically the percentage of Latino or Black students (considered underrepresented in high education). In this analysis, categories of Latinos and Blacks were combined. This analysis also examined the relation between availability of AP courses and percentage of students from low-income households — determined by the surrogate measure of the percentage of students who qualified to receive free or reduced lunch at school. Finally, location in this analysis is measured by urban, suburban, and rural categories. Location definitions are consistent with those used by the California Department of Education, which in turn, rely on U.S. Census categories.⁶

⁶ California Department of Education, 2005.

Findings

AP Courses Offered

Since 1997, the average number of AP courses offered per school has increased from five to six courses. The number of schools offering AP courses has also increased from 739 to 849 schools (Table 2) — an increase of 15 percent in a three-year period. However, there has been an additional 26 percent increase of new schools in California in the same time period. Simply stated, increases in schools offering AP courses have not kept pace with the addition of new schools added during the same time period. In fact, the percent of schools not offering AP courses rose from 15 percent in 1997 to 22 percent in 2003.

In California, the total number of AP courses offered in 2003 was 6,590ⁱⁱ (2,211 more than in 1997) (see Table 3). The total number of AP classes offered was 12,595 and the number of children enrolled in an AP program was 338,934.

Table 2

FREQUENCY DISTRIBUTION OF NUMBER OF AP COURSES OFFERED BY SCHOOL

NUMBER OF AP COURSES OFFERED	FREQUENCY	PERCENT	CUMULATIVE PERCENT
0	245	22.4	22.4
1	41	3.7	26.1
2	44	4.0	30.2
3	67	6.1	36.3
4	45	4.1	40.4
5	80	7.3	47.7
6	81	7.4	55.1
7	64	5.9	61.0
8	77	7.0	68.0
9	60	5.5	73.5
10	68	6.2	79.7
11	65	5.9	85.6
12	50	4.6	90.2
13	35	3.2	93.4
14	18	1.6	95.1
15	19	1.7	96.8
16	15	1.4	98.2
17	8	0.7	98.9
18	5	0.5	99.4
19	4	0.4	99.7
20	2	0.2	99.9
21	1	0.1	100.0
TOTAL	1,094	100.0	

SOURCE: California Department of Education. Fall, 2003.
Retrieved from <http://www.cde.ca.gov>

S The percent of schools not offering AP courses rose from 15 percent in 1997 to 22 percent in 2003.

Do Schools With a Higher Proportion of Minority Students Offer Fewer AP Courses?

The average number of AP courses offered per school by percentage of the student body who are Black or Latino exhibited similar trends in 1997 and 2003. However, as depicted in Table 4, AP course offerings have increased slightly regardless of Black and Latino school enrollments. As concluded in 1997, this first view does **not** suggest that schools with higher percentage of Black and Latino students offer fewer or more AP courses: Schools with both low concentrations (0-10 percent) and high concentrations of Black and Latinos (75-100 percent) seem to be associated with reduced course offerings. Although other reports on AP course offerings have focused on examining school's ethnic/racial composition as an indicator for AP course offerings, these results demonstrate that such an approach needs further analysis in order to evaluate the relationship between AP course offering and school's ethnic/racial composition.

Table 3

NUMBER OF AP COURSES DESCRIPTIVE STATISTICS

Total Number of High Schools	1,094
Range of Number of AP Courses Offered	0-21
Minimum	0
Maximum	21
Total AP Courses Offered in California	6,590
Average Number of AP Courses Offered per School	6
Std. Deviation	4,851

SOURCE: California Department of Education. Fall, 2003. Retrieved from <http://www.cde.ca.gov>

Table 4

AVERAGE NUMBER OF AP COURSES OFFERED BY PERCENTAGE OF THE STUDENT BODY THAT IS LATINO OR BLACK

PERCENT OF BLACK OR LATINO STUDENTS	2003-2004	1997-1998
0-10%	5.11	4.17
10-25%	6.46	5.27
25-50%	6.32	5.20
50-75%	6.08	5.37
75-100%	5.73	4.77

SOURCE: California Department of Education (1997), *CBEDS 2003-2004*. Retrieved from <http://www.cde.ca.gov/ds/sd/cb/cbedshome.asp>.ⁱⁱⁱ

Statewide increases in AP courses offered have eluded some of the larger schools with greater concentrations of low-income students.

Table 5

AVERAGE NUMBER OF AP COURSES BY ENROLLMENT

TOTAL ENROLLMENT	2003-2004	1997-1998
1-500	0.8	0.7
500-1,000	3.5	2.6
1,000-1,500	5.7	4.5
1,500-2,000	7.6	5.5
2,000+	9.8	7.3

In 1997 it was found that schools with high student enrollment offered more AP courses. In Table 5 we see that this was still true in 2003. In addition, it can be observed that the average number of AP courses increased regardless of school size.

As illustrated in Table 6, larger schools (more than 2,000 students) are associated with higher enrollments of Black and Latino students. For example, 45 percent of the schools with a high percent of Blacks or Latinos have enrollments of more than 2,000 students. Similarly, schools with a low percentage of Black and Latino students are typically small schools (less than 500 students). For that reason, school size has to be controlled when examining the relation between AP course offering and school's racial/ethnic school composition.

Table 6

DISTRIBUTION OF HIGH SCHOOLS BY ENROLLMENT SIZE AND PERCENT OF BLACK AND LATINO STUDENTS

ENROLLMENT SIZE	0-10%	10-25%	25-50%	50-75%	75-100%
1-500	45.1%	23.7%	18.8%	19.9%	27.1%
500-1,000	12.7%	11.0%	11.4%	8.4%	8.3%
1,000-1,500	14.8%	14.0%	12.5%	10.6%	11.5%
1,500-2,000	13.4%	21.2%	18.4%	17.3%	7.8%
2,000+	14.1%	30.1%	39.0%	43.8%	45.4%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%

Upon controlling for enrollment size, we find that a negative correlation between AP course offerings and concentration of underrepresented minorities persists (see Tables 7a–7e), similar to TRPI’s findings in 1997. The larger differences were observed in large schools (over 2,000 students). On average, large schools with high concentration of minorities (75-100 percent) offer nine AP courses, while large schools with low concentration of minorities (10 percent or less) offer 13 courses (see Table 7e). This represents a difference of 28 percent. In medium-to-high sized schools (1,000-1,500 students) there is an even more dramatic difference: Schools with a high concentration of minorities offer five courses while schools with a low concentration of minorities offer eight courses (see Table 7c). This is a difference of 40 percent. This disparity in course offerings in medium-sized schools is particularly relevant to California since there has been an increasing movement of the Latino population from central city core areas, e.g., Los Angeles, into the suburban ring, e.g., the San Gabriel Valley and San Bernardino county areas and their corresponding medium-sized schools.

Table 7a

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH LESS THAN 500 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS BLACK OR LATINO	2003-2004	1997-1998
0-10%	1.02	0.07
10-25%	1.07	0.57
25-50%	0.82	0.78
50-75%	0.44	0.50
75-100%	0.34	0.56

Table 7b

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH 500 TO 1,000 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS BLACK OR LATINO	2003-2004	1997-1998
0-10%	4.44	3.56
10-25%	3.62	2.12
25-50%	3.06	2.46
50-75%	3.11	2.64
75-100%	3.50	2.07

Table 7c

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH 1,000 TO 1,500 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS BLACK OR LATINO	2003-2004	1997-1998
0-10%	7.90	5.00
10-25%	5.31	4.86
25-50%	5.76	4.60
50-75%	5.13	3.56
75-100%	4.68	3.07

Table 7d

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH 1,500 TO 2,000 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS BLACK OR LATINO	2003-2004	1997-1998
0-10%	8.00	5.38
10-25%	8.02	5.53
25-50%	7.40	5.63
50-75%	7.28	5.70
75-100%	7.12	4.42

Table 7e

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH OVER 2,000 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS BLACK OR LATINO	2003-2004	1997-1998
0-10%	13.16	10.12
10-25%	11.26	9.07
25-50%	9.58	6.77
50-75%	8.96	6.81
75-100%	9.37	6.75

By comparing these differences over time we found that AP course offerings have risen but the increment increase has not favored those schools which were offering fewer courses in 1997. The increment observed seems proportional to 1997 values among all types of schools. In some cases, we observed the gap of AP course offerings closing but only slightly: In 1997, the gap in AP course offerings between low-minority concentration and high-minority concentration schools was 30 percent for large schools (more than 2,000 students); in 2003 the difference was 28 percent — a mere 2 percentage points.

We suggest that AP course offerings have risen mostly due to the opening of 224 new schools and the availability of 4 more AP courses. Unfortunately, these increment increases have not addressed the educational inequity facing schools predominantly serving Latino and Black students.

Similar to 1997, AP courses available are negatively correlated with having a higher proportion of students eligible for free or reduced price lunch.

Do Schools With More Low-Income Students Offer Fewer AP Courses?

This report used eligibility for free or reduced lunch as a surrogate to identify students from low-income households. Similar to 1997, AP courses available are negatively correlated with having a higher proportion of students eligible for free or reduced price lunch. As shown in Table 8, the number of AP courses offered at schools where more than 50 percent of the students are eligible to receive free or reduced price lunch has decreased since 1997. The reverse trend is visible for schools where less than 50 percent of the students are low-income students.

As explained earlier in this report, schools with greater enrollments tend to offer more AP courses than the smaller schools. So in Tables 9a-9e the average number of AP courses offered is examined by representation of low-income students and disaggregated by school enrollment size. In most scenarios, more AP courses are offered when compared to 1997 figures. However, in two larger school segments (between 1,000 and 1,500 students and over 2,000 students) with significant low-income student representation (more than 50 percent), the number of AP courses offered has practically remained the same. These results indicate that statewide increases in AP courses offered have eluded some of the larger schools with greater concentrations of low-income students (more than 50 percent of the enrolled students).

Table 8

AVERAGE NUMBER OF AP COURSES BY PERCENTAGE OF THE STUDENT BODY WHO IS ELIGIBLE FOR FREE/REDUCED PRICE LUNCH

PERCENT OF STUDENT BODY WHO IS ELIGIBLE FOR FREE/REDUCED PRICE LUNCH	2003-2004	1997-1998
0-10%	7.60	6.59
10-25%	6.77	5.13
25-50%	5.72	4.38
50-75%	4.23	4.82
75-100%	2.50	4.37

Table 9a

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH LESS THAN 500 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS ELIGIBLE FOR FREE/REDUCED PRICE LUNCH AND BY SCHOOL SIZE	2003-2004	1997-1998
0-10%	0.62	0.63
10-25%	1.30	0.95
25-50%	0.78	0.71
50-100%	0.70	0.50

Table 9b

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH 500 TO 1,000 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS ELIGIBLE FOR FREE/REDUCED PRICE LUNCH AND BY SCHOOL SIZE	2003-2004	1997-1998
0-10%	4.13	5.20
10-25%	3.92	2.30
25-50%	3.28	1.90
50-100%	3.31	2.42

Table 9c

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH 1,000 TO 1,500 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS ELIGIBLE FOR FREE/ REDUCED PRICE LUNCH AND BY SCHOOL SIZE	2003-2004	1997-1998
0-10%	6.51	5.90
10-25%	5.68	4.08
25-50%	6.00	3.91
50-100%	4.44	4.17

Table 9d

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH 1,500 TO 2,000 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS ELIGIBLE FOR FREE/ REDUCED PRICE LUNCH AND BY SCHOOL SIZE	2003-2004	1997-1998
0-10%	8.23	6.20
10-25%	7.65	5.30
25-50%	7.46	5.46
50-100%	6.46	5.17

Table 9e

AVERAGE NUMBER OF AP COURSES OFFERED IN SCHOOLS WITH OVER 2,000 STUDENTS ENROLLED

PERCENT OF STUDENT BODY WHO IS ELIGIBLE FOR FREE/ REDUCED PRICE LUNCH AND BY SCHOOL SIZE	2003-2004	1997-1998
0-10%	11.63	9.19
10-25%	9.73	7.52
25-50%	8.93	6.26
50-100%	7.35	7.43

Does the Availability of AP Courses Vary Across Location?

The average number of AP courses offered at suburban and urban schools has risen since 1997. However, rural schools still only offer less than half (2.9) of the AP courses offered at urban and suburban schools (Graph 1). These results are expected since most rural schools (57 percent) are small schools with less than 500 students and small schools offered fewer courses. Correspondingly, most urban schools (53 percent) have enrollments of more than 2,000 students and thus it is expected they would offer more AP courses.

AP Course Offering Change Between the Academic Years 1997-1998 and 2003-2004

In order to capture changes in AP course offerings in schools, we calculated the differences in AP course offerings for each school between 1997 and 2003^{iv}. On average, schools added 2.4 AP courses between 1997 and 2003 (see Table 10). However, approximately one out of four schools (27 percent) dropped, or did not add, any AP courses. Moreover, only 20 percent of schools added more than the four new courses introduced after 1997. In all, three out of four schools (73 percent) evaluated in 1997 now offer more courses (3.6 more courses on average).

A school's location seems to be related to the direction and degree of change in AP courses available since 1997 (Graph 2). On average, urban and suburban schools added more AP courses since 1997 than rural schools.

It is likely that the reason suburban and urban schools increased their AP course offerings almost twice as much as rural schools is because suburban and urban schools are larger schools. And schools with higher enrollments tended to offer more AP courses since 1997, compared to the smaller schools (Graph 3).

Table 10
DIFFERENCES IN AP COURSE OFFERINGS BETWEEN 1997-1998 AND 2003-2004

MAXIMUM COURSES DROPPED BY A SCHOOL	MAXIMUM COURSES ADDED BY A SCHOOL	AVERAGE DIFFERENCE IN COURSES OFFERED	STANDARD DEVIATION
-12	16	2.38	2.922

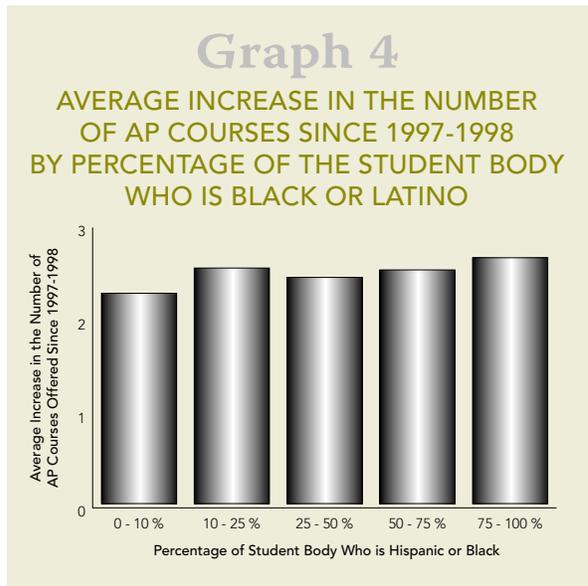
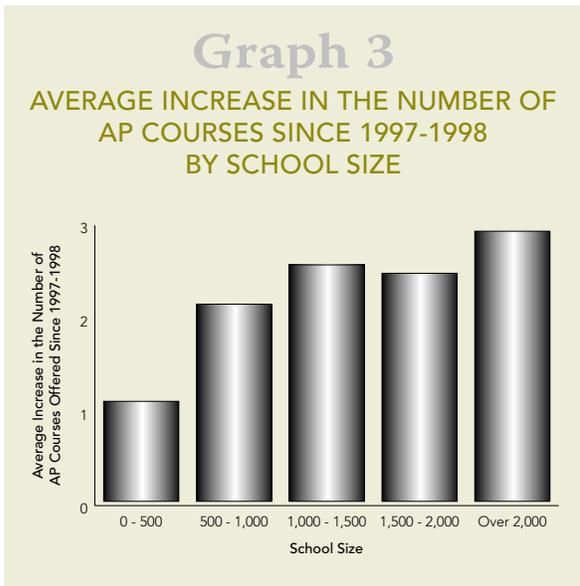
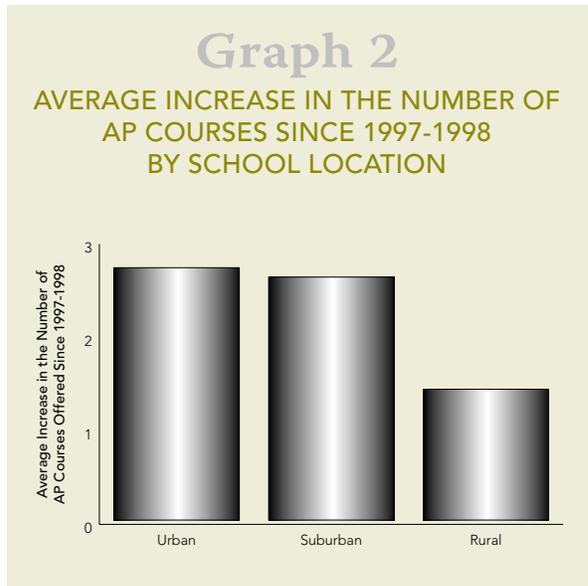
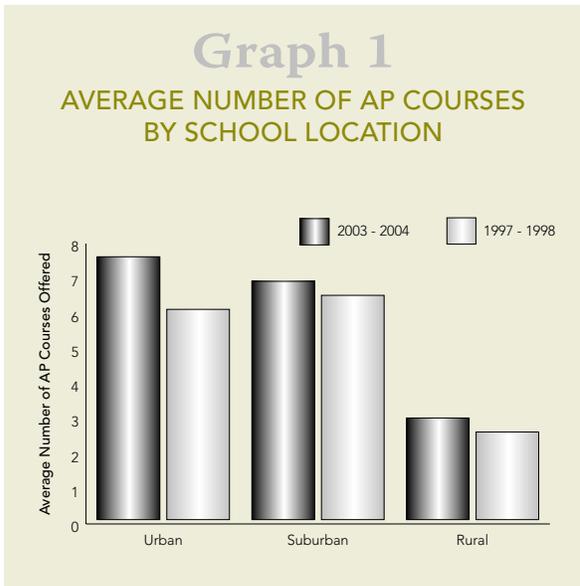


Table 11a

AVERAGE INCREASE IN THE NUMBER OF AP COURSES SINCE 1997-1998 BY PERCENTAGE OF THE STUDENT BODY WHO IS BLACK OR LATINO WITH 500 OR LESS STUDENTS ENROLLED

BLACK AND LATINO CONCENTRATION	NUMBER OF AP COURSES SINCE 1997-1998
0-10%	1.05
10-25%	1.54
25-50%	1.43
50-75%	0.60
75-100%	1.29

Table 11b

AVERAGE INCREASE IN THE NUMBER OF AP COURSES SINCE 1997-1998 BY PERCENTAGE OF THE STUDENT BODY WHO IS BLACK OR LATINO WITH 500 TO 1,000 STUDENTS ENROLLED

BLACK AND LATINO CONCENTRATION	NUMBER OF AP COURSES SINCE 1997-1998
0-10%	2.09
10-25%	2.77
25-50%	1.80
50-75%	1.25
75-100%	2.00

Table 11c

AVERAGE INCREASE IN THE NUMBER OF AP COURSES SINCE 1997-1998 BY PERCENTAGE OF THE STUDENT BODY WHO IS BLACK OR LATINO WITH 1,000 TO 1,500 STUDENTS ENROLLED

BLACK AND LATINO CONCENTRATION	NUMBER OF AP COURSES SINCE 1997-1998
0-10%	1.48
10-25%	2.16
25-50%	2.17
50-75%	3.07
75-100%	3.90

When examining for differences across categories of minority student concentrations, the average change in AP courses available does not seem to stray from the whole group mean (Graph 4). In other words, increases in AP courses do not seem to be related to the concentration of Black or Latino students at a school.

Because school size is such a prominent determinant of changes in AP courses offered and total AP courses available, we controlled for school size in examining changes in AP course offerings by minority student concentration at schools. No trends are observed after controlling for school size (Tables 11a–11e). In the 1997 report, we found that large schools with high minority enrollments offered fewer AP courses than similar-sized schools with lower concentrations of minority students. Given these results and our suggestions to correct this discrepancy, we expected that schools with high minority enrollments would have increased their AP course offerings in much higher rates to compensate for the historical disparity. However, it appears that schools with high minority student concentrations did not increase their AP course offerings to mirror similar-sized schools' AP offerings.

Table 11d

AVERAGE INCREASE IN THE NUMBER OF AP COURSES SINCE 1997-1998 BY PERCENTAGE OF THE STUDENT BODY WHO IS BLACK OR LATINO WITH 1,500 TO 2,000 STUDENTS ENROLLED

BLACK AND LATINO CONCENTRATION	NUMBER OF AP COURSES SINCE 1997-1998
0-10%	2.67
10-25%	2.76
25-50%	2.43
50-75%	1.93
75-100%	2.42

Table 11e

AVERAGE INCREASE IN THE NUMBER OF AP COURSES SINCE 1997-1998 BY PERCENTAGE OF THE STUDENT BODY WHO IS BLACK OR LATINO WITH 2,000 OR MORE STUDENTS ENROLLED

BLACK AND LATINO CONCENTRATION	NUMBER OF AP COURSES SINCE 1997-1998
0-10%	2.93
10-25%	2.86
25-50%	2.82
50-75%	3.13
75-100%	2.69

Conclusion

The analysis of AP courses available to California public school students demonstrates that schools with greater concentrations of students of color continue to lag in their AP course offerings. Yet, AP courses continue to be an important aspect of the college admissions process and an important component of a rich and rigorous high school experience. This scenario depicts a situation where students of color do not have equitable access to a promising educational experience and to equitable post-secondary educational opportunities.

The analysis of AP courses available to California public school students demonstrates that schools with greater concentrations of students of color continue to lag in their AP course offerings.

Policy Recommendations and Future Research Directions

The disparity in access to AP courses for students of color continues, regardless of school enrollment size. In a state like California, where almost half of public school students are Latino and given the importance of AP courses to college admissions, this discrepancy translates to future lower levels of academic achievement at the state level. It is in everyone's interest to increase AP course access and enrollment.

There are several ways we can suggest that policymakers address the problem. Some of our policy recommendations have been expressed before and we continue to reiterate their importance.

Policy Recommendations

- 1 Students and parents need to be informed about the critical role AP courses play in determining post-secondary education options. Increasing awareness of the importance of AP classes can drive students and parents to demand more AP courses and publicly hold schools accountable in providing AP courses.
- 2 For the upcoming fiscal year, state funding to increase AP courses at schools that have disproportionately lower AP class offerings should be considered. In settling the *Daniel et al. v. State of California* lawsuit, the state made grants available to schools, on a competitive basis, to increase and support AP classes.⁷ However, the restrictions for the AP Challenge Grants limit the number of schools that can benefit from these grants. In fact, many of the larger schools with high minority enrollments likely do not qualify for AP Challenge Grants. Equitable access to AP classes needs to be a legislative fiscal priority so that all schools can offer similar numbers of AP classes.
- 3 In light of the stagnant gaps in access to AP courses, perhaps policymakers should explore a compulsory minimum number of AP courses available at every school of similar size enrollment. An analysis of the top quartile of schools offering the most AP courses (Table 12) reveals a reasonable number of AP courses that schools in their respective enrollment category can achieve in the immediate future.

Table 12
MEAN OF AP COURSES OFFERED IN TOP QUARTILE

ENROLLMENT	MEAN AP COURSES OFFERED (ALL SCHOOLS)	MEAN AP COURSES OFFERED IN TOP 25%
0-500	0.75	1
500-1,000	3.5	5
1,000-1,500	5.7	8
1,500-2,000	7.8	10
2,000 or greater	9.8	12

⁷ Cal. Edu. Code § 52240B (2000).

Some may argue that the five years since TRPI's last report and the four years since the inception of the AP Challenge Grant is not sufficient time to allow schools to implement an AP curriculum. However, evidence exists that schools can increase AP courses dramatically in that time period.⁸

- 4 Rural and small schools offer the least number of AP courses and over 10 percent of all schools are both rural and urban. The geographic disadvantage of rural schools can be ameliorated by increasing the number of AP courses that can be completed online and decreasing the costs associated with this class format. Small schools can also improve AP course offerings by collaborating with centrally located college campuses to offer AP courses to students whose schools may not offer them.
- 5 In light of the continued disparity in AP course offerings at high-minority enrollment schools, higher education institutions, such as the University of California and the California State University, should reassess how they incorporate AP courses in calculating or weighing students' GPAs and overall admissions review. Such practices place students whose high schools offer limited AP courses at a disadvantage. Instead, a numerical index should be designed to capture the students' AP course opportunities and the admissions process should acknowledge this variable in reviewing a students' application.⁹
- 6 The California Department of Education should annually publish a list of AP courses offered by all California public high schools. Such information would allow for public assessments of AP offerings in local school districts.

Future Research Recommendations

- 1 This report details the discrepancy in the number of unique AP courses offered at each school. However, further research should be undertaken to investigate the actual number of classes offered for each AP course and the number of students actually taking AP classes. Such an analysis could reveal racial disparities in who is enrolled in the AP classes at the school level.¹⁰
- 2 This analysis examined all AP courses but there are a wide variety of AP courses in a variety of subjects. It is important that schools offer AP classes in a variety of subjects that address the academic strengths of a variety of students. Further research needs to examine that the distribution of AP course subjects is comparable across schools.

⁸ Brown., 2005.

⁹ Solorzano & Ornelas, 2002.

¹⁰ Solorzano & Ornelas, 2002.

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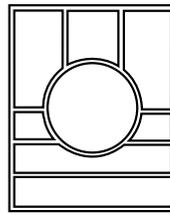
Endnotes

ⁱ For the purposes of this study we did not gather data on schools identified as Special Education, County Community Schools, California Youth Authority, Opportunity Schools, Juvenile Court Schools, Alternative Opportunity Schools, Continuation Schools, Community Day Schools, etc. These schools were excluded because they generally do not offer any AP courses.

ⁱⁱ Courses and classes are not used interchangeably in this report. Courses refer to a specific subject such as French Literature; class refers to a classroom that takes a specific course. For example, a school could offer 5 classes in Music Theory if there are sufficient students willing to enroll in that specific course. Because we are primarily interested in the accessibility issue, we are counting the number of different courses offered in a given school. Therefore, a school that offers only five classes in Music Theory would be categorized as a school that offers only one AP course.

ⁱⁱⁱ Beginning with Table 4, all subsequent tables and graphs cite the same source unless otherwise specified.

^{iv} This analysis examines total courses offered, not specific courses. For example, it is quiet probable that a school added two new courses but dropped three other courses. In this example, the total courses offered would have decreased by one.



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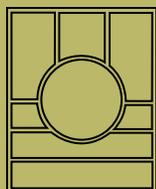
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