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# University Preparedness of Public High School Graduates

*This report is another in a series of reports stemming from the Commission's 2003 Eligibility Study. It describes important changes in the academic characteristics of public high school students. The data show that:*

- ♦ *A lower proportion of students are enrolling in a-g coursework;*
- ♦ *A lower proportion of students are taking the SAT I admissions test;*
- ♦ *SAT I and ACT test performance has improved;*
- ♦ *A higher proportion of students are enrolling in AP courses and taking AP examinations;*
- ♦ *A lower proportion of students are passing the AP examination.*

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*The Commission advises the Governor and Legislature on higher education policy and fiscal issues. Its primary focus is to ensure that the state's educational resources are used effectively to provide Californians with postsecondary education opportunities. More information about the Commission is available at [www.cpec.ca.gov](http://www.cpec.ca.gov).*

## Overview

A number of factors can indicate how well students are preparing for enrollment in a four-year university. Among these factors are:

- ♦ Completion and grades on the a-g curricula,
- ♦ Performance on college admission tests, and
- ♦ Advanced Placement (AP) course and test performance.

This report describes important changes in the academic characteristics of recent high school graduates that relate directly to student preparation, university eligibility, and university attendance. Two cohorts are followed in this fact sheet – the public high school graduating classes of 1998 and 2003.

Student eligibility for the University of California (UC) and the California State University (CSU) is based on the completion of specific high school college preparation courses (a-g courses), the grades received in those courses, and performance on college admission exams (SAT I, ACT and SAT II).

Students can improve their chances for admission by successfully completing Advanced Placement (AP) courses because these courses are weighted more heavily than other courses when computing a student's grade point average (GPA). Students can also earn college credit for taking an AP class by passing AP exams with a qualifying score.

## I. The University Preparation Coursework (a-g courses)

The freshman admission criteria for the UC and the CSU require applicants to complete college preparatory curricula called the a-g requirements.

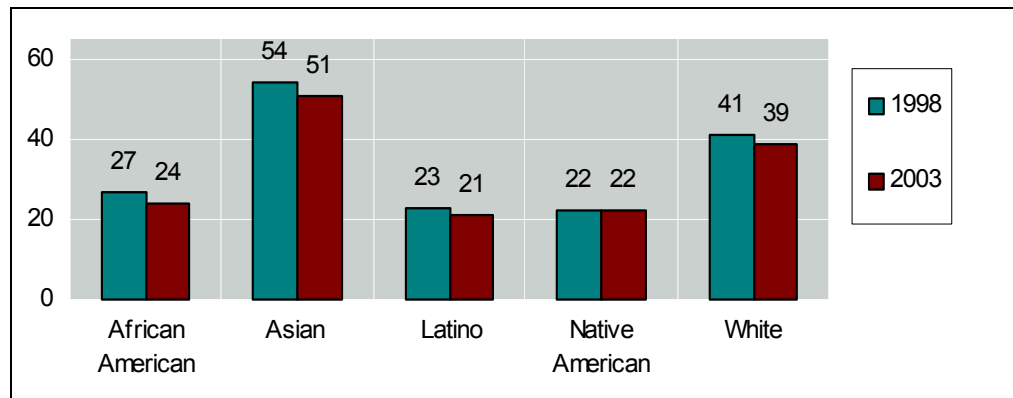
Display 1 shows that the number of public high school graduates grew by 20.6% from 1998 to 2003 (from 282,897 to 341,078). During this period, the number of students completing the a-g course requirements grew at a slower rate of 10.4% (from 103,421 to 114,194). As a result, the proportion of public high school graduates who completed the full university college-preparatory courses dropped from 36.6% of the graduates in 1998 to 33.5% in 2003.

**DISPLAY 1: a-g Course Completions**

Academic Year	Graduates	a-g Completions							Total	Pct of Grads
		African American	Asian	Latino	Native American	White	No Response			
1998	282,897	5,884	23,325	20,884	566	52,695	67	103,421	36.6%	
1999	299,221	5,799	24,157	21,103	593	54,563	226	106,441	35.6%	
2000	309,866	5,570	24,559	21,684	621	55,341	151	107,926	34.8%	
2001	316,124	5,874	25,426	23,772	632	56,553	212	112,469	35.6%	
2002	325,895	5,933	25,577	23,771	692	56,553	408	112,934	34.7%	
2003	341,078	6,046	25,232	25,049	717	56,425	725	114,194	33.5%	
<b>Pct Change</b>	<b>20.6%</b>	<b>2.8%</b>	<b>8.2%</b>	<b>19.9%</b>	<b>26.7%</b>	<b>7.1%</b>	<b>982.1%</b>	<b>10.4%</b>		

Display 2 shows that the proportion of a-g course completions per graduates declined for all ethnicities except Native Americans.

**DISPLAY 2: Percentage of a-g Completions per Ethnicity**



## II. Participation and Performance on College Admission Tests

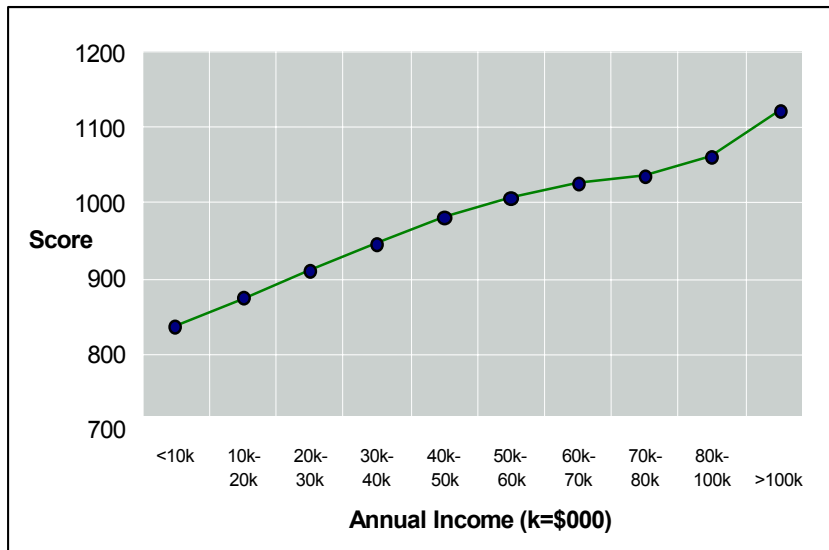
The California State University requires first-time freshman applicants with GPA's lower than 3.0 to submit scores for either the SAT I or the ACT. The University of California requires all UC applicants to submit scores for the SAT I or ACT and the appropriate SAT II Subject Tests. The number of 12<sup>th</sup>

graders that took the SAT I exam increased by 9.9% from 79,702 (1998) to 87,626 (2003) due mainly to the burgeoning size of the State’s public high school graduating class. However the **proportion** of graduating seniors who took the SAT I admission test decreased from 28% of the graduating class in 1998 to 26% in 2003.

With respect to test performance, the mean SAT Verbal score for California public graduates increased between 1998 and 2003 by three points to 486, but it is still below the national mean of 507. California’s mean SAT Math score increased between 1998 and 2003 by three points to 516, three points below the national mean.

Display 3 shows that Statewide SAT I performance is correlated with socioeconomic status, with students from higher-income families scoring higher than students from less affluent families. For example, the mean SAT I Verbal score for California students from families with a combined income of more than \$100,000 was 545 (as compared to the mean score of all California public students of 483), while the mean SAT I Math score for the same income group was 572 (the mean score of all California public students is 510).

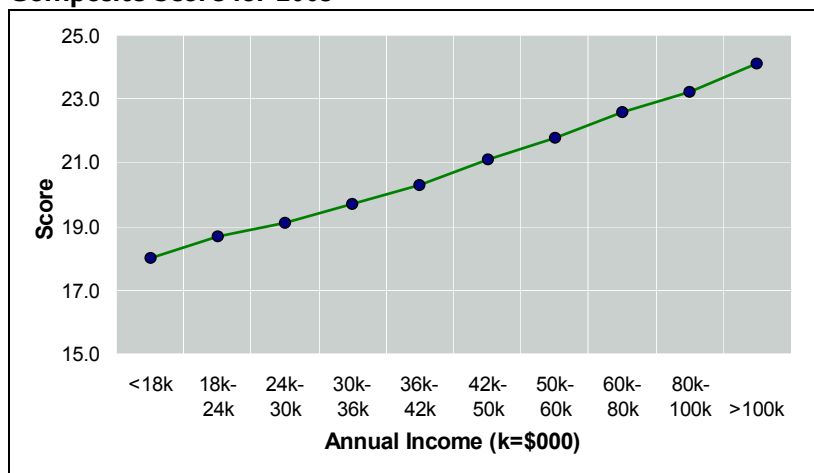
**DISPLAY 3: SAT I Score by Family Income  
Combined Verbal & Math Score for 2003**



During the reporting period, the number of ACT test takers increased by 16.7% to 36,954. Over the past three years, the mean ACT composite score for California public graduates edged up 0.3 points to 21.5,

now slightly above the national mean of 21.0. The ACT composite score is the sum of the English, Mathematics, Reading, and Science Reasoning sections of the ACT. Like the SAT I, the ACT also appears to be correlated with socioeconomic status. For example, the mean composite score for students from families with a combined income of more than \$100,000 was 24.1, in comparison to the overall mean of 21.5. (See Display 4)

**DISPLAY 4: ACT Score by Family Income  
Composite Score for 2003**

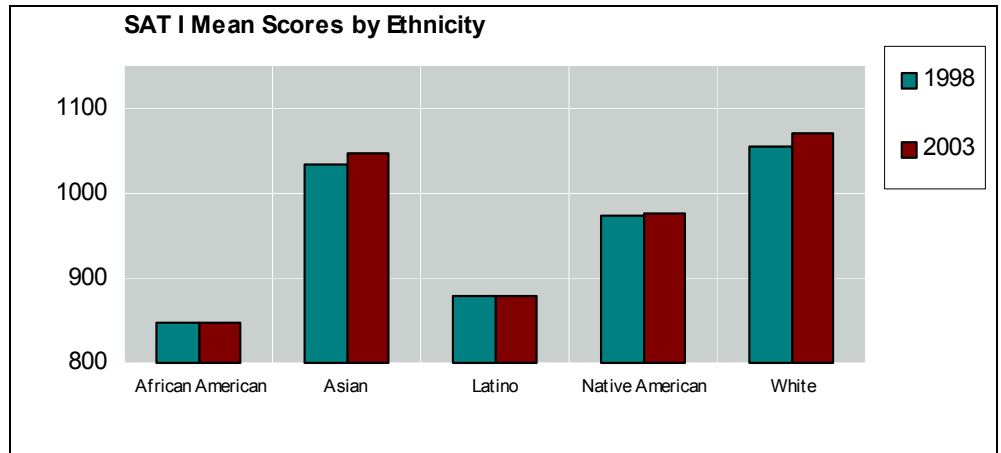


### Ethnicity Gaps

In 2003, 25% of the graduating class declined to state their ethnicity on the SAT I exam. Therefore, the performance by ethnicity information presented here may be misleading.

Display 5 shows that SAT I scores stayed the same or increased slightly for all ethnicities. In 2003, Whites outscored African Americans on the SAT I by 222 points and Latinos by 190 points. Since 1998, this gap has increased by 15 points for African Americans and 14 points for Latinos. A similar gap exists on ACT scores.

**DISPLAY 5: SAT I Performance**



### Gender Gaps

The proportion of female test participants increased slightly (1% or less) for both the SAT I and the ACT exams over the reporting period. In 2003, 57% of SAT I examinees and 63.4% of ACT examinees were female.

Males perform better on both the SAT I and the ACT. In 2003, Males scored 7 points higher on the SAT I Verbal and 35 points higher on the SAT I Math portion. Males score 0.6 points higher on the ACT exam. Although a gender gap exists, the size of the gap has not changed for the SAT I or the ACT since 1998. (Source: California Department of Education, ACT and The College Board.)

## III. Advanced Placement Course and Test Participation

Display 6 shows that an increasing number of California public high school students are enrolling in Advanced Placement (AP) courses and taking the AP exam. Advanced Placement courses are college-level courses for which extra grade points can be earned. Also, a successful grade on the AP examination may enable the student to receive college credit.

**DISPLAY 6: Advanced Placement Test Participation**

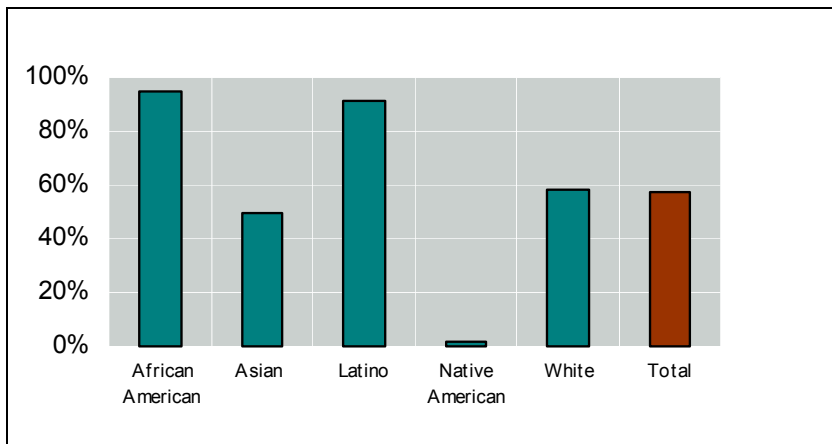
Year	Asian	African American	Latino	Native American	White	Other or Unknown	Total
1998	11,045	1,041	7,916	229	15,254	4,393	39,878
2003	16,527	2,024	15,173	233	24,167	4,553	62,677
<b>Percent Change</b>	<b>50%</b>	<b>94%</b>	<b>92%</b>	<b>2%</b>	<b>58%</b>	<b>4%</b>	<b>57%</b>

Advanced Placement exams have a possible score of '1' through '5'. A score of '3', '4', or '5' on the exam may enable students to receive college credit in most subjects. Certain exams may require a score of '4', or even '5' for college credit.

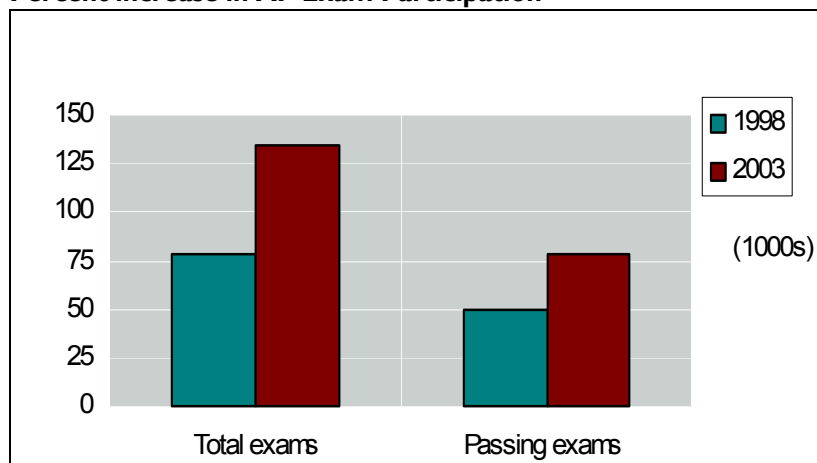
The number of California public schools offering AP courses and the number of AP course offerings has increased over the past several years from 1,095 schools in 1998 to 1,272 schools in 2003. Currently, there are 31 courses and 34 exams across 19 subject areas. Students are not required to take an AP course before taking the AP exam.

In 1998, 39,878 public high school 12<sup>th</sup> graders participated in AP exams. For the class of 2003, that number grew to 62,677 students, a staggering growth of 57%. In 2003, AP exam participation increased the greatest for African American and Latino students. (see Display 7)

**DISPLAY 7: AP Exam participation (1998-2003) by ethnicity**  
Percent Increase in AP Exam Participation



**DISPLAY 8: AP Exam participation (1998-2003)**  
Percent increase in AP Exam Participation



Display 8 shows AP Exam participation is even more impressive. Between 1998 and 2003, the number of exams taken by our cohorts grew 73% from 77,830 to 134,552. Although, the number of 12<sup>th</sup> grade students from public schools taking AP exams increased, the proportion of students *passing* the exams decreased from 64% in 1998 to 58% in 2003.

#### IV. Additional Factors

Additional factors may influence student success, including the availability of counseling and university academic programs, socioeconomic status, retention, and the "college-going culture" of the student's family. This report does not attempt to cover all aspects of this subject. It is hoped that additional questions are asked and further research conducted. Successful completion of the a-g course requirements with a high GPA along with a good score on the admissions examinations can make a student minimally prepared for university work. Completing AP courses greatly improves the student's chance of completing a degree program. According to the College Board, 45% of students who have taken one AP course and 61% of students who have taken two or more courses complete their bachelor's degree within four years. Only 29% of students that have not taken an AP course complete their bachelor's degree in four years.