

# Supplemental Memorandum

**To:** STATE BOARD MEMBERS **Date:** May 27, 2003

**From:** Geno Flores, Deputy Superintendent, Assessment and Accountability Branch

**Re:** ITEM #15

**Subject:** CALIFORNIA HIGH SCHOOL EXIT EXAMINATION (CAHSEE):  
INCLUDING, BUT NOT LIMITED TO, DISCUSSION OF THE REPORT  
REQUIRED BY AB 1609.

Please insert the following attachments:

- Attachment 1: [California High School Exit Examination \(CAHSEE\) March 2003 Passing Rates for Grade 10 \(Class of 2005\) \(Page 1 of 1\)](#)
- Attachment 2: [California High School Exit Examination \(CAHSEE\) March 2003 Passing Rates for Grade 11 \(Class of 2004\) \(Page 1 of 1\)](#)
- Attachment 3: [California High School Exit Examination \(CAHSEE\) Estimated Cumulative Passing Rates for Grade 11 \(Class of 2004\) through January 2003 \(Page 1 of 1\)](#)
- Attachment 4: [Compensatory Passing Scores on the California High School Exit Examination \(CAHSEE\) \(Page 1 of 6\)](#)

Attachment 1 provides passing rates for grade 10 students (class of 2005) during the March 2003 administration of the CAHSEE. Results are provided for all students, as well as for various subgroups, on both portions of the CAHSEE (English-language arts and mathematics).

Attachment 2 provides passing rates for grade 11 students (class of 2004) during the March 2003 administration of the CAHSEE. Results are provided for all students, as well as for various subgroups, on both portions of the CAHSEE (English-language arts and mathematics).

Attachment 3 provides estimated cumulative pass rates, through January 2003, for grade 11 students (class of 2004) on both portions of the CAHSEE (English-language arts and mathematics).

Attachment 4 provides an analysis from Educational Testing Service, with a summary from the California Department of Education (CDE), of the March 2003 scores focusing on how passing rates for these students might change under a compensatory approach.

California High School Exit Examination (CAHSEE)  
 March 2003 Passing Rates for Grade 10 (Class of 2005)

Demographic	Subgroup	English-language Arts			Mathematics		
		Number Tested	Number Passed	Percent Passed	Number Tested	Number Passed	Percent Passed
<b>TOTAL</b>		<b>379,209</b>	<b>299,584</b>	<b>79</b>	<b>389,702</b>	<b>234,230</b>	<b>60</b>
Gender	Female	186,292	155,138	83	191,078	114,643	60
	Male	192,310	144,103	75	197,940	119,337	60
Ethnicity	American Indian or Alaskan Native	3,257	2,583	79	3,398	1,879	55
	Asian	36,944	31,673	86	37,233	31,004	83
	Pacific Islander	2,723	2,131	78	2,809	1,616	58
	Filipino	11,694	10,485	90	11,841	8,778	74
	Hispanic or Latino	144,297	95,877	66	149,440	63,280	42
	African American (not of Hispanic origin)	29,893	20,853	70	31,306	11,689	37
	White (not of Hispanic origin)	145,841	132,860	91	148,853	113,692	76
	Declined to State	1,997	1,639	82	2,052	1,307	64
Economic Status	Non-Economically Disadvantaged	256,602	220,592	86	262,530	179,104	68
	Economically Disadvantaged	117,972	75,896	64	122,174	52,908	43
Special Education Program Participation	Not Receiving Services	344,966	285,384	83	354,123	225,977	64
	Receiving Services	34,243	14,200	41	35,579	8,253	23
Language Fluency	English Only	243,890	208,627	86	250,577	164,549	66
	Initially Fluent English Proficient	34,272	30,098	88	34,897	23,857	68
	Redesignated Fluent English Proficient	37,464	32,966	88	38,543	25,367	66
	English Learner	61,574	26,643	43	63,509	19,566	31

California High School Exit Examination (CAHSEE)  
**March 2003 Passing Rates for Grade 11 (Class of 2004)**

Demographic	Subgroup	English-language Arts			Mathematics		
		Number Tested	Number Passed	Percent Passed	Number Tested	Number Passed	Percent Passed
<b>TOTAL</b>		<b>47,127</b>	<b>15,835</b>	<b>34</b>	<b>91,214</b>	<b>19,501</b>	<b>21</b>
<b>Gender</b>	Female	19,222	6,980	36	46,300	10,160	22
	Male	27,750	8,806	32	44,633	9,274	21
<b>Ethnicity</b>	American Indian or Alaskan Native	383	153	40	849	181	21
	Asian	3,577	1,098	31	3,923	1,174	30
	Pacific Islander	362	152	42	751	182	24
	Filipino	836	371	44	1,912	552	29
	Hispanic or Latino	26,562	7,570	28	49,186	9,088	18
	African American (not of Hispanic origin)	5,582	1,954	35	11,656	1,774	15
	White (not of Hispanic origin)	8,473	4,012	47	20,440	5,981	29
	Declined to State	287	155	54	557	162	29
<b>Economic Status</b>	Non-Economically Disadvantaged	23,578	9,240	39	51,345	11,984	23
	Economically Disadvantaged	21,980	5,918	27	37,012	6,819	18
<b>Special Education Program Participation</b>	Not Receiving Services	34,967	13,732	39	73,563	17,723	24
	Receiving Services	12,160	2,103	17	17,651	1,778	10
<b>Language Fluency</b>	English Only	22,722	9,471	42	51,668	11,681	23
	Initially Fluent English Proficient	2,640	1,177	45	6,841	1,664	24
	Redesignated Fluent English Proficient	2,289	939	41	7,070	1,878	27
	English Learner	18,939	4,005	21	24,690	4,030	16

California High School Exit Examination (CAHSEE)  
**Estimated Cumulative Passing Rates for Grade 11 (Class of 2004) through January 2003\***

<b>Number Enrolled</b>	<b>English-language Arts</b>		<b>Mathematics</b>	
	<b>Number Passed</b>	<b>Percent Passed</b>	<b>Number Passed</b>	<b>Percent Passed</b>
459,588	373,284	81	287,129	62

\* The data in this table were compiled by Human Resources Research Organization (HumRRO).

## **California Department of Education (CDE) Compensatory Passing Scores on the California High School Exit Examination (CAHSEE)**

Chapter 6 of the report, *Independent Evaluation of the California High School Exit Examination (CAHSEE): AB 1609 Study Report—Volume I*, listed the main findings from the study and suggested several options for the State Board of Education to consider in making the decision to either continue the requirement for the class of 2004 to pass the CAHSEE in order to earn a diploma or to defer the requirement to a future class. If the State Board decides to continue the requirement for this class, one option suggested by the report was to increase the current passing scores by adopting a compensatory approach “...where achievement above the minimum in one subject could compensate for some deficiency in achievement in the other subject. For example, a total score of 700 could be required rather than requiring students to obtain scores of 350 or higher on each portion of the CAHSEE.” (Page 95)

At their May 2003 meeting, the State Board requested that CDE provide information at the June 2003 meeting on how the passing scores for the class of 2005 (March 2003 data) would change using the compensatory model. Educational Testing Service (ETS), the contractor for the CAHSEE, has prepared the paper entitled “Compensatory Passing Scores on the California High School Exit Examination (CAHSEE)” for your review.

### **CDE Recommendation**

The CDE is concerned with applying the compensatory method for determining a passing score on the California High School Exit Exam. If a high school graduate is expected to demonstrate a certain level of competency in reading, writing and mathematics, then applying a sliding scale to the passing score minimizes this policy goal.

In the attached paper, ETS points to the fact that increases in the CAHSEE passing rates are primarily achieved through lowering the passing score on the mathematics part. The current passing score of 350 represents 55% correct on the mathematics portion of the CAHSEE. A lower threshold of 325 represents about 40% correct on the mathematics portion, therefore a compensatory approach does not support the inference that a student passing the CAHSEE can demonstrate what is expected of a high school graduate in mathematics.

**Compensatory Passing Scores on the California High School Exit Examination (CAHSEE)  
Prepared by  
Educational Testing Service (ETS)**

## **Background**

The recently released Assembly Bill (AB) 1609 study included discussion of options that the California State Board of Education (SBE) might consider should the requirement that students in the Class of 2004 pass CAHSEE be continued. If the requirement is continued, a compensatory approach to setting CAHSEE passing scores was suggested as a possible way to increase overall student passing rates. This paper analyzes CAHSEE March 2003 results for 10<sup>th</sup> graders, focusing on how passing rates for these students might change under a compensatory approach. In addition, we discuss some issues that would need to be addressed if the CAHSEE requirement is continued for the Class of 2004, and a compensatory approach to passing scores is considered.

## **Method**

We included in our analysis all 10<sup>th</sup> graders (class of 2005) who were included in the aggregate reports for the March 2003 CAHSEE administration. A summary of the results for these students is provided in Table 1. Table 1 indicates that, under the current scoring model, 60 percent of 10<sup>th</sup> graders passed the mathematics portion of the test and 79 percent passed the English-language arts (ELA) portion of the test. Although not shown in Table 1, 59 percent of 10<sup>th</sup> grade students passed *both* the ELA and math portions. Table 1 also includes passing rates broken down by various subgroups; these trends are consistent with patterns seen in the past.

To evaluate compensatory passing scores, we selected 10<sup>th</sup> grade students from the March 2003 administration who completed both the ELA and math portions. We then compiled for those students overall, and by student groups, the percentages of students that would pass CAHSEE under a compensatory approach using a combined score of 700 as the passing point (as suggested in the AB 1609 study). In addition, we calculated CAHSEE passing rates under a partially compensatory approach that required a combined score of 700 and a score of at least 325 on each portion of the test.

## **Results**

Table 2 summarizes the analysis of compensatory passing scores. The table includes the percentage of students passing math, ELA, and both portions of the CAHSEE under the current scoring rules. In addition, Table 2 presents the percentages of students passing CAHSEE under the compensatory approach (i.e., with combined scores greater than or equal to 700), and the partially compensatory approach (i.e., with combined scores greater than or equal to 700 and scaled scores of at least 325 on both ELA and math). These results indicate that the CAHSEE passing rate for the March 2003 10<sup>th</sup> graders would increase from 59 percent under the current rules to 72 percent under the compensatory approach. With a partially compensatory approach

requiring a total score of 700 and minimum scores of 325 on ELA and math, the CAHSEE passing rate for all 10<sup>th</sup> graders would be 71 percent. The increases in passing rates across different student groups under the compensatory and partially compensatory approach are generally consistent with the overall increases. Additional analyses exploring different minimum thresholds for ELA and math under a compensatory approach are presented in Appendix A.

Although these increases in passing rates shown in Table 2 are significant, several considerations suggest that the possible use of the compensatory approach should be evaluated with caution.

- Tracking student test score results on different tests across administrations to determine if they met the combined compensatory passing criteria could be difficult for some districts.
- The compensatory approach might be more easily used if students were required to take both portions in each administration until they pass the entire exam, which would also require a change in law. However, this would limit the success of the method in increasing CAHSEE passing rates for repeaters, as many students who barely passed a particular portion in one administration could very well fail it in subsequent administrations. In addition, repeating students would have to prepare for both the ELA and math exams rather than concentrating solely on the subject area they previously failed. This would affect remediation programs.
- The compensatory approach is still vulnerable to the criticism that the CAHSEE standards are being lowered, although a partially compensatory approach would lessen this vulnerability.
- It is unclear whether the cumulative passing rate for the Class of 2004 under the compensatory approach will be increased enough to fully address the public policy and consequential validity issues that may arise should the CAHSEE requirement be continued.

Table 1  
CAHSEE March 2003 Passing Rates for 10<sup>th</sup> Graders in ELA and Math

Category	Designation	Grade 10		
		Total N	N Passed	Pct Passed
<b>Total for Mathematics</b>		<b>389702</b>	<b>234230</b>	<b>60</b>
<b>Gender</b>	Female	191078	114643	60
	Male	197940	119337	60
<b>Ethnicity</b>	1 American Indian/Alaskan Native	3398	1879	55
	2 Asian	37233	31004	83
	3 Pacific Islander	2809	1616	58
	4 Filipino	11841	8778	74
	5 Hispanic or Latino	149440	63280	42
	6 African American	31306	11689	37
	7 White	148853	113692	76
	8 Decline to State	2052	1307	64
<b>School Lunch Program</b>	No NSLP	262530	179104	68
	In NSLP	122174	52908	43
<b>Special Education / Section 504</b>	No Special Ed / Section 504	354123	225977	64
	Special Ed / Section 504	35579	8253	23
<b>Language Fluency</b>	1 Eng. Only	250577	164549	66
	2 InitiallyFluentEnglishProficient	34897	23857	68
	3 RedesignatedFluentEnglish	38543	25367	66
	4 Eng. Learner	63509	19566	31
Category	Designation	Grade 10		
		Total N	N Passed	Pct Passed
<b>Total for English Language Arts</b>		<b>379209</b>	<b>299584</b>	<b>79</b>
<b>Gender</b>	Female	186292	155138	83
	Male	192310	144103	75
<b>Ethnicity</b>	1 American Indian/Alaskan Native	3257	2583	79
	2 Asian	36944	31673	86
	3 Pacific Islander	2723	2131	78
	4 Filipino	11694	10485	90
	5 Hispanic or Latino	144297	95877	66
	6 African American	29893	20853	70
	7 White	145841	132860	91
	8 Decline to State	1997	1639	82
<b>School Lunch Program</b>	No NSLP	256602	220592	86
	In NSLP	117972	75896	64
<b>Special Education / Section 504</b>	No Special Ed / Section 504	344966	285384	83
	Special Ed / Section 504	34243	14200	41
<b>Language Fluency</b>	1 Eng. Only	243890	208627	86
	2 InitiallyFluentEnglishProficient	34272	30098	88
	3 RedesignatedFluentEnglish	37464	32966	88
	4 Eng. Learner	61574	26643	43

Table 2  
CAHSEE March 2003 Passing Rates Under Current Rules,  
a Compensatory Approach, and a Partially Compensatory Approach

Student Groups	Current Scoring Rules			Compensatory Scoring	
	ELA	Math	Both	Fully	Partially
All Students	80%	62%	59%	72%	71%
African Americans	70%	39%	38%	56%	54%
Hispanics	67%	44%	41%	56%	55%
Econ. Disadvantaged	65%	45%	41%	55%	54%
English Learners	44%	32%	24%	36%	35%
Special Education	42%	24%	22%	31%	30%

**Note.** Fully compensatory scoring assumed a student passes CAHSEE if the combined scaled score (math score plus ELA score) is at least 700. Partially compensatory scoring required a combined score of at least 700, a math score of at least 325, and an ELA score of at least 325.

## Appendix A

Table A.1 provides some additional information about how passing rates under a partially compensatory approach differ depending upon the minimum scaled scores required on each measure separately. Table 3 is based on all 10<sup>th</sup> grade students, and assumes a compensatory approach where a combined score of 700 is required to pass. The rows in the table represent different minimum scores required on math and the columns represent different minimum scores required on ELA. The entries in the table are the corresponding projected passing rates for all March 2003 students, based on the row and column combination of minimum ELA and math passing scores. The diagonals in the table provide passing rates in cases where the same minimum scores are required for ELA and math, the entries above the diagonal represent partially compensatory approaches where the scaled score minimum for math is higher than the minimum for ELA, and the entries below the diagonal represent cases where the scaled score minimum for math is lower than the minimum for ELA. Although unequal minimum scaled scores might not ever be considered in a partially compensatory approach, the full pattern of projected passing rates shown in Table 3 is instructive. In particular, the data indicate that nearly all of the increases in CAHSEE passing rates under either a fully or partially compensatory approach are achieved through lowering the standard for the math test. For example, if a combined score of 700 is required, the minimum math score is decreased from 350 to 325, and the minimum ELA score is left at 350, the projected CAHSEE passing rate increases from 59 percent to 70 percent. If ELA is also decreased from 350 to 325 the projected CAHSEE passing rate only further increases to 71 percent. In contrast, if the minimum math score is left at 350 and the minimum ELA score is reduced to 325, the projected CAHSEE passing rate only increases from 59 percent to 60 percent.

Table A.1  
CAHSEE March 2003 Passing Rates - Partially Compensatory Approach (Total = 700)  
with Different Minimum Thresholds for ELA and Math\*

		English Language Arts Minimum Threshold							
		350	345	340	335	330	325	320	250
Math Minimum Threshold	350	59%	60%	60%	60%	60%	60%	60%	60%
	345	62%	63%	63%	63%	63%	63%	63%	63%
	340	66%	66%	66%	67%	67%	67%	67%	67%
	335	67%	68%	68%	68%	68%	68%	69%	69%
	330	69%	70%	70%	70%	70%	70%	71%	71%
	325	70%	71%	71%	71%	71%	71%	71%	71%
	320	71%	71%	71%	72%	72%	72%	72%	72%
	250	71%	72%	72%	72%	72%	72%	72%	72%

\* Based on 10<sup>th</sup> Grade students who completed both ELA and Math