

Independent Evaluation of the California High School Exit Examination (CAHSEE): 2008 Evaluation Report

D. E. (Sunny) Becker, Laress L. Wise, and Christa Watters (Editors)

Prepared for:

California Department of Education
Sacramento, CA
Contract Number: 00-07

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Executive Summary

In 1999, the California legislature established the requirement that, beginning with the Class of 2004, students pass a graduation exam in English-language arts (ELA) and mathematics (SB-2X, written into Chapter 9 of the California Education Code as Sections 60850—60856). In July 2003, after the completion of the 2002–03 California High School Exit Examination (CAHSEE) testing, the State Board of Education (Board) voted to defer the CAHSEE requirement until 2006.

The legislation establishing the CAHSEE requirement also called for an independent evaluation of the impact of this requirement and of the quality of the CAHSEE tests. Over the 8 years since the CAHSEE was established by law, a wide range of information has been gathered, analyzed, and reported by the Human Resources Research Organization (HumRRO) as part of the independent evaluation of the CAHSEE. This annual report covers analyses of test results and other evaluation activities conducted through September 2008. Evaluation activities are reported under the following topics, each of which is summarized briefly here:

- Review of CAHSEE test quality (Chapter 2)
- Results from test administrations through Spring 2008 (Chapter 3)
- Student Perspectives on the CAHSEE (Chapter 4)
- Information on students who did not pass (Chapter 5)
- Trends in other indicators during the CAHSEE era (Chapter 6)
- Plans for a 2009 Instruction Survey (Chapter 7)

The final chapter of this report includes both a summary of key findings and a number of general policy recommendations for further improving the CAHSEE and its use.

Review of CAHSEE Test Quality

Review of the CAHSEE Test Questions

HumRRO conducted reviews of CAHSEE test questions in 2000, before the first form was developed, again in 2002 after the first administration of CAHSEE to 10th graders, and in 2005 after changes to the test blueprints were implemented. We conducted a fourth review of CAHSEE test questions in Spring 2008. The new review addressed two key questions:

- Do new forms of the CAHSEE still cover the targeted content standards completely and in sufficient depth?
- Is the CAHSEE fair and accessible to English learners (EL) and students receiving special education services?

The review assessed: (a) the alignment of an intact operational test to the content standards (using Webb's alignment method) and (b) how well the test questions conform to emerging principles of universal test design. (See Chapter 2 for a discussion of alignment method and of principles for designing test questions that are fair and appropriate for all students.)

Overall, the alignment was judged to be good, although the review identified a few specific areas where the depth of knowledge required by the test questions or the clarity of their coverage of targeted standards might be improved. At the same time, we reviewed the accessibility of the test forms and questions for all students, following principles of universal design. The findings here also were positive, with a few questions or suggestions for improvement of specific questions.

Test Score Accuracy

HumRRO analyzed the consistency with which the CAHSEE essays were scored and found results generally comparable to last year and somewhat improved in comparison to previous years. We also examined the accuracy of pass-fail decisions based on test scores. Accuracy levels were similar to results from a similar analysis of a 2007 test form and judged to be acceptable.

Test Administration

We observed an administration of the CAHSEE in a school with a substantial number of English learners. No significant problems were encountered. A few suggestions for improving test administrator training are offered in Chapter 2.

Results from Test Administrations through May 2008

All 10th grade students in the Class of 2010 were required to take the CAHSEE for the first time in February, March, or May of 2008. In addition, 11th graders from the Class of 2009, 12th graders from the Class of 2008, and students from the Class of 2007 and Class of 2006 who had not yet passed both parts of the exam were given several opportunities to take the CAHSEE in any of the seven administrations from July 2007 through May 2008. Detailed analyses of these results are presented in Chapter 3. Key findings are summarized here.

Many students who did not graduate in 4 years continued to take the CAHSEE. A substantial number of students from the Class of 2007 (more than 12,000) and even the Class of 2006 (nearly 4,000) who had not yet passed the CAHSEE continued to take the exam this year. Many of these students completed the CAHSEE requirement (more than 4,000 in the Class of 2007 and about 1,200 in the Class of 2006) completed the CAHSEE requirement.

12th grade passing rates were similar to last year. Over 90 percent of first-time seniors in the Class of 2008 met the CAHSEE requirement by the end of their

senior year, but about 46,000 seniors did not. Over a third of those not passing were students with disabilities (SWDs). This was the first year SWDs were subject to the CAHSEE requirement. Of these, 54.5 percent met the requirement, but about 17,000 SWDs who were still trying to pass the CAHSEE did not do so by the end of their senior year.

The passing rate for students who were not in special education was 93.7 percent this year, compared to 93.3 percent in 2007 and 90.4 percent in 2006, both years when special education students were exempted from the requirement.

Passing rates for some groups of students were significantly lower than the overall passing rate this year. English learners (73.5%), SWDs (54.5%), low-income (85.5%), African American (80.5%), and Hispanic (86.2%) students all had passing rates below the overall rate of 90 percent. These passing rates are based on current seniors and exclude students who dropped out prior to 12th grade. Low-income and minority students had higher dropout rates than the general student population, so an even smaller proportion of 10th graders in these populations made it all the way through to receive a diploma.

Increases in 10th and 11th grade passing rates. The 11th grade (Class of 2009) cumulative passing rate increased significantly, from 78 percent last year to 82 percent this year. Similarly the 10th grade (Class of 2010) passing rate increased from 65 percent to 69 percent.

Initial passing rates for the 10th grade (Class of 2010) remained lower for English learners (29%), students with disabilities (20%), and for low-income (57%), African American (52%), and Hispanic (58%) students.

Student Perspectives on the CAHSEE

Students completed a brief questionnaire following each part of the CAHSEE describing their preparation for and reactions to the CAHSEE and their current educational plans and expectations. An analysis of their responses is presented in Chapter 4. Key findings include:

- The proportion of students who said that the CAHSEE was an important test for them remained high, (79%) and was even higher (about 85%), for students who did not pass one or both parts.
- Most 10th graders, nearly 90 percent, expected to graduate from high school, an increase of 1 percentage point from 2007. Nearly 95 percent of those passing both parts expected to receive a diploma. Very few (1%) said they would give up trying to get a diploma if they could not pass the CAHSEE, although about 5 percent said they did not know what they would do in this case.

- The percentage of students expecting to go on to a 4-year college rose about 2 percentage points, to about 55 percent.
- The percentage of students saying that they did as well as they could on the CAHSEE increased for both ELA (89% to 90%) and mathematics (85% to 87%).
- The percentage of students saying that most or all of the topics on the CAHSEE were covered in their courses remained high, at 94 percent for the ELA test and 92 percent for the mathematics test. Even among students who did not pass either part, 85 percent of ELA test takers and 94 percent of mathematics test takers said the topics on the CAHSEE had been covered in their courses.
- Students also said that the questions on the CAHSEE were of about the same difficulty as questions encountered in their courses (83% for ELA and 82% for mathematics).
- About 47 percent of students who took the ELA test said that they were working harder but only 8 percent said they were getting help to meet the CAHSEE requirement. Among mathematics students, 46 percent responded they were working harder and 9 percent said they were getting outside help.

Students Who Did Not Pass

We analyzed demographic data and student questionnaire responses for about 20,000 Class of 2008 students (seniors) who did not pass. Some key findings were:

- About two-thirds of the students who did not pass still thought they would graduate from high school; surprisingly, this rate did not change from 10th to 12th grade.
- By 12th grade, fewer of those who had not passed thought they would go to a 4-year college (18% compared to 32% in 10th grade and 55% of their classmates in 10th grade); the percent thinking they would go to a community college rose from 23 percent to 44 percent.
- Students who did not pass were more likely to say that many ELA and math topics on the CAHSEE were not covered in their courses (17% compared to 8% for all students); many more said that the questions on the test were more difficult than those encountered in their coursework (40% compared to 18% for all students).

Trends in Other Outcomes

Dropout rates could not be compared to those in prior years because of changes in the calculation method. Schools were required to supply exit codes for each student leaving this year, increasing the number considered to be dropouts. The large number of dropouts overall (24% total 4-year dropout rate) and for particular demographic groups (30% for Hispanic and 42% for African-American students) identified by the new procedures is a significant concern.

Grade-to-grade enrollment declines from 9th to 12th grade remained about the same and continued to be lower than in pre-CAHSEE years. However, the ratio of graduates to fall 12th grade enrollment dropped 4 percentage points in 2006, from 86.7 percent to 82.5 percent, and another 3 percentage points in 2007, to 79.5 percent. Note, however, that the 2007 rates included a significant number of repeat 12th graders, students from the Class of 2006 still trying to meet the CAHSEE requirement. The lower graduation rate was thus due, in part, to an increase in the denominator.

SAT score means declined slightly in 2007 (2 to 3 points), while ACT score means remained unchanged in 2007, the most recent year for which results were available. AP participation rates and test scores declined slightly, but remained above pre-CAHSEE levels.

Plans for the 2009 Instruction Study

A new instruction study will be conducted in 2009. While the design of the new study will be similar to that of the previous studies, there are some differences. Specifically, the new study will gather information only at the high school level (not from middle-grade feeder schools); researchers will not visit school sites; and the study will sample fewer high schools (400 compared to 600 schools in previous studies). The new instruction study will focus on the following questions:

1. What changes have there been to the standards-based courses reported in the earlier surveys?
2. Are more students who need additional instruction in the standards taking courses and participating in intervention programs offered by the schools?
3. Are the students who participate in the relevant courses and programs better prepared to succeed in these courses than were previous cohorts?

As described in Chapter 7, we held a workshop this spring to plan for the new study. New findings concerning the impact of the CAHSEE on instruction will be included in next year's evaluation report.

Recommendations

As noted above, many students from the classes of 2006 and 2007 who did not meet the CAHSEE requirement by the end of their senior year continued

on for a fifth and, in some cases, a sixth year to master the required skills, meet the CAHSEE requirement, and receive a diploma. Many have not yet been successful, but a significant number were. Our first recommendation is:

Recommendation 1: California should seek ways to encourage students who do not pass in 4 years to continue their studies for one or more additional years. Students who do should be studied to identify programs that help them succeed.

CAHSEE passing rates are increasing, but many students with disabilities and English learners are not meeting the CAHSEE requirement. Now that students with disabilities are no longer exempt from the CAHSEE requirement, consequences of their low passing rates have increased significantly. Findings from prior years of the evaluation suggest that many of these students are judged not able to receive instruction in the knowledge and skills required to pass the CAHSEE, leaving them without skills judged essential for subsequent success.

Recommendation 2: Districts, schools, and IEP teams should make all possible efforts to provide access to the general curriculum to students with disabilities so that these students can obtain the skills needed to pass the CAHSEE. The State Board of Education should establish alternative goals and ways of recognizing the accomplishment of students who cannot meaningfully participate in the general curriculum.

Recommendation 3: Curricular goals, possibly including a fifth year of high school, should be studied for English learners who enter U.S. schools during high school. California schools should also find ways to help English learners who enter U.S. schools prior to high school but continue to have difficulty learning English.

Many low-income and minority students have difficulty passing the CAHSEE. Dropout rates are also higher for these groups of students, leading to a greater proportion of students in these groups who do not receive a high school diploma. Failure to receive a diploma has significant societal costs as well as costs to the individual students. Our fourth recommendation is:

Recommendation 4: Undertake further study to find ways to increase graduation rates for low-income and minority students.

Finally, it has been 8 years since the content framework for the CAHSEE was adopted. The State Board of Education indicated that they intended to increase the rigor of the requirement over time. Four years ago, the rigor of the mathematics test was actually decreased slightly when the exam was revised and restarted in 2004 for the Class of 2006. At its meeting in July 2008, the California State Board of Education adopted a requirement for all students to take Algebra I in the 8th grade. The Board may therefore wish to consider whether it should broaden coverage of Algebra I in the

CAHSEE and whether it should require mathematics instruction beyond Algebra I during high school. Now that several years of CAHSEE data are available, it is possible to examine the extent to which success on the CAHSEE indicates preparation for life after high school. More generally, our final recommendation for this year is:

Recommendation 5: The State Board of Education should initiate a new review of the CAHSEE content requirements. The Board should plan to allow at least 3 years for implementation of changes to the CAHSEE test specifications, including development and field testing of new questions and test forms based on the revised specifications.

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INDEPENDENT EVALUATION OF THE CAHSEE: 2008 EVALUATION REPORT

Chapter 1: Introduction

Lauress L. Wise and D. E. (Sunny) Becker

High School Exit Examinations

According to a recent report by the Center on Education Policy (CEP, 2008) 23 states currently require students to take and pass a high school exit exam to receive a diploma. Three more states (Arkansas, Maryland, Oklahoma) will implement this requirement by 2012, with the result that by that year 74 percent of the nation's public high school students will be affected.

The California High School Exit Examination

The state of California embarked on this path in 1999. The state legislature enacted the requirement that students pass a graduation exam in English language arts (ELA) and mathematics beginning with the Class of 2004 (Senate Bill (SB)-2X, written into the California Education Code as Chapter 9, Sections 60850–60856).

This requirement was modified in 2002 through the passage of Assembly Bill (AB) 1609. The revised legislation gave the State Board of Education (the Board) authority to postpone the California High School Exit Examination (CAHSEE) requirement, based in part on the results of a study that examined the extent to which both test development and standards-based instruction met standards for this type of examination (Wise et al., 2003a). In July 2003, after completion of the 2002–03 CAHSEE testing, the Board voted to defer the CAHSEE requirement until the Class of 2006.

The original legislation mandating the requirements for the graduation exam also specified an independent evaluation of the CAHSEE. The original contract period operated from 1999 through 2004; a second contract was awarded to continue the evaluation through 2007, and a third contract was awarded to continue the evaluation through 2010. The California Department of Education (CDE) awarded all these evaluation contracts to the Human Resources Research Organization (HumRRO). HumRRO's efforts have focused on analyses of data from tryouts of test questions and from the annual administrations of the CAHSEE. Reports have focused on trends in pupil performance, retention, graduation, and dropout rates. The legislation also specified that evaluation reporting would include recommendations to improve the quality, fairness, validity, and reliability of the examination. The legislation required an initial evaluation report in June 2000 and biennial reports to the Governor, the Legislature, the Board, and the CDE in February of even-numbered years.

In addition to the legislatively mandated evaluation reports, the contracts for the evaluation required an annual report of evaluation activities. The present report meets

the contract requirement for a report of activities and findings during the ninth year of the evaluation (the 2007–08 school year). This report adds to results and recommendations included in prior evaluation reports (Wise, Hoffman, & Harris, 2000; Wise, Harris, Sipes, Hoffman, & Ford, 2000a; Wise, Sipes, George, Ford, & Harris, 2001; Wise et al., 2002b; Wise et al., 2003; Wise et al., 2004a; Wise et al., 2004b; Wise et al., 2005; Wise et al., 2006; Becker & Watters, 2007). Appendix A summarizes findings and recommendations from all prior reports.

Summary of Year 8 Evaluation Activities (September 2007)

The most recent findings and recommendations are provided here to provide a context for the current study. We reported several findings:

Finding 1: HumRRO verified the accuracy of the scoring and equating of the CAHSEE test forms. Scoring consistency for the essay improved this year.

Finding 2: Last year's seniors continued to test after their original target graduation date.

Finding 3: Passing rates through 12th grade for the Class of 2007, the 11th grade for the Class of 2008, and the 10th grade for the Class of 2009 were similar to the corresponding rates for previous classes.

Finding 4: More students are taking Algebra I by 10th grade.

Finding 5: Students in demographic groups with low pass rates (minorities, economically disadvantaged students, and students with disabilities) in schools with a high proportion of similar students continue to have lower passing rates than students in these groups in schools with fewer similar students.

Finding 6: As noted previously, many students are still classified as English learners after as many as 10 years of education in this country. Students in this group appear to have more severe problems, many participating in special education programs as well as English language development programs.

Finding 7: For students with disabilities, participation in regular classroom instruction is closely related to meeting the CAHSEE requirement. Participation in regular instruction and also the specific services students receive vary by type of disability.

Finding 8: California Standards Test (CST) end-of-course test results and CAHSEE results provide consistent conclusions about students with disabilities.

Finding 9: Performance gaps for low-income and racial/ethnic minority students persist and these groups tend to be clustered in low-performing schools.

Finding 10: Many teachers continue to be unaware of state-provided CAHSEE resources such as the CDE Web site and Teacher Guide, while teachers who reported familiarity with these sources indicated they were useful.

Finding 11: Survey results suggest that the CAHSEE is useful for guiding instruction in schools where performance is lowest.

Finding 12: Principals and ELA and math teachers did not agree on whether teachers in other subjects perceive that they share in responsibility for students' success on the CAHSEE.

Finding 13: Graduation rates declined by about 4 percentage points for the Class of 2006 (the most recent data available), the first year students were required to pass the CAHSEE to obtain a diploma. Similarly, dropout rates increased, most markedly in Grade 12.

Finding 14: College preparation activities hint at a broader interest among high school students in going to college.

The Year 8 evaluation report also included several recommendations:

Recommendation 1: CDE should work with districts to track students who do not graduate on time.

Recommendation 2: For students who do graduate, it would be useful to link their high school test scores to information on community college, state college, and university experiences.

Recommendation 3: Reasons for low performance in schools with higher densities of minorities and low-income students should be studied to identify possible remedies.

Recommendation 4: Now that statewide student identifiers are generally in use, CDE should analyze student progress at earlier grades as measured by CSTs and, for English Learners, the California English Language Development Test (CELDT) to see where and when students begin to get off track.

Recommendation 5: California should explore options for supporting and improving professional development programs for high school teachers.

Recommendation 6: Districts, schools, and IEP teams should make all possible efforts to provide access to the general curriculum to students with disabilities so that these students can obtain the skills needed to pass the CAHSEE.

Recommendation 7: California should continue to explore alternate routes to demonstrating proficiency. Programs that consider grades and other factors besides test scores, introduced in Massachusetts and Washington, provide examples for consideration.

Organization and Contents of 2008 Evaluation Report

The 2008 Evaluation Report covers activities performed in the independent evaluation through September 30, 2008.

Chapter 2 presents analyses of test quality and validity, including analyses of equating, test forms, and scoring accuracy. We also present results of an item review workshop conducted in April 2008. The review involved two related activities to monitor the quality and accessibility of the CAHSEE: an alignment review and an evaluation of universal design. The alignment review investigated the match between the CAHSEE test items and the CAHSEE content standards, while the evaluation of universal design examined the degree of accessibility of test items and test format for various student populations. HumRRO conducted similar item reviews of the CAHSEE for the CDE in 2002 and 2005 to meet No Child Left Behind (NCLB) requirements.

Chapter 3 analyzes the 2007–08 CAHSEE administrations, reporting results for the 12th graders in the Class of 2008 and comparing the passing rates of 12th graders in the Class of 2008 to those of 12th graders in the classes of 2006 and 2007. In addition, we report passing rates for 10th graders in the Class of 2010 in comparison to passing rates for 10th graders in previous classes; and passing rates and score gains for 11th graders in the Class of 2009 who did not meet the CAHSEE requirements during their sophomore year. This chapter also analyzes test modifications and accommodations and factors such as the relationship between mathematics courses taken and success on the CAHSEE mathematics test.

Chapter 4 investigates the challenge and impacts of the CAHSEE program from the student perspective. Brief questionnaires were administered to students upon completion of each CAHSEE test. Analyses include comparisons of current year responses to response patterns in previous years, as well as comparisons among distinct groups of students (e.g., students who passed the CAHSEE versus those who did not).

Chapter 5 provides a closer look at students who have been unable to pass the CAHSEE. Unfortunately, a study of what ultimately happens to any significant number

of these students after they leave the system is difficult to conduct because of tracking issues; such a study is also outside the scope of the current evaluation. We can, however, say more about who these students are and use their responses to the student questionnaires to describe their experiences and plans.

Chapter 6 presents trends in educational achievement and persistence through analyses of data on year-by-year high school enrollment trends, graduation and dropout rates, college preparation, and Advanced Placement (AP) test achievement. While these do not directly reflect effects of the CAHSEE, trends over time can be informative in assessing shifts in student achievement.

HumRRO will conduct an instruction study in Spring 2009. A select group of California educators participated in a workshop in May 2008 to develop specific recommendations for questions to be asked in the instruction study. Chapter 7 presents findings from the workshop.

Finally, Chapter 8 presents our findings and recommendations based on the data analyses and results presented in previous chapters.

Chapter 2: 2008 Review of CAHSEE Test Quality

*Leslie Taylor, Christopher Johnstone¹, Laress L. Wise, Art Thacker,
and Michele Hardoin-Mandeville*

This chapter describes HumRRO's 2007–08 efforts to evaluate the quality of the CAHSEE test. Our primary effort was a review of the CAHSEE items and test forms in April 2008. Later in the chapter we describe additional efforts, including analyses of test form equating and the accuracy of test scores as well as observation of a test administration.

The primary use of the CAHSEE scores is as an indicator of whether students have mastered the content standards targeted for the assessment. Thus, the alignment of the test to these standards is the most direct possible evidence for the validity of the CAHSEE scores. The review involved two related activities to monitor the quality and accessibility of the CAHSEE: an alignment review and an evaluation of universal design. The alignment review investigated the match between the CAHSEE test items and the CAHSEE content standards, while the evaluation of universal design examined the degree of accessibility of test items and test format for various student populations. HumRRO conducted similar item reviews of the CAHSEE for the CDE in 2002 and 2005.

An alignment study evaluates the extent of content overlap between the test items and the content standards to determine whether the material on which students are assessed is the same as what they are expected to know. A universal test design study examines a test for appropriate format, scope, and content relative to the range of students who will be taking that assessment, such as students with limited English language proficiency and students with disabilities. The results of these kinds of investigations contribute to estimations of test validity.

In the review conducted by HumRRO in 2002, the workshop panelists focused on the alignment of newer CAHSEE test items with the content standards. The 2005 item review provided an opportunity to address questions that arose with the revision to CAHSEE test specifications introduced in 2003–2004, when the exam was restarted for the Class of 2006 and slight adjustments to the test blueprints were made by the Board. For the 2005 review, HumRRO applied the alignment method of Norman Webb (1997; 1999; 2005), and we added an evaluation of universal design by asking the National Center on Educational Outcomes (NCEO) to provide their expertise on test accessibility.

We applied these same alignment and universal design methods to the 2008 item review. Each of these methods, along with corresponding outcomes, will be summarized in separate sections of this chapter.

¹ National Center for Educational Outcomes (NCEO)

In this section of the report, we discuss the methods and results of the alignment process. A panel of 20 California educators and district staff personnel reviewed CAHSEE items for alignment to the content standards on the first and second days of the item review meeting.

Methods

We provide the details of the alignment meeting including: (a) the alignment methods, (b) characteristics of the teachers who served as panelists, and (c) the types of materials and procedures used to conduct the review.

Webb Alignment Method. The Webb method includes four major dimensions to evaluate alignment. These alignment dimensions link with statistical procedures used to assess how well individual portions of the assessments and state standards documents actually match. Each criterion provides different information about the degree of alignment between the assessment and content standards; therefore, all four of Webb's criteria must be considered for a complete picture of alignment. The four alignment criteria are as follows:

Categorical concurrence is a broad measure of content match between the test and State standards indicating the number of items assessing each general content strand. Webb suggests that the mean number of items per strand should be at least six for acceptable content coverage.

Depth of Knowledge (DOK) measures the type of cognitive processing required by items compared to the processing expected by the content standards. The purpose of using depth of knowledge as a measure of alignment is to determine whether a test item (or performance task) and corresponding standard are both written at the same level of cognitive complexity. Webb recommends that the DOK assessed by at least 50 percent of the test items should match the DOK expected in the content standards.

Range-of-knowledge correspondence examines the breadth of content assessed compared to the State standards. The range indicates the number of standards assessed by at least one item. The minimum level of acceptability is that at least 50 percent of the objectives must be matched to one or more items.

Balance of representation examines content coverage in yet more detail by focusing on just how many items match to each content standard. The balance-of-knowledge representation is determined by calculating an index, or score, for each standard. Each standard should meet or surpass a minimum index level of 70 (on a scale of 0 to 100) to indicate good coverage by the assessment.

HumRRO considers the Webb criteria to be a guideline for alignment evaluations. There are cases when assessments may not meet the minimum criteria on some Webb dimensions, but the assessments do meet the expectations of the state content standards. If a state provides sufficient rationale for the content emphasis given

in the standards and on the assessment, not meeting certain Webb alignment criteria is of less concern.

Materials. Panelists reviewed the alignment between the CAHSEE assessment and CAHSEE standards by evaluating the February 2008 test form against the current CASHEE test blueprint. Panelists received specific instructions on how to rate these documents along with pre-constructed electronic rating forms. These documents are described below.

CAHSEE Test Blueprints. The CAHSEE Test Blueprints (approved by the Board in 2003) for math and for ELA were used to rate the content assessed by CAHSEE items. The test blueprint includes each strand and standard that could be tested in a given CAHSEE test form. While the document does indicate the potential number of test items linked to each standard, test blueprints do not reveal specific information about individual test items, such as which particular items are written to each standard. Since this evaluation must be performed independently of the State and the test contractor, to ensure maximum objectivity we did not give the panelists item specification information (i.e., the number of items targeted per strand).

The CAHSEE test blueprints for mathematics and for English-language arts include a set number of assessed strands, substrands, and standards. The total numbers of each are presented in Table 2.1. One particular standard for ELA, Writing Applications, varies per test administration in the specific standard(s) assessed.

Table 2.1. Number of Strands, Substrands, and Standards in Math and ELA Test Blueprints

Content Area	Strands	Substrands	Standards
English-language arts	6	17	32
Mathematics	7	26	53

Test Forms. Each panelist for math and for ELA reviewed one full 2008 test form as well as additional field-test items from a different February test form. Table 2.2 describes these test forms.

Table 2.2. Characteristics of the CAHSEE Test Forms

Subject	Number of Test Forms Reviewed	Total Items per Form	Selected Response Items	Constructed Response Items	Number of Reporting Categories
ELA	2	80	79	1	6
Mathematics	2	92	92	0	6

Rating Forms and Instructions. Panelists received printed instructions on how to perform the alignment tasks. For the CAHSEE blueprints, panelists completed a depth-of-knowledge (DOK) rating sheet electronically. A different spreadsheet was used to rate each test item on several dimensions (item DOK, standard match, and overall alignment and quality). Examples of these materials can be found in Appendix B.

Panelists. The alignment workshop was held April 15–17, 2008. All panelists recruited to participate in the workshops are current California educators or district staff nominated for participation by district and test coordinators from across the State. A total of 20 panelists, including nine math and eleven English-language arts panelists (see Table 2.3), reviewed the CAHSEE items. The following criteria were established for selection to the panels: (a) strong familiarity with the CAHSEE content standards in which they teach, (b) at least three years of experience teaching to these standards, and, (c) to ensure an independent process,² no involvement in CAHSEE test development (i.e., item writing, review) within the past five years. From the pool of nominees meeting these criteria, HumRRO, in correspondence with the CDE, selected those nominees that best represented experience with the diversity of California students from across the State.

² Two approved panelists did have some involvement in CAHSEE item development recently due to misunderstanding over the type of ETS reviews in which they participated.

Table 2.3. Professional and Demographic Characteristics of CAHSEE Panelists

Professional Position	Number of Panelists	Average Years of Experience	Panelists Experienced with EL Students	Special Certifications (e.g., RSP, CLAD, SDAIE ^a)	Region of Origin in California			Gender		Ethnicity					
					North	Central	South	M	F	Caucasian	Asian	Hispanic	African-American	Pacific Islander	Other
ELA	11	16.75	9	6	5	2	4	0	11	8	0	1	2	0	0
Teacher, regular classroom	4	12	4	3	2	1	1	0	4	3	0	1	0	0	0
Teacher, SpED	3	15	2	2	2	0	1	0	3	2	0	0	1	0	0
Content Specialist	3	18	2	1	1	2	0	0	3	2	0	0	1	0	0
District Coordinators	1	22	1	0	1	0	0	0	1	1	0	0	0	0	0
Math	9	13.25	7	7	3	2	4	4	5	4	0	2	1	1	1
Teacher, regular classroom	4	16	3	2	1	2	1	3	1	2	0	2	0	0	0
Teacher, SpED	3	14	2	3	1	0	2	1	2	1	1	0	1	0	0
Content Specialist	1	15	1	1	0	0	1	0	1	0	0	0	0	1	0
District Coordinators	1	8	1	1	0	0	1	0	1	0	0	0	0	0	1
Total Panelists	20														

^a RSP (Resource Specialist Program); CLAD (Cross-cultural Language and Academic Development); SDAIE (Specially Designed Academic Instruction in English)

Procedures. HumRRO conducted a 2-day alignment workshop to review CAHSEE math and ELA items. The workshops began with an introduction of staff and observers. Panelists then read and signed an affidavit of non-disclosure regarding any secure materials they would be reviewing during the workshop. HumRRO staff gave the panelists a brief presentation on alignment and the tasks reviewers would perform.

Following the general introduction, panelists split into content groups. For the ELA and mathematics reviews, panelists were split further by grade span. Two HumRRO staff members facilitated each group by discussing the rating procedures in more detail relative to the content area, training reviewers on sample standards and assessment items, and answering questions about the alignment process. Each panelist received a laptop with the rating forms already uploaded and formatted. Panelists received brief instruction on how to open and enter ratings into the electronic forms. Regarding instructions on how to rate standards and items, HumRRO staff provided general suggestions and comments when appropriate; however, they emphasized to reviewers that staff would not give explicit direction on how to rate standards or items because reviewers were valued as content experts.

After reviewing sample DOK evaluations as a group, panelists proceeded to rate the content objectives from the California blueprint document relevant to their content area and grade span. They first made independent evaluations without discussion. Once all reviewers had completed their ratings, the HumRRO member led the group through a discussion of the objectives to achieve consensus DOK ratings. Panelists entered consensus ratings into the laptop spreadsheet.

Reviewers then received more specific instructions for rating the assessment items. In particular, staff instructed reviewers to assign a *primary standard* to an item based on a judgment that an item clearly measured this content objective. Panel members could assign an *additional standard* only if the item seemed to assess another standard as evenly as the primary standard. Reviewers then evaluated and discussed sample items as a group. After completing the sample items, reviewers proceeded to rate the test forms relevant to their content area and grade span. Again, they entered these ratings individually into electronic rating forms on their laptops. Due to time constraints, panelists did not achieve consensus on all items. However, group leaders conducted calibration checks periodically on a small set of items to evaluate the agreement between raters.

Results of the Alignment Review

In this section, we present the results of the alignment analyses, including the Webb measures. Before presenting these results, we review the agreement rates among the panelists, as well as panelists' agreement with the ***intended content match established by ETS (the test developer)***.

Inter-Rater Agreement. Panelists demonstrated high levels of agreement in their ratings of the content assessed by items for both ELA and math. Table 2.4 below displays

inter-rater agreement based on the intraclass correlation reliability statistic, which indicates the extent to which panelists' ratings matched each other. These numbers indicate very high agreement between panelists in their ratings of the content assessed by items (95% on ELA and 96% on math).

Table 2.4. Inter-Rater Agreement on Content Assessed by Items

Content Area	Intraclass Correlation	95% Confidence Interval	
		Lower Bound	Upper Bound
ELA	0.95	0.92	0.96
Math	0.96	0.95	0.97

These results indicate that panelists chose the same strands and standards across the majority of items.

Panelist-Test Developer Agreement Analyses. Table 2.5 includes agreement outcomes between panelists' ratings and ETS item specifications. Agreement is specified at several levels to note the extent to which panelists agreed with the ETS item content assignment. 'Exact Match' indicates that panelists chose the same strand, substrand, and standard for the item as the test developer. 'Partial Match' indicates that panelists chose the same strand as the test developer, but differed in the specific content (substrand or standard) within that strand. 'No Match' indicates that panelists selected completely different strands than intended by ETS.

All of the items were analyzed for 'Exact Match' first. For items not exhibiting an exact match between panelists and ETS on target content, we determined the percent agreement at the strand level. The agreement levels reported in Table 2.5 represent separate analyses; thus, rows add to greater than 100 percent.

Table 2.5. Percent Agreement between Panelists and ETS on Target Content for Operational Items

Subject	Percent Agreement with ETS Codes		
	Exact Match (same strand, substrand, and standard)	Partial Match (same strand)	No Match (different strand)
ELA	46%	85%	15%
Math	72%	88%	12%

Panelists demonstrated modest agreement with ETS on the content targeted for assessment. At the most specific level, panelists considered many items to target other standards than those identified by ETS. However, panelists did agree with ETS on the content category, or strands, targeted by the majority of items.

The low agreement between panelists and item developers at the standard level, particularly for ELA, could have occurred for several reasons. Panelists may have been imprecise or hasty in their ratings. However, an additional consequence would likely have been low inter-rater agreement between the panelists' ratings, but this outcome did not occur (as shown in Table 2.4, above). In fact, panelists showed high agreement on their content match, even at the standard level. Instead, the low agreement with the test developer likely reveals an issue not too uncommon in standards-based testing. Content knowledge specified in standards documents is not always mutually exclusive, and, thus, standards may overlap to some extent. Furthermore, standards tend to be written broadly to allow some flexibility in item development, as well as in the curriculum. The consequence, which is not necessarily problematic, is that writing items that narrowly target only a single content expectation becomes more difficult.

HumRRO did review items with the most incongruent content match between panelists and ETS to evaluate the source of the discrepancy further. This review included those items for which five or more reviewers chose a different strand from the one targeted by ETS. For example, one item in particular was intended to assess Reading Literacy; however, only 2 of the 11 panelists chose Literacy as the target. The remaining panelists chose Word Analysis as the content assessed by the item. Our review of the item led us to conclude that it is reasonable that panelists chose this strand as the primary target of assessment, although the Literacy strand (targeted by ETS) is reasonable as well. In other words, a sufficient argument could be made that the item assesses both strands well. Again, this fact seems to be more related to the broad wording of the standards and some overlap in content than to an indiscriminate item. Still, it may be worthwhile for ETS to review specific items for possible secondary strand or standard matches.

Webb Alignment Statistics. In this section, we review the general outcomes of item analyses on the four Webb criteria for English-language arts and mathematics. We include results only on operational items in this report because it is these items that are used in calculating Adequate Yearly Progress (AYP). More detailed numeric results can be found in Appendix C.

All of Webb's measures begin with calculations for each panelist and build up to a summary of results across both raters and standards. First, we calculate the mean ratings across items for each panelist, and then we determine the mean rating across panelists per strand. Results are then presented at the level of the strand. Tables 6 and 7 include the summative statistical outcomes for each alignment criterion per strand for math and for ELA. The second and third columns of the tables indicate the target number of standards and items listed in the test blueprints as a point of reference.

We give a brief description of the numeric results here, while a more thorough explanation per alignment criterion is included in Appendix C. Table 2.6 displays the

summary outcomes for each Webb alignment indicator. For categorical concurrence, the statistic presented is the mean number of items matched to each strand (the minimum should be 6 items). One point to note about the means for categorical concurrence is that the number of items matched to each strand is higher than the target number listed in the test blueprint. The reason for this discrepancy is that panelists can match items to *two* different content strands/standards, which they did in some cases. For depth of knowledge (DOK), the statistic is the mean percentage of items with complexity levels at or above the level of the standards within each strand (minimum should be 50% per strand). For range of knowledge (ROK), the statistic is the mean percentage of standards matched with at least one item per strand (minimum should be 50% per strand). Finally, the balance of knowledge representation (Balance) column indicates the mean balance index per strand (minimum should be a score of 70), which provides a measure of how evenly items are distributed among standards. Those numbers highlighted in each table fall below the threshold for acceptable alignment.

Table 2.6. Results on Webb Alignment Indicators for Mathematics by Strand

Strand	Number of Standards per Strand	Target Number of Items per Strand	Webb Alignment Indicators			
			Categorical Concurrence	DOK	ROK	Balance Index
Statistics, Data Analysis, and Probability	7	12	21.33	58%	83%	82
Number Sense	3	14	23.00	77%	96%	76
Algebra and Functions	3	17	28.11	48%	96%	86
Measurement and Geometry	10	17	24.11	73%	89%	75
Mathematical Reasoning	6	8	11.22	73%	61%	78
Algebra I	10	12	16.78	87%	87%	80
Total Alignment Outcomes Across Standards			6 of 6	5 of 6	6 of 6	6 of 6

Table 2.6 indicates that the CAHSEE test items align well to the test blueprint overall for mathematics. The strand Algebra and Functions is the exception on one alignment indicator, depth of knowledge, which shows that panelists considered a number of math items to assess student knowledge for this strand *below* the level expected in the content standards.

Table 2.7 shows similarly positive alignment outcomes for ELA, revealing acceptable assessment of most strands. Although the cognitive complexity of some items assessing Reading Comprehension was below the level of the standards, the remaining strands were assessed at an appropriate level of complexity according to these panelists.

Table 2.7. Results on Webb Alignment Indicators for English-language arts by Strand

Strand	Number of Standards per Strand	Target Number of Items per Strand	Webb Alignment Indicators			
			Categorical Concurrence	DOK	ROK	Balance Index
Word Analysis, Fluency, and Systematic Vocabulary Development	2	7	15.45	90%	100%	83
Reading Comprehension	6	18	23.82	47%	83%	75
Literary Response and Analysis	12	20	25.27	61%	77%	75
Writing Strategies	5	12	9.64	93%	60%	84
Writing Applications	6	1	3.00	87%	33%	96
Written and Oral English Language Conventions	3	15	19.18	72%	97%	91
Total Alignment Outcomes Across Standards			5 of 6	5 of 6	5 of 6	6 of 6

The Writing Applications strand warrants some discussion and explanation. While the results for this strand fall below the Webb criteria, they do correspond with the test blueprint. This strand is assessed by the constructed response (essay) item, and the content assessed by the essay rotates per test administration. Panelists did assign this strand to the constructed response item (in addition to several multiple-choice items). Thus, the results accurately reflect the intention of the test blueprint.

Summary and Recommendations on Test Alignment

The purpose of the 2008 alignment evaluation was to determine the level of content agreement between the February 2008 version of the CAHSEE and the designated California content standards for mathematics and English-language arts. Alignment between state academic standards and assessments is a requirement of the No Child Left Behind Act of 2001. The results of these reviews provide evidence for the content validity of the CAHSEE overall. Furthermore, the results from the 2008 alignment review demonstrate some improvement in the match between the CAHSEE test and the content standards compared to the 2005 alignment review.

In this section of the report, we present summary conclusions and recommendations based on the results of this review. First, we provide alignment conclusions for the 2008 review by strand and subject area based on the statistical results. Alongside the 2008 results, we include the summary outcomes from the 2005 CAHSEE review for a direct comparison. Finally, while most of the alignment outcomes confirm the validity of the

CAHSEE as a measure of the content expectations, we offer a few minor recommendations for improvement.

Table 2.8 provides a synopsis of the alignment judgments for math and ELA strands from Tables 2.6 and 2.7 in the left-hand portion. The right side of the table displays the alignment judgments based on the 2005 CAHSEE operational items. The highlighted portions of the table reflect areas with lower degrees of alignment between the assessments and content standards.

Table 2.8 clearly demonstrates that the CAHSEE test forms in both 2005 and 2008 align well to the CAHSEE content standards on most Webb dimensions. For math, only the strand Math Reasoning was rated as not well represented on the 2005 assessment. The 2008 operational items seem to assess this strand more clearly because panelists matched items to Math Reasoning more frequently in this review. One area of weakness noted in the 2008 assessment not found in the 2005 operational items concerned the Algebra and Functions strand. These panelists considered some of the 2008 operational items to assess student knowledge on Algebra and Functions at a lower level of cognitive complexity than expected in the CAHSEE test blueprint.

For ELA, operational items included in the 2008 test form appear to assess students more accurately on cognitive complexity for the strand Word Analysis, Fluency, and Systematic Vocabulary Development and the strand Writing Strategies. However, the items assessing Reading Comprehension still warrant additional review to bring the cognitive complexity required on the assessment more in line with the expectations of the CAHSEE content standards.

The ELA assessment still comes out as weakly aligned to the Writing Applications strand on the Webb dimensions of categorical concurrence and range-of-knowledge correspondence (both of which measure breadth of content). As emphasized in the results section, however, this outcome is not problematic because it reflects the intended design of the test blueprint. This particular strand evaluates student writing, which is assessed by the single constructed response (essay) item on the assessment. Including additional constructed response items on the assessment simply to meet the Webb criterion would be impractical and unnecessary.

Table 2.8. Comparison of Alignment Outcomes for 2005 and 2008 CAHSEE Alignment Reviews by Content Strand

Content Strand		Summary Alignment Outcomes per Webb Criteria							
		Test Alignment for 2008 Review				Test Alignment Outcomes for 2005 Review			
		Categorical Concurrence	DOK ^a	ROK ^b	Balance Index ^c	Categorical Concurrence	DOK	ROK	Balance Index
		Mathematics				Mathematics			
1	Statistics, Data Analysis, and Probability	YES	YES	YES	YES	YES	YES	YES	YES
2	Number Sense	YES	YES	YES	YES	YES	YES	YES	YES
3	Algebra and Functions	YES	NO	YES	YES	YES	YES	YES	YES
4	Measurement and Geometry	YES	YES	YES	YES	YES	YES	YES	YES
5	Mathematical Reasoning	YES	YES	YES	YES	NO	YES	NO	YES
6	Algebra I	YES	YES	YES	YES	YES	YES	YES	YES
		ELA				ELA			
1	Word Analysis, Fluency, and Systematic Vocabulary Development	YES	YES	YES	YES	YES	NO	YES	YES
2	Reading Comprehension	YES	NO	YES	YES	YES	NO	YES	YES
3	Literary Response and Analysis	YES	YES	YES	YES	YES	YES	YES	YES
4	Writing Strategies	YES	YES	YES	YES	YES	NO	YES	YES
5	Writing Applications	NO	YES	NO	YES	NO	YES	NO	YES
6	Written and Oral English Language Conventions	YES	YES	YES	YES	YES	YES	YES	YES

^a Depth-of-knowledge consistency criterion

^b Range-of-knowledge correspondence criterion

^c Balance-of-knowledge representation criterion

Webb’s alignment method does not allow for a *single* judgment of overall alignment across the four criteria. However, one can get a sense of overall alignment between the assessments and standards by looking at all of the criteria together. Table 2.9 provides a summary of the alignment outcomes for mathematics and for English-language arts.

Summary alignment judgments are based on Webb (2005). Alignment results are classified into four levels of acceptability:

- Fully aligned – items align to all content strands (100%);
- Highly aligned – items align to the majority of strands (70–90%)
- Partially aligned – items align well to some strands (50–69%); and
- Weakly aligned – items align to less than half the strands (below 50%).

Table 2.9. Summary Alignment Conclusions for 2008 CAHSEE Alignment Review for Mathematics and English-language arts

	Alignment Criteria			
	Categorical Concurrence	Depth of Knowledge Consistency	Range of Knowledge Correspondence	Balance of Representation
Math	Fully Aligned	Highly Aligned	Fully Aligned	Fully Aligned
ELA	Highly Aligned	Highly Aligned	Highly Aligned	Fully Aligned

Recommendation. HumRRO makes two recommendations that could strengthen the alignment of the CAHSEE test to the content standards:

- (1) *Review the depth-of-knowledge level of items assessing several strands.* Some items assessed content well below the level of cognitive complexity expected for one strand in mathematics (Algebra and Functions) and one in ELA (Reading Comprehension). Other strands did meet the minimum criterion for acceptability on depth of knowledge, but the correspondence between the items and strands is still somewhat low (Statistics, Data Analysis, and Probability = 58%; Literary Response = 61%).
- (2) *Review the assessment target for some items.* While the overall alignment outcomes were quite good, it is still the case that panelists disagreed with the test developer on the content assessed by a sizeable number of items, even at the broadest content level. This fact may or may not produce an impact on student scores. If items do not accurately assess the targeted content, then scores for these reporting categories may not be an accurate reflection of what students know. Items may rightfully target more than one content expectation, but this fact should be represented clearly in the test blueprint and specifications.

Review of Universal Design Evaluation

A separate evaluation of the 2008 CAHSEE assessment involved a review of test items for the degree of accessibility to a broad range of students who take the assessment. Test items should not only accurately reflect the content expectations of the state standards, but also be written in such a way that students can demonstrate what they know. The CAHSEE test items have been through bias reviews as part of the item development process under ETS; however, review of accessibility from an independent evaluator provides further confirmation of a fair process and assessment.

The passage of the No Child Left Behind Act in 2001 formalized a gradual movement toward accountability in states that required all students to meet rigorous standards. As part of this movement, some states have begun to use high school exit examinations as one way to ensure all students have met learning targets before graduation. Currently 23 states require that all students pass an exit examination before graduating from high school. Three additional states require that only students without disabilities pass such exams (these states have alternative options for students with disabilities) (Johnson, Thurlow, & Stout, 2007).

Because of the high-stakes nature of these measurements, states and test companies have begun to explore options for creating higher quality assessments that more accurately measure the learning of a wide variety of students, including students with disabilities. One option for improving assessments that has gained the attention of policy makers is the concept of Universal Design for Assessment (UDA). According to Federal Regulations, Universally Designed Assessments are tests that are “designed to be valid and accessible for use by the widest range of students, including students with disabilities” (No Child Left Behind Regulations, 2002).

The term universal design was first used in the field of architecture by Ron Mace. Mace, a wheelchair user, became frustrated with watching his colleagues design structures that later had to be retrofitted to meet the needs of diverse users. In citing the need for creating structures from the beginning to be maximally accessible, Mace began advocating for structures that could meet the needs of wheelchair users, elderly people, children, and people with sensory disabilities that were, at the same time, easily accessible to non-disabled users. As part of this design philosophy, ramps, elevators, expanded doorways, signs, bathrooms, and other features do not have to be added or modified at additional expense after the completion of a building.

In assessment, the goal of universal design is to provide the most valid assessment possible for the greatest number of students, including students with disabilities and English learners. This means designing assessments from the beginning to ensure that intended constructs are measured, text is concise and readable and in a clear format, and that the assessment respects the diversity of the assessment population (Johnstone, Altman, & Thurlow, 2006). Such tests are not intended to make

the tests easier for some groups or replace accommodations or the use of an alternate assessment for students who are particularly difficult to assess.

Although UDA has great promise, it is also limited in that it can provide access to students only to a point. If access begins to interfere with tested constructs, a test becomes invalidated. Therefore, UDA typically refers to tests that are as accessible and barrier-free as possible, while maintaining intended constructs (Johnstone, Thompson, Bottsford-Miller & Thurlow, 2008).

Despite this limitation, there are many ways to produce assessments that align with UDA policy. The Center for Applied Special Technology (CAST), for example, has defined Universal Design of Assessments as presenting assessments with “multiple means of representation and multiple means of response” in order to help students access tests (Dolan, Hall, Banerjee, Chun, & Strangman, 2005). Thompson, Johnstone, and Thurlow (2002) of the National Center on Educational Outcomes (NCEO) synthesized literature from a variety of fields and concluded that Universally Designed Assessments had several *Elements* that could be examined to determine if a test is accessible. These elements were:

- Universally designed assessments are designed for an inclusive population.
- Universally designed assessments have precisely defined constructs.
- Universally designed assessments have accessible, non-biased items.
- Universally designed assessments are amenable to accommodations.
- Universally designed assessments provide simple, clear, and intuitive instructions and procedures.
- Universally designed assessments contain language and print that are maximally readable and comprehensible.
- Universally designed assessments have print and diagrams that are maximally legible.

In an effort to implement the above *Elements*, Thompson, Johnstone, Anderson, and Miller (2005) surveyed experts in a variety of fields. Through a series of Delphi surveys, Thompson et al.’s (2002) *Elements* were transformed into a series of *Considerations*, which could be used for item review purposes. This process also includes cognitive lab exercises with students and statistical analysis of items.

Expert reviews using UDA considerations are one part of a larger item review process (described by Johnstone et al., 2008). For 2008 CAHSEE item review, the process involved a UDA evaluation by panels of experts. These evaluations were then compared with field-based study evidence alongside a content alignment evaluation.

Overview of Study

The process of reviewing items for UDA considerations is typically a full-day activity. The UDA process is similar to the way in which states and vendors conduct sensitivity reviews of test items to ensure that they align with content standards and are not biased against particular populations.

The participants in the UDA workshop were teachers with mathematics (n = 8) or Language Arts (n = 11) backgrounds who had experience in general, special, and Deaf education. The review began by familiarizing participants with NCEO's considerations for Universally Designed assessments, which take into account several features of assessment accessibility. Considerations include: items measuring their intended constructs, items that respect diversity, items that have clear formats for text, items that have clear pictures and graphics, and items that are both readable and comprehensible. Thompson et al. (2005) provide details on these considerations for universally designed assessments in Table 2.10:

Table 2.10. Considerations for Universally Designed Assessments

Consideration	Description
1	<p>Does the item measure what it intends to measure?</p> <ul style="list-style-type: none"> • Reflects the intended content standards (reviewers have information about the content being measured) • Minimizes skills required beyond those being measured
2	<p>Does the item respect the diversity of the assessment population?</p> <ul style="list-style-type: none"> • Is accessible to test takers (consider gender, age, ethnicity, socio-economic level) • Avoids content that might unfairly advantage or disadvantage any student subgroup
3	<p>Does the item have concise and readable text?</p> <ul style="list-style-type: none"> • Uses common words • Employs vocabulary appropriate for grade level • Minimizes use of unnecessary words • Avoids idioms unless idiomatic speech is being measured • Avoids or defines technical terms and abbreviations not related to the content being measured • Uses sentence complexity appropriate for grade level • Clearly identifies question to be answered
4	<p>Does the item have clear format for text, using:</p> <ul style="list-style-type: none"> • Standard typeface • Twelve (12) point minimum for all print, including captions, footnotes, and graphs (type size appropriate for age group) • Wide spacing between letters, words, and lines • High contrast between color of text and background • Sufficient blank space (leading) between lines of text • Staggered right margins (no right justification)
5	<p>Does the item have clear visuals (when essential to item)?</p> <ul style="list-style-type: none"> • Use of pictures when needed to respond to item • Use of pictures with clearly defined features • Dark lines (minimum use of gray scale and shading) • Sufficient contrast between colors • Avoidance of relying on color to convey important information or distinctions • Labeling of pictures and graphs
6	<p>Does the item allow the following changes to its format without changing its meaning or difficulty (including visual or memory load)?</p> <ul style="list-style-type: none"> • Use of Braille or other tactile format • Signing to a student • Use of oral presentation to a student • Use of assistive technology • Translation into another language

Next, teachers reviewed items using a form designed to facilitate easy item rating by consideration (see Appendix B). As part of the review, each participant was asked to individually rate items on their fidelity to universal design considerations based on a rubric. For each item, teachers rated items as a “2” (if the test item appeared to have fidelity to the universal design consideration), a “1” (if the item met the basic requirements of the universal design principle, but could have been improved), or a “0” (if the item did not meet the requirements of a universal design consideration). Reviewers were also given the option of choosing “DK” (meaning “Don’t Know” if the rater could not comment on a particular consideration) or “NA” (if the consideration was not applicable, e.g., if there was not a visual image in an item).

For each item, teachers provided a fractional total, based on the total number of points possible (denominator) and the number of points awarded (numerator). For example, a rater who rated all considerations would have had a denominator of 12 points for each item, but if the rater answered “DK” for one consideration, the denominator would be only 10 points.

Raters’ fractional scores were converted to decimals. For the purposes of this analysis, items were organized into four categories based on resulting scores. These categories and corresponding scale range of scores included:

Category	Scale Range
Excellent	0.90 to 1.00
Good	0.80 to 0.89
Acceptable	0.67 to 0.79
Questionable	less than 0.66

Items with scores of 0.9 to 1.0 were considered “excellent,” items with scores of 0.8 to 0.89 were considered “good,” items with scores of 0.67 to 0.79 were considered “acceptable,” and items with a score of 0.66 or below were considered “questionable.”

Teachers also made qualitative comments on each item to substantiate their ratings. Qualitative comments were grouped according to the consideration to which they referred. When teachers completed the quantitative and qualitative item review, they were placed into small groups by content expertise. In these groups, teachers discussed major themes of the test.

The combination of qualitative and descriptive statistical information provides insights into the overall perception of teachers about CAHSEE’s fidelity to UDA considerations. Results are reported below, and recommendations are made for the State of California in reference to UDA considerations for the CAHSEE.

Results of Universal Design Evaluation

Mathematics Assessment. Mathematics teachers rated items very high, with 45 items rated “excellent,” 32 items rated “good,” 14 items rated “acceptable,” and just one item marked “questionable.” Item means (as rated by teachers) ranged from 0.59 to 0.96 with, as is evident in Table 2.11, most items were in the range of 0.8 or above (category of “good” or “excellent”). Figure 2.1 represents an item-by-item look at how teachers rated items for UDA fidelity.

Table 2.11. Math Items by Category

Rating Categories	Number of Items per Category	Sequential Item Number	Percentage of Items per Category
Excellent	45	3, 4, 7, 14, 16, 19, 22, 25, 28, 30, 35, 36, 37, 38, 39, 44, 45, 46, 47, 48, 52, 53, 54, 57, 58, 59, 61, 63, 67, 70, 71, 74, 75, 77, 79, 80, 81, 82, 83, 84, 85, 88, 89, 90, 92	49%
Good	32	1, 2, 6, 9, 10, 11, 12, 15, 17, 20, 24, 29, 31, 34, 40, 41, 42, 43, 50, 51, 55, 56, 62, 68, 69, 72, 73, 76, 78, 86, 87, 91	34%
Acceptable	14	5, 8, 13, 18, 21, 23, 26, 27, 32, 33, 60, 64, 65, 66	15%
Questionable	1	49	1%

The lowest scoring item on the mathematics test was Item 49. According to qualitative information, the item appeared to be testing reading comprehension rather than mathematics. In this item, seven out of eight teachers perceived the item to have poor readability. Teachers perceived this item to be “FAR too wordy for the underlying math” and a “bad question on a thousand levels!!!” It was clear that teachers perceived this item to be the most questionable on this test.

Nine items had a high mean of 0.96 (items 3, 14, 30, 36, 39, 47, 53, 83, and 92). Other items fell somewhere between 0.59 and 0.96 as shown in Figure 2.1.

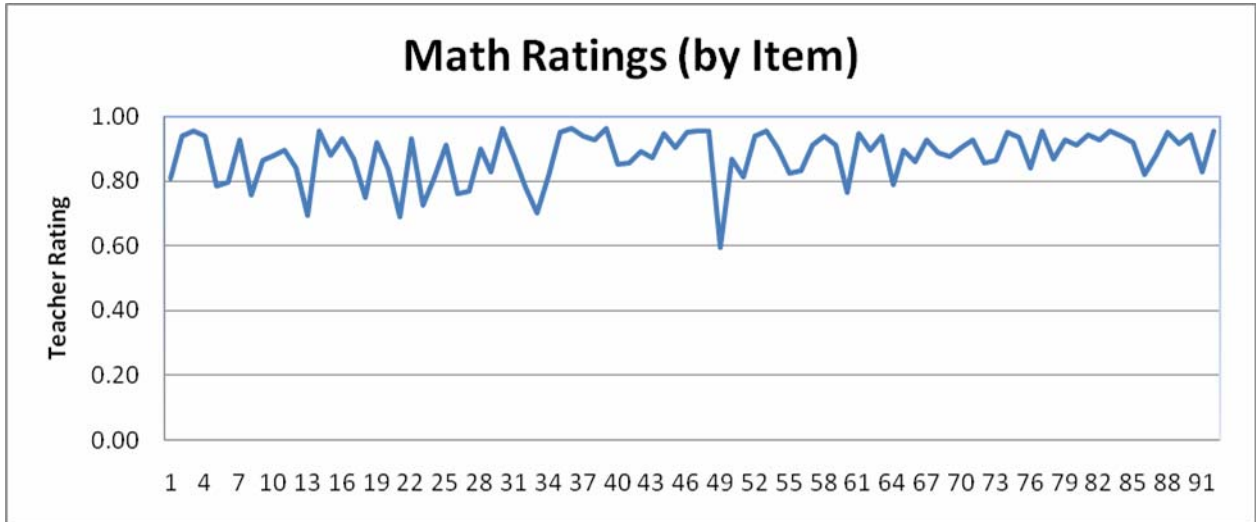


Figure 2.1. Mean Ratings per Mathematics Item

Overall, reviewers made 368 qualitative comments. These comments were qualitatively coded by consideration. For the mathematics test, *Consideration 1* (tests its intended constructs) accounted for 6.5 percent ($n = 28$) of total comments. *Consideration 2* (respects the diversity of the assessment population) accounted for 20.9 percent ($n = 77$) of comments. *Consideration 3* (item has concise and readable text) accounted for 42.9 percent ($n = 158$) of comments. *Consideration 4* (item has clear format for text) accounted for 9.2 percent ($n = 34$) of comments. *Consideration 5* (item has clear visuals) accounted for 18.2 percent ($n = 67$) of comments, and *Consideration 6* (item allows for changes to format without changing difficulty) had less than 1 percent ($n = 4$) of comments.

Figure 2.2 demonstrates the relative concern of teachers regarding the readability and concision of language used in test items. Although 7 of the 158 comments about readability were complimentary, this particular consideration appeared to be most worrisome for item reviewers.

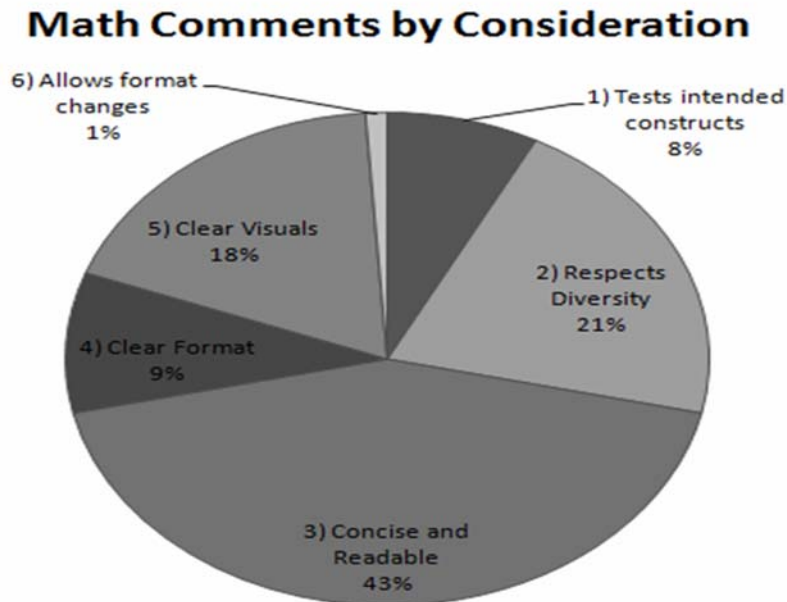


Figure 2.2. Math: Number of Comments per UDA Consideration

Teachers' concern about the wordiness of items was evident from qualitative information for *Consideration 3*. At least one comment per item was made relevant to the readability and comprehensibility of items 2, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 34, 35, 37, 38, 40, 41, 42, 43, 46, 49, 51, 52, 54, 56, 57, 58, 59, 60, 64, 66, 67, 68, 70, 72, 75, 76, 77, 78, 79, 80, 82, 84, 85, 86, 87, 88, 89, 90, 91. Illustrative comments for items from teachers were:

- Far wordier than necessary, to the point of burdensome compared to underlying math (Item 5)
- Reading load FAR harder than underlying math (Item 8)
- Far too technical and wordy to assess student knowledge (Item 87)

According to teachers, the mathematics test did an excellent job of aligning with standards and had strong visuals to support items. Teachers were concerned, however, that some items were excessively wordy and required vocabulary and reading loads that were beyond the purpose of this examination. These concerns were demonstrated in lower scores across all items. The mean score across *Consideration 3* was 0.80 compared to a mean score of 0.88 across all considerations, although both ratings fall into the category of 'Good'.

No raters commented at all on items 3, 36, 39, 47, 53, 83, and 92, implying general satisfaction. One reviewer said that No. 14 was a "good item, brief and to the

point.” Only one negative comment arose in all of the strong items listed above. One reviewer stated that the “label on top of the visual was unnecessary” for Item 30.

Between the lowest and highest scoring items were items deemed “acceptable.” While these items did not have the number (or strength) of comments found in the questionable item, teachers offered important perspectives on how the design of these items might be improved. Some of these comments were explicit to that item, but others were more broad or generalizable. Comments included:

- Numbers squeezed together, description in answers break over two lines making choices confusing (Item 5)
- Deaf person can't hear a bell (Item 8)
- The concept of college and registering for classes may not be familiar (Item 18)
- Question has colors and fashion. In my area the student will focus on that, not the math. Certain colors are not worn or matched (Item 21)
- Are students familiar enough with roller coasters to realize that seating order matters? (Item 26)
- "Pen" may not be in everyone's vocabulary as a holder for animals (Item 32)
- Cluttered and confusing diagram—not readily clear it is a 3-D object, lots of unnecessary lines (Item 64)

In summary, the teacher review of the mathematics assessment was positive. In general, teachers perceived the test to be accessible to a wide variety of students. Teachers were concerned most often that mathematics items did not have “concise and readable text,” one of the UDA considerations. The overall score for this consideration was lower than the average of all considerations and there were multiple instances of teachers marking items in this review. Therefore, it appears as if readability is the one area of moderate concern for an assessment that otherwise appeared to meet many of the UDA considerations.

English-language Arts assessment. Overall, the English-language arts (ELA) assessment had lower ratings than the mathematics assessment. According to the rating scale (page 15), ELA teachers considered 8 items (but no passages) “excellent,” 46 items and 1 passage “good,” 24 items and 9 passages “average,” and 5 items “questionable.” For the ELA assessment, analyses were performed on both the passages and the questions that followed them. Passages include a number corresponding with their placement in the assessment in relation to other passages (for example, Passage 6 is the sixth passage to appear in the assessment). Table 2.12 highlights the items found in each category.

Data from teacher ratings indicate that teachers generally believed that items adhered to universal design principles at varying levels, but that passages consistently did not. For example, one item was considered “questionable” (the rest were “acceptable,” “good,” or “excellent”). Only one passage, however, was considered “good” (the rest were scored as “acceptable” or “questionable”).

Table 2.12. ELA Items by Category

Rating Categories	Number of Items per Category	Sequential Item and Passage Number	Percentage of Items and Passages per Category	
			Items	Passages
Excellent	8	2, 4, 50, 65, 71, 75, 78, 79	10%	0%
Good	47	3, 6, 7, 8, 10, 11, 14, 18, 20, 21, 23, 26, 27, 28, 30, 32, 34, 35, 37, 39, 40, 41, 42, 43, 44, 45, 48, 49, 51, 52, 54, 55, 58, 59, 61, 63, 64, 66, 67, 68, 69, 70, 72, 73, 74, 77, passage 8	58%	7%
Acceptable	33	1, 5, 9, 12, 13, 15, 16, 17, 19, 22, 24, 25, 29, 31, 33, 36, 38, 46, 47, 56, 57, 60, 62, 76, passage 1, passage 2, passage 3, passage 5, passage 7, passage 9, passage 10, passage 11, passage 12	30%	69%
Questionable	5	53, passage 4, passage 6, passage 13	1%	23%

Item means ranged from 0.54 (Passage 4) to 0.92 (Item 50). More than half of the items and passages on the ELA test had mean ratings of between 0.8 and 0.89. Figure 2.3 demonstrates item-by-item scoring for the ELA test. Passages are interspersed among items on the graph below as they are in the assessment.

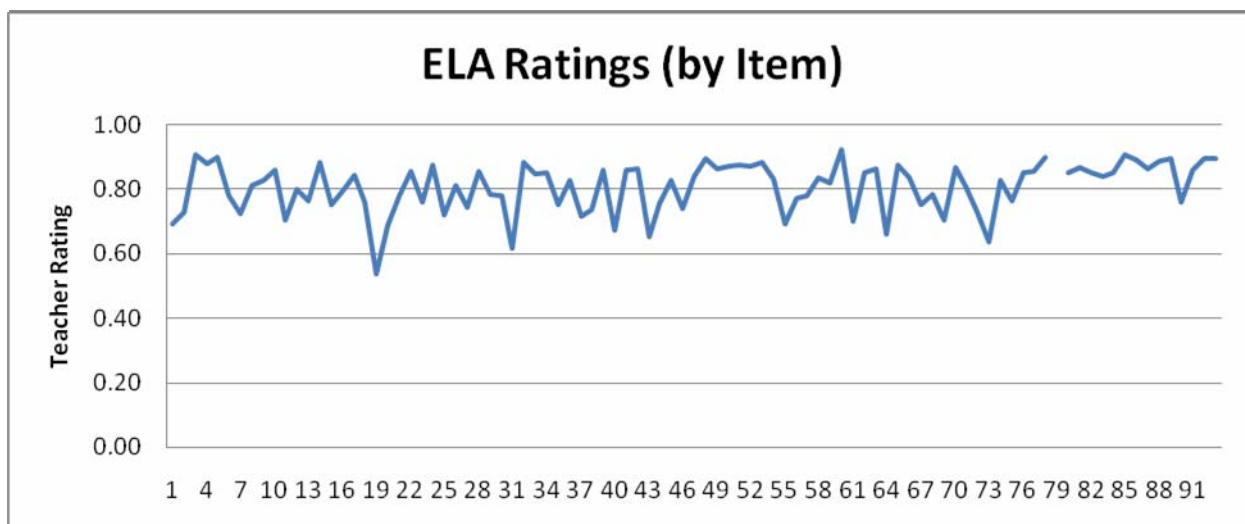


Figure 2.3. Mean Ratings per English-language arts Item

Among all ELA items, Item 50 had the highest overall rating from teachers (0.92). As with the mathematics test, teachers did not make any comments on this item. Item 50 demonstrates what appears to be a common phenomenon in item review processes – teachers tend to comment more when they have concerns about an item than when they feel satisfied that the item meets universal design principles.

The lowest scoring ELA item was Passage 4 (0.54). Seven of the 11 ELA raters made comments on this passage. In total, nine comments were made. Five of the comments related to respecting the diversity of the assessment population. For this passage, raters perceived the passage to be full of historical references, unfamiliar names (e.g., Knute Rockne), and idioms. One rater specifically said the content would be completely unfamiliar to inner city youth. Three raters also questioned the length of this passage.

In addition to Passage 4, raters also considered Item 53 and passages 6, 8, and 13 questionable. Raters commented that Item 53 tested idioms, not vocabulary. Passage 6 received nine comments from six different reviewers. Reviewers expressed concern that the name “Na” was similar to the word “no” and might cause an unnecessary challenge. Teachers also commented that the story itself was unrealistic and may even offend some cultural groups because it is so exaggerated. Two teachers also commented on the visuals, stating they were cramped and may be unnecessary.

Passage 8 had three comments from teachers. One teacher commented that some students might not know what Hollandaise sauce or Eggs Benedict are. The same teacher noted that the second section of the poem was visually crowded. Another teacher noted that the poem may need to be translated into American Sign Language for Deaf students, but did not elaborate on the implications of such translation. Finally,

Passage 13 had seven comments from five teachers; three teachers challenged the relevance of the topic. One teacher questioned the relevance of lighthouses, another questioned whether a passage about music concepts was appropriate for Deaf children, and a third simply said the content would be uninteresting to many students. Two teachers suggested adding a visual of a lighthouse to improve comprehension.

Although most of the “questionable” portions of this test were passages, several items and passages scored only in the range of “acceptable.” As with the mathematics assessment, items categorized as “acceptable” revealed interesting comments by raters, some of which were specific to that item but others more broad or generalizable. Comments included:

- Hearing impaired may have problems with finding "sound" word (Item 9)
- The words in the quote box are small and “smushed”. The 3 lines of bolded text are less easy to read. Lots of words in the question part (Item 15)
- Answer D would raise anxiety of EL's even though meant to be a distraction (Item 16). Sheepishly may favor native English Speakers (Item 31)
- Is [Authorial] Intervention a common device? (Item 38)
- Passage is loaded with foreign/difficult names and places. This is not necessary (Passage 3)

Teachers made 454 comments about the ELA assessment (86 more comments than on the math test). Among these comments, *Consideration 1* (Item Measures its Intended Construct), *Consideration 2* (Item Respects the Diversity of the Assessment Population), and *Consideration 3* (Item has Concise and Readable Text) drew 324 comments from teachers. Figure 2.4 demonstrates the relative number of comments between considerations made for this assessment.

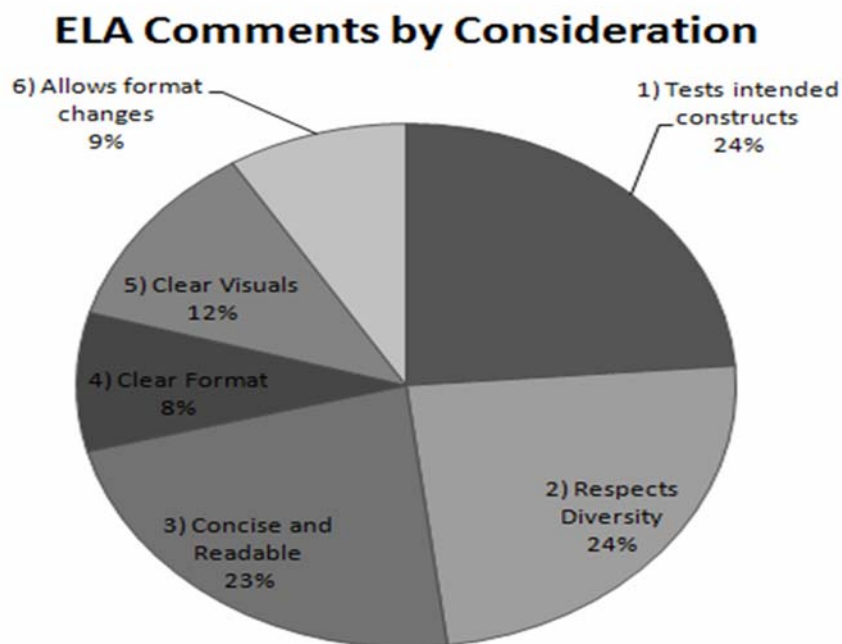


Figure 2.4. ELA: Number of Comments per UDA Consideration

Of comments made by reviewers, 24 percent ($n = 108$) pertained to poor measurement of intended constructs by items (*Consideration 1*). Among these, one comment was positive, stating that Passage 2 was a “good length” for students. For this consideration, at least one perceived design issue was present in items 1, 5, 6, 7, 10, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 24, 25, 26, 27, 29, 33, 35, 38, 39, 40, 41, 42, 46, 47, 49, 51, 52, 54, 56, 57, 59, 60, 61, 62, 63, 64, 65, 71, 72, 74, 79, and passages 2, 4, and 10. Illustrative comments made about this consideration were:

- No clear standard match (Item 6)
- Answer choices are not all literary devices (Item 28)
- Did not see this in standards (Item 74).

The average rating for an item for this consideration was 0.80. This figure was slightly lower than the overall mean item score of 0.81.

The area of the test with the highest frequency of comments was *Consideration 2* (item respects diversity of assessment population). This consideration drew 24 percent ($n = 110$) of the total comments from teachers. For this consideration, items 1, 8, 9, 12, 15, 16, 17, 19, 21, 22, 24, 29, 30, 31, 33, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 51, 52, 53, 55, 56, 57, 59, 60, 61, 62, 64, 68, 69, 70, 74, 76, 79, and passages 1, 3, 4, 6, 7, 8, 9, 10, 13, and 14, and the writing prompt were highlighted as items and

passages that may not respect the diversity of the assessment population. Illustrative comments for this consideration include:

- ELs will not understand an idiom in the Writing Prompt.
- Choices are not words known by all students, especially choices A and D. This is not vocabulary knowledge — it is slang (Item 53)
- Take out references to skyscraper, canyons, TV dinners, skylights, rustle, and tweak. All are likely unfamiliar to particular students (Passage 1)

Overall, items received an average score of 0.77 for this consideration, which is lower than the overall item mean average of 0.81.

Consideration 3 received 23 percent ($n = 104$) of the total number of comments, all of which questioned the conciseness and readability of text. For this consideration, items 1, 6, 7, 8, 9, 11, 12, 13, 14, 16, 19, 20, 21, 22, 24, 29, 30, 31, 25, 26, 38, 39, 46, 47, 49, 51, 53, 54, 57, 58, 60, 61, 62, 63, 64, 65, 66, 67, 69, 72, 73, 76, and passages 3, 4, 5, 10, 11, and 12 all received comments. Illustrative comments for this consideration include:

- Define “memorandum” for students. They are likely familiar with the shorter “memo” (Item 12)
- Dense vocabulary surrounds this question as well as part of the answer needed is found in the preceding paragraph (Item 22)
- Olympic passage contains many difficult names that are distracters and not necessary to know to answer questions but will truly slow students reading (Passage 2)

Although teachers expressed qualitative concerns, the overall mean for all items for this consideration was 0.85 (which was higher than the overall item mean of 0.81). It is possible that teachers found multiple instances of items that did not have concise and readable text, but that this text did not affect the item in a more negative way than not meeting other considerations.

In summary, teachers made more comments about the ELA assessment than the mathematics assessment (although differences may reside in differences between raters with different content knowledge). Concerns appeared to be generally centered on the reading passages ($n=4$ of 12), not items. Teachers questioned the selected passages for their relevance (and respect) of the assessment population and for the readability of text.

Likewise, teachers questioned the writing passage. Although teachers did not have the opportunity to rate the writing passage quantitatively, they discussed it as a group in the overall test analysis. When meeting in small groups, both groups agreed that the writing prompt may have introduced cultural bias (“city” reference) and had an unclear link to standards.

The average item received a rating of 0.88 across considerations for the mathematics assessment and 0.81 across considerations for the ELA assessment. This may demonstrate a consensus among raters that the ELA assessment (especially with the inclusion of the reading passages) was of more concern as far as meeting the considerations of UDA than the mathematics test. Still, ELA teachers perceived almost all items as acceptable overall, with 61 percent of items “excellent” or “good.”

Summary and Recommendations on Review of Universal Design

Overall, all teachers believed the CAHSEE items were generally acceptable in terms of their universal design characteristics. Most items were classified as “good” or “excellent” based on teacher responses. The overall assessment of teachers appears to be positive of the CAHSEE, with the mathematics assessment standing out as very acceptable to teachers. ELA teachers perceived items to be generally acceptable, but passages were questionable. In the quest for constantly improving assessments, there are ongoing needs that can be addressed (such as language load in mathematics items, cultural relativity of reading passages and items, and the language related to the writing prompt) to improve the validity of this assessment for all students. With these improvements, and with the positive steps that were evident in this review, the CAHSEE will continue to improve its accessibility for all students.

Recommendations. As California moves into its next versions of the CAHSEE, we recommend that the California Department of Education undertake the following tasks to ensure continued fidelity toward universal design principles.

- (1) *Place mathematics Item 49 under close scrutiny.* If this item appears to show bias against any population of students by another analysis (e.g., Differential item functioning – DIF), it is a candidate for removal from the assessment.
- (2) *Reexamine the language requirements for the mathematics assessment.* Although teachers generally rated this assessment positively, teachers were frequently concerned that the items were too “wordy” and that vocabulary demands of items were unnecessarily high.
- (3) *Reexamine the items ranked as “questionable” on the ELA assessment.* ELA Item 53 and passages 4, 6, 8, and 13 require such an inspection.
- (4) *Form a “passage review” group at the state level that examines a wide variety of passages available for the CAHSEE.* This group would act much the same way as an item sensitivity review panel, but would specifically look for

passages that do not introduce experiential bias and have appropriate reading loads for this exam.

- (5) *Rewrite the prompt for writing so that it has a more common cultural focus than it currently does.*
- (6) *Continue internal practices that seek to align the CAHSEE with UDA principles.* These practices were evident in most of the mathematics items and many of the ELA items.

Analyses of Test Scores

HumRRO undertook a number of activities to evaluate statistical characteristics of the test scores, including reviewing results from form equating, analyzing the consistency of essay scores generated by independent readers, and assessing the accuracy of pass-fail decisions made on the basis of the scores.

Equating the 2008 Test Forms

After each test administration, ETS analyzes item response patterns to determine the exact difficulty of each test question and then equates scores from the new administration to scores from prior test administrations. The result of this equating is a conversion table showing the scale score to be reported for each number-correct (raw) score. The equated scale scores for a given number-correct score vary slightly across test forms reflecting slight differences in the difficulty of achieving the number correct score on each of the test forms. In 2007, HumRRO independently replicated ETS' equating analyses for one administration (Wise & Rui, 2007) and found exact agreement. Given this confirmation of the equating process, it was not deemed necessary to repeat independent equating checks for each subsequent administration. Tables 2.13a and 2.13b show the raw-to-scale score conversions used for each of the 2007–08 test forms.

Table 2.13a. Raw-to-Scale Score Conversions for the 2007–08 ELA Tests

Raw Score	Scale Score							Raw Score	Scale Score						
	Jul 07	Oct 07	Nov 07	Dec 07	Feb 08	Mar 08	May 08		Jul 07	Oct 07	Nov 07	Dec 07	Feb 08	Mar 08	May 08
0-15	275	275	275	275	275	275	275	51	344	340	340	342	340	341	342
16	276	275	275	275	275	275	275	52	346	342	342	344	342	343	344
17	278	275	275	275	275	275	276	53	348	344	344	346	344	345	346
18	280	276	277	275	276	276	278	54	350	346	346	348	346	347	348
19	282	278	279	275	279	278	280	55	352	348	348	350	348	349	350
20	285	280	281	278	281	280	282	56	354	350	350	352	350	351	352
21	287	282	283	280	283	283	285	57	356	352	352	354	352	353	354
22	<u>289</u>	<u>284</u>	<u>286</u>	<u>282</u>	<u>285</u>	<u>285</u>	<u>287</u>	58	358	354	354	356	354	356	356
23	291	286	288	284	287	287	289	59	360	356	356	359	357	358	358
24	293	288	290	286	289	289	291	60	362	359	358	361	359	360	361
25	295	290	292	289	291	291	293	61	365	361	361	363	361	362	363
26	297	292	294	291	293	293	294	62	367	363	363	365	363	365	365
27	299	294	295	293	295	294	296	63	369	365	365	368	366	367	368
28	301	296	297	295	297	296	298	64	371	368	368	370	368	369	370
29	303	298	299	297	299	298	300	65	374	370	370	372	371	372	372
30	304	300	301	299	301	300	302	66	376	372	373	375	373	374	375
31	306	302	303	302	303	302	304	67	378	375	375	377	376	377	377
32	308	304	305	304	305	304	306	68	381	377	378	380	379	380	380
33	310	306	306	306	306	306	308	69	383	380	381	382	381	382	383
34	312	308	308	308	308	308	309	70	386	383	383	385	384	385	385
35	314	309	310	310	310	310	311	71	389	386	386	388	387	388	388
36	316	311	312	312	312	312	313	72	392	388	389	391	390	391	391
37	318	313	314	314	314	314	315	73	395	391	392	394	394	394	394
38	320	315	316	316	315	315	317	74	398	395	396	397	397	397	398
39	321	317	317	318	317	317	319	75	401	398	399	401	400	401	401
40	323	319	319	320	319	319	321	76	404	401	402	404	404	404	404
41	325	321	321	322	321	321	322	77	408	405	406	408	408	408	408
42	327	323	323	324	323	323	324	78	412	408	410	412	412	412	412
43	329	324	325	326	325	325	326	79	416	412	414	416	417	417	416
44	331	326	326	328	326	327	328	80	420	417	419	421	422	421	421
45	333	328	328	330	328	329	330	81	425	421	424	426	427	426	426
46	335	330	330	332	330	331	332	82	430	426	429	432	433	432	431
47	337	332	332	334	332	333	334	83	436	432	435	438	439	438	437
48	338	334	334	336	334	335	336	84	442	438	441	445	446	444	443
49	340	336	336	338	336	337	338	85	449	444	448	450	450	450	450
50	342	338	338	340	338	339	340	86-90	450	450	450	450	450	450	450

Note. Outlined numbers reflect minimum scores for passing the diploma requirement (the first number in each column) and for proficiency as used in school accountability (the second number); bold underlined scale scores indicate expected scores from guessing alone (chance).

Table 2.13b. Raw-to-Scale Score Conversions for the 2007–08 Mathematics Tests

Raw Score	Scale Score							Raw Score	Scale Score						
	Jul 07	Oct 07	Nov 07	Dec 07	Feb 08	Mar 08	May 08		Jul 07	Oct 07	Nov 07	Dec 07	Feb 08	Mar 08	May 08
0-9	275	275	275	275	275	275	275	44	354	351	352	354	354	354	352
10	279	276	276	278	278	278	278	45	356	353	354	356	355	355	353
11	283	280	280	282	282	281	281	46	358	355	356	358	357	357	355
12	286	283	284	285	286	285	285	47	360	356	357	360	359	359	357
13	290	286	287	289	289	288	288	48	361	358	359	362	361	361	359
14	293	289	290	292	292	291	291	49	363	360	361	364	363	363	361
15	296	292	293	295	295	294	294	50	365	362	363	366	365	365	363
16	298	295	296	298	298	297	297	51	367	364	365	368	367	367	364
17	301	298	298	300	300	300	299	52	369	366	367	369	368	369	366
18	304	300	301	303	303	302	302	53	371	368	369	371	370	371	368
19	306	303	303	305	305	305	304	54	373	370	371	374	372	373	370
20	<u>308</u>	<u>305</u>	<u>306</u>	<u>308</u>	<u>308</u>	<u>307</u>	<u>306</u>	55	375	372	373	376	374	375	372
21	311	307	308	310	310	309	309	56	377	374	375	378	376	377	374
22	313	310	310	312	312	312	311	57	379	376	377	380	379	379	376
23	315	312	313	314	314	314	313	58	381	378	379	382	381	381	378
24	317	314	315	317	316	316	315	59	383	380	381	384	383	383	381
25	319	316	317	319	319	318	317	60	386	382	384	387	385	386	383
26	321	318	319	321	321	320	319	61	388	385	386	389	388	388	385
27	323	320	321	323	323	322	321	62	390	387	388	392	390	390	387
28	325	322	323	325	325	324	323	63	393	390	391	394	393	393	390
29	327	324	325	327	326	326	325	64	395	392	394	397	395	396	393
30	329	326	327	329	328	328	327	65	398	395	396	400	398	398	395
31	331	328	328	331	330	330	329	66	401	398	399	403	401	401	398
32	333	329	330	332	332	332	331	67	404	401	402	406	404	404	401
33	335	331	332	334	334	334	332	68	407	404	406	409	407	408	404
34	336	333	334	336	336	335	334	69	411	408	409	413	411	411	408
35	338	335	336	338	338	337	336	70	414	412	413	416	414	415	411
36	340	337	338	340	339	339	338	71	418	416	417	420	418	419	415
37	342	338	339	342	341	341	339	72	423	420	421	425	423	423	420
38	344	340	341	343	343	343	341	73	428	425	426	430	428	428	425
39	345	342	343	345	345	345	343	74	433	431	432	436	433	434	430
40	347	344	345	347	347	346	345	75	440	437	438	442	440	441	437
41	349	346	347	349	348	348	346	76	447	445	446	450	447	448	445
42	351	347	348	351	350	350	348	77-80	450	450	450	450	450	450	450
43	352	349	350	353	352	352	350								

Note. Outlined numbers reflect minimum scores for passing the diploma requirement (the first number in each column) and for proficiency as used in school accountability (the second number); bold underlined scale scores indicate expected scores from guessing alone (chance).

Scoring Consistency

For the 2007–08 test administrations we once again analyzed the degree of consistency in the scoring of student essays. Prior to the 2003–04 school year each student taking the ELA test was required to write two essays, the first involving analysis of an associated text and the second in response to a freestanding question that did not involve text processing. Beginning in 2004, the ELA test was shortened and students were required to write only one essay. In the 2004–05 test year the type of essay prompt varied across administrations. In the 2005–06 through 2007–08 testing years, stand-alone prompts were used in each administration.

As in prior years, each essay was graded by at least two different raters following a four-point rubric that indicated the essay response characteristics required for each score level. Four was the highest score; a score of zero was assigned to responses that were off-topic, illegible, or left blank. Since the scoring rubrics vary from question to question, we monitored the level of agreement between independent raters for the question used with each administration. Table 2.14 shows, for the 2007–08 test forms and for test forms from prior years: (a) how often (what percent of the time) there was exact agreement, (b) how often there was a difference of just one score point, and (c) how often there was a difference of more than one score point. Whenever there was an initial difference of more than one score point, the essay was read again by a third, more experienced reader and, if necessary, a fourth so that all operational scores resulted from two raters who agreed to within a single score point.

This year, we again analyzed scoring consistency separately for 10th, 11th, and 12th grade students. While the questions and the scoring process were identical for these groups, the quality of the papers they produced was not. Tenth grade students generated many more essays rated as 3 or 4 in comparison to 11th and 12th grade students. The greater range of scores increases the possibility of disagreements by more than one point.

Overall agreement rates were lower compared to last year for 10th and 11th graders, particularly for 10th graders. The exact agreement rate for 10th graders dropped from 69.9 to 67.2 percent while disagreement by more than one score point rose from 0.4 to 0.9 percent. The exact agreement rate for 11th graders dropped slightly from 77.4 to 76.8, while the agreement rate for 12th graders was essentially unchanged. In all cases, the agreement rates remained substantially higher than the rates for the 2005–06 CAHSEE administration. Previously, we suggested targets of at least 70 percent exact agreement with no more than 0.5 percent disagreement by more than one score point. ETS did not quite meet these targets in the 2007–08 testing year. ETS may wish to review their scorer training and monitoring processes to see if further improvements are possible.

Table 2.14. Scoring Consistency for Student Essays

Admin.	10th Grade			11th Grade			12th Grade		
	Percent Exact Agreement	Percent +/-1 Score Point	Percent > 1 Score Point	Percent Exact Agreement	Percent +/-1 Score Point	Percent > 1 Score Point	Percent Exact Agreement	Percent +/-1 Score Point	Percent > 1 Score Point
All 2004-05	66.5	32.6	0.9	70.3	28.8	0.9			
All 2005-06	66.9	32.4	0.7	73.5	26.1	0.4	73.6	26.0	0.4
All 2006-07	69.9	29.7	0.4	77.4	22.5	0.2	77.7	22.0	0.3
July 2007							75.6	24.1	0.3
October 2007				75.1	24.5	0.3	76.5	23.2	0.3
November 2007				75.2	24.4	0.4	76.0	23.5	0.4
December 2007				75.8	23.6	0.6	82.1	17.7	0.1
February 2008	66.6	32.2	1.1	76.3	23.0	0.7	76.8	22.4	0.8
March 2008	67.1	32.0	0.8	80.0	19.7	0.3	80.6	19.2	0.3
May 2008	75.8	23.9	0.3	80.5	19.3	0.2	82.8	17.1	0.1
All 2007-08	67.2	31.9	0.9	76.8	22.8	0.4	77.9	21.7	0.4

Tables 2.15 through 2.17 provide more detailed information on scores assigned by each of the two independent raters for 10th graders, 11th graders, and 12th graders in the 2006–07 administrations. There was near perfect agreement on the essays judged to be unscorable (score level 0). There was generally good agreement on essays assigned to score levels 1 through 3. If the first reader assigned a score at one of these levels, the second reader was most likely to assign the same score. For 11th and 12th graders, most of whom had taken but not passed the ELA test previously, very few essays were assigned a score of 4. For all three grades, agreement at the highest level was lower than at other levels. If the first reader assigned a score of 4, the second reader was most likely to assign a score of 3. Nearly all of the serious disagreements involved one rater assigning a score of 2 and the other a score of 4.

Table 2.15. Percent of 10th Grade Essays Assigned Each Score Level by Each Rater in the February Through May 2008 Administrations

First Rater	Second Rater				
	0	1	2	3	4
0	1.48	0.05	0.03	0.00	0.00
1	0.05	1.86	1.25	0.02	0.00
2	0.02	1.23	39.37	11.49	0.40
3	0.00	0.02	11.74	22.41	2.98
4	0.00	0.00	0.42	3.11	2.06
Average score from first rater					2.4
Average score from second rater					2.4
Percent Exact Agreement (sum of diagonal elements)					67.4
Percent with differences greater than one point					0.9

Note. Bolded numbers indicate perfect agreement between the two raters.

Table 2.16. Percent of 11th Grade Essays Assigned Each Score Level by Each Rater in the 2007–08 Administrations

First Rater	Second Rater				
	0	1	2	3	4
0	4.51	0.06	0.02	0.00	0.00
1	0.06	6.72	4.14	0.04	0.00
2	0.02	3.98	59.42	6.79	0.14
3	0.00	0.04	6.81	5.89	0.46
4	0.00	0.00	0.13	0.50	0.26
Average score from first rater					1.9
Average score from second rater					1.9
Percent Exact Agreement (sum of diagonal elements)					76.8
Percent with differences greater than one point					0.4

Note. Bolded numbers indicate perfect agreement between the two raters.

Table 2.17. Percent of 12th Grade Essays Assigned Each Score Level by Each Rater in the 2007–08 Administrations

First Rater	Second Rater				
	0	1	2	3	4
0	4.51	0.07	0.05	0.00	0.00
1	0.06	6.51	4.35	0.04	0.00
2	0.04	4.15	62.11	6.15	0.11
3	0.00	0.05	6.21	4.57	0.33
4	0.00	0.00	0.11	0.36	0.22
Average score from first rater					1.9
Average score from second rater					1.9
Percent Exact Agreement (sum of diagonal elements)					77.9
Percent with differences greater than one point					0.4

Note. Bolded numbers indicate perfect agreement between the two raters.

Test Administration

When the CAHSEE was first being administered, HumRRO observed a number of test administrations to evaluate the appropriateness and consistency of test administration procedures. This year, HumRRO once again observed one of the March 2008 test administrations in a school with a moderate number of English learners. Key findings from our observation included:

- **Participation:** Of the 537 10th graders scheduled to be tested, all but 33 were present and took the ELA test; all but 27 took the mathematics test.
- **Materials:** Arrived, as scheduled, the week prior to testing.
- **Security:** Test materials were stored in a secure location and appropriate sign-out procedures were used to protect security during administration. Materials were boxed and sealed at the end of the final day of testing.
- **Training.** All proctors participated in a 58-minute training session one week prior to the testing session. A video prepared by ETS was not used as many proctors had seen it previously.
- **Communication with Students.** Notices in both English and Spanish were sent in advance to parents of the students to be tested, followed by an auto-dialed reminder the day before testing. Names of students to participate in each testing session were posted on the testing rooms.
- **Administration.** Rooms were adequate and there were no problems with noise or other conditions. No outside visitors were allowed in the testing rooms (with the exception of the HumRRO observer).
- **Accommodations.** Some students participated in small group administrations, and several were given extra time.
- **Student Motivation.** With the possible exception of one special education student, all were engaged and appeared to work hard in answering the CAHSEE test questions.

The test coordinator suggested a few areas where additional support might be useful. These include:

- Provide a multi-line phone in testing room – communication with proctors difficult with single line.
- Provide release time for the test coordinator to prepare (could use about 2 days, the Thursday Friday of the week prior)
- Make funds available for substitutes that could be hired for the testing days to free strong teachers to proctor.
- ETS training video has “anesthetic properties” – suggest creating new Power Point that includes examples of documents.

Chapter 3: Results from the 2007–08 Administrations

Lauress L. Wise

Introduction

The legislation establishing the CAHSEE called for the first operational forms of the exam to be administered in Spring 2001 to 9th graders in the Class of 2004. At the first administration 9th graders could volunteer, but were not required, to take both portions of the exam. Students who did not pass the exam in that administration were required to take the exam as 10th graders in Spring 2002. Preliminary results from the CAHSEE Spring 2001 and 2002 administrations were reported in the 2001 and 2002 evaluation reports (Wise et al., June 2001; Wise et al., June 2002b). Results from the 2001 administration were reported more fully in the first of the biennial evaluation reports to the Legislature, the Governor, the Board, and the CDE (Wise et al., Jan. 2002a).

The CAHSEE was administered six more times from July 2002 through May 2003 to students in the Class of 2004 who had not yet passed one or both parts. In addition, students from the Class of 2005 were required to take the CAHSEE for the first time as 10th graders in March or May of 2003. Analyses of results from these administrations were reported in the 2003 evaluation report (Wise, et al., Sep. 2003) and in the second biennial evaluation report (Wise et al., 2004).

Subsequent to the 2003 administrations, the requirement to pass the CAHSEE was deferred to the Class of 2006. In 2004, the CAHSEE was modified slightly and administered in Spring 2004 to all 10th graders in the Class of 2006. Results from the 2004 administrations were reported in Chapter 2 of the 2004 evaluation report (Wise, et al., Sep. 2004).

The 2004–05 administrations included both 10th graders in the Class of 2007 taking the CAHSEE for the first time and 11th graders in the Class of 2006 who had not passed the CAHSEE as 10th graders. The 11th graders took the CAHSEE one or more times in September 2004, November 2004, February 2005, March 2005, and May 2005. The 10th graders participated in the February, March, or May 2005 administrations. In addition, a small number of adult education students took the CAHSEE during the 2004–05 school year. Analyses of results from the 2004–05 administrations were reported in Chapter 3 of the 2005 evaluation report (Wise, et al., Sep. 2005).

The 2005–06 CAHSEE administrations included 10th graders in the Class of 2008, 11th graders in the Class of 2007, and 12th graders in the Class of 2006. Except for students in special education programs who could meet the CAHSEE requirement in other ways, 12th graders who still had not passed the CAHSEE by the end of the 2005–06 test year were denied diplomas. Analyses of results from the 2005–06 administrations were reported in Chapter 2 of the 2006 evaluation report (Wise, et al., Sep. 2006).

Last year's 2006–07 CAHSEE administrations were more complex still. Three separate classes of high school students, 2007 through 2009, as well as many students from the Class of 2006 who did not pass the CAHSEE by the end of their senior year, took the tests. Essentially, all 10th grade students in the Class of 2009 were tested for the first time in February, March, or May of 2007. Eleventh grade students in the Class of 2008 who had not yet passed the CAHSEE had multiple opportunities to take the CAHSEE in the July, October, November, or December 2006 administrations and in the February, March, or May 2007 administrations. Twelfth grade students in the Class of 2007 who still needed to pass the CAHSEE had as many as three opportunities to take the CAHSEE during these same administrations. In addition, many students from the Class of 2006 continued to take the CAHSEE, either as repeat 12th graders or as adult education students. In 2002, a law suit (Kidd et al. vs O'Connell et al.; formerly referred to as the Chapman case) was filed on behalf of students with disabilities. While the suit was pending, the parties agreed that students with disabilities in the Classes of 2006 and 2007 could receive a diploma even if they did not pass the CAHSEE as long as they met other requirements, although many of these students continued to take the CAHSEE. A final settlement was reached in March 2008 (Judicial Council Proceeding 4468) reinstating the requirement that students with disabilities pass the CAHSEE and requiring the Department to conduct a study of students with disabilities who are unable to pass. Results from the 2006-07 CAHSEE administrations were reported in our annual report (Becker and Watters, 2007). All of these reports are available on the CDE Web site at <http://www.cde.ca.gov/ta/tg/hs/evaluations.asp>.

Analyses of results from the 2007–08 CAHSEE administrations are organized around four main questions:

1. How many students from the classes of 2006 and 2007 who had not met the CAHSEE requirement continued to try to pass the CAHSEE? How many of them passed?
2. How many first-time 12th graders in the Class of 2008 who had not passed the CAHSEE were able to pass in their senior year, and how many did not meet the CAHSEE requirement by June 2008? How did these numbers compare to last year's results for the classes of 2006 and 2007?
3. How did performance improve for 11th graders in the Class of 2009 who had not yet passed the CAHSEE and what can we expect for those who have not yet passed by the end of 11th grade? Also, how did improved performance for 11th graders in the Class of 2009 compare to improvements seen last year for 11th grade students in the classes of 2006 through 2008?
4. How did this year's results for 10th graders in the Class of 2010 compare to results for the classes of 2005 through 2009 when those students took the CAHSEE for the first time as 10th graders in 2003 through 2007 respectively?

Each of these questions is answered for students in specific demographic categories defined by gender, race/ethnicity, economic disadvantage, and English-learner or

special education status. Results for adult education students are reported briefly, but are not the primary policy focus of these analyses except for adult education students who were previously in the classes of 2006 or 2007.

Test Result Data

Two sources of data were used to analyze CAHSEE test results. First, following each test administration, we received final item analyses files from the testing contractor, Educational Testing Service (ETS). These data were analyzed and documented in brief reports with cumulative results through each separate administration. These data files contain test item and student questionnaire responses for each student who took the CAHSEE, but do not include corrections to demographic information and may exclude a small number of students whose test results were not processed in time to be included in these files.

The second source was a complete, end-of-year detail file, also supplied by ETS. This file contained preliminary, but not final corrections to demographic information and included records for additional students not included on the item analysis files. The detail file does not, however, contain responses to individual test questions or to the student questionnaire.

Appendix D contains detailed information on the processes used to merge and cross-check data from each administration and from the end-of-year detail file. Merging records across and within test administrations was necessary because many students, particularly 11th and 12th grade students, have participated in more than one administration during 2007–08 and a few students used two different answer sheets during the same administration. We also had to merge test results from the 2007–08 administrations with results from prior years to identify students who passed different parts in different test years.

Table 3.1 shows estimates of the number of different students in each grade who participated in the 2007–08 CAHSEE administrations. These numbers are estimates because, as described in Appendix D, the merging process is inexact. Student identifiers are sometimes missing or incorrectly entered and other demographic information also used in the matching process is sometimes coded differently on different test records. These counts exclude students with completely blank answer sheets who likely were absent or had left the school after the pre-ID process.

Table 3.1 also shows the number of students in each grade for whom prior-year records were found. For the 10th graders, a very small number (less than 2%) had prior-year records, most having repeated 10th grade. Similarly, fewer than half of the adult education students tested in prior years. We found prior-year records for over 80 percent of the 11th and 12th graders. We were unable to find records for some 11th and 12th graders because they were new to the state, skipped over the 10th grade, or did not take the CAHSEE in earlier years due to absences or for other reasons. Records were also not found for other 11th and 12th graders because of differences or errors in coding student identifiers and other key demographic information. Unfortunately, it is not

possible to estimate the relative frequency of each of the different reasons for missing prior-year data. Treatment of current-year records with missing prior-year data and prior-year records with current-year data is described in more detail in Appendix D.

Table 3.1. Estimated Number of Students Participating in 2007–08 CAHSEE Administrations and Number with Matching Prior Year Data by Grade

Grade (High School Class)	Number of Students with Non-blank Answer Documents	Number Matched to Prior-Year Records	Percent Matched
10 th Grade (Class of 2010)	480,089	8,010	1.7%
11 th Grade (Class of 2009)	160,724	133,626	83.1%
12 th Grade (Class of 2008)	100,068	85,809	85.8%
Adult Education	18,022	8,573	47.6%
Missing or Invalid	747	2	0.3%
Total	759,650	236,020	31.1%

Table 3.2 shows the relationship between current grade level on the 2007–08 test records and the same students’ grade level during the 2006–07 school year. As expected, most of the current 11th graders were 10th graders in 2004–05 and most of the current 12th graders were 11th graders. However, our analysis found a significant number of students who repeated the grade that they were in during the 2006–07 year, and a smaller number of students with different grade change patterns, some of which are likely due to coding errors in the grade information.

The information in Table 3.2 is significant because students who repeat or skip grades have changed from one high school class to another high school class. For example, repeat 10th graders were in the Class of 2009 last year but are now in the Class of 2010. Many of the results in the tables that follow show changes to passing rates in our 2007 evaluation report due to recalculations reflecting migration of students to a different high school class.

Table 3.2. Number of Students Matched to Prior-Year Records by Current and Prior-Year Grade and High School Class

Grade in 2007–08 Test Records	Number of Students with Prior-Year (2006–07) Grade ¹							Total Matched
	9 th Grade (Class of 2010) ¹	10 th Grade (Class of 2009)	11 th Grade (Class of 2008)	12 th Grade (Class of 2007) ²	(Class of 2006) ²	Adult Education	Missing or Invalid*	
10 th Grade (Class of 2010)	472,079	7,105	637	103	97	67	1	480,089
11 th Grade (Class of 2009)	0	127,472	5,631	344	138	41	0	133,626
12 th Grade (Class of 2008)	0	4,076	67,620	12,035	1,977	101	0	85,809
Adult Education	0	389	1,043	2,642	1,969	2,525	5	8,573
Missing or Invalid	0	0	0	0	1	1	0	2
Total Matched	472,079	139,042	74,931	15,124	4,182	2,735	6	708,099

¹ Prior grade was assumed to be 9 for unmatched 10th grade records. For other 2007 grades, prior grade was inferred from responses to student Question 16 where possible. Shaded cells with bolded contents indicate normal grade progression.

² Students in 12th grade in 2006 were included in the Class of 2006 column and not the Class of 2007 column, whether or not they were in 12th grade in 2007.

Explanation of table contents: The first line of the table indicates that 2007-08 records were found for 480,089 10th graders. No prior year data were found for 472,079 of these students; they were assumed to be first-time 10th graders who were in 9th grade in 2006-07. Records from 2006-07 were found for 7,105 students who were also in 10th grade that year, 637 students who were in 11th grade, 103 who were in 12th grade, 97 who were in 12th grade in the 2005-06 school year, 67 who were in an adult education program, and one with missing or invalid grade information in 2006-07.

Computing Passing Rates

A key issue in computing and reporting passing rates for the CAHSEE is what to use as the denominator. The two main choices are the number of students who took each test and the number of students subject to the CAHSEE requirement. In this report, as in our prior reports, we have opted for the latter, reporting the proportion of all students in the target populations who have passed. However, the number of students in the target populations fluctuates with daily enrollment changes. Table 3.3 compares fall enrollment counts (reported by DataQuest), enrollment counts from the STAR tests that occurred closer in time to the CAHSEE testing dates, and record counts from the CAHSEE. The CAHSEE is now also being used for 10th grade accountability under NCLB requirements. Essentially all students must be tested to meet NCLB participation requirements, so the CAHSEE counts appear to be reasonably complete. Total

CAHSEE record counts were used in computing passing rates for this report. STAR reports include the number of students tested in different demographic groups, but do not include separate enrollment counts for these groups. The CAHSEE data provide for consistent counts for each demographic group of interest. Note that the CAHSEE record counts used here were based on matching records across administrations within each testing year to avoid counting students more than once.

Table 3.3. Tenth Grade Enrollment Estimates from California Basic Data Education Data System (CBEDS), STAR, and CAHSEE*

Source	2002–03 10 th Graders	2003–04 10 th Graders	2004–05 10 th Graders	2005–06 10 th Graders	2006–07 10 th Graders	2007–08 10 th Graders
Fall enrollment (CBEDS)	471,648	490,214	497,197	515,681	517,873	513,943
STAR reported enrollment	457,181	475,181	481,983	502,616	500,628	495,408
STAR students tested (10 th Grade ELA)	427,454	452,217	462,693	482,781	481,879	478,575
CAHSEE student counts**	425,066	459,199	470,891	505,045	502,106	493,559
Percent of fall enrollment	90.1%	93.7%	94.7%	97.9%	96.9%	96.0%
CAHSEE students taking the ELA Test	402,594	450,479	461,957	477,705	476,224	474,331
CAHSEE students taking the math test	414,903	451,138	462,158	480,577	476,780	474,695
CAHSEE students taking both tests	392,431	442,418	453,224	473,192	469,473	467,753
Percent of students taking both tests	92.3%	96.3%	96.2%	93.7%	93.5%	94.8%

* Note: CBEDS and STAR data were retrieved online through CDE's Dataquest facility at <http://dq.cde.ca.gov/dataquest>.

**Note: CAHSEE student counts, after merges to remove duplication, were used in computing passing rates. Students with blank answer documents are included in the 10th grade counts.

The denominators used in computing passing rates for 11th and 12th graders were adjusted to reflect students who moved between high school classes, transferred out of state or dropped out. The denominator used was the number of students in the class who had passed the CAHSEE in prior years plus the number still taking the CAHSEE during 2007–08. Some of the students who passed in prior years may also have changed classes or dropped out, but were not in our data files because they did not take the CAHSEE again. In the future, CALPADS data will provide better information on students who do not participate in further CAHSEE testing, including both those who have passed the CAHSEE and those who have not.

The denominators used in computing passing rates for the classes of 2006 and 2007 were unchanged from the numbers estimated during their original senior year. For these classes, we report the number of students not continuing to take the CAHSEE separately, but retain them in the denominator.

The passing rates in this chapter do not reflect dropouts prior to 12th grade. Dropout rates are a significant problem, particularly for low-income and minority students, but there is no evidence that dropping out prior to 12th grade is related to the CAHSEE requirement for any significant number of students. Analyses and further discussion of dropout rates are described in Chapter 6.

Test Results

Class of 2006 – Some Students Continued to Try to Pass the CAHSEE

Tables 3.4 through 3.6 show the number of students in the Class of 2006 who are now estimated to have passed the CAHSEE through May 2008. Because many were exempt from the CAHSEE requirement, we are continuing to report students in special education programs separately, but exclude them from the counts for other student groups, including the counts for all students. In 2007–08, nearly 3,800 non-special education students who had been in the Class of 2006 two years earlier continued to try to pass the CASHEE. This is about 11 percent of the nearly 35,000 students in the Class of 2006 estimated to have not met the CAHSEE requirement by May of 2007. These students demonstrated commendable perseverance in trying to earn their diploma more than a year after their originally scheduled graduation. A significant number of them, over 1,200, succeeded.

Unfortunately, little is known about the more than 30,000 students from the Class of 2006 who had not met the CAHSEE requirement but did not appear to continue to try to pass the CASHEE. Some may have taken the CAHSEE through adult education programs, but could not be matched to their prior records. Likely, more are pursuing GEDs or seeking employment without receiving a diploma

Table 3.4. Estimated Number and Percent of Students in the Class of 2006 Passing Both Parts of the CAHSEE Through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed	Not Testing	Passed	Not Yet Passed	Percent Passed
All students	403,237	34,681	1,203	2,570	30,908	404,440	33,478	92.4%
Females	203,057	16,338	594	1,380	14,364	203,651	15,744	92.8%
Males	199,940	18,465	608	1,183	16,674	200,548	17,857	91.8%
Asian	42,069	1,799	85	195	1,519	42,154	1,714	96.1%
Hispanic	147,663	22,201	733	1,685	19,783	148,396	21,468	87.4%
African American	28,664	4,996	160	326	4,510	28,824	4,836	85.6%
White, non-Hispanic	160,717	3,904	129	195	3,580	160,846	3,775	97.7%
Economically disadvantaged	142,068	21,283	432	924	19,927	142,500	20,851	87.2%
English learner	55,227	15,613	488	1,199	13,926	55,715	15,125	78.6%
Special education*	19,330	20,477	48	354	20,075	19,378	20,429	48.7%

¹ Many students in special education programs who had not passed the CAHSEE by the end of the 11th grade were allowed an exemption from the CAHSEE requirement and so were excluded from all rows of the table except for the last row.

Explanation of table contents: The first row of the table indicates that 403,237 students who were 12th graders in 2006 had passed both parts of the CAHSEE by May of 2007 and 34,681 (non-SE) students did not. Of the 34,681 who had not passed by May 2007, 1,203 students took the CAHSEE in July 2007 through May 2008 and have now passed both parts. Another 2,570 Class of 2006 students took the CAHSEE at least once this year, but have not yet passed both parts, and 30,908 students who had not passed the CAHSEE were not matched to any of the 2007–08 CAHSEE records. A cumulative total of 404,440 Class of 2006 students have passed CAHSEE tests so far this year (the sum of those passing by May 2007 and those passing since then). The cumulative number not passing was reduced to 33,478 (those testing and not passing plus those not testing since May 2007). The cumulative percent passing, 92.4 percent, is the total passing (404,440) divided by the sum of those passing and those not passing (404,440 plus 33,478) and expressed as a percent. This same format is used for Tables 3.5 and 3.6 as well.

Table 3.5. Estimated Number and Percent of Students in the Class of 2006 Passing the CAHSEE ELA Test Through May 2008

Group	By May 2007		July 2007--May 2008			Cumulative Total		
	Passed	Not Yet Passed*	Passed	Not Yet Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All students	415,555	22,363	825	1,475	20,063	416,380	21,538	95.1%
Females	210,162	9,233	356	708	8,169	210,518	8,877	96.0%
Males	205,180	13,225	468	763	11,994	205,648	12,757	94.2%
Asian	42,340	1,528	70	170	1,288	42,410	1,458	96.7%
Hispanic	154,804	15,060	530	999	13,531	155,334	14,530	91.4%
African American	30,947	2,713	90	152	2,471	31,037	2,623	92.2%
White, non-Hispanic	162,645	1,976	68	70	1,838	162,713	1,908	98.8%
Economically disadvantaged	148,686	14,665	297	567	13,801	148,983	14,368	91.2%
English learner	58,466	12,374	424	889	11,061	58,890	11,950	83.1%
Special education	24,098	15,709	51	257	15,401	24,149	15,658	60.7%

* Students in special education programs who had not passed the CAHSEE by the end of 11th grade were allowed to meet the CAHSEE requirement in other ways. These students were excluded from all rows of the table except for the last row.

Table 3.6. Estimated Number and Percent of Students in the Class of 2006 Passing the CAHSEE Mathematics Test Through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed*	Passed	Not Yet Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All students	413,471	24,447	779	1,592	22,076	414,250	23,668	94.6%
Females	207,150	12,245	422	919	10,904	207,572	11,823	94.6%
Males	206,100	12,305	357	669	11,279	206,457	11,948	94.5%
Asian	43,214	654	30	51	573	43,244	624	98.6%
Hispanic	154,574	15,290	471	1,006	13,813	155,045	14,819	91.3%
African American	29,447	4,213	125	270	3,818	29,572	4,088	87.9%
White, non-Hispanic	161,648	2,973	98	155	2,720	161,746	2,875	98.3%
Economically disadvantaged	148,831	14,520	294	567	13,659	149,125	14,226	91.3%
English learner	61,633	9,207	211	541	8,455	61,844	8,996	87.3%
Special education*	22,429	17,378	45	285	17,048	22,474	17,333	56.5%

* Students in special education programs who had not passed the CAHSEE by the end of 11th grade were allowed to meet the CAHSEE requirement in other ways. These students were excluded from all rows of the table except for the last row.

Class of 2007 – Many of Last Year’s Seniors Continued to Try to Pass the CAHSEE

Tables 3.7 through 3.9 show the number of students in the Class of 2007 who are now estimated to have passed the CAHSEE through May 2008. Because many were initially exempt from the CAHSEE requirement, we are continuing to report students in special education programs separately, but exclude them from the counts for other student groups, including the counts for all students.

Results from the July 2007 through May 2008 CAHSEE administrations for students in the Class of 2007 are encouraging for several reasons. First, the number of Class of 2007 students who had not passed the CAHSEE at the beginning of the year was considerably less than the number of students in the Class of 2006 who had not passed, about 29,000 for the Class of 2007 compared to nearly 35,000 for the Class of 2006. Second, as shown in the first row of Table 3.7, over 40 percent of the students who did not pass the CAHSEE in time to graduate with their class last year continued to take the CAHSEE this year. It is likely that many of these students failed to meet other requirements, leading them to repeat the 12th grade. More than a quarter of the students from the Class of 2007 still testing have now passed the CAHSEE.

Unfortunately, little is known about the more than 16,000 students from the Class of 2007 who had not met the CAHSEE requirement but did not appear to continue to try to pass the CASHEE. Some may have taken the CAHSEE through adult education programs, but could not be matched to their prior records. Likely, more are pursuing GEDs or seeking employment without receiving a diploma.

Table 3.7. Estimated Number and Percent of Students in the Class of 2007 Passing Both Parts of the CAHSEE Through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed	Not Testing	Passed	Not Yet Passed	Percent Pass
All students	401,486	28,981	4,444	8,365	16,172	405,930	24,537	94.3%
Females	202,339	13,788	2,342	4,505	6,941	204,681	11,446	94.7%
Males	198,190	15,189	2,089	3,838	9,262	200,279	13,100	93.9%
Asian	41,285	1,578	324	609	645	41,609	1,254	97.1%
Hispanic	147,243	18,971	2,892	5,451	10,628	150,135	16,079	90.3%
African American	29,059	3,801	538	1,202	2,061	29,597	3,263	90.1%
White, non-Hispanic	157,421	2,593	458	618	1,517	157,879	2,135	98.7%
Economically disadvantaged	146,519	19,333	2,437	4,653	12,243	148,956	16,896	89.8%
English learner	51,572	15,358	2,054	4,113	9,191	53,626	13,304	80.1%
Special education*	17,444	18,330	293	1,999	16,038	17,737	18,037	49.6%

* Many students in special education programs who had not passed the CAHSEE by the end of the 11th grade were allowed an exemption from the CAHSEE requirement and so were excluded from all rows of the table except for the last row.

Explanation of table contents: Row 1 of this table indicates that by May of 2007, 401,486 students in the Class of 2007 (first-time seniors) had passed the CAHSEE and 28,981 had not. This year, 4,444 of the students who had not passed by May 2007 completed the CAHSEE requirement. Another 8,365 Class of 2007 students took the CAHSEE, but have not yet passed both parts and 16,172 of the students who had not passed by May of last year did not take the CAHSEE this year. An estimated total of 405,930 students in the Class of 2007 have now passed the CAHSEE, which is 94.3 percent of the total students in the Class of 2007 as of May 2007. This same format is used for Tables 3.8 and 3.9 as well.

Table 3.8. Estimated Number and Percent of Students in the Class of 2007 Passing the CAHSEE ELA Test Through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed*	Passed	Not Yet Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All students	413,403	17,064	3,074	4,973	9,017	416,477	13,990	96.8%
Females	209,253	6,874	1,434	2,356	3,084	210,687	5,440	97.5%
Males	202,951	10,428	1,629	2,605	6,194	204,580	8,799	95.9%
Asian	41,540	1,323	294	527	502	41,834	1,029	97.6%
Hispanic	154,093	12,121	2,096	3,388	6,637	156,189	10,025	94.0%
African American	31,242	1,618	283	500	835	31,525	1,335	95.9%
White, non-Hispanic	159,215	799	246	268	285	159,461	553	99.7%
Economically disadvantaged	153,273	12,579	1,803	3,017	7,759	155,076	10,776	93.5%
English learner	55,531	11,399	1,760	3,175	6,464	57,291	9,639	85.6%
Special education	21,537	14,237	314	1,466	12,457	21,851	13,923	61.1%

* Students in special education programs who had not passed the CAHSEE by the end of 11th grade were allowed to meet the CAHSEE requirement in other ways. These students were excluded from all rows of the table except for the last row.

Table 3.9. Estimated Number and Percent of Students in the Class of 2007 Passing the CAHSEE Mathematics Test Through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed*	Passed	Not Yet Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All students	411,673	18,794	2,810	5,072	10,912	414,483	15,984	96.3%
Females	206,670	9,457	1,620	3,009	4,828	208,290	7,837	96.4%
Males	204,394	8,985	1,183	2,048	5,754	205,577	7,802	96.3%
Asian	42,471	392	85	144	163	42,556	307	99.3%
Hispanic	154,295	11,919	1,752	3,214	6,953	156,047	10,167	93.9%
African American	29,727	3,133	457	969	1,707	30,184	2,676	91.9%
White, non-Hispanic	158,323	1,691	344	446	901	158,667	1,347	99.2%
Economically disadvantaged	153,801	12,051	1,442	2,634	7,975	155,243	10,609	93.6%
English learner	58,300	8,630	927	1,827	5,876	59,227	7,703	88.5%
Special education*	20,259	15,515	250	1,625	13,640	20,509	15,265	57.3%

* Students in special education programs who had not passed the CAHSEE by the end of 11th grade were allowed to meet the CAHSEE requirement in other ways. These students were excluded from all rows of the table except for the last row.

Table 3.10 shows a comparison of estimated passing rates for the classes of 2006 and 2007, as of one year after their scheduled graduation. The denominator for these rates is all students who tested in their senior year, whether or not they continued to take the CAHSEE in the following year, plus the number of students who passed previously. The denominator does not include students who gave up trying to pass the CAHSEE or left school for other reasons prior to their senior year, but it does include students who did not complete other graduation requirements. Overall, the passing rates are about 2 percentage points higher for the Class of 2007, indicating significant, albeit modest, progress in helping all students master required skills. Passing rates increased for each of the demographic groups shown, including an increase of 5 percentage points for African Americans.

Table 3.10. Estimated Passing Rates for the Classes of 2006 and 2007, One Year After Scheduled Graduation

Group	Percent Passing English/Language Arts		Percent Passing Mathematics		Percent Passing Both Parts	
	Class of 2006	Class of 2007	Class of 2006	Class of 2007	Class of 2006	Class of 2007
All students	94.9%	96.8%	94.4%	96.3%	92.1%	94.3%
Females	95.8%	97.5%	94.4%	96.4%	92.6%	94.7%
Males	93.9%	95.9%	94.4%	96.3%	91.5%	93.9%
Asian	96.5%	97.6%	98.5%	99.3%	95.9%	97.1%
Hispanic	91.1%	94.0%	91.0%	93.9%	86.9%	90.3%
African American	91.9%	95.9%	87.5%	91.9%	85.2%	90.1%
White, non-Hispanic	98.8%	99.7%	98.2%	99.2%	97.6%	98.7%
Economically disadvantaged	91.0%	93.5%	91.1%	93.6%	87.0%	89.8%
English learner	82.5%	85.6%	87.0%	88.5%	78.0%	80.1%
Special education*	60.5%	61.1%	56.3%	57.3%	48.6%	49.6%

* Students in special education programs who had not passed the CAHSEE by the end of 11th grade were allowed to meet the CAHSEE requirement in other ways. These students were excluded from all rows of the table except for the last row.

Class of 2008 – This Year’s Seniors Struggle to Meet Graduation Deadline

HumRRO worked with CDE to analyze test results for seniors after each of the 2007–08 administrations. The department issued press releases based on HumRRO’s findings counting down the numbers of students who still had to complete the CAHSEE requirement, overall and for specific subgroups (see <http://www.cde.ca.gov/nr/ne/yr07/>). HumRRO used corrected data files received in July to reanalyze results through May 2008. Beginning with the Class of 2008, students with disabilities no longer received an exemption from the CAHSEE requirements. For this reason, the tables that follow include students with disabilities in all demographic categories. In a later section, we show passing rates that are more directly comparable to passing rates for the classes of 2006 and 2007 where students with disabilities were excluded from analyses because of their exemption.

Tables 3.11 through 3.13 show cumulative passing rates for students in the Class of 2008, this year’s first-time seniors. Again, to avoid duplication, we included students who had been seniors in either 2006 or 2007 in the counts shown above for the classes of 2006 and 2007 and excluded them from the counts in Tables 3.11 through 3.13. Beginning with the Class of 2008, we are also tracking passing rates separately for Native Americans. In computing the estimates shown in these tables, we made adjustments to previous estimates of the numbers who had passed each part in prior years.

- First, we removed students who appeared to shift from the Class of 2008 to a different high school class, because they were retained in the 11th grade between the 2006–07 and 2007–08 school years or, in a few cases, dropped back to 10th grade or entered an adult education program. Removing these students reduced the counts of students still in the Class of 2008 who had passed one, but not both of the CAHSEE tests by May 2007. Students who had passed both parts by May 2007 would not have retested this year and so would not be among those identified as leaving the Class of 2008.
- Next, we added in students who joined the target class because of grade skipping (from 10th grade in the 2006–07 school year to 12th grade in the 2007–08 school year). We did not, however, add students from the Class of 2007 who were retained in 12th grade. These students are included in Tables 3.4 through 3.9 above. Adding these students to the Class of 2008 may have increased the number of students in the class who had passed one but not both parts of the CAHSEE by May 2007. Students who had passed both parts by May 2007 would not have retested this year and so would not be among those identified as moving into the Class of 2008.
- Finally, for this report, we removed 30,530 Class of 2008 students who had not passed both parts, but were not matched to a test record from the July 2007–May 2008 administrations. We also added back in 14,248 12th graders who participated in the 2007–08 administrations but could not be matched to any prior records. Some were new to the state but many were students who could not be matched to their prior records because of coding errors in key student identifiers.

In the tables that follow, we believe that the most important values are the estimates of the numbers of students who have not yet passed either or both parts of the CAHSEE. The percentages shown are subject to some debate due to differences of opinion as to the appropriate denominator (the base for computing the percentages). For example, students who passed the CAHSEE, but subsequently left the state or dropped out are included in the denominator, since we have no basis for estimating the number of such students. Students who are still trying to pass the CAHSEE are also included in the denominator.

Table 3.11. Estimated Number and Percent of Students in the Class of 2008¹ Passing Both Parts of the CAHSEE Through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed	Not Tested	Current Passed	Current Total	Percent Pass
All Students	392,498	107,873	39,997	45,991	21,885	432,495	478,486	90.4%
Females	198,035	47,438	19,102	19,387	8,949	217,137	236,524	91.8%
Males	194,268	60,410	20,790	26,463	13,157	215,058	241,521	89.0%
Native American	3,522	1,115	362	470	283	3,884	4,354	89.2%
Asian	39,884	4,797	2,556	1,929	312	42,440	44,369	95.7%
Hispanic	147,578	64,282	22,657	27,321	14,304	170,235	197,556	86.2%
African American	26,561	15,366	4,918	7,628	2,820	31,479	39,107	80.5%
White, non-Hispanic	155,233	18,431	7,571	6,785	4,075	162,804	169,589	96.0%
Economically Disadvantaged	143,697	67,968	22,076	28,089	17,803	165,773	193,862	85.5%
English Learner	36,766	36,768	13,796	18,230	4,742	50,562	68,792	73.5%
Special Education	15,946	30,541	4,566	17,123	8,852	20,512	37,635	54.5%

¹ Current 12th graders who also tested as 12th graders in 2005–06 (Class of 2006) or 2006–07 (Class of 2007) are *excluded* from this table. Class of 2008 students in special education programs are required to pass the CAHSEE and so are included in all rows of this table. Counts of student in the Class of 2008 who had not passed by May 2007 have changed due to students entering or leaving the class as explained above.

Explanation of table contents: Tables 3.12 through 3.13 are formatted the same as Table 3.11. As shown in the first row, by May of 2007, 392,498 students now in the Class of 2008 (first-time seniors) had passed the CAHSEE and 107,873 had not. This year, 39,997 of the students who had not passed by May 2007 completed the CAHSEE requirement. Another 45,991 students took the CAHSEE this year, but did not pass both parts. Also, 21,885 students who had not passed by May 2007 did not participate in any of the 2007–08 administrations. Overall, 432,495 students in the Class of 2008 have now passed the CAHSEE, which is 90.4 percent of the 478,486 students still counted as in the Class of 2008 after adjusting for students moving into and out of this class and dropping students not continuing to take the CAHSEE.

Table 3.12. Estimated Number and Percent of Students in the Class of 2008¹ Passing the CAHSEE ELA Test through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed ²	Not Tested ³	Current Passed	Current Total	Percent Pass
All Students	413,340	87,031	31,702	33,444	21,885	445,042	478,486	93.0%
Females	210,571	34,902	13,385	12,568	8,949	223,956	236,524	94.7%
Males	202,846	51,832	18,240	20,435	13,157	221,086	241,521	91.5%
Native American	3,764	873	298	293	283	4,062	4,354	93.3%
Asian	40,385	4,296	2,338	1,646	312	42,723	44,369	96.3%
Hispanic	159,642	52,218	17,742	20,173	14,304	177,384	197,556	89.8%
African American	30,157	11,770	3,811	5,139	2,820	33,968	39,107	86.9%
White, non-Hispanic	159,265	14,399	5,904	4,420	4,075	165,169	169,589	97.4%
Economically Disadvantaged	156,109	55,556	17,588	20,165	17,803	173,697	193,862	89.6%
English Learner	42,330	31,204	12,520	13,942	4,742	54,850	68,792	79.7%
Special Education	20,026	26,461	4,916	12,693	8,852	24,942	37,635	66.3%

¹ Current 12th graders who also tested as 12th graders in 2005–06 (Class of 2006) or 2006–07 (Class of 2007) are *excluded* from this table; students in special education programs are included in all rows of this table. Counts of students passing and not passing by May 2007 have changed due to students entering/leaving the Class of 2008.² Includes a small number of students who had not yet passed and did not take the ELA test, but are still included because they took the mathematics test one or more times this year.

³ Students who had not passed the ELA test and did not take either test so far this year.

Table 3.13. Estimated Number and Percent of Students in the Class of 2008¹ Passing the CAHSEE Mathematics Test through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed ²	Not Tested ³	Current Passed	Current Total	Percent Pass
All Students	411,013	89,358	31,187	36,286	21,885	442,200	478,486	92.4%
Females	204,891	40,582	15,844	15,789	8,949	220,735	236,524	93.3%
Males	206,113	48,565	15,256	20,151	13,157	221,369	241,521	91.7%
Native American	3,673	964	297	385	283	3,970	4,354	91.2%
Asian	41,941	2,740	1,474	953	312	43,415	44,369	97.9%
Hispanic	159,674	52,186	17,234	20,648	14,304	176,908	197,556	89.5%
African American	27,965	13,962	4,427	6,715	2,820	32,392	39,107	82.8%
White, non-Hispanic	157,468	16,196	6,147	5,974	4,075	163,615	169,589	96.5%
Economically Disadvantaged	156,703	54,962	16,457	20,702	17,803	173,160	193,862	89.3%
English Learner	47,889	25,645	9,454	11,450	4,742	57,343	68,792	83.4%
Special Education	19,067	27,420	3,934	14,634	8,852	23,001	37,635	61.1%

¹ Current 12th graders who also tested as 12th graders in 2005–06 (Class of 2006) or 2006–07 (Class of 2007) are *excluded* from this table; students in special education programs are included in all rows of this table. Counts of students passing and not passing by May 2007 have changed due to students entering/leaving the Class of 2008.

² Includes a small number of students who had not yet passed and did not take the mathematics test, but are still included because they took the ELA test one or more times this year.

³ Students who had not passed the mathematics test and did not take either test so far this year.

Comparison of Results for this Year’s Seniors (Class of 2008) to Results for Last Year’s Seniors (Class of 2007)

Results reported for the Class of 2008 in Tables 3.14 through 3.15 above are not directly comparable to results reported last year for last year’s seniors, the Class of 2007, at the same point in their senior year. The primary difference is that students with disabilities in the Class of 2007 were excluded from last year’s counts due to the exemption granted to these students. The exemption has ended and this year’s analyses include students with disabilities in the results. A much more minor difference is that this year, students from two different prior high school classes (classes of 2006 and 2007) are excluded from the counts for the Class of 2008.

Table 3.14. Estimated Number and Percent of Students in the Class of 2008¹ Passing Both CAHSEE Tests through May 2008, Excluding Students in Special Education

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Pass	Not Yet Passed	Not Tested	Current Passed	Current Total	Percent Pass
All Students	392,498	88,318	35,431	28,868	24,019	427,929	456,797	93.7%
Females	198,035	41,358	17,634	13,402	10,322	215,669	229,071	94.1%
Males	194,268	46,978	17,701	15,377	13,900	211,969	227,346	93.2%
Native American	3,522	859	304	265	290	3,826	4,091	93.5%
Asian	39,884	4,307	2,405	1,473	429	42,289	43,762	96.6%
Hispanic	147,578	55,683	20,467	18,586	16,630	168,045	186,631	90.0%
African American	26,561	11,892	4,272	4,404	3,216	30,833	35,237	87.5%
White, non-Hispanic	155,233	12,391	6,233	2,915	3,243	161,466	164,381	98.2%
Economically Disadvantaged	143,697	57,163	19,784	18,112	19,267	163,481	181,593	90.0%
English Learner	36,766	31,829	12,702	13,163	5,964	49,468	62,631	79.0%
Special Education	15,946	30,541	4,566	17,123	8,852	20,512	37,635	54.5%

¹ Current 12th graders who also tested as 12th graders in 2005–06 (Class of 2006) or 2006–07 (Class of 2007) are *excluded* from this table. Class of 2008 students in special education programs who had not passed the CAHSEE by May 2007 are also excluded, except in the last row, for comparability with last year's results. Counts of student in the Class of 2008 who had not passed by May 2007 have changed from earlier reports due to students entering or leaving the class as explained above.

Explanation of table contents: Tables 3.14 through 3.16 are formatted the same as Table 3.11. As shown in the first row, by May of 2007, 392,498 students now in the Class of 2008 (first-time seniors) had passed both parts of the CAHSEE and 88,318 non-special education students had not. This year, 35,431 of the non-special education students who had not passed by May 2007 completed the CAHSEE requirement. Another 28,868 non-special education students took the CAHSEE, but have not yet passed both parts. Also, 24,019 non-special education students who had not passed by May 2007 did not participate in any of the 2007–08 administrations. Overall, 427,929 students in the Class of 2008 have now passed the CAHSEE, which is 93.7 percent of the estimated total of 456,797 students in the Class of 2008 after adjusting for students moving into and out of this class and excluding special education students who had not passed by May 2007.

Table 3.15. Estimated Number and Percent of Students in the Class of 2008¹ Passing the CAHSEE ELA Test through May 2008, Excluding Students in Special Education

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed ²	Not Tested ³	Current Passed	Current Total	Percent Pass
All Students	413,031	67,785	26,786	16,980	24,019	439,817	456,797	96.3%
Females	210,837	28,556	11,836	6,398	10,322	222,673	229,071	97.2%
Males	202,267	38,979	14,890	10,189	13,900	217,157	227,346	95.5%
Native American	3,744	637	240	108	290	3,984	4,091	97.4%
Asian	40,329	3,862	2,188	1,245	429	42,517	43,762	97.2%
Hispanic	160,117	43,144	15,369	11,146	16,630	175,486	186,631	94.0%
African American	30,140	8,313	2,991	2,106	3,216	33,131	35,237	94.0%
White, non-Hispanic	158,560	9,064	4,594	1,227	3,243	163,154	164,381	99.3%
Economically Disadvantaged	156,248	44,612	15,000	10,345	19,267	171,248	181,593	94.3%
English Learner	42,295	26,300	11,259	9,077	5,964	53,554	62,631	85.5%
Special Education	20,026	26,461	4,916	12,693	8,852	24,942	37,635	66.3%

¹ Current 12th graders who also tested as 12th graders in 2005–06 (Class of 2006) or 2006–07 (Class of 2007) are *excluded* from this table. Class of 2008 students in special education programs who had not passed the CAHSEE are also excluded, except in the last row, for comparability with last year's results. Counts of student in the Class of 2008 who had not passed by May 2007 have changed due to students entering or leaving the class as explained above.

² Includes a small number of students who had not yet passed and did not take the ELA test, but are still included because they took the mathematics test one or more times this year.

³ Students who had not passed the ELA test and did not take either test so far this year.

Table 3.16. Estimated Number and Percent of Students in the Class of 2008¹ Passing the CAHSEE Mathematics Test through May 2008, Excluding Students in Special Education

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed ²	Not Tested ³	Current Passed	Current Total	Percent Pass
All Students	409,388	71,428	27,253	20,156	24,019	436,641	456,797	95.6%
Females	204,443	34,950	14,470	10,158	10,322	218,913	229,071	95.6%
Males	204,937	36,309	12,704	9,704	13,900	217,641	227,346	95.7%
Native American	3,649	732	243	200	290	3,892	4,091	95.1%
Asian	41,971	2,220	1,360	430	429	43,331	43,762	99.0%
Hispanic	159,042	44,219	15,272	12,317	16,630	174,314	186,631	93.4%
African American	27,742	10,711	3,796	3,699	3,216	31,538	35,237	89.5%
White, non-Hispanic	156,745	10,879	5,135	2,501	3,243	161,880	164,381	98.5%
Economically Disadvantaged	155,904	44,956	14,363	11,326	19,267	170,267	181,593	93.8%
English Learner	47,752	20,843	8,419	6,461	5,964	56,171	62,631	89.7%
Special Education	19,067	27,420	3,934	14,634	8,852	23,001	37,635	61.1%

¹ Current 12th graders who also tested as 12th graders in 2005–06 (Class of 2006) or 2006–07 (Class of 2007) are *excluded* from this table. Class of 2008 students in special education programs who had not passed the CAHSEE are also excluded, except in the last row, for comparability with last year's results. Counts of student in the Class of 2008 who had not passed by May 2007 have changed due to students entering or leaving the class as explained above.

² Includes a small number of students who had not yet passed and did not take the mathematics test, but are still included because they took the ELA test one or more times this year.

³ Students who had not passed the mathematics test and did not take either test so far this year.

Table 3.17 compares current cumulative passing rates to passing rates through May of their senior year for each of these classes. Overall passing rates continued to increase, albeit only slightly. Much more significant progress was made for students with disabilities, whose passing rates increased by nearly 6 percentage points. There was a small decrease in passing rates for African Americans in the Class of 2008, just over 1 percentage point. The 2008 passing rate for African Americans still represented a very significant gain (3.8 percentage points) relative to the African American rate for the Class of 2006.

Table 3.17. Comparison of Estimated Passing Rates for the Classes of 2006, 2007, and 2008 through May of their Senior Year

Group*	Passed ELA			Passed Mathematics			Passed Both		
	Class of 2006 12 th Graders	Class of 2007 12 th Graders	Class of 2008 12 th Graders	Class of 2006 12 th Graders	Class of 2007 12 th Graders	Class of 2008 12 th Graders	Class of 2006 12 th Graders	Class of 2007 12 th Graders	Class of 2008 12 th Graders
All Students	94.2%	96.0%	96.3%	93.7%	95.6%	95.6%	90.4%	93.3%	93.7%
Females	95.1%	96.8%	97.2%	93.6%	95.6%	95.6%	90.9%	93.6%	94.1%
Males	93.2%	95.1%	95.5%	93.7%	95.8%	95.7%	89.9%	92.9%	93.2%
Native American	N/A	N/A	97.4%	N/A	N/A	95.1%	N/A	N/A	93.5%
Asian	95.9%	96.9%	97.2%	98.1%	99.1%	99.0%	95.3%	96.3%	96.6%
Hispanic	90.0%	92.7%	94.0%	89.9%	92.8%	93.4%	85.5%	88.6%	90.0%
African American	90.9%	95.1%	94.0%	86.2%	90.5%	89.5%	83.7%	88.4%	87.5%
White, non-Hispanic	98.6%	99.5%	99.3%	97.9%	98.9%	98.5%	97.3%	98.4%	98.2%
Economically Disadvantaged	90.1%	92.4%	94.3%	90.2%	92.7%	93.8%	85.7%	88.3%	90.0%
English Learner	80.9%	83.0%	85.5%	85.8%	87.1%	89.7%	76.0%	77.1%	79.0%
Special Education	59.6%	60.2%	66.3%	55.5%	56.6%	61.1%	47.8%	48.8%	54.5%

* Students in special education programs who did not pass the CAHSEE by the end of 11th grade are excluded from each demographic category except the last.

- 1 Note that 12th graders who also tested as 12th graders in the previous year are *excluded* from this table as are students in special education programs who had not passed the CAHSEE by the end of their junior year (except in the last row).
- 2 Passing rates for Native Americans were not computed in analyses of results for the classes of 2006 and 2007.
- 3 Students in special education were excluded from all rows in the table except the last. Many of these students in the Class of 2007 received an exemption from the CAHSEE requirement and did not continue to take the CAHSEE during their senior year. Students in special education were excluded from 2008 results for comparability.

Class of 2009 — Improvement for Students Who Retested in 11th Grade

We analyzed the number of 11th grade students (Class of 2009) who passed each part of the CAHSEE and the number completing the requirement to pass both parts and added these to the corresponding numbers for last year’s 10th graders. Students shown as 11th graders in the 2006–07 CAHSEE administrations included some students who were repeating 11th grade, thus moving from the Class of 2008 cohort last year to the Class of 2009 Cohort. This year’s 11th graders also included some students new to the state and other students who were 9th graders in 2007. Students who repeated the 10th grade in 2007–08 were dropped from the Class of 2009 cohort as were students who did not pass in 2007 and failed to test at all during the 2007–08 school year. The net of these differences was that the estimated number of students in the Class of 2009 decreased by 14,080, from about 502,106 at the end of 10th grade to 488,026 at the end of 11th grade. As shown in Table 3.2 above, over 7,000 students appear to be repeating

10th grade in 2007–08, moving out of the Class of 2009³. This still leaves a small, but significant number of students who have either left public education in California or simply skipped taking the CAHSEE in their junior year.

Tables 3.18 through 3.20 show the estimated number of students in the Class of 2009 passing both parts of the CAHSEE, the ELA test, and the mathematics test, respectively. Approximately 82 percent of the students still in the Class of 2009 have met the CAHSEE requirement. The passing rate is considerably lower for economically disadvantaged students (73%) and for Hispanic (74%) and African-American (68%) students and particularly lower for English learners (52%) and students in special education (39%).

Table 3.18. Estimated Number and Percent of Students in the Class of 2009 Passing Both CAHSEE Tests Through 11th Grade

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed	Not Tested	Current Passed	Current Total	Percent Pass
All Students	327,275	168,948	71,657	88,448	8,843	398,932	487,380	81.9%
Females	166,859	76,516	34,046	38,754	3,716	200,905	239,659	83.8%
Males	160,375	92,975	37,403	49,542	6,030	197,778	247,320	80.0%
Native American	2,754	1,688	662	870	156	3,416	4,286	79.7%
Pacific Islander	36,675	8,282	4,260	3,767	255	40,935	44,702	91.6%
Filipino	2,157	1,310	624	635	51	2,781	3,416	81.4%
Asian	11,989	2,925	1,675	1,113	137	13,664	14,777	92.5%
Hispanic	119,647	102,710	39,469	55,258	7,983	159,116	214,374	74.2%
African American	19,539	20,481	7,110	12,374	997	26,649	39,023	68.3%
White, non-Hispanic	131,538	32,179	16,716	13,231	2,232	148,254	161,485	91.8%
Economically Disadvantaged	115,345	105,396	38,168	56,673	10,555	153,513	210,186	73.0%
English Learner	21,493	60,749	18,356	36,934	5,459	39,849	76,783	51.9%
Reclassified Fluent English	63,157	17,026	10,808	5,711	507	73,965	79,676	92.8%
Special Education	10,434	38,385	5,734	25,068	7,583	16,168	41,236	39.2%

¹ Current 11th graders who also tested as 12th graders in 2005–06 (Class of 2006) or 2006–07 (Class of 2007) are *excluded* from this table. Current 11th graders who tested as 11th graders last year have been moved into counts for the Class of 2009 and are included here. Students in special education programs are included in all rows.

Explanation of table contents: Tables 3.18 through 3.20 are formatted the same as Table 3.11 above. Row 1 shows that by May of 2007, 327,275 students now in the Class of 2009 (current juniors) had passed the CAHSEE and 168,948 had not. This year, 71,657 of the students who had not passed by May 2007 completed the CAHSEE requirement. Another 88,448 students took the CAHSEE, but have not yet passed both parts. Also, 8,843 students who had not passed by May 2007 did not participate in the 2007–08 administrations. Overall, 398,932 students in the Class of 2009 have now passed the CAHSEE, which is 81.9 percent of the 487,380 students estimated to be in the Class of 2009 after adjusting for students moving into and out of this class and dropping students not continuing to take the CAHSEE.

³ It is likely that we are slightly underestimating the number of students repeating 10th grade because differences in coding student information prevented us from identifying all of the students who tested as 10th graders in both 2007 and 2008.

Table 3.19. Estimated Number and Percent of Students in the Class of 2009¹ Passing the CAHSEE ELA Test through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed ²	Not Tested ³	Current Passed	Current Total	Percent Pass
All Students	362,212	134,011	63,024	62,144	8,843	425,236	487,380	87.2%
Females	188,354	55,021	27,818	23,487	3,716	216,172	239,659	90.2%
Males	173,808	79,542	35,055	38,457	6,030	208,863	247,320	84.5%
Native American	3,135	1,307	571	580	156	3,706	4,286	86.5%
Pacific Islander	37,426	7,531	3,977	3,299	255	41,403	44,702	92.6%
Filipino	2,434	1,033	535	447	51	2,969	3,416	86.9%
Asian	12,588	2,326	1,413	776	137	14,001	14,777	94.7%
Hispanic	139,846	82,511	35,117	39,411	7,983	174,963	214,374	81.6%
African American	24,257	15,763	6,574	8,192	997	30,831	39,023	79.0%
White, non-Hispanic	139,283	24,434	13,869	8,333	2,232	153,152	161,485	94.8%
Economically Disadvantaged	134,816	85,925	34,689	40,681	10,555	169,505	210,186	80.6%
English Learner	27,940	54,302	19,104	29,739	5,459	47,044	76,783	61.3%
Reclassified Fluent English	69,126	11,057	7,641	2,909	507	76,767	79,676	96.3%
Special Education	14,380	34,439	7,142	19,714	7,583	21,522	41,236	52.2%

¹ Current 11th graders who also tested as 12th graders in 2005-06 (Class of 2006) or 2006-07 (Class of 2007) are *excluded* from this table. Current 11th graders who tested as 11th graders last year have been moved into counts for the Class of 2009 and are included here. Students in special education programs are included in all rows.

² Includes a small number of students who had not yet passed and did not take the ELA test, but are still included because they took the mathematics test one or more times this year

³ Students who had not passed the ELA test and did not take either test so far this year

Table 3.20. Estimated Number and Percent of Students in the Class of 2009¹ Passing the CAHSEE Mathematics Test through May 2008

Group	By May 2007		July 2007–May 2008			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed ²	Not Tested ³	Current Passed	Current Total	Percent Pass
All Students	361,700	134,523	59,757	65,923	8,843	421,457	487,380	86.5%
Females	178,858	64,517	29,818	30,983	3,716	208,676	239,659	87.1%
Males	182,785	70,565	29,787	34,748	6,030	212,572	247,320	86.0%
Native American	3,016	1,426	578	692	156	3,594	4,286	83.9%
Pacific Islander	40,106	4,851	3,101	1,495	255	43,207	44,702	96.7%
Filipino	2,419	1,048	533	464	51	2,952	3,416	86.4%
Asian	12,655	2,259	1,360	762	137	14,015	14,777	94.8%
Hispanic	140,492	81,865	33,224	40,658	7,983	173,716	214,374	81.0%
African American	22,014	18,006	6,429	10,580	997	28,443	39,023	72.9%
White, non-Hispanic	137,762	25,955	13,547	10,176	2,232	151,309	161,485	93.7%
Economically Disadvantaged	137,318	83,423	31,614	41,254	10,555	168,932	210,186	80.4%
English Learner	36,808	45,434	16,214	23,761	5,459	53,022	76,783	69.1%
Reclassified Fluent English	67,161	13,022	7,905	4,610	507	75,066	79,676	94.2%
Special Education	14,363	34,456	5,487	21,386	7,583	19,850	41,236	48.1%

¹ Current 11th graders who also tested as 12th graders in 2005–06 (Class of 2006) or 2006–07 (Class of 2007) are *excluded* from this table. Current 11th graders who tested as 11th graders last year have been moved into counts for the Class of 2009 and are included here. Students in special education programs are included in all rows.

² Includes a small number of students who had not yet passed and did not take the mathematics test, but are still included because they took the ELA test one or more times this year

³ Students who had not passed the mathematics test and did not take either test so far this year

Table 3.21 shows cumulative passing rates through the end of 11th grade for the Class of 2009 in comparison to corresponding passing rates for the classes of 2006 through 2008. Passing rates for students in the Class of 2009 are 3 to 4 percentage points higher than the rates for earlier 11th grade classes, a significant increase. All demographic groups showed an increase in cumulative 11th grade passing rates this year. The increase was over 5 percentage points for economically disadvantaged students and students in special education programs.

Table 3.21. Comparison of CAHSEE Passing Rates for the Classes of 2006 through 2009 at the end of 11th Grade

Group	Percent Passing ELA				Percent Passing Mathematics				Percent Passing Both			
	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2006	Class of 2007	Class of 2008	Class of 2009
All students	84.6%	85.1%	83.7%	87.2%	83.6%	83.4%	82.6%	86.5%	78.4%	78.7%	78.0%	81.9%
Females	87.7%	88.3%	87.0%	90.2%	84.4%	84.2%	83.7%	87.1%	80.5%	80.8%	80.2%	83.8%
Males	81.7%	81.9%	80.6%	84.5%	82.9%	82.7%	81.7%	86.0%	76.4%	76.7%	75.7%	80.0%
Native American	N/A	N/A	83.0%	86.5%	N/A	N/A	79.3%	83.9%	N/A	N/A	75.3%	79.7%
Asian	90.8%	90.9%	90.5%	92.6%	95.1%	95.0%	94.5%	96.7%	89.3%	89.4%	89.0%	91.6%
Pacific Islander	N/A	N/A	N/A	86.9%	N/A	N/A	N/A	86.4%	N/A	N/A	N/A	81.4%
Filipino	N/A	N/A	N/A	94.7%	N/A	N/A	N/A	94.8%	N/A	N/A	N/A	92.5%
Hispanic	76.0%	77.3%	76.5%	81.6%	75.6%	75.9%	76.1%	81.0%	67.5%	68.6%	69.0%	74.2%
African American	75.9%	77.0%	74.1%	79.0%	68.2%	68.3%	67.0%	72.9%	63.2%	64.1%	62.7%	68.3%
White, non-Hispanic	94.0%	93.9%	92.7%	94.8%	92.5%	92.1%	91.0%	93.7%	90.4%	90.1%	89.3%	91.8%
Economically Disadvantaged	74.7%	76.3%	75.1%	80.6%	74.9%	75.3%	74.8%	80.4%	66.3%	67.7%	67.3%	73.0%
English Learner	59.4%	60.4%	58.6%	61.3%	67.1%	66.2%	67.2%	69.1%	51.1%	51.5%	49.2%	51.9%
Reclassified Fluent English	N/A	N/A	N/A	96.3%	N/A	N/A	N/A	94.2%	N/A	N/A	N/A	92.8%
Special Education	48.0%	46.5%	46.5%	52.2%	45.2%	42.0%	42.2%	48.1%	35.5%	33.5%	33.9%	39.2%

Initial Results for the Class of 2010

A major charge for the independent evaluation was to analyze and report performance on the CAHSEE for all students and for specific demographic groups, including economically disadvantaged students, English learners (EL), and students with disabilities (characterized as “exceptional needs students” in the legislation). Table 3.22 shows the 10th grade CAHSEE completion rates (passing both parts) for the classes of 2006 through 2010. Passing rates for the classes of 2004 and 2005 are not exactly comparable as changes to the tests were introduced in 2004 when the exam was restarted for the Class of 2006. Also, some students in the Class of 2004 took the CAHSEE voluntarily in 2001 as 9th graders. Since 2003 (the Class of 2005), the 10th grade results are based on a census testing of all students. Tables 3.23 and 3.24 show comparative passing rates for the ELA and mathematics tests respectively.

Table 3.22. Percent of 10th Grade Students Passing Both Parts of the CAHSEE by Demographic Group

Group	10 th Graders Tested In 2008	Percent Passing				
		Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010
All students	493,559	64.3%	65.4%	65.1%	65.2%	69.2%
Females	240,918	67.1%	68.1%	67.9%	68.0%	71.8%
Males	252,352	61.7%	62.8%	62.4%	62.5%	66.8%
Native American	4,384	59.9%	59.6%	61.0%	61.6%	66.0%
Asian	44,340	81.5%	82.5%	82.5%	83.2%	85.8%
Pacific Islander	3,454	60.4%	63.4%	62.9%	63.3%	69.7%
Filipino	14,268	80.8%	81.3%	81.3%	82.4%	84.5%
Hispanic	227,531	49.0%	51.1%	52.4%	52.9%	58.5%
African American	39,579	45.3%	46.4%	46.3%	47.8%	52.5%
White (not Hispanic)	154,135	80.7%	81.4%	80.5%	80.5%	83.4%
Economically disadvantaged	229,687	47.7%	50.1%	50.8%	51.4%	57.2%
English Learners	81,094	29.6%	30.8%	27.0%	25.6%	29.5%
Reclassified fluent English	86,071	76.3%	78.6%	78.1%	77.9%	83.3%
Special education students	44,304	18.8%	20.2%	20.9%	21.1%	20.2%

*Note. The numbers in different demographic categories may not add to the total because of missing demographic information.

**Table 3.23. Tenth Grade Student Passing Rates by Demographic Group—
English-Language Arts**

Group	10 th Graders Tested In 2008	Percent Passing				
		Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010
All students	493,559	72.9%	74.8%	73.4%	73.3%	77.1%
Females	240,918	77.4%	79.5%	78.1%	78.0%	81.2%
Males	252,352	68.7%	70.2%	69.0%	68.8%	73.1%
Native American	4,384	70.9%	70.8%	71.6%	71.4%	74.6%
Asian	44,340	84.1%	85.2%	85.0%	85.2%	87.6%
Pacific Islander	3,454	69.3%	73.5%	72.3%	72.5%	77.5%
Filipino	14,268	86.3%	87.3%	86.7%	87.0%	88.6%
Hispanic	227,531	59.8%	63.2%	62.8%	63.2%	68.5%
African American	39,579	60.1%	62.1%	60.6%	61.5%	66.4%
White (not Hispanic)	154,135	87.0%	88.0%	86.4%	86.1%	88.5%
Economically disadvantaged	229,687	58.1%	61.8%	61.1%	61.4%	67.0%
English Learners	81,094	38.0%	41.3%	35.8%	34.2%	39.4%
Reclassified fluent English	86,071	85.2%	87.9%	86.5%	86.3%	90.5%
Special education students	44,304	28.8%	31.5%	31.6%	30.7%	31.9%

*Note. The numbers in different demographic categories may not add to the total because of missing demographic information.

**Table 3.24. Tenth Grade Student Passing Rates by Demographic Group—
Mathematics**

Group	10 th Graders Tested In 2008	Percent Passing				
		Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010
All students	493,559	71.8%	72.1%	71.7%	72.2%	76.1%
Females	240,918	72.8%	73.1%	72.8%	73.0%	76.8%
Males	252,352	70.8%	71.3%	70.7%	71.4%	75.6%
Native American	4,384	66.3%	66.3%	67.1%	67.6%	72.7%
Asian	44,340	90.5%	90.9%	90.0%	91.0%	92.9%
Pacific Islander	3,454	69.5%	70.4%	69.9%	71.3%	77.1%
Filipino	14,268	86.0%	85.8%	85.6%	87.0%	88.8%
Hispanic	227,531	59.2%	60.2%	61.5%	62.3%	67.9%
African American	39,579	51.9%	52.5%	52.3%	54.0%	59.3%
White (not Hispanic)	154,135	85.0%	85.4%	84.1%	84.4%	86.9%
Economically disadvantaged	229,687	58.6%	59.9%	60.4%	61.3%	67.1%
English Learners	81,094	47.6%	47.0%	44.3%	43.9%	48.6%
Reclassified fluent English	86,071	81.9%	83.4%	82.9%	83.1%	87.7%
Special education students	44,304	27.8%	28.6%	28.4%	29.1%	30.0%

*Note. The numbers in different demographic categories may not add to the total because of missing demographic information.

Figure 3.1 shows the trend in passing rates for the CAHSEE as a whole and for the ELA and Mathematics tests separately. Figure 3.2 displays trends in the overall 10th grade passing rates for demographic groups that have had particular difficulties in passing the CAHSEE. As illustrated by these charts, overall 10th grade passing rates increased about 3 to 5 percentage points for all groups except students in special education programs. Passing rates declined slightly for students in special education programs.

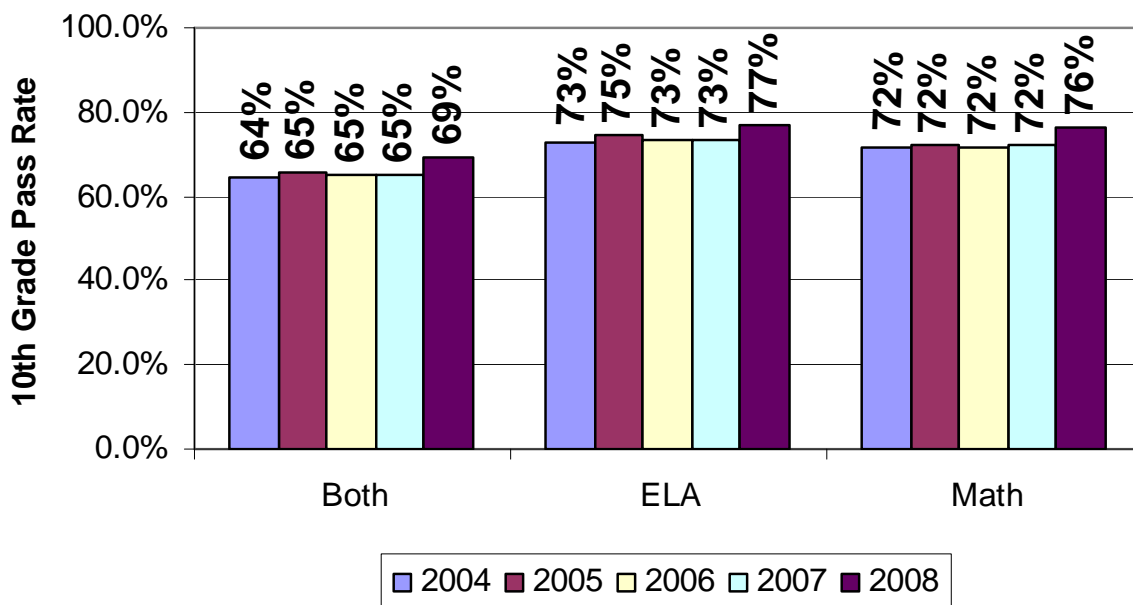


Figure 3.1. Trends in 10th grade CAHSEE passing rates.

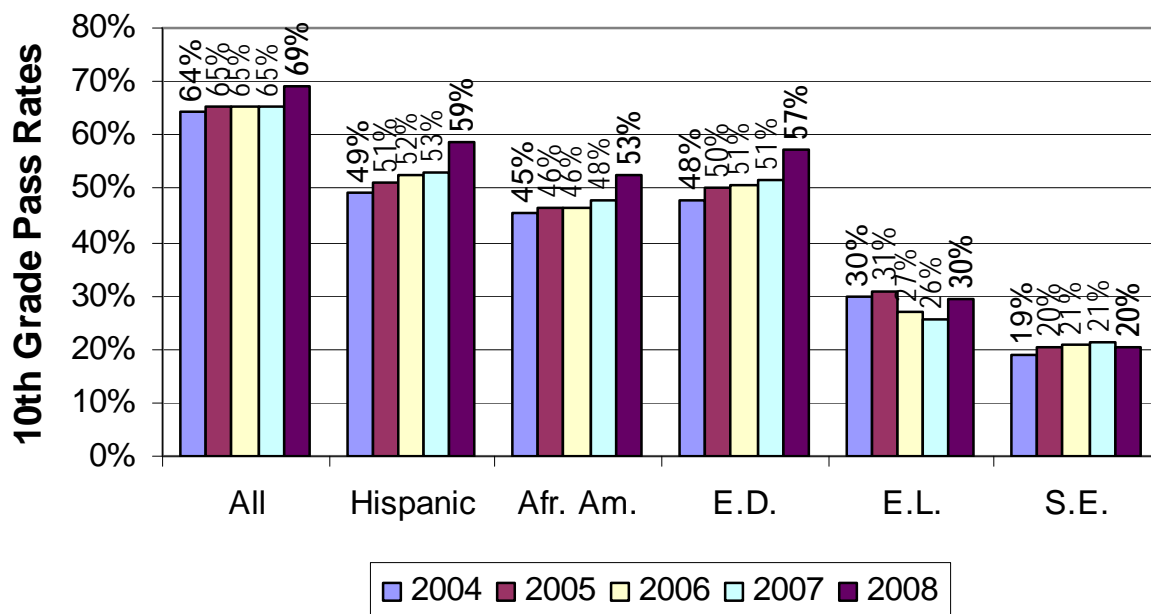


Figure 3.2. Trends in overall passing rates for selected groups.

Note: ED = Economically disadvantaged, EL = English Learner, SE = students in special education.

First-Time Versus Repeat 10th Graders

The CAHSEE is administered to the complete census of 10th graders. However, as shown in Table 3.2, some students repeat 10th grade and are thus included in more than one census testing. The new statewide student identifiers make it possible to identify repeat 10th graders more exactly than was previously the case. Tables 3.25 and 3.26 show the numbers of first-time and repeat 10th graders in the 2007 and 2008 CAHSEE administrations and their CAHSEE passing rates by demographic group. In these tables, we have also shown gender breakouts within the larger race/ethnicity groups. The key finding shown in these tables is that, for all demographic groups, students who repeat the 10th grade have very low rates of passing the CAHSEE (24% versus 69% overall passing for first-time 10th graders this year).

Table 3.25. Percent of First-Time 10th Grade Students Passing the CAHSEE by Demographic Group

Group	Number of Students Tested*		Percent Passing ELA		Percent Passing Mathematics		Percent Passing Both	
	2007	2008	2007	2008	2007	2008	2007	2008
All students	492,159	485,516	73.9%	76.6%	73.0%	75.8%	66.1%	69.1%
Females	241,195	237,420	78.5%	80.7%	73.7%	76.5%	68.8%	71.7%
Males	250,784	247,830	69.5%	72.6%	72.3%	75.1%	63.5%	66.7%
Native American	4,385	4,340	72.0%	72.9%	68.3%	71.5%	62.3%	64.8%
Asian	43,791	44,180	85.5%	87.5%	91.2%	92.7%	83.5%	85.7%
- Females	21,345	21,454	88.3%	89.7%	92.0%	93.3%	86.0%	87.5%
- Males	22,443	22,721	82.8%	85.4%	90.4%	92.2%	81.3%	83.9%
Pacific Islander	3,346	3,417	72.9%	76.8%	72.0%	76.4%	64.0%	68.8%
Filipino	14,418	14,189	87.3%	88.4%	87.4%	88.7%	82.9%	84.3%
Hispanic	219,628	222,066	63.8%	68.0%	63.2%	67.5%	53.9%	58.6%
- Females	108,298	109,346	69.1%	72.8%	63.7%	67.9%	56.8%	61.3%
- Males	111,286	112,667	58.6%	63.3%	62.6%	67.1%	51.1%	56.0%
African American	39,351	38,348	62.3%	65.3%	55.2%	58.6%	49.1%	52.5%
- Females	19,601	19,067	69.7%	72.2%	57.4%	60.9%	53.5%	56.8%
- Males	19,744	19,262	55.0%	58.5%	53.0%	56.3%	44.7%	48.3%
White (not Hispanic)	162,247	153,321	86.3%	87.9%	84.7%	86.4%	80.9%	82.7%
- Females	78,846	74,146	90.0%	91.1%	85.6%	87.3%	83.3%	85.1%
- Males	83,375	79,129	82.8%	84.9%	83.9%	85.5%	78.6%	80.5%
Economically disadvantaged	217,740	224,069	62.0%	66.3%	62.3%	66.6%	52.4%	57.1%
English learners	80,626	78,364	34.5%	38.5%	44.5%	47.8%	26.1%	29.6%
Reclassified fluent English	79,649	85,004	86.7%	90.2%	83.7%	87.7%	78.7%	83.2%
Special education students	47,748	43,080	31.0%	30.6%	29.6%	28.6%	21.6%	20.1%

* A small number of students shown as first-time 10th graders may actually be repeat test takers for whom no 2006 CAHSEE test records could be found.

Table 3.26. Percent of Repeat 10th Grade Students Passing the CAHSEE by Demographic Group

Group	Number of Students Tested*		Percent Passing ELA		Percent Passing Mathematics		Percent Passing Both	
	2007	2008	2007	2008	2007	2008	2007	2008
All students	9,947	8,304	43.5%	48.0%	33.2%	35.5%	21.1%	24.0%
Females	4,249	3,624	47.5%	55.7%	29.9%	32.3%	21.1%	23.9%
Males	5,698	4,680	34.5%	42.0%	35.6%	37.9%	21.1%	24.0%
Native American	84	58	34.5%	50.0%	33.3%	34.5%	23.8%	29.3%
Asian	283	186	24.4%	37.1%	58.3%	52.2%	31.8%	26.3%
- Females	108	57	24.1%	45.6%	65.7%	49.1%	38.0%	28.1%
- Males	175	129	24.6%	33.3%	53.7%	53.5%	28.0%	25.6%
Pacific Islander	59	44	27.1%	36.4%	32.2%	38.6%	25.4%	29.5%
Filipino	131	83	41.2%	65.1%	43.5%	42.2%	32.1%	32.5%
Hispanic	6,687	5,677	40.1%	47.2%	32.7%	35.0%	20.2%	23.3%
- Females	2,913	2,523	47.3%	54.7%	29.5%	31.9%	20.5%	23.1%
- Males	3,774	3,154	34.4%	41.2%	35.2%	37.5%	19.9%	23.4%
African American	1,547	1,263	36.3%	44.4%	23.5%	27.3%	15.2%	18.6%
- Females	650	565	45.2%	52.0%	20.8%	26.4%	14.5%	19.3%
- Males	897	698	29.8%	38.3%	25.5%	28.1%	15.7%	18.1%
White (not Hispanic)	1,125	886	46.9%	59.6%	41.6%	45.3%	30.1%	33.7%
- Females	451	377	57.9%	69.2%	36.1%	40.6%	29.3%	34.5%
- Males	674	509	39.6%	52.5%	45.3%	48.7%	30.7%	33.2%
Economically disadvantaged	6,718	5,733	38.5%	45.1%	31.8%	34.2%	19.3%	22.0%
English learners	3,469	3,113	29.0%	32.3%	28.9%	30.6%	12.9%	15.4%
Reclassified fluent English	1,430	1,124	58.3%	74.1%	45.0%	48.4%	33.7%	40.1%
Special education students	1,739	1,298	17.1%	23.0%	15.1%	15.3%	8.2%	7.7%

* Passing rates for repeat 10th graders include students who passed previously. Also, a small number of students shown as first-time 10th grade test takers above may actually be repeat test takers for whom no 2006 CAHSEE test records could be found.

Analysis of Results by Mathematics Courses Taken

From the outset, the level of mathematics achievement required for high school graduation has been a key policy issue. When the CAHSEE requirement was established in 1999, students were not required to take Algebra I to earn a diploma, so including Algebra questions on the CAHSEE mathematics test reflected recognition of the importance of mathematics for success after high school. This year’s policy debate has focused on requiring all students to take Algebra I in 8th grade, allowing more students to complete mathematics courses through calculus by the end of high school.

As in prior years, we analyzed passing rates on the mathematics part of the CAHSEE for students who had completed different levels of math courses. Table 3.27 shows the distribution of the highest level of mathematics course completed by the end of 10th grade for students in the Class of 2010 compared to students in the classes of 2005 through 2009. The percentage of student who had not yet taken Algebra I continued to decrease (from 4.0% down to 2.2%). At the same time the percentage of 10th grade students taking mathematics courses beyond Algebra I continued to increase.

Table 3.27. Distribution of 10th Grade Students by Highest Math Course Taken

	Class of 2005	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010
General Math	3.0%	2.6%	2.0%	1.9%	0.9%	0.0%
Pre-Algebra	11.5%	11.1%	9.9%	11.7%	3.1%	2.2%
Algebra I/Int. Math I	27.6%	27.5%	24.9%	18.9%	28.3%	27.7%
Geometry/Int. Math II	31.0%	31.0%	31.7%	34.3%	33.6%	36.9%
Algebra II/Int. Math III	17.5%	18.4%	17.9%	20.4%	21.3%	23.4%
Advanced Math	1.9%	2.2%	2.5%	2.7%	2.8%	3.1%
None/Missing	7.7%	7.2%	10.1%	10.3%	10.0%	6.6%
No. of Students	414,903	450,928	470,891	502,874	502,501	474,351

* Note: Column percents may not add to 100 percent due to rounding.

Table 3.28 shows the percentage of students in key demographic groups who have not yet taken Algebra I (well below expectation at Grade 10) and the percentage that have taken courses beyond Algebra I (meets expectation at Grade 10). Students following the expected curriculum would be taking at least geometry by the 10th grade. Students who took Algebra I in 8th grade could be taking Algebra II in the 10th grade. There has been a continued drop in the percent of 10th graders who have not yet taken Algebra I for all groups, including students in special education. The percentage of students in special education who have not yet taken Algebra I dropped to below 10 percent. More than two-thirds of the 10th graders had taken or were taking mathematics courses beyond Algebra I. For Asian students, 88 percent were taking courses beyond Algebra I.

For all groups, the percent taking courses beyond Algebra I continued to increase this year. However, the percent of economically disadvantaged and minority students taking courses beyond Algebra I continued to lag behind that of white and Asian students. For example, the percentage of African-American students taking courses beyond Algebra I this year (63%) was about the same as the percentage of white students taking courses beyond Algebra I in four years ago.

Table 3.28. Trends in Math Courses Taken by Demographic Group

Group	Percent of 10 th Graders Not Yet Taking Algebra I					
	Class of 2005	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010
All Students	15.6%	14.8%	13.2%	15.3%	4.2%	2.3%
Females	14.2%	13.5%	12.0%	14.1%	3.6%	2.0%
Males	17.0%	16.2%	14.4%	16.4%	4.9%	2.7%
Native American					8.9%	4.3%
Asian	6.9%	5.5%	4.9%	5.7%	1.6%	0.7%
Pacific Islander					4.2%	2.5%
Filipino					1.7%	0.7%
Hispanic	19.6%	18.8%	16.2%	18.2%	5.2%	2.8%
African American	17.9%	17.1%	15.1%	17.9%	4.9%	2.8%
White (not Hispanic)	13.5%	12.8%	11.8%	13.8%	3.7%	2.0%
Economically Disadvantaged	19.5%	18.6%	15.9%	17.8%	5.6%	3.0%
English Learners	21.5%	20.3%	17.4%	20.2%	7.6%	4.2%
Reclassified Fluent English					1.7%	1.0%
Special Education Students	37.3%	34.6%	29.6%	27.3%	16.2%	9.6%
Group	Percent of 10 th Graders Taking Math Courses Beyond Algebra I					
	Class of 2005	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010
All Students	54.6%	55.6%	59.6%	64.0%	64.2%	68.0%
Females	57.8%	59.1%	62.9%	67.1%	67.6%	71.1%
Males	51.5%	52.2%	56.5%	61.0%	60.9%	65.0%
Native American					50.1%	55.6%
Asian	78.7%	80.6%	83.8%	85.1%	85.0%	87.9%
Pacific Islander					62.0%	67.5%
Filipino					79.7%	82.1%
Hispanic	42.0%	43.4%	49.2%	56.3%	56.3%	60.8%
African American	48.6%	48.6%	53.4%	58.4%	59.2%	63.4%
White (not Hispanic)	62.0%	63.1%	65.8%	68.8%	69.3%	72.5%
Economically Disadvantaged	43.4%	44.9%	51.1%	57.2%	57.3%	61.7%
English Learners	33.8%	36.8%	42.8%	46.1%	43.3%	48.3%
Reclassified Fluent English					76.7%	78.7%
Special Education Students	19.5%	19.0%	24.3%	33.3%	31.7%	33.9%

Note. Students whose highest mathematics course was unknown were excluded from this table.

Table 3.29 shows the CAHSEE mathematics passing rates for students at each course level. Passing rates dropped dramatically for students who had not yet taken Algebra I last year at the same time the number of such students also dropped. Passing rates for these students were similar this year, although the number of students who had taken only General Mathematics was too small to allow computation of a passing rate. As was the case last year, passing rates were considerably lower for students who had not taken Algebra I and much higher for students who took courses beyond Algebra I. The good news is that this year there were many fewer students in the former category and more students in the latter.

Table 3.29. Initial Mathematics Passing Rates by Class and Highest Math Course Taken

Highest Math Course Taken	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010
General Math	31.2%	31.0%	35.9%	17.0%	n/a
Pre-Algebra	53.8%	54.8%	57.0%	34.3%	35.1%
Algebra I/Int. Math I	58.1%	57.5%	53.5%	59.0%	61.1%
Geometry/Int. Math II	87.2%	85.2%	81.3%	84.2%	85.3%
Algebra II/Int. Math III	95.3%	96.0%	91.9%	95.4%	96.0%
Advanced Math	99.4%	99.5%	96.4%	98.9%	99.2%
None/Missing	50.0%	41.2%	49.0%	35.4%	48.9%
No. of Students	414,903	450,928	470,891	502,501	474,351

In past years, we looked at when 12th graders still trying to pass the CAHSEE mathematics test had taken Algebra I, if at all. Because of increased policy interest in when Algebra I is taken, we looked at data on when Algebra I was taken from CAHSEE's 10th grade census testing of 10th graders. Table 3.43 shows the percentage of 10th graders taking Algebra I in different grades and, for each grade when it was taken, the percentage of those students who passed the CAHSEE mathematics test. Note that the information about mathematics courses provided on the CAHSEE student answer documents may not have been entirely accurate. Students were asked to indicate the grade at which various courses were taken or indicate that the course was not taken. A few 10th grade students appeared to indicate plans to take Algebra I in 11th or 12th grade. Others checked more than one grade, perhaps correctly if the course was repeated or was a two-year course. These responses were coded as invalid in the scanning process.

As shown in Table 3.30, only about 30 percent of CAHSEE 10th graders reported taking Algebra I before high school. Moving this up to 100 percent will be a very significant shift and could create difficulties if many students do not have prerequisite skills. However, more than 95 percent of the students who had taken Algebra I before high school passed the CAHSEE mathematics test on their first attempt in 10th grade. In comparison, only slightly more than half of the students who waited until 10th grade to take Algebra I passed the CAHSEE mathematics test on their first attempt.

Table 3.30. Initial Mathematics Passing Rates by When Algebra was Taken for 10th Grade Students Taking the CAHSEE

Grade When Algebra I was Taken	Percent of Students Taking Algebra I		Percent Passing CAHSEE Mathematics	
	Class of 2009	Class of 2010	Class of 2009	Class of 2010
7	3.5%	3.7%	97.5%	97.7%
8	26.6%	26.2%	95.5%	96.5%
9	30.8%	30.0%	80.1%	81.4%
10	19.3%	17.0%	54.7%	56.8%
Invalid/Missing	22.9%	22.7%	76.3%	78.6%
Total	385,623	399,055	78.3%	77.4%

Summary of Test Results

Many Students from the classes of 2006 and 2007 who had not passed the CAHSEE continued to test. About 3,500 students from the Class of 2006 continued to try to pass the CAHSEE, more than a year after their expected graduation. However, little is known about the more than 30,000 students from the Class of 2006 who did not pass the CAHSEE, and were not still trying to pass (Table 3.13). Roughly 40 percent of students in the Class of 2007 who had not passed the CAHSEE by June of their senior year continued to take the CAHSEE. More than a quarter of those still testing completed the CAHSEE requirement this year.

Cumulative passing rates for seniors were largely unchanged. Cumulative passing rates for seniors in the Class of 2008 were only slightly higher than the corresponding rates for the Class of 2007 (93.6 percent compared to 93.3 percent passing both parts as shown in Table 3.26).

Eleventh grade passing rates increased significantly. Cumulative passing rates for 11th graders in the Class of 2009 increased by 3 to 5 percentage points compared to 11th grade passing rates for the classes of 2006 through 2008. This was a significant increase that should lead to a reduction in the number of seniors who are denied diplomas next year due to the CAHSEE requirement.

Passing rates for 10th graders also increased significantly. Over 68 percent of 10th graders completed the CAHSEE requirement this year compared to 65 percent in 2007. Tenth grade passing rates increased for all demographic groups except for students in special education programs. As we did last year, we also separated first-time 10th graders from those repeating the 10th grade. Passing rates for repeat 10th graders were slightly higher than last year (24 percent compared to 21 percent), but still very low in comparison to passing rates for first-time 10th graders.

Passing rates for economically disadvantaged and minority students continue to be significantly lower than passing rates for white and Asian students at all grade levels.

In addition, only 54 percent of special education students in the Class of 2008 met the CAHSEE requirement by the end of their senior year, leaving nearly 18,000 seniors in special education programs who did not meet the CAHSEE, and perhaps other, graduation requirements.

More students are taking Algebra I by 10th grade. The proportion of 10th graders who had not yet had Algebra I continued to decline to just over 2 percent (of those reporting course participation). At the same time, the percentage of students taking mathematics courses beyond Algebra I by 10th grade increased from 64 percent to 68 percent. There continued to be a very strong relationship between mathematics courses taken and CAHSEE mathematics passing rates. We also examined the grade at which Algebra I was taken. Only about 30 percent of this year's 10th graders took Algebra I before high school. Those that did take Algebra I prior to high school have very high CAHSEE mathematics passing rates.

Chapter 4: Student Perspective

Xiaofan Cai

Student Questionnaire Responses

A student questionnaire was administered to students at the end of the CAHSEE ELA and math tests. HumRRO designed the questions to investigate several topics, including how students prepared for the CAHSEE tests, how the test topics were covered in classrooms, what factors may negatively impact their test performance, whether they expect to pass the CAHSEE or graduate from high school, and what they plan to do after high school. We have administered the questionnaires since 2001, and made some significant changes in the questions in 2005. This report is based on data collected from 2005 through 2008.

Student Questionnaire Respondents

As shown in Table 4.1, 78.7 percent of the 10th grade students who answered the 2008 ELA questionnaire have passed the ELA test, and 77.8 percent of the math questionnaire respondents have passed the math test. Distributions of gender, ethnicity, disability status, and English learners (ELs) were similar for ELA and math questionnaire respondents. Slightly more male students (about 51%) than female students (about 49%) responded to the questionnaire. The largest ethnic group was Hispanic students (46.4%), followed by white students (31.9%), Asian students (9.3%) and African American students (7.9%). About 8 percent were students with disabilities and about 16 percent were English learners.

Table 4.1. Demographic Characteristics of 2008 Student Questionnaire Respondents (10th Grade)

Variable		ELA	Math
<i>Pass</i>	No	21.3	22.2
	Yes	78.7	77.8
<i>Gender</i>	Female	49.0	49.1
	Male	51.0	50.9
<i>Ethnicity</i>	American Indian or Alaska Native	0.9	0.9
	Asian	9.3	9.3
	Pacific Islander	0.7	0.7
	Filipino	3.0	3.0
	Hispanic	46.4	46.4
	African American	7.9	7.9
	White	31.9	31.9
<i>Disability</i>	Yes	8.2	8.2
	No	91.8	91.9
<i>English Learner (EL)</i>	Yes	16.3	16.2
	No	83.7	83.8

Comparisons on Student Perspective

We conducted a series of analyses to investigate the trends and change of students' perceptions after taking CAHSEE, based on responses of 10th grade students. The analyses compared:

- 10th grade student responses in 2008 with responses from 2005, 2006, and 2007;
- 10th grade student responses in 2008 by whether they passed the test or not (a new variable was created, indicating whether the student passed both ELA and math tests, passed ELA test only, passed math test only, or passed neither test); and
- 10th grade student responses in 2008 by their demographic characteristics (e.g., gender, ethnicity, disability status, English learner status).

The first part of this chapter presents the results of the first two types of comparisons (comparison on the yearly trend of 10th grade students' responses and comparison of students' responses among those who passed both tests, passed only the ELA or math test, or passed neither test). The results of the comparisons are organized together by question and are presented by order of the questions.

The second part of this chapter presents 10th graders' responses on key demographic characteristics—gender, ethnicity, disability status and English learner status, providing comparisons of responses between male and female students, among various ethnic groups, between students with and without disabilities, and between English learners (EL) and non-English learners. A summary of major findings is provided.

Finally, all the comparison findings were summarized at the end of this chapter, providing a synthesis of findings on student perspective on the CAHSEE.

Findings From Student Responses

Question 1: How did you prepare for this test?

As shown in Table 4.2, the trend patterns of students' test preparations are very similar for both ELA and math tests. There was an increase in the percentages of 10th graders who reported (a) a teacher or counselor telling them the purpose and importance of the test, (b) practicing similar test questions, and (c) taking a special class during the regular school day on CAHSEE topics. Compared with responses in 2007, there was a 9.3 percent increase in the percentage of students reporting that they did nothing beyond regular coursework to prepare for the ELA test.

Table 4.2. Question 1: How Did You Prepare for This Test? (Mark All That Apply) (10th Graders' Responses from 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. A teacher or counselor told me about the purpose and importance of the test.	29.1	30.9	34.4	35.6	
B. I practiced on questions similar to those on the test.	31.1	32.4	33.8	33.6	
C. A teacher spent time in class helping me to get ready to take the test.	40.5	40.3	36.4	37.1	
D. I took a special class during the regular school day that covered the topics on the CAHSEE	n/a	n/a	5.1	5.7	
E. I took a special class after school or during the summer that covered the topics on the CAHSEE	n/a	n/a	3.1	3.0	
F. I did not do anything in addition to regular course work to prepare for this test.	29.6	29.3	20.6	29.9	
After taking math	Percentage				Percent
	2005	2006	2007	2008	
A. A teacher or counselor told me about the purpose and importance of the test.	26.7	28.2	31.6	32.3	
B. I practiced on questions similar to those on the test.	31.3	32.6	33.25	33.2	
C. A teacher spent time in class helping me to get ready to take the test.	26.5	26.3	24.27	24.6	
D. I took a special class during the regular school day that covered the topics on the CAHSEE	n/a	n/a	4.48	4.9	
E. I took a special class after school or during the summer that covered the topics on the CAHSEE	n/a	n/a	2.84	2.7	
F. I did not do anything in addition to regular course work to prepare for this test.	37.7	37.2	37.3	36.9	

As shown in Table 4.3, students who passed either the ELA or math test or both tests were more likely to report that their teachers or counselors emphasized the purpose and importance of the test; they practiced similar test questions; and their teachers spent time in class to help them to prepare for the tests.

Compared with students who passed neither test, or passed ELA or math test only, a larger percentage of students who passed both tests indicated that they did not make any extra effort to prepare for the test besides regular course work.

Table 4.3. Question 1: How Did You Prepare for This Test? (Mark All That Apply) (Percentages of 10th Grade Students' Responses by Pass or Not Pass the Tests)

After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. A teacher or counselor told me about the purpose and importance of the test.	37.1	31.6	33.1	31.2	
B. I practiced on questions similar to those on the test.	35.9	32.1	29.9	23.8	
C. A teacher spent time in class helping me to get ready to take the test.	39.4	33.5	33.6	28.1	
D. I took a special class during the regular school day that covered the topics on the CAHSEE	4.6	8.3	8.6	8.9	
E. I took a special class after school or during the summer that covered the topics on the CAHSEE	2.5	3.7	4.3	4.4	
F. I did not do anything in addition to regular course work to prepare for this test.	32.9	24.0	21.8	20.7	
After taking math	Pass				
Both Tests	Math Only	ELA Only	None		
A. A teacher or counselor told me about the purpose and importance of the test.	33.0	30.7	29.4	31.0	
B. I practiced on questions similar to those on the test.	34.3	34.4	32.8	26.9	
C. A teacher spent time in class helping me to get ready to take the test.	24.5	27.5	24.8	24.0	
D. I took a special class during the regular school day that covered the topics on the CAHSEE	4.0	7.0	7.1	7.1	
E. I took a special class after school or during the summer that covered the topics on the CAHSEE	2.4	3.5	3.5	3.5	
F. I did not do anything in addition to regular course work to prepare for this test.	41.4	25.4	29.1	22.9	

Explanation of table contents: The upper part of the table presents students responses after they took the CAHSEE ELA exam. The numbers in first two columns are the responses percentages of students who passed both tests or passed only ELA test (these are the students who passed the CAHSEE ELA test), and the last two columns indicate the response percentages of student who passed only math test and passed neither test (these are the students who did not pass the CAHSEE ELA test). The lower part of the table presents student responses after they took the CAHSEE math exam. The first two columns show the response percentages of students who passed both tests or passed only math test (these are the students who passed the CAHSEE math test), and the last two columns show the percentages of student who passed only ELA test and passed neither test (these are the students who did not pass the CAHSEE math test)

Question 2: How important is this test for you?

The majority of the students considered the test “very important” (78.9% for ELA and 79% for math), and more than 96 percent of the test takers believed the test was “very important” or “somewhat important.” For both ELA and math tests, the percentage of students reporting “very important” peaked in 2006 (about 90%) for both tests, greatly dropped in 2007, and increased slightly (by .5%) in 2008 (see Table 4.4).

Table 4.4. Question 2: How Important is This Test for You? (10th Graders’ Responses 2005-08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. Very important	75.5	90.2	78.4	78.9	
B. Somewhat important	20.2	6.9	18.1	17.7	
C. Not important	4.4	2.9	3.5	3.3	
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. Very important	74.8	89.9	78.5	79.0	
B. Somewhat important	20.6	7.3	17.8	17.4	
C. Not important	4.6	2.9	3.7	3.7	

More students who passed only one test or passed neither test said the tests were “very important” than students who passed both tests. More students who passed both tests reported the test was “somewhat important” or “not important” compared with non-passers or one-test passers (see Table 4.5).

Table 4.5. Question 2: How Important is This Test for You? (Percentages of 10th Graders’ Responses by Pass or Not Pass)

After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Very important	77.2	87.5	84.0	80.9	
B. Somewhat important	19.2	11.0	13.7	15.5	
C. Not important	3.6	1.5	2.3	3.6	
After taking Math	Pass				Percent
	Both Tests	Math Only	ELA Only	None	
A. Very important	77.3	84.5	86.7	81.1	
B. Somewhat important	18.8	13.2	11.5	15.1	
C. Not important	4.0	2.3	1.9	3.8	

Question 3: Do you think you will graduate from high school?

Since 2005, the percentage of students who were not sure whether they would graduate from high schools has decreased; the proportion of students who were confident that they would graduate increased (Table 4.6). Slightly more 2008 ELA test takers (89.6%) than math test takers (88.9) said they thought they would graduate.

Table 4.6. Question 3: Do You Think You Will Graduate From High School? (10th Graders' Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. Yes	88.7	86	88.7	89.6	
B. No	1.4	1.4	1.3	1.2	
C. Not sure	9.9	12.6	10.0	9.2	

After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. Yes	87.9	84.9	87.9	88.9	
B. No	1.8	1.8	1.7	1.6	
C. Not sure	10.2	13.3	10.4	9.5	

Most of the students who passed both tests were confident of graduating from high school (94.9% after ELA test and 94.1% after math test). Over 26 percent of those who did not pass either test said they were not sure about graduating and over 4 percent of them thought they would not graduate.

Table 4.7. Question 3: Do You Think You Will Graduate From High School? (Percentages of 10th Graders' Responses by Pass or Not Pass)

After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Yes	94.9	82.8	79.9	69.2	
B. No	0.5	1.4	2.2	4.3	
C. Not sure	4.6	15.8	18.0	26.5	

After taking Math	Pass				Percent
	Both Tests	Math Only	ELA Only	None	
A. Yes	94.1	80.8	81.4	69.4	
B. No	1.0	2.3	2.1	4.6	
C. Not sure	5.0	16.8	16.5	26.0	

Question 4: What might prevent you from graduating?

Consistent with the findings from the previous question, the majority (more than 60%) of the students taking both tests were confident that they would graduate on time. Students indicated that one major factor that might prevent them from graduating was not passing the CAHSEE exams (18.9% of ELA test takers and 21.4% of math test takers). Some students also indicated that not passing all the required courses might also prevent them from graduating. Only a small percentage of students reported that they might drop out before the end of 12th grade (2.3% after ELA test and 2.6% after math test).

Table 4.8. Question 4: What Might Prevent You From Graduating? (Mark all That Apply) (10th Graders' Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. I may not pass all the required courses.	n/a	25.1	19.7	18.8	
B. I may not pass the CAHSEE exam.	n/a	38.4	20.6	18.9	
C. I may drop out before the end of 12th grade	n/a	13.3	2.5	2.3	
D. I may not meet some other graduation requirement	n/a	23.2	13.4	12.6	
E. I am confident I will graduate on time.	n/a	n/a	63.3	65.6	
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. I may not pass all the required courses.	n/a	26.7	21.4	20.3	
B. I may not pass the CAHSEE exam.	n/a	41.1	23.3	21.4	
C. I may drop out before the end of 12th grade	n/a	11.8	2.8	2.6	
D. I may not meet some other graduation requirement	n/a	20.4	12.6	11.8	
E. I am confident I will graduate on time.	n/a	n/a	59.8	62.2	

Note: In 2005 version of the Student Questionnaire, this question was not asked (indicated as "n/a"). In 2006 version of the Student Questionnaire, 4 responses (A, B, C, and D) were available for this question. In 2007 and 2008 5 responses (A, B, C, D, and E) were available.

The majority (over 70%) of students who passed both tests reported that they were confident of graduating from high school. A little over 40 percent of students who passed only one test and about 30 percent of those who passed neither (non-passers) indicated they were confident of high school graduation. For the non-passers, not passing the CAHSEE exam was the most frequently selected reason that might prevent them from graduating (Table 4.9).

Table 4.9. Question 4: What Might Prevent You from Graduating? (Mark All That Apply)(Percentages of 10th graders' Responses by Pass or Not Pass)

After taking ELA	Pass			None	Percent
	Both Tests	ELA Only	Math Only		
A. I may not pass all the required courses.	15.2	31.2	27.1	27.0	
B. I may not pass the CAHSEE exam.	12.0	32.5	35.4	40.9	
C. I may drop out before the end of 12th grade	1.4	2.6	4.5	6.2	
D. I may not meet some other graduation requirement	11.1	21.0	16.1	14.3	
E. I am confident I will graduate on time.	76.1	43.3	42.2	32.1	

After taking Math	Pass			None	Percent
	Both Tests	Math Only	ELA Only		
A. I may not pass all the required courses.	16.4	29.5	32.8	29.0	
B. I may not pass the CAHSEE exam.	14.1	34.7	40.4	43.7	
C. I may drop out before the end of 12th grade	1.7	4.4	2.9	6.3	
D. I may not meet some other graduation requirement	10.6	15.3	18.1	13.2	
E. I am confident I will graduate on time.	73.1	40.7	37.2	28.7	

Question 5: What do you think you will do after high school?

Over the years, the majority of students quite consistently indicated that they would attend community colleges (nearly 20%) or 4-year colleges/universities (more than 50%). The percentage of students who indicated so in 2008 increased from the previous years (Table 4.10).

Table 4.10. Question 5: What Do You Think You Will Do After High School? (10th Graders' Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. I will join the military.	5.0	4.9	4.1	3.9	
B. I will go to a community college.	18.4	18.5	18.5	19.6	
C. I will go to a 4-year college or university.	55.9	54.8	53.8	55.7	
D. I will go to a vocational, technical, or trade school.	4.0	3.7	3.5	3.4	
E. I will work full-time.	3.5	3.9	3.6	3.7	
F. I really don't know what I will do after high school.	13.2	14.2	13.8	13.8	
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. I will join the military.	5.4	5.5	4.4	4.3	
B. I will go to a community college.	18.3	18.6	18.2	19.3	
C. I will go to a 4-year college or university.	55.0	54.1	53.2	55.1	
D. I will go to a vocational, technical, or trade school.	4.0	3.6	3.4	3.3	
E. I will work full-time.	3.7	4.0	3.8	3.8	
F. I really don't know what I will do after high school.	13.6	14.1	14.2	14.2	

Students who passed both tests were more likely to report that they would go a 4-year college or university after high school. More students who passed only one test or who did not pass any test responded “I will go to a community college” and “I really don’t know what I will do after high school” (Table 4.11).

Table 4.11. Question 5: What do You Think You Will Do After High School? (Percentages of 10th Graders’ Responses by Pass or Not Pass)

After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I will join the military.	2.9	4.9	6.1	7.5	
B. I will go to a community college.	17.4	28.9	24.1	24.1	
C. I will go to a 4-year college or university.	63.1	39.7	40.3	31.8	
D. I will go to a vocational, technical, or trade school.	3.0	4.3	4.2	4.4	
E. I will work full-time.	1.8	5.1	7.1	11.6	
F. I really don’t know what I will do after high school.	11.8	17.0	18.2	20.7	
After taking Math	Pass				Percent
	Both Tests	Math Only	ELA Only	None	
A. I will join the military.	3.4	6.3	5.4	7.9	
B. I will go to a community college.	17.0	23.5	29.2	23.7	
C. I will go to a 4-year college or university.	62.5	40.6	39.0	31.8	
D. I will go to a vocational, technical, or trade school.	3.0	4.0	4.2	4.3	
E. I will work full-time.	1.9	6.7	5.4	11.7	
F. I really don’t know what I will do after high school.	12.3	18.8	16.8	20.6	

Question 6: How sure are you about what you will do after high school?

In 2008, slightly fewer students indicated that they were “very sure” about their post-high-school plans compared with students in 2007. Likewise, slightly more students indicated that they were “somewhat sure” about what they would do after high school. There was no significant change in the percentage of students who were “not sure at all” about their post-high-school plans over the years (see Table 4.12).

Table 4.12. Question 6: How Sure Are You About What You Will Do After High School? (10th Graders’ Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. Very sure	43.4	40.3	41.06	40.7	
B. Somewhat sure	44.2	47.4	46.84	47.5	
C. Not sure at all	12.4	12.2	12.01	11.8	

After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. Very sure	44.4	41.7	42.2	41.9	
B. Somewhat sure	42.9	46.3	45.45	46.1	
C. Not sure at all	12.7	12.1	12.21	12.0	

As shown in Table 4.13, students who passed both tests or passed one test were more likely than non-passers to report that they were “very sure” or “somewhat sure” about what they will do after high school. Students who did not pass the test reported a higher percentage of uncertainty of their post-high-school plans.

Table 4.13. Question 6: How Sure Are You About What You Will Do After High School? (Percentages of 10th Graders’ responses by Pass or Not Pass)

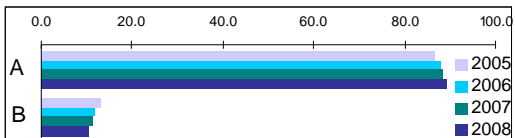
After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Very sure	40.4	40.3	40.1	42.5	
B. Somewhat sure	48.8	48.0	45.6	41.1	
C. Not sure at all	10.8	11.6	14.3	16.4	

After taking Math	Pass				Percent
	Both Tests	Math Only	ELA Only	None	
A. Very sure	41.5	42.0	41.2	44.1	
B. Somewhat sure	47.6	46.1	43.9	39.0	
C. Not sure at all	10.9	11.9	14.9	16.9	

Question 7: How well did you do on this test?

The percentages of students who believed they “did as well as I could” on the CAHSEE consistently increased over the years for both ELA and math tests. After taking the 2008 ELA test, 89.6 percent felt that they did as well as they could and 86.8 percent indicated so after taking the math test (see Table 4.14).

Table 4.14. Question 7: How well Did You Do on This Test? (10th Graders’ Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. I did as well as I could.	86.9	88.1	88.5	89.6	
B. I did not do as well as I could have.	13.1	11.9	11.5	10.4	

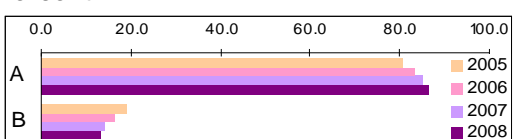
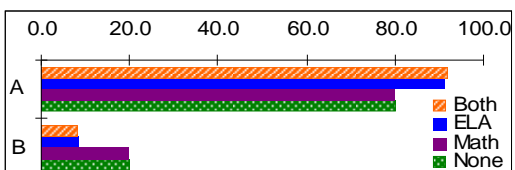
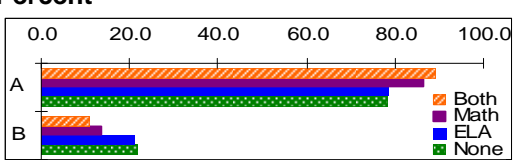
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. I did as well as I could.	81.0	83.7	85.4	86.8	
B. I did not do as well as I could have.	19.0	16.3	14.5	13.3	

Table 4.15 shows that students’ perceptions of their test performance were fairly consistent with their actual test performance—higher percentages (around 90%) of students who passed one or both tests reported they did as well as they could on the CAHSEE, while students who did not pass either CAHSEE test tended to report that they did not do as well as they could.

Table 4.15. Question 7: How Well Did You Do on This Test? (Percentages of 10th Graders Responses by Pass or Not Pass)

After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I did as well as I could.	91.9	91.5	80.0	80.1	
B. I did not do as well as I could have.	8.1	8.5	20.0	19.9	

After taking Math	Pass				Percent
	Both Tests	Math Only	ELA Only	None	
A. I did as well as I could.	89.1	86.6	78.9	78.4	
B. I did not do as well as I could have.	10.9	13.5	21.1	21.6	

Question 8: (Of those who answered B to #7) The main reasons I did not do as well on this test as I could have are:

The percentage of students who reported they did not do as well as they could on the test because they were too nervous to perform well has increased over the years for both ELA and math; this year it was about 30 percent. The percentage that reported not remembering topics they had been taught increased among ELA test takers while decreasing among math test takers. Over the years, fewer students reported lack of time or motivation to do well on the CAHSEE (Table 4.16).

Table 4.16. Question 8: The Main Reasons I Did Not Do as Well on This Test as I Could Have are (Mark All That Apply) (10th Graders' Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. I was too nervous to do as well as I could.	28.1	28.3	32.2	32.5	
B. I was not motivated to do well.	21.9	20.4	17.6	18.8	
C. I did not have time to do as well as I could.	8.2	8.0	5.9	5.3	
D. Conditions in the testing room made it difficult to concentrate.	18.5	18.3	12.0	11.2	
E. There are questions on this test that cover topics I was taught, but I did not remember how to answer them.	19.0	20.0	23.4	23.3	
F. There were other reasons why I did not do as well as I could.	41.0	43.6	30.2	28.5	
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. I was too nervous to do as well as I could.	21.6	23.4	28.6	28.3	
B. I was not motivated to do well.	16.8	16.8	16.1	16.0	
C. I did not have time to do as well as I could.	5.1	5.4	5.3	5.0	
D. Conditions in the testing room made it difficult to concentrate.	13.1	13.0	9.9	9.9	
E. There are questions on this test that cover topics I was taught, but I did not remember how to answer them.	51.0	51.9	38.9	38.6	
F. There were other reasons why I did not do as well as I could.	31.6	32.9	25.5	24.8	

As shown in Table 4.17, more students who passed neither test than students who passed one or both tests reported they were too nervous or they lacked time to perform well on the test.

Table 4.17. Question 8: The Main Reasons I Did Not Do as Well on This Test as I Could Have Are (Mark All That Apply) (Percentages of 10th Graders' Responses by Pass or Not Pass)

After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I was too nervous to do as well as I could.	32.7	31.2	33.2	32.2	
B. I was not motivated to do well.	19.5	17.9	18.3	17.4	
C. I did not have time to do as well as I could.	4.1	4.9	7.2	8.2	
D. Conditions in the testing room made it difficult to concentrate.	11.4	9.9	11.0	11.3	
E. There are questions on this test that cover topics I was taught, but I did not remember how to answer them.	22.6	27.3	24.8	22.9	
F. There were other reasons why I did not do as well as I could.	30.7	27.2	28.9	22.7	

After taking Math	Pass				Percent
	Both Tests	Math Only	ELA Only	None	
A. I was too nervous to do as well as I could.	26.7	26.5	31.5	31.7	
B. I was not motivated to do well.	15.8	16.0	16.2	16.3	
C. I did not have time to do as well as I could.	4.0	4.7	5.9	7.2	
D. Conditions in the testing room made it difficult to concentrate.	10.1	8.4	9.9	10.0	
E. There are questions on this test that cover topics I was taught, but I did not remember how to answer them.	41.5	47.4	32.5	30.0	
F. There were other reasons why I did not do as well as I could.	26.5	25.8	23.5	20.8	

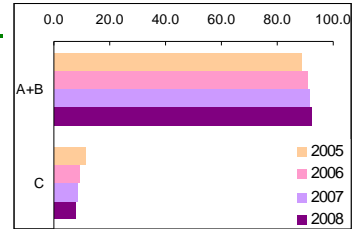
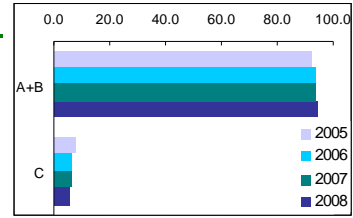
Question 9: Were the topics on the test covered in courses you have taken?

Over the years, there was a steady increase in the percentage of students reporting most or all of the topics on the test were covered in their courses. In 2008, more than 90 percent of test takers indicated so for both ELA and math tests (Table 4.18).

Table 4.18. Question 9: Were the Topics on the Test Covered in Courses You Have Taken? (10th Graders' Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. Yes, all of them.	92.2	93.3	93.7	93.9	A+B
B. Most, but not all of them (two-thirds or more were covered).					
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	7.7	6.7	6.25	6.1	C

After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. Yes, all of them.	88.9	90.6	91.53	92.3	A+B
B. Most, but not all of them (two-thirds or more were covered).					
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	11.1	9.4	8.36	7.7	C



A higher percentage of students who passed one or both tests indicated that test topics were mostly or all covered in courses than did students who passed neither test. Significantly more non-passers than passers reported that many test topics were not covered in courses they have taken (Table 4.19).

Table 4.19. Question 9: Were the Topics on the Test Covered in Courses You Have Taken? (Percentages of 10th Graders' Responses by Pass or Not Pass)

	Pass				Percent	
	Both Tests	ELA Only	Math Only	None		
After taking ELA						
A. Yes, all of them.	96.2	92.8	87.6	85.1		
B. Most, but not all of them (two-thirds or more were covered).						
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).						
After taking Math						
A. Yes, all of them.	94.9	90.2	85.8	83.6		
B. Most, but not all of them (two-thirds or more were covered).						
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).						

Question 10: Were any of the questions on the test different from the types of questions or answer options you have encountered in your homework assignments or classroom tests?

Compared with previous years, more students indicated that the questions on the math test were similar to the ones they have encountered in homework assignments. Slightly fewer students reported that the questions on the ELA test were similar to their homework questions (Table 4.20).

Table 4.20. Question 10: Were Any of the Questions on the Test Different From the Types of Questions or Answer Options You Have Encountered in Class? (10th Graders' Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. Yes, many were different from anything I had seen before.	9.3	11.9	11.37	11.3	
B. Yes, a few were different from anything I had seen before.	49.5	48.9	47.84	49.0	
C. No, all were similar to ones used in my classes	41.2	39.1	40.73	39.7	
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. Yes, many were different from anything I had seen before.	14.4	13.5	12.62	11.7	
B. Yes, a few were different from anything I had seen before.	51.0	49.2	47.22	45.7	
C. No, all were similar to ones used in my classes	34.7	37.3	40.07	42.7	

Compared with non-passers, students who passed both tests responded at higher rates that all of the test questions were similar to homework assignments. Non-passers reported more frequently that many test questions were unfamiliar to them (Table 4.21).

Table 4.21. Question 10: Were Any of the Questions on the Test Different From the Types of Questions or Answer Options You Have Encountered in Class? (Percentages of 10th Graders' Responses by Pass or Not Pass)

After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Yes, many were different from anything I had seen before.	7.6	11.4	21.9	26.1	
B. Yes, a few were different from anything I had seen before.	46.6	55.8	58.7	53.9	
C. No, all were similar to ones used in my classes	45.8	32.8	19.5	20.0	

After taking Math	Pass				Percent
	Both Tests	Math Only	ELA Only	None	
A. Yes, many were different from anything I had seen before.	7.9	16.7	17.5	26.3	
B. Yes, a few were different from anything I had seen before.	41.6	57.2	59.0	54.3	
C. No, all were similar to ones used in my classes	50.6	26.1	23.5	19.4	

Question 11: Were the questions on this test more difficult than questions you were given in classroom tests or homework assignments?

More 2008 ELA test takers than in 2007 indicated the test questions were more difficult than those encountered in course work. However, more math test takers reported that the test questions were as difficult or easier than the ones encountered in course work (Table 4.22).

Table 4.22. Question 11: Were the Questions on This Test More Difficult Than Questions You Were Given in Classroom Tests or Homework Assignments? (10th Graders' Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. Yes, the test questions were generally more difficult than the questions I encountered in my course work.	17.5	16.3	16.45	16.6	
B. The test questions were generally about as difficult as the questions I encountered in my course work.	82.5	83.7	83.5	83.4	
C. The test questions were generally easier than the questions I encountered in my course work.					
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. Yes, the test questions were generally more difficult than the questions I encountered in my course work.	22.3	20.8	19.18	17.8	
B. The test questions were generally about as difficult as the questions I encountered in my course work.	77.7	79.2	80.67	82.2	
C. The test questions were generally easier than the questions I encountered in my course work.					

As shown in Table 4.23, more students who passed both tests reported the test questions were equally difficult or easier than the homework questions than did non-passers. A much higher percentage of students who did not pass the test responded that the test questions were more difficult than those encountered in course work. More than 88 percent of students who passed both tests perceived that the test questions were equally difficult or easier than the coursework questions. More than 36 percent of students who passed neither of the tests indicated that the test questions were more difficult than classroom or homework questions.

Table 4.23. Question 11: Were the Questions on This Test More Difficult Than Questions You Were Given in Classroom Tests or Homework Assignments? (Percentages of 10th Graders' Responses by Pass or Not Pass)

	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
After taking ELA					
A. Yes, the test questions were generally more difficult than the questions I encountered in my course work.	11.2	19.16	35.01	36.0	<p>Bar chart for ELA section: The x-axis represents percentages from 0.0 to 100.0. The y-axis has two categories: A and B+C. For category A, the bars are: Both (orange, ~11.2%), ELA (blue, ~19.16%), Math (purple, ~35.01%), and None (green, ~36.0%). For category B+C, the bars are: Both (orange, ~88.9%), ELA (blue, ~80.8%), Math (purple, ~65.0%), and None (green, ~64.0%).</p>
B. The test questions were generally about as difficult as the questions I encountered in my course work.	88.9	80.8	65.0	64.0	
C. The test questions were generally easier than the questions I encountered in my course work.					
After taking Math					
A. Yes, the test questions were generally more difficult than the questions I encountered in my course work.	11.6	26.5	31.3	38.9	<p>Bar chart for Math section: The x-axis represents percentages from 0.0 to 100.0. The y-axis has two categories: A and B+C. For category A, the bars are: Both (orange, ~11.6%), Math (purple, ~26.5%), ELA (blue, ~31.3%), and None (green, ~38.9%). For category B+C, the bars are: Both (orange, ~88.4%), Math (purple, ~73.5%), ELA (blue, ~68.7%), and None (green, ~61.1%).</p>
B. The test questions were generally about as difficult as the questions I encountered in my course work.	88.4	73.5	68.7	61.1	
C. The test questions were generally easier than the questions I encountered in my course work.					

Question 12: If some topics on the test were difficult for you, was it because

Table 4.24 shows that a significantly higher percentage of ELA test takers than math test takers indicated that “none of the topics was difficult.” More than 40 percent of the students who felt the test was difficult reported it was because they “have forgotten things” they had been taught. More math test takers than ELA test takers reported that they had trouble with difficult topics when they were taught in courses.

Table 4.24. Question 12: If Some Topics on the Test Were Difficult for You, Was it Because: (10th Graders’ Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. I did not take courses that covered these topics.	8.2	7.6	7.2	7.2	
B. I had trouble with these topics when they were covered in courses I took.	18.1	17.5	17.2	17.3	
C. I have forgotten things I was taught about these topics.	37.9	37.8	41.6	42.5	
D. None of the topics was difficult for me.	35.8	37.1	33.3	33.0	
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. I did not take courses that covered these topics.	13.5	12.6	10.8	9.5	
B. I had trouble with these topics when they were covered in courses I took.	22.6	23.8	21.9	22.8	
C. I have forgotten things I was taught about these topics.	44.7	43.8	45.0	46.1	
D. None of the topics was difficult for me.	19.2	19.8	20.8	21.7	

As shown in Table 4.25, more student passers than non-passers reported that they felt the test was difficult because they had forgotten things they were taught. Significantly more non-passers than passers indicated that the test was difficult because they had trouble with the topics when they were taught in classrooms. Overall, more ELA test passers (38.7%) than math test passers (26.3%) reported having no difficulty with the respective tests.

Table 4.25. Question 12: If Some Topics on the Test Were Difficult for You, Was it Because: (Percentages of 10th Graders' Responses by Pass or Not Pass)

After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I did not take courses that covered these topics.	4.8	7.9	14.8	16.6	
B. I had trouble with these topics when they were covered in courses I took.	13.8	21.0	29.4	28.8	
C. I have forgotten things I was taught about these topics.	42.8	46.2	42.1	39.2	
D. None of the topics was difficult for me.	38.7	24.9	13.7	15.4	

After taking Math	Pass				Percent
	Both Tests	Math Only	ELA Only	None	
A. I did not take courses that covered these topics.	6.6	14.9	14.5	19.2	
B. I had trouble with these topics when they were covered in courses I took.	18.6	28.5	38.2	33.7	
C. I have forgotten things I was taught about these topics.	48.5	44.0	40.8	37.2	
D. None of the topics was difficult for me.	26.3	12.7	6.5	9.9	

Question 13: Have you worked or will you work harder to learn the English-language arts or mathematics skills tested by the CAHSEE?

About 47 percent of the ELA test takers and 46 percent of the math test takers reported that they were working harder to pass the CAHSEE. Nearly 40 percent of the students who took the ELA and math tests reported that they did not have to work any harder to meet the CAHSEE requirement for both ELA and math tests, (1% higher than in 2007, see Table 4.26).

Table 4.26. Question 13: Have You Worked or Will You Work Harder to Learn the English-language Arts or Mathematics Skills Tested by the CAHSEE? (Mark All That Apply) (10th Graders’ Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. I do not have to work any harder to meet the CAHSEE requirement.	n/a	35.3	40.8	41.4	
B. I am taking additional courses.	n/a	3.9	6.2	6.1	
C. I am working harder in the courses I am taking.	n/a	33.0	47.3	47.3	
D. I am getting help outside of the classroom.	n/a	7.2	8.3	8.2	
E. I am repeating a course to learn the material better.	n/a	3.9	5.3	4.9	
F. I will stay in school an additional year to learn the required material.	n/a	n/a	n/a	n/a	
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. I do not have to work any harder to meet the CAHSEE requirement.	n/a	39.1	39.0	40.2	
B. I am taking additional courses.	n/a	5.0	6.5	6.2	
C. I am working harder in the courses I am taking.	n/a	39.9	46.3	45.8	
D. I am getting help outside of the classroom.	n/a	9.4	8.0	9.0	
E. I am repeating a course to learn the material better.	n/a	6.5	9.3	6.8	
F. I will stay in school an additional year to learn the required material.	n/a	3.4	7.3	n/a	

Note: In 2005, this question was not asked (indicated as “n/a”) on either the ELA or math Student Questionnaire. In the 2006, 2007, and 2008 versions of the ELA Student Questionnaire, there were 4 choices (A, B, C, and D) for this question. On the math questionnaire for 2006 and 2007, there were 5 choice (A, B, C, D and E) for this question, while in the 2008 version, there were 4 choices (A, B, C and D).

Compared with those who did not pass the test, students who passed the CAHSEE were more likely to report that they did not have to work any harder for the tests. Non-passers were more likely than passers to report that (a) they were working harder in the course, (b) they were getting help outside the classroom and (c) they were repeating a course to better learn the material for the CAHSEE (Table 4.27).

Table 4.27. Question 13: Have You Worked or Will You Work Harder to Learn the English-language Arts or Mathematics Skills Tested by the CAHSEE? (Mark All That Apply) (Percentages of 10th Graders' Responses by Pass or Not Pass)

After taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I do not have to work any harder to meet the CAHSEE requirement.	49.9	22.2	18.3	16.4	
B. I am taking additional courses.	4.0	8.0	12.2	13.6	
C. I am working harder in the courses I am taking.	44.7	59.1	56.0	50.6	
D. I am getting help outside of the classroom.	6.1	12.5	14.3	14.5	
E. I am repeating a course to learn the material better.	2.7	7.4	10.2	12.8	

After taking Math	Pass				Percent
	Both Tests	Math Only	ELA Only	None	
A. I do not have to work any harder to meet the CAHSEE requirement.	49.3	21.5	13.7	15.1	
B. I am taking additional courses.	4.2	10.9	9.3	12.8	
C. I am working harder in the courses I am taking.	42.7	54.2	61.3	50.2	
D. I am getting help outside of the classroom.	7.0	13.0	14.8	14.9	
E. I am repeating a course to learn the material better.	4.2	10.4	13.1	15.0	

Question 14: If you do not pass the CAHSEE in this administration, what are you most likely to do?

Table 4.28 shows that if they did not pass the CAHSEE, the majority of students (75.8% of ELA test takers and 77.2% of math test takers) said they would stay in school and try to pass the CAHSEE. These percentages were about 8 percent higher than those in 2007. Slightly more students than last year reported that they would (a) take course at community colleges and (b) participate in other types of programs to pass the CAHSEE again. Only one percent of the students indicated that they would give up trying to get a diploma.

Table 4.28. Question 14: If You Do Not Pass the CAHSEE in This Administration, What Are You Most Likely to Do? (Mark the Most Likely Option) (10th Grader’s Responses 2005–08)

After taking ELA	Percentage				Percent
	2005	2006	2007	2008	
A. I will stay in school and try to pass the CAHSEE again.	n/a	n/a	68.2	75.8	
B. I will take courses at a community college and try to pass CAHSEE again.	n/a	n/a	5.0	5.3	
C. I will participate in some other type of program that will help me to pass the CAHSEE.	n/a	n/a	9.4	10.4	
D. I will try to get a GED certificate.	n/a	n/a	1.8	1.9	
E. I will give up trying to get a diploma altogether.	n/a	n/a	1.1	1.2	
F. I really do not know what I will do.	n/a	n/a	5.4	5.4	
After taking Math	Percentage				Percent
	2005	2006	2007	2008	
A. I will stay in school and try to pass the CAHSEE again.	n/a	n/a	70.7	77.2	
B. I will take courses at a community college and try to pass CAHSEE again.	n/a	n/a	4.9	5.2	
C. I will participate in some other type of program that will help me to pass the CAHSEE.	n/a	n/a	8.2	8.7	
D. I will try to get a GED certificate.	n/a	n/a	1.8	1.9	
E. I will give up trying to get a diploma altogether.	n/a	n/a	1.3	1.4	
F. I really do not know what I will do.	n/a	n/a	5.8	5.7	

Note: this question was not asked prior to 2007.

As shown in Table 4.29, students who passed both tests had the highest rate (more than 80%) of responding that they would stay in school and try to pass again if they had not passed the CAHSEE. Students who did not pass any of the tests indicated the lowest percentage of intentions to stay in school and try again to pass the CAHSEE. More non-passers than passers reported that they would take courses in community colleges or participate in other programs to pass the CAHSEE. The non-passers category also had the highest percentage (nearly 3%) of respondents saying they would give up trying to get a diploma or would try to get a GED certificate if they fail to pass.

Table 4.29. Question 14: If You Do Not Pass the CAHSEE in This Administration, What Are You Most Likely to Do? (Mark the Most Likely Option) (Percentages of 10th Graders' Responses by Pass or Not Pass)

	Percentage				Percent
	Both Tests	ELA Only	Math Only	None	
After taking ELA					
A. I will stay in school and try to pass the CAHSEE again.	80.9	70.5	64.7	56.7	
B. I will take courses at a community college and try to pass CAHSEE again.	3.9	6.8	8.1	10.7	
C. I will participate in some other type of program that will help me to pass the CAHSEE.	8.8	13.3	15.3	15.1	
D. I will try to get a GED certificate.	1.0	2.6	3.3	5.8	
E. I will give up trying to get a diploma altogether.	0.8	0.9	1.8	2.9	
F. I really do not know what I will do.	4.6	5.9	6.9	8.9	
After taking Math					
	Both Tests	Math Only	ELA Only	None	Percent
A. I will stay in school and try to pass the CAHSEE again.	81.9	68.4	71.7	58.7	
B. I will take courses at a community college and try to pass CAHSEE again.	3.8	7.4	6.8	10.4	
C. I will participate in some other type of program that will help me to pass the CAHSEE.	7.1	12.7	11.9	13.6	
D. I will try to get a GED certificate.	1.1	3.0	2.7	5.4	
E. I will give up trying to get a diploma altogether.	1.2	1.5	1.0	2.6	
F. I really do not know what I will do.	5.0	7.0	6.0	9.2	

Comparisons of 10th Grade Student Responses in 2008 by Demographic Characteristics

HumRRO compared student questionnaire responses on four variables: gender, ethnicity, disability status, and English learner (EL) status. Overall, the response differences by these four variables were very similar for the ELA and math questionnaires. The results from the ELA test are presented in Table 4.30 (see page 29-31) and the results from the math test are presented in Table 4.31 (see page 32-34).

Summary of Findings

Test preparation (Table 4.30 and Table 4.31, Question 1)

- More female students than males reported (a) teacher or counselor emphasizing the importance of the CAHSEE, (b) practicing similar test questions, and (c) a teacher spending time in class to help them on the test preparation.
- More Asian and white students responded that they did not make extra efforts to prepare for the tests beyond regular course work.
- Students with disabilities and EL students were more likely than those without disabilities or EL status to report that they engaged in other efforts beyond regular coursework to prepare for the CAHSEE.

Importance of the tests (Table 4.30 and Table 4.31, Question 2)

- Female students were 7.9 percent more likely than male students to respond that the tests were “very important.”
- Hispanic, African American, and EL students tended to consider the tests “very important,” while Asian and white students were more likely to consider the tests “not important” than other ethnic groups.

Graduation from high school and post-high-school plans (Table 4.30 and Table 4.31, Questions 3–5)

- Female, white, or Asian students who did not have disabilities or who were not EL students reported being more confident of graduating from high schools and going to a 4-year college or university.
- Male or Hispanic students, students with disabilities, and EL students were less likely to be confident of graduating from high schools or certain about their post-high-school plans.
- Not passing the CAHSEE or not passing all the required courses were the two reasons students most often said might prevent them from graduating.

Test performance and influencing factors (Table 4.30 and Table 4.31, Questions 7–8)

- More female students than males reported “I did as well as I could” on the ELA test. Not much difference was found between males and females on math tests.
- On the ELA test, white students had the highest percentage reporting “I did as well as I could,” followed by Filipino and African American students; Asian students had the lowest percentage of reporting so.
- On the math test, Asian students had the highest rate of responding, “I did as well as I could,” followed by white students, with Hispanic and African American students having the lowest percentages reporting so.
- Among students who reported they “did not do well on the tests”, the most mentioned factors influencing their test performance were “being nervous” and “did not remember how to answer”.
- Females were more likely to report “being too nervous” and “forgetting answers”, while males were more likely to report lacking time and motivation to do well.

Content and instruction coverage (Table 4.30 and Table 4.31, Questions 9–12)

- Male students, students with disabilities, EL students, and African American students were more likely to report that all or most of the test topics were not covered in classes.

Efforts put into the CAHSEE (Table 4.30 and Table 4.31, Questions 13–14)

- Female students, Hispanic students, and EL students reported that they worked harder in their courses.
- Male students, white students, and non-EL student reported at higher percentages that they “do not have to work any harder to meet the CAHSEE requirement”.
- When asked what they would do if they did not pass the CAHSEE, the majority of the students indicated they would stay in school and try to pass the CAHSEE again. Higher percentages of female students, Hispanic students and EL students indicated they would participate in some other programs to help them pass the CAHSEE.

Table 4.30. Percentages of 10th Grade Students' Responses in 2008 by Gender, Ethnicity, Disability, and English Learner (EL) Status — After Taking CAHSEE ELA Exam.

After Taking CAHSEE <u>ELA</u> Exam (Percentage of Student Responses in 10 th Grade)	Gender		Ethnicity							Disability		EL	
	F	M	Am Indian/ Alaska Native	Asian	Pacific Islander	Filipino	Hispanic	African Am	White	No	Yes	No	Yes
1. How did you prepare for this test? (Mark all that apply.)													
A. A teacher or counselor told me about the purpose and importance of the test.	38.5	32.8	35.2	36.5	37.4	42.0	36.5	33.1	34.3	36.0	31.0	35.9	34.4
B. I practiced on questions similar to those on the test.	38.4	28.9	32.8	31.9	35.6	38.6	35.3	34.3	31.2	34.1	27.7	34.3	30.1
C. A teacher spent time in class helping me to get ready to take the test.	40.4	33.8	35.5	31.1	39.2	40.3	39.3	37.9	35.5	37.4	32.7	37.5	34.9
D. I took a special class during the regular school day that covered the topics on the CAHSEE.	5.7	5.8	5.7	2.8	5.0	3.6	7.9	7.5	3.4	5.5	9.0	5.1	9.3
E. I took a special class after school or during the summer that covered the topics on the CAHSEE.	3.1	2.9	2.1	1.7	2.6	1.9	4.2	4.2	1.4	2.9	4.3	2.6	4.9
F. I did not do anything in addition to regular course work to prepare for this test.	26.0	33.8	33.2	39.3	26.6	27.1	22.7	23.0	39.2	30.5	22.9	32.2	17.4
2. How important is this test to you?													
A. Very important	82.9	75.0	76.1	66.2	83.1	80.7	86.5	86.2	70.1	78.9	79.0	77.2	88.3
B. Somewhat important	15.2	20.2	20.5	27.7	14.3	17.4	11.8	11.5	24.7	17.8	16.8	19.2	10.0
C. Not important	1.9	4.8	3.4	6.2	2.7	1.9	1.7	2.3	5.2	3.3	4.2	3.6	1.7
3. Do you think you will graduate from high school?													
A. Yes	91.3	88.0	88.0	93.0	89.4	93.8	85.2	90.9	94.4	90.6	77.2	92.1	76.5
B. No	0.7	1.7	1.6	0.6	1.0	0.5	1.4	1.6	1.0	1.0	3.4	1.0	2.2
C. Not sure	8.0	10.4	10.4	6.4	9.6	5.7	13.3	7.5	4.7	8.4	19.4	6.9	21.3
4. What might prevent you from graduating? (Mark all that apply.)													
A. I may not pass all the required courses.	17.5	19.9	21.6	11.4	19.0	16.4	23.8	16.7	14.4	18.4	22.6	17.6	24.7
B. I may not pass the CAHSEE exam.	20.6	17.3	18.7	13.6	18.4	16.0	25.7	21.4	10.6	17.4	38.3	15.7	36.6
C. I may drop out before the end of 12th grade.	1.7	3.0	2.7	1.6	2.4	1.1	2.8	2.1	1.9	2.2	4.4	1.9	4.8
D. I may not meet some other graduation requirement.	11.2	14.0	15.0	9.4	14.6	14.9	14.9	12.2	10.0	12.4	14.7	12.4	13.5
E. I am confident I will graduate on time.	68.4	62.8	63.2	77.6	67.0	71.7	55.1	64.2	76.9	67.4	41.9	70.0	41.6
5. What do you think you will do after high school?													
A. I will join the military.	1.5	6.3	5.2	1.6	4.3	3.7	4.2	3.0	4.4	3.6	7.4	3.7	4.8
B. I will go to a community college.	20.7	18.5	22.3	9.7	19.4	17.4	21.8	16.4	20.3	19.0	26.8	19.0	22.8
C. I will go to a 4-year college or university.	62.0	49.4	45.3	78.7	58.2	66.5	48.7	64.4	56.0	57.4	33.8	58.2	42.2
D. I will go to a vocational, technical, or trade school.	2.2	4.5	5.2	1.4	2.6	2.1	3.5	3.5	3.8	3.2	5.2	3.4	3.3
E. I will work full-time.	2.2	5.2	4.4	1.1	3.4	1.1	5.2	3.6	2.6	3.4	8.3	2.9	8.0
F. I really don't know what I will do after high school.	11.4	16.2	17.6	7.6	12.1	9.2	16.7	9.1	12.9	13.4	18.6	12.8	18.9

Independent Evaluation of the CAHSEE: 2008 Evaluation Report

After Taking CAHSEE ELA Exam (Percentage of Student Responses in 10 th Grade)	Gender		Ethnicity							Disability		EL	
	F	M	Am Indian/ Alaska Native	Asian	Pacific Islander	Filipino	Hispanic	African Am	White	No	Yes	No	Yes
6. How sure are you about what you will do after high school?													
A. Very sure	43.2	38.2	37.0	42.3	41.6	36.7	38.9	52.7	40.4	40.6	42.1	40.6	41.1
B. Somewhat sure	47.2	47.9	48.9	47.4	47.9	52.9	48.9	39.5	47.1	47.9	42.9	48.1	44.4
C. Not sure at all	9.7	13.9	14.1	10.3	10.5	10.3	12.2	7.8	12.6	11.6	15.0	11.3	14.5
7. How well did you do on this test?													
A. I did as well as I could.	91.6	87.6	89.1	86.4	88.8	90.8	88.6	90.3	91.8	90.0	84.2	90.7	83.8
B. I did not do as well as I could have.	8.5	12.4	11.0	13.6	11.2	9.2	11.4	9.7	8.2	10.0	15.8	9.3	16.2
Of those who answered B to #7:													
8. The main reasons I did not do as well on this test as I could have are (mark all that apply):													
A. I was too nervous to do as well as I could.	37.3	28.3	31.0	28.8	29.4	31.7	34.1	30.4	31.2	32.6	31.7	31.8	34.7
B. I was not motivated to do well.	16.7	20.6	19.0	20.8	19.7	18.9	17.5	19.5	20.5	18.9	17.5	19.6	15.9
C. I did not have time to do as well as I could.	3.8	6.7	5.0	5.8	5.5	4.6	5.4	6.4	4.8	5.0	8.1	4.9	6.9
D. Conditions in the testing room made it difficult to concentrate.	10.5	11.7	10.8	13.7	10.9	11.9	10.3	10.8	12.3	11.1	11.7	11.4	10.5
E. There are questions on this test that cover topics I was taught, but I did not remember how to answer them.	25.1	21.7	23.1	21.6	24.0	26.6	25.2	22.3	20.1	23.3	23.5	22.9	24.6
F. There were other reasons why I did not do as well as I could.	27.6	29.2	32.2	34.9	31.9	31.0	26.2	26.0	31.4	29.0	24.0	29.7	24.1
9. Were the topics on the test covered in courses you have taken?													
A. Yes, all of them.	55.2	48.7	51.7	54.7	51.7	57.2	46.7	46.9	59.4	53.2	35.8	55.4	33.3
B. Most, but not all of them (two-thirds or more were covered).	40.0	44.0	42.1	39.0	42.4	39.0	46.5	45.2	36.0	41.3	51.3	39.6	54.8
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	4.8	7.3	6.2	6.4	6.0	3.9	6.8	7.9	4.6	5.5	12.9	5.0	11.9
10. Were any of the questions on the test different from the types of questions or answer options you have encountered in your homework assignments or classroom tests?													
A. Yes, many were different from anything I had seen before.	8.1	14.4	10.7	11.8	11.2	8.6	12.6	13.5	8.8	10.4	22.7	9.4	21.4
B. Yes, a few were different from anything I had seen before.	46.6	51.4	46.9	48.8	49.1	50.7	53.2	48.5	43.2	48.7	53.2	47.4	57.7
C. No, all were similar to ones used in my classes.	45.3	34.2	42.3	39.5	39.7	40.7	34.2	38.0	48.0	40.9	24.1	43.2	20.9
11. Were the questions on this test more difficult than questions you were given in classroom tests or homework assignments?													
A. Yes, the test questions were generally more difficult than the questions I encountered in my course work.	13.4	19.7	15.7	14.6	15.5	11.7	20.5	18.9	11.5	15.4	31.9	13.4	33.5
B. The test questions were generally about as difficult as the questions I encountered in my course work.	53.8	50.4	52.5	41.9	54.2	52.4	57.9	50.2	47.2	52.4	48.2	52.1	52.1
C. The test questions were generally easier than the questions I encountered in my course work.	32.8	29.9	31.8	43.5	30.4	35.9	21.7	30.8	41.3	32.3	20.0	34.5	14.3

After Taking CAHSEE ELA Exam (Percentage of Student Responses in 10 th Grade)	Gender		Ethnicity							Disability		EL	
	F	M	Am Indian/ Alaska Native	Asian	Pacific Islander	Filipino	Hispanic	African Am	White	No	Yes	No	Yes
12. If some topics on the test were difficult for you, was it because:													
A. I did not take courses that covered these topics.	5.7	8.7	6.2	8.1	7.8	5.2	8.3	8.8	5.2	6.7	13.8	5.7	15.1
B. I had trouble with these topics when they were covered in courses I took.	16.2	18.4	17.5	13.9	18.5	15.2	21.1	18.0	13.0	16.6	26.9	15.5	26.9
C. I have forgotten things I was taught about these topics.	45.5	39.5	40.9	41.4	43.2	47.0	47.2	39.2	36.7	42.9	37.6	42.3	43.9
D. None of the topics was difficult for me.	32.6	33.4	35.5	36.6	30.5	32.6	23.5	34.0	45.2	33.8	21.9	36.5	14.1
13. Have you worked or will you work harder to learn the English-language arts skills tested by the CAHSEE? (Mark all that apply.)													
A. I do not have to work any harder to meet the CAHSEE requirement.	39.5	43.3	41.8	50.1	33.3	40.7	29.2	35.1	57.8	42.7	24.0	45.9	16.9
B. I am taking additional courses.	4.9	7.2	7.9	4.4	6.8	4.6	7.5	8.0	4.1	5.6	11.7	5.1	11.1
C. I am working harder in the courses I am taking.	51.1	43.6	44.9	43.7	54.8	54.2	55.1	49.2	36.2	47.2	49.6	45.3	58.1
D. I am getting help outside of the classroom.	8.4	8.1	9.3	7.5	10.2	7.1	9.7	11.3	5.7	7.7	14.4	7.4	12.8
E. I am repeating a course to learn the material better.	4.8	5.0	5.8	2.9	5.7	2.8	6.8	5.0	2.8	4.6	9.3	3.9	10.5
14. If you do not pass the CAHSEE in this administration, what are you most likely to do? (Mark the most likely option.)													
A. I will stay in school and try to pass the CAHSEE again.	75.7	75.9	77.0	80.4	73.9	81.6	71.7	71.6	80.5	76.9	62.8	78.1	63.4
B. I will take courses at a community college and try to pass CAHSEE again.	5.2	5.4	4.4	4.7	6.8	4.8	5.7	7.8	4.3	5.0	9.0	4.8	8.1
C. I will participate in some other type of program that will help me to pass the CAHSEE.	12.4	8.5	8.2	7.7	11.2	8.6	13.9	12.0	6.3	10.3	11.7	9.2	17.0
D. I will try to get a GED certificate.	1.2	2.6	3.4	0.9	2.1	1.0	2.2	2.6	1.8	1.7	4.7	1.7	3.1
E. I will give up trying to get a diploma altogether.	0.6	1.7	1.3	1.0	0.9	0.5	1.2	1.1	1.2	1.1	2.5	1.0	1.9
F. I really do not know what I will do.	4.8	6.0	5.9	5.3	5.1	3.6	5.3	4.8	5.9	5.1	9.2	5.2	6.6
15. Have you passed part of the CAHSEE already, prior to this administration?													
A. Yes, I passed the English-language arts test.	7.5	8.7	8.7	6.8	12.3	10.3	8.8	11.5	6.3	7.7	12.9	7.5	11.3
B. Yes, I passed the mathematics test.	2.8	5.3	4.8	3.2	5.2	2.8	4.8	5.6	3.0	3.7	9.3	3.4	8.0
C. No, I have not passed either test.	89.7	86.0	86.5	90.0	82.5	86.9	86.4	82.9	90.7	88.6	77.8	89.2	80.7
16. What grade were you in during the past school year?													
A. 9th grade	64.7	65.7	60.3	64.6	60.8	62.2	71.3	60.1	58.6	65.9	56.2	64.9	66.8
B. 10th grade	33.0	29.5	35.7	33.0	35.4	35.5	24.4	34.6	39.0	31.0	34.6	32.4	25.0
C. 11th grade	0.9	1.7	1.3	0.8	1.3	0.8	1.7	2.3	0.8	1.2	3.1	1.0	3.0
D. 12th grade	0.5	1.2	1.0	0.6	0.8	0.3	1.1	1.3	0.6	0.8	2.4	0.6	2.4
E. Adult Education	0.3	0.7	0.7	0.4	0.3	0.2	0.6	0.7	0.4	0.4	1.5	0.4	0.9
F. Some other grade or not in school	0.5	1.1	1.1	0.8	1.5	0.9	0.9	1.1	0.6	0.7	2.2	0.6	1.9

Table 4.31. Percentages of 10th Grade Students' Responses in 2008 by Gender, Ethnicity, Disability, and English Learner (EL) Status — After Taking CAHSEE Math Exam.

After Taking CAHSEE <u>Math</u> Exam (Percentage of Student Responses in 10 th Grade)	Gender		Ethnicity							Disability		EL	
	F	M	Am Indian/ Alaska Native	Asian	Pacific Islander	Filipino	Hispanic	African Am	White	No	Yes	No	Yes
1. How did you prepare for this test? (Mark all that apply.)													
A. A teacher or counselor told me about the purpose and importance of the test.	34.4	30.2	32.3	30.9	34.8	37.4	33.5	31.1	30.9	32.4	30.7	32.3	32.3
B. I practiced on questions similar to those on the test.	38.0	28.4	32.3	29.3	35.8	38.3	36.8	33.9	28.6	33.5	29.7	33.0	34.1
C. A teacher spent time in class helping me to get ready to take the test.	26.4	22.8	23.7	16.2	27.5	24.1	28.4	27.5	21.1	24.4	26.8	24.0	27.7
D. I took a special class during the regular school day that covered the topics on the CAHSEE.	5.0	4.8	4.3	2.3	5.0	3.0	6.6	6.8	2.9	4.7	7.3	4.4	7.2
E. I took a special class after school or during the summer that covered the topics on the CAHSEE.	2.8	2.6	1.4	1.5	2.0	2.0	3.7	3.7	1.5	2.6	3.7	2.5	3.9
F. I did not do anything in addition to regular course work to prepare for this test.	33.6	40.2	39.6	49.6	32.5	36.1	28.2	28.8	47.7	37.8	25.5	39.9	21.2
2. How important is this test to you?													
A. Very important	83.2	74.8	75.9	65.9	82.9	80.9	86.6	86.1	70.0	78.9	79.2	77.2	88.4
B. Somewhat important	14.9	19.9	20.4	27.2	14.1	16.9	11.5	11.3	24.3	17.5	16.5	18.8	9.8
C. Not important	2.0	5.4	3.8	7.0	3.0	2.2	1.8	2.6	5.7	3.6	4.3	4.0	1.8
3. Do you think you will graduate from high school?													
A. Yes	90.8	87.0	87.0	92.8	88.7	93.2	84.8	90.2	93.2	89.9	76.9	91.2	76.5
B. No	1.0	2.3	2.1	1.0	1.8	0.8	1.7	2.1	1.6	1.5	3.8	1.5	2.5
C. Not sure	8.3	10.7	10.9	6.2	9.5	6.0	13.5	7.7	5.2	8.7	19.3	7.3	21.0
4. What might prevent you from graduating? (Mark all that apply.)													
A. I may not pass all the required courses.	19.0	21.5	23.5	12.5	20.9	17.6	25.5	17.9	15.6	19.9	24.1	19.0	27.0
B. I may not pass the CAHSEE exam.	23.9	19.0	21.8	14.1	23.1	17.8	28.5	24.3	13.0	19.9	41.0	18.2	38.8
C. I may drop out before the end of 12th grade.	1.9	3.4	3.0	1.9	2.6	1.2	3.0	2.4	2.4	2.5	4.5	2.2	4.8
D. I may not meet some other graduation requirement.	10.6	13.0	14.7	9.3	13.4	13.9	14.1	10.7	9.3	11.7	13.5	11.7	12.6
E. I am confident I will graduate on time.	64.7	59.7	58.9	75.4	61.5	68.8	51.5	60.5	73.9	64.1	38.4	66.7	38.4
5. What do you think you will do after high school?													
A. I will join the military.	1.7	6.9	5.6	2.0	4.9	3.9	4.5	3.5	5.0	4.1	7.7	4.2	5.1
B. I will go to a community college.	20.5	18.1	22.5	9.5	19.0	17.1	21.6	16.4	19.8	18.7	26.3	18.7	22.6
C. I will go to a 4-year college or university.	61.5	48.8	44.9	77.9	57.3	65.9	48.4	63.6	55.3	56.8	33.6	57.5	42.2
D. I will go to a vocational, technical, or trade school.	2.2	4.4	4.7	1.3	2.7	2.0	3.5	3.4	3.7	3.2	5.0	3.3	3.2
E. I will work full-time.	2.3	5.3	4.6	1.1	3.7	1.3	5.3	3.6	2.8	3.5	8.6	3.0	8.0
F. I really don't know what I will do after high school.	11.9	16.5	17.7	8.1	12.4	9.9	16.9	9.4	13.4	13.8	18.8	13.3	18.9

After Taking CAHSEE <u>Math</u> Exam (Percentage of Student Responses in 10 th Grade)	Gender		Ethnicity							Disability		EL	
	F	M	Am Indian/ Alaska Native	Asian	Pacific Islander	Filipino	Hispanic	African Am	White	No	Yes	No	Yes
6. How sure are you about what you will do after high school?													
A. Very sure	44.2	39.6	38.2	43.1	43.1	37.9	40.2	54.1	41.4	41.7	43.6	41.7	42.7
B. Somewhat sure	46.2	46.0	47.2	46.5	46.7	51.8	47.2	37.8	45.9	46.5	40.9	46.9	42.2
C. Not sure at all	9.6	14.4	14.6	10.4	10.2	10.3	12.6	8.1	12.7	11.8	15.5	11.5	15.1
7. How well did you do on this test?													
A. I did as well as I could.	87.1	86.5	85.9	89.0	86.2	88.5	85.7	85.7	87.9	87.1	82.1	87.3	83.9
B. I did not do as well as I could have.	13.0	13.5	14.1	11.1	13.8	11.5	14.3	14.3	12.2	12.9	17.9	12.7	16.1
Of those who answered B to #7:													
8. The main reasons I did not do as well on this test as I could have are (mark all that apply):													
A. I was too nervous to do as well as I could.	31.2	25.7	25.8	27.1	28.6	27.0	30.3	26.1	25.5	28.1	29.7	26.8	33.3
B. I was not motivated to do well.	13.5	18.2	18.6	17.7	19.5	14.1	14.9	15.9	17.7	16.0	15.9	16.4	14.4
C. I did not have time to do as well as I could.	3.4	6.5	5.1	4.9	5.6	4.8	4.7	6.0	5.2	4.7	7.4	4.8	5.7
D. Conditions in the testing room made it difficult to concentrate.	9.1	10.6	11.7	12.0	10.9	10.1	8.9	9.2	11.5	9.9	10.0	10.1	9.1
E. There are questions on this test that cover topics I was taught, but I did not remember how to answer them.	45.2	32.8	39.0	34.4	34.9	45.1	39.5	36.8	38.0	39.4	32.1	40.1	33.5
F. There were other reasons why I did not do as well as I could.	24.1	25.5	28.3	27.3	25.8	24.3	23.1	23.7	28.0	25.2	22.1	26.1	20.7
9. Were the topics on the test covered in courses you have taken?													
A. Yes, all of them.	51.7	48.6	46.1	66.1	49.1	59.2	43.5	41.0	56.6	51.7	30.0	53.2	33.6
B. Most, but not all of them (two-thirds or more were covered).	41.9	42.4	44.6	28.5	43.4	36.1	48.1	48.5	36.5	41.2	54.1	39.8	54.9
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	6.4	9.0	9.3	5.4	7.4	4.7	8.4	10.5	6.9	7.1	15.9	7.0	11.6
10. Were any of the questions on the test different from the types of questions or answer options you have encountered in your homework assignments or classroom tests?													
A. Yes, many were different from anything I had seen before.	8.9	14.4	12.1	8.9	12.1	8.5	13.1	15.1	9.8	10.6	25.0	10.1	19.8
B. Yes, a few were different from anything I had seen before.	44.8	46.5	47.0	34.7	46.7	42.7	51.5	49.0	39.8	45.1	53.1	43.7	56.2
C. No, all were similar to ones used in my classes.	46.3	39.1	40.9	56.5	41.2	48.7	35.4	35.8	50.4	44.3	22.0	46.2	24.0
11. Were the questions on this test more difficult than questions you were given in classroom tests or homework assignments?													
A. Yes, the test questions were generally more difficult than the questions I encountered in my course work.	15.9	19.7	20.2	9.9	18.9	10.8	21.4	23.5	14.1	16.3	37.2	15.4	30.7
B. The test questions were generally about as difficult as the questions I encountered in my course work.	51.7	46.4	51.1	33.3	49.9	47.9	56.1	49.7	43.4	49.3	45.5	48.4	52.6
C. The test questions were generally easier than the questions I encountered in my course work.	32.5	33.9	28.7	56.8	31.3	41.3	22.6	26.8	42.5	34.4	17.3	36.3	16.7

Independent Evaluation of the CAHSEE: 2008 Evaluation Report

After Taking CAHSEE <u>Math</u> Exam (Percentage of Student Responses in 10 th Grade)	Gender		Ethnicity							Disability		EL	
	F	M	Am Indian/ Alaska Native	Asian	Pacific Islander	Filipino	Hispanic	African Am	White	No	Yes	No	Yes
12. If some topics on the test were difficult for you, was it because:													
A. I did not take courses that covered these topics.	7.4	11.5	11.7	6.3	9.3	6.1	10.5	11.9	8.6	8.7	19.3	8.3	15.5
B. I had trouble with these topics when they were covered in courses I took.	24.5	21.1	25.9	12.3	24.3	17.6	27.5	26.8	18.5	22.2	29.8	21.4	30.1
C. I have forgotten things I was taught about these topics.	50.2	42.0	43.4	43.3	47.8	52.9	48.1	43.5	44.1	46.8	37.7	46.5	43.9
D. None of the topics was difficult for me.	17.9	25.4	19.1	38.0	18.7	23.4	14.0	17.8	28.8	22.3	13.2	23.8	10.5
13. Have you worked or will you work harder to learn the mathematics skills tested by the CAHSEE? (Mark all that apply.)													
A. I do not have to work any harder to meet the CAHSEE requirement.	36.3	44.1	39.3	56.6	33.3	41.8	27.9	30.6	55.5	41.6	21.7	44.5	17.3
B. I am taking additional courses.	5.1	7.2	6.3	4.2	7.5	4.7	7.4	8.4	4.5	5.8	11.3	5.4	10.4
C. I am working harder in the courses I am taking.	50.7	41.0	46.3	36.0	50.9	50.5	54.2	49.9	35.1	45.5	50.5	43.8	56.7
D. I am getting help outside of the classroom.	9.9	8.1	9.0	6.8	11.7	8.1	10.3	13.0	6.8	8.6	14.1	8.3	12.9
E. I am repeating a course to learn the material better.	7.3	6.2	8.3	3.4	8.1	3.9	8.8	7.7	4.7	6.4	11.2	5.8	12.0
14. If you do not pass the CAHSEE in this administration, what are you most likely to do? (Mark the most likely option.)													
A. I will stay in school and try to pass the CAHSEE again.	77.8	76.6	76.7	80.0	76.5	82.3	74.6	73.1	80.4	78.2	64.3	79.1	66.4
B. I will take courses at a community college and try to pass CAHSEE again.	5.1	5.2	4.9	4.6	5.8	4.6	5.4	7.7	4.4	4.9	8.7	4.7	7.8
C. I will participate in some other type of program that will help me to pass the CAHSEE.	10.1	7.3	6.8	6.5	9.4	7.5	11.3	10.5	5.4	8.5	10.7	7.6	14.5
D. I will try to get a GED certificate.	1.3	2.5	3.7	1.0	1.9	1.0	2.1	2.6	1.8	1.7	4.5	1.7	2.9
E. I will give up trying to get a diploma altogether.	0.7	2.0	1.3	1.5	1.3	0.6	1.2	1.1	1.7	1.3	2.2	1.3	1.7
F. I really do not know what I will do.	5.1	6.4	6.6	6.4	5.1	4.0	5.5	5.0	6.3	5.4	9.5	5.5	6.9
15. Have you passed part of the CAHSEE already, prior to this administration?													
A. Yes, I passed the English-language arts test.	8.0	10.8	11.0	7.2	11.4	9.8	9.1	13.2	9.4	9.1	13.7	9.3	10.0
B. Yes, I passed the mathematics test.	3.1	5.8	5.1	4.0	7.2	4.0	5.0	6.0	3.4	4.1	9.7	3.7	8.6
C. No, I have not passed either test.	88.9	83.4	84.0	88.8	81.4	86.2	85.8	80.8	87.2	86.9	76.7	87.0	81.4
16. What grade were you in during the past school year?													
A. 9th grade	62.7	63.7	58.3	62.7	58.8	60.4	69.3	57.9	56.5	63.8	54.9	62.8	65.5
B. 10th grade	34.9	31.2	37.6	34.7	36.8	37.0	26.4	36.4	40.6	32.8	36.1	34.2	26.9
C. 11th grade	1.1	1.9	1.7	0.8	1.8	0.9	1.8	2.6	1.0	1.4	3.1	1.2	2.8
D. 12th grade	0.6	1.2	0.9	0.7	0.8	0.4	1.1	1.2	0.7	0.8	2.3	0.7	2.3
E. Adult Education	0.2	0.8	0.4	0.3	0.5	0.2	0.5	0.8	0.5	0.5	1.4	0.5	0.8
F. Some other grade or not in school	0.5	1.2	1.2	0.9	1.3	1.1	0.9	1.1	0.8	0.8	2.3	0.7	1.8

Summary of Student Questionnaire

Comparisons of 10th Grade Students' Responses from 2005 through 2008

Overall, we note several positive changes in students' perceptions about the CAHSEE. Over the years, more students report using some test preparation strategies, perceiving better coverage of test topics by instruction, being more motivated to pass the CAHSEE, and having learned more. Their responses indicate increases in their confidence in passing the tests and graduating from high school. Higher percentages of them indicate they will try to take the CAHSEE again if they do not pass. These trends are fairly similar for both ELA and math tests.

More specifically, there are increases in the percentage of students who

- reported that their teachers or counselors emphasized the purpose and importance of the tests and that they practiced similar questions to prepare for the tests;
- perceived the tests are "very important" or "somewhat important";
- were confident of passing the tests and graduating from high school;
- planned to attend a 4-year college or university;
- indicated that the tests are fairly well covered in their courses and they do not have to work any harder to meet the CAHSEE requirements;
- will stay in school and try to pass the CAHSEE again if they do not pass this time.

Comparisons of 10th Grade Student Response in 2008 by Whether They Passed the Tests

We compared 10th grade student responses to examine the differences among those who passed both the ELA and math tests, passed only the ELA test, only the math test, or passed none of the tests. The results indicate:

Students who passed either or both tests had a higher percentage of reporting that

- they perceived the CAHSEE "very important" or "somewhat important;"
- all or most of the test contents were covered in class;
- they did not have to work any harder to meet the CAHSEE requirements;
- they were confident of graduating from high school and would go to a 4-year college or university.

Students who did NOT pass one or both tests had a higher percentage of reporting that

- they were less confident of graduating from high school because they may not pass the CAHSEE;
- they were less sure about what they would do after high school
- they were too nervous to do well on the tests;
- they felt the tests were more difficult than what they were taught in class;
- they had worked harder or would have to work harder to pass the CAHSEE.

Differences of Student Perception by Key Demographic Characteristics

Response difference by gender. More female students than males reported using test preparation strategies, believing the test is “very important”, being confident of graduating from high school and planning to attend a 4-year college or university. female students than males also responded that the test topics were all covered in their courses and all the test questions were similar to the one they did in homework assignments or classroom tests.

Response difference by ethnicity. Hispanic and African American students were the most likely to respond that they had worked harder to learn and made extra effort to prepare for the test. These students also had the highest percentages of reporting the test as “very important.” However, these were the students who probably struggled the most in passing the CAHSEE. They had the lowest percentage of reporting that they believed they would graduate from high school and the highest percentages of reporting that not passing all the CAHSEE or all the required courses might prevent them from graduating. They were more likely to report that many test questions on tests were not covered in their courses and that the test questions were more difficult than the ones they had in course work.

Response difference by disability and English learner status. Higher percentages of students with disabilities and English learners said they worked hard in their courses or towards the CAHSEE compared with students without disabilities or non-English learners.

However, these same students were more likely to report that they either did not think they would graduate, or they were unsure. More of them reported that not passing the CAHSEE or all the required courses might prevent them from graduating from high school. They were more likely to report that the material in many CAHSEE test questions was not covered in their courses and that the test questions were more difficult than the ones they had in course work. These responses could suggest a possible lack of alignment between instruction and test contents for these students.

Overall, student responses in 2008 indicated positive changes in their perceptions of the CAHSEE: better instruction coverage, better match of test questions and course work, increased motivation and learning towards the CAHSEE, and increased confidence in passing the CAHSEE and graduating from high school. However, Hispanic and African American students, students with disabilities, and English learners may still need more targeted help to pass the CAHSEE.

More specific analyses of the perceptions of students who did not pass and how their perceptions changed over the years are presented in the next chapter.

Chapter 5: A Closer Look at Students Who Did Not Pass

Lauress L. Wise

Introduction

In broad terms, the primary rationale for implementing the CAHSEE requirement is that the need for students to meet this requirement would lead to improved instruction and increased student motivation, to the end that more students would acquire skills critical to their success after high school. The High School Exit Exam Panel spent more than a year identifying the skills judged to be critical. Concerns about the CAHSEE focused on the possibility that student motivation would not increase for many students and dropout rates would increase and that denying many students a high school diploma would have very negative consequences for their subsequent success.

To date, results from the evaluation of the CAHSEE requirement have been generally positive. Studies of instruction in 2003 and 2005 showed improvement in alignment to targeted content standards and a very significant increase in remedial opportunities for students who have difficulty in mastering the required content. Both initial and eventual passing rates have increased, suggesting improved effectiveness in instruction. Another study of CAHSEE's impact on instruction is being planned for next year. Dropout rates prior to 12th grade actually decreased, at least partly as a result, we believe, of increased opportunities and support for students who were struggling academically. In last year's evaluation report, we did note that graduation rates, as measured by the ratio of high school graduates to 12th grade enrollment the preceding fall, did drop about 4 percentage points, but that many students who failed to complete the CAHSEE requirement on time were continuing for a 5th, and now even a 6th, year of high school and continuing to work to meet the CAHSEE requirement.

Over the past several years, evaluation analyses have included supplemental investigations of two special populations of students—English learners (EL) and students with disabilities (SWD)—groups most affected by the CAHSEE requirement. A major thrust of these analyses has been to identify programs that helped students in these populations to meet the CAHSEE requirement. We attempted to identify these programs by studying the students in these populations who were able to pass the CAHSEE.

This year, supplemental analyses were focused on the students who did not pass. Unfortunately, a study of what ultimately happens to any significant number of these students after they leave the system is difficult to conduct because of tracking issues and because it is too soon to know which students will receive a diploma after one or two additional years of effort. We can, however, say more about who these students are, and describe their experiences and plans as they report them in responding to our student questionnaire. In this chapter, we report results of these analyses.

The Ever-Changing Class of 2008

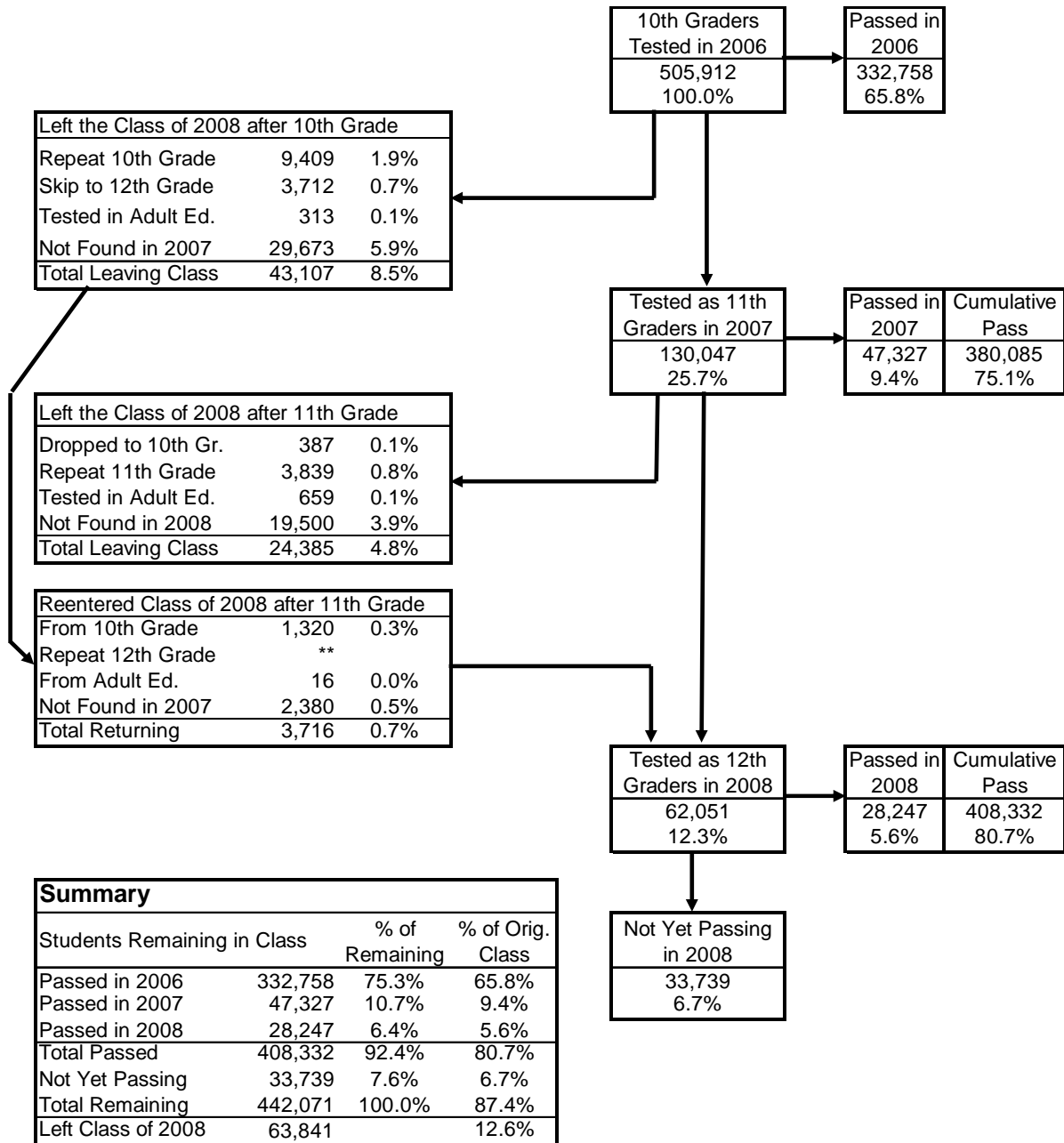
We set out to examine students in the Class of 2008 who did not pass the CAHSEE. This was the first year that all students, including students with disabilities, were subject to the CAHSEE requirement. But what, exactly, is the Class of 2008? Is it all students who entered 9th grade in 2005? Or perhaps it is all students who took the CAHSEE as 10th graders in 2006. We have chosen to look at all who were first-time seniors in 2008, that is, defining the class in terms of when students entered their senior year. We did not start with 9th graders because there is no census testing of 9th graders so we did not have data on individual students in the 9th grade. We did begin with the administration of CAHSEE for all 10th graders, but then went on to track students who repeated or skipped grades, moving to a different class. Some students also dropped out. In a year or two, when longitudinal data in CALPADS is more complete, a better accounting of dropouts will be possible. For now, if they have passed the CAHSEE and then dropped out, we would have no way of knowing that. We do know if they have not passed the CAHSEE and appear to stop taking it, but we do not really know if they dropped out, moved to another state, or did pass the CAHSEE but could not be matched to earlier records because of changes or errors in identifying information.

Figure 5.1 shows what we do know about the students who were in the Class of 2008 as 10th graders during the 2006 CAHSEE administrations. Nearly 506,000 10th graders took the CAHSEE in 2006. Roughly two-thirds of them passed both parts, completing the CAHSEE requirement. We have no further data on whether these students stayed with their class and graduated in 2008. If they did not receive a diploma it was not due to the CAHSEE requirement. About 43,000 of the students who did not pass either test were not found in 2007 CAHSEE records at all or were found in 2007, but not as 11th graders. The remainder, about 130,000, took the CAHSEE again one or more times as 11th graders during the 2006-07 school year; 47,000 of these students completed the CAHSEE requirement.

In the 2007–08 school year, another 24,000 students were found elsewhere than the 12th grade or were not found in any of the CAHSEE administrations, but nearly 4,000 students who left the Class of 2008 after the 10th grade in 2006 returned to their original class as 12th graders in 2008⁴. Over 28,000 students in the Class of 2008 met the CAHSEE requirement in their senior year, but nearly 34,000 took the test and did not pass. These 34,000 students are the focus of the analyses reported in this chapter.

Note that, as far as we could tell, about 408,000 students who were in 10th grade in 2006 passed the CAHSEE by the end of 2008. This is 80.7 percent of the “original” Class of 2008. When the nearly 64,000 students who “left” the Class of 2008 prior to their senior year are excluded from the denominator, the passing rate is 92.4 percent. Thus, 92.4 percent of the original Class of 2008 stayed with their class and continued to try to pass the CAHSEE until they did so.

⁴ Students who moved from the 10th grade in 2006 to the 12th grade in 2007 and then repeated the 12th grade in 2008 were included in analyses of the Class of 2007 and not in analyses of the Class of 2008 to avoid duplication.

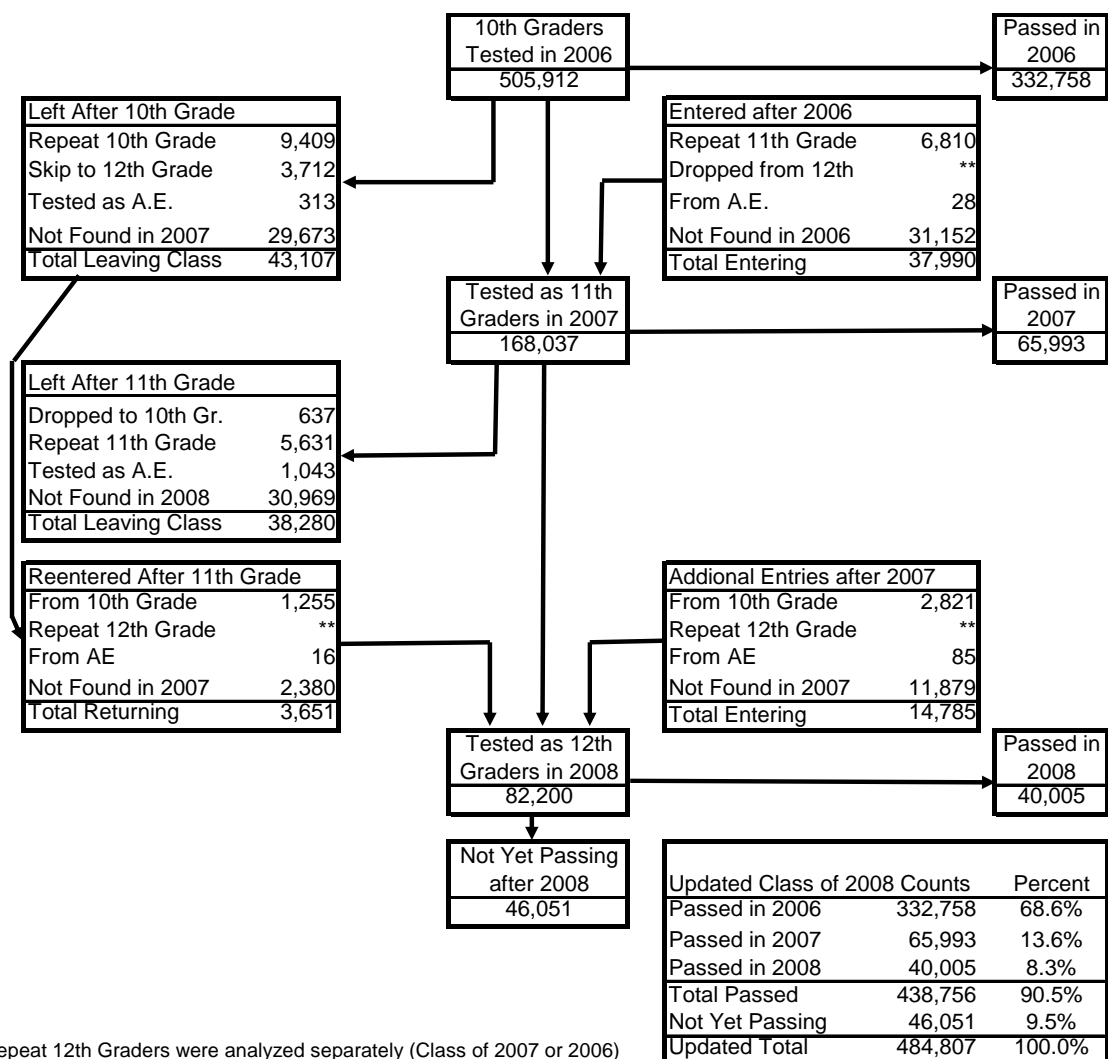


** Students in 12th grade in 2007 or 2006 are treated separately (Class of 2007 and 2006)

Figure 5.1. Outcomes for original Class of 2008 (10th graders in 2006).

In the analyses reported in Chapter 3, we also included students who moved into the Class of 2008 after 2006. Figure 5.2 shows the flow of students into as well as out of the Class of 2008 between their sophomore and senior years. Nearly 53,000 students entered the Class of 2008 after Spring 2006. Note that in these analyses, there are now 46,000 seniors who did not meet the CAHSEE requirement, including about 12,000 who entered the class after Spring 2006. The information in the summary block of this figure corresponds closely to results that we reported in Chapter 3. In this chapter, we restricted our analyses to students who were in both the original and revised Class of

2008 so that we could compare data from 10th grade administrations in 2006 and 12th grade administrations in 2008.



** Repeat 12th Graders were analyzed separately (Class of 2007 or 2006)

Figure 5.2. Outcomes for the updated Class of 2008 (12th graders in 2008).

Number and Basic Demographics of Students Who Do Not Pass

We began by selecting the population of students in the Class of 2008 who participated in one or more of the 2007–08 CAHSEE administrations. Our analysis sample included about 86,000 such students. Table 5.1 shows the percentage of students in each demographic group who met the CAHSEE requirement, passed the ELA test only, passed the mathematics test only, or did not pass either part.

Table 5.1. Percent of Class of 2008 Students Who Did and Did Not Pass the CAHSEE by Demographic Group

Sample Characteristic	Number of Students	Passing Prior to 12th Grade	Passing CAHSEE in 12th Grade	Passing ELA, But Not Math	Passing Math, But Not ELA	Not Passing Either Part
All Students	478,486	82.0%	8.4%	2.6%	2.0%	5.0%
Females	236,524	83.7%	8.1%	2.9%	1.5%	3.8%
Males	241,521	80.4%	8.6%	2.5%	2.6%	5.8%
Native American	4,354	80.9%	8.3%	4.1%	2.0%	4.7%
Asian	44,369	89.9%	5.8%	0.6%	2.2%	1.5%
Hispanic	197,556	74.7%	11.5%	3.6%	3.4%	6.8%
African American	39,107	67.9%	12.6%	6.4%	2.3%	10.8%
White, non-Hispanic	169,589	91.5%	4.5%	1.4%	0.5%	2.1%
Economically Disadvantaged	193,862	74.1%	11.4%	4.1%	3.8%	6.6%
English Learner	68,792	53.4%	20.1%	6.2%	9.9%	10.4%
Special Education	37,635	42.4%	12.1%	11.8%	6.6%	27.1%

Approximately 46,000 of the nearly 86,000 Class of 2008 students who took the CAHSEE this year had not satisfied the CAHSEE requirement by the end of the year. Nearly 24,000 of these students did not pass either part of the CASHEE. Females were a little more likely than males to have trouble with mathematics and less likely than their male counterparts to have trouble with ELA or with both parts. Hispanics and African Americans were somewhat more likely to have trouble with the CAHSEE requirement—Hispanics more with the ELA requirement and African Americans with the mathematics requirement. Finally, about 10 percent of African American students and English learners and 27 percent of students in special education did not pass either part of the CAHSEE.

Progress Toward Passing the CAHSEE

Students in the Class of 2008 who did not pass by the end of their senior year had many opportunities to take the CAHSEE, both in 2008 and in the preceding two years. Did they get any closer to passing as they continued to take the CAHSEE? To answer this question, we looked at about 24,000 students who took the ELA test three years in a row and another nearly 25,000 student who took the mathematics test at least once in each of the last three years without passing. The CAHSEE score scale runs from 275 to 450, with a score of 350 or higher required for passing. The scale effectively starts at about 300, which is the level that corresponds to chance guessing on the multiple-choice test.

Since most students took the test more than once in their junior and senior years, we looked at their score from the last time they took the CAHSEE in each year. Table 4.2 shows the average of their scores on the ELA and mathematics test for their sophomore, junior, and senior years (2006 to 2008). The average scores increased by a small amount in their junior year and a somewhat larger amount in their senior year.

Table 5.2. Average CAHSEE Scale Scores by Year for Students Who Did Not Pass by Spring 2008

Year	ELA		Mathematics	
	Average Score	Standard Deviation	Average Score	Standard Deviation
2006	314.0	18.0	321.6	13.8
2007	318.5	18.0	324.4	14.0
2008	329.9	24.4	333.9	20.7
Gain	15.9		12.3	
N	23,643		24,787	

As shown in Figure 5.3, the scores would have to increase at an even higher rate for the average to reach 350 after a fifth and possibly a sixth year of high school. Even at that, roughly half of the students would be below that average and still not pass. By comparison, students who took the CAHSEE in their senior year and passed had higher means to begin with (averaging about 340 in their sophomore year) and gained over 20 points during their senior year. It would be instructive to study the differences between the students and the programs of students who did show large gains in their senior year compared to the students and programs of students who did not.

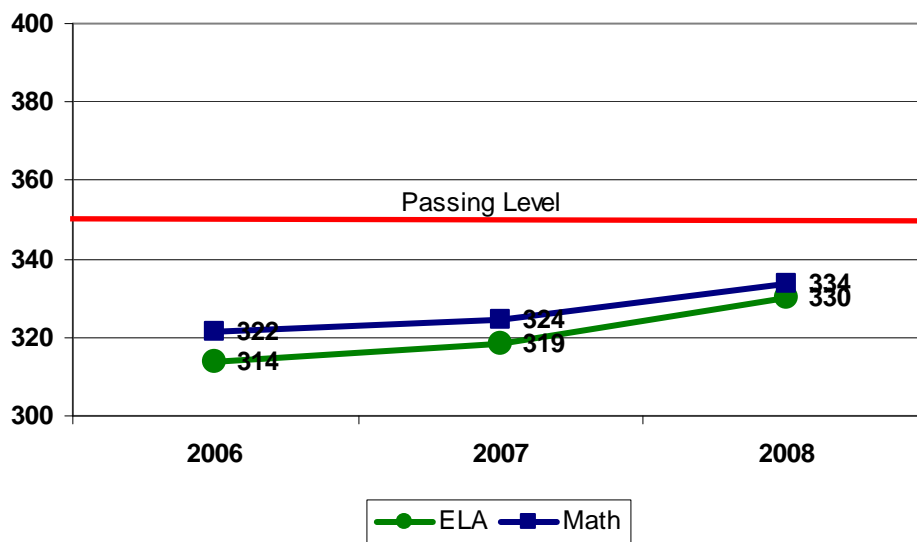


Figure 5.3. Average CAHSEE scores for Class of 2008 students who did not pass the CAHSEE.

Student Experiences and Plans

Beginning with the first administration of the CAHSEE in 2001, students were asked to complete a brief questionnaire after each part of the CAHSEE. Students provided information about experiences that might be related to their success in meeting the CAHSEE requirement. They also responded to questions about their plans

and expectations. These latter types of questions provided immediate information on the possible impact of the CAHSEE requirement on outcomes following high school. To find out more about the students who did not pass the CAHSEE by the end of their senior year, we analyzed these students' responses to the student questionnaires, both in 2007–08 and as 10th graders in 2006. Analyses of the questionnaire responses were designed to answer two general questions:

- How did the experiences and plans of students who did not pass the CAHSEE in time to graduate with their class differ from those of their classmates in 2006, before initial CAHSEE results were known?
- How did the experiences and plans of the students who did not pass change from their sophomore year in 2006 to their senior year in 2008?

Tables 5.3 through 5.16 show distributions of responses to the student questionnaires administered in 2006 and 2008. We examined responses to the questionnaire completed after the ELA test and the questions after the mathematics test separately. Responses to the 2006 questionnaires are shown for students who eventually passed the CAHSEE and for those who did not. Responses to the 2008 questionnaires are shown only for students who did not pass the CAHSEE, since most of the students who did pass were no longer taking the CAHSEE and thus did not receive questionnaires in 2008. Note also, that students who had passed one part but not the other responded only to the questionnaire for the part of the CAHSEE they were still taking.

For each question, the samples of students who did not pass were limited to those responding in both 2006 and 2008. Students who dropped out prior to 12th grade or entered the Class of 2008 after 10th grade (by repeating a grade or entering California public education at that time) were not included in these analyses. Thus comparisons of the 2006 and 2008 responses for students who did not pass were based on the exact same students.

In 2006, most students took the CAHSEE once. In 2008, however, students who had not yet passed were likely to have taken the CAHSEE several times. In such cases, we examined their responses to the student questionnaire after the last time they took the CAHSEE.

Table 5.3. Responses to Student Question 1 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 1: How did you prepare for this test? (Mark all that apply.)	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. A teacher or counselor told me about the purpose and importance of the test.	31.1%	31.4%	32.5%	27.9%	30.3%	28.6%
B. I practiced on questions similar to those on the test.	33.1%	26.8%	24.4%	33.0%	29.5%	27.9%
C. A teacher spent time in class helping me to get ready to take the test.	41.0%	36.1%	19.5%	25.8%	30.1%	18.7%
D. I took a special class during the regular school day that covered the topics on the CAHSEE	n/a	n/a	25.2%	n/a	n/a	25.2%
E. I took a special class after school or during the summer that covered the topics on the CAHSEE	n/a	n/a	8.0%	n/a	n/a	6.8%
F. I did not do anything in addition to regular course work to prepare for this test.	20.7%	15.1%	13.7%	39.4%	19.6%	14.5%
Number of Respondents	368,641	18,359		365,299	20,375	

Two additional response options were added to Question 1 in 2008, so the 2006 and 2008 response distributions are not exactly comparable. The question asked students to mark all options that apply, so for the options in common it is still possible to compare whether or not they were marked in each of the two years.

Fewer students who did not pass said they practiced on similar questions than among those who passed, both in 2006 and in 2008. Fewer of them also said that they did not do anything to prepare for the CAHSEE, appropriately recognizing that some preparation would be needed for the tests. One significant change is that fewer reported that a teacher spent time in class helping them to get ready in 2008. This may reflect the fact that 12th grade courses were not as closely aligned to CAHSEE content as 10th grade courses or, possibly, that the 10th grade results were used for school accountability.

Table 5.4. Responses to Student Question 2 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 2: How important is this test for you?	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. Very important	76.7%	83.3%	87.6%	76.7%	83.5%	87.7%
B. Somewhat important	19.4%	12.4%	8.9%	19.2%	12.9%	8.6%
C. Not important	3.9%	4.4%	3.5%	4.1%	3.6%	3.6%
Number of Respondents	368,829	18,396		365,432	20,407	

Students who did not complete the CAHSEE requirement were more likely than their classmates who passed to have recognized the CAHSEE as being important when they were in the 10th grade. Even more of them said that the CAHSEE was very important when they reached the 12th grade (without yet passing).

Table 5.5. Responses to Student Question 3 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 3: Do you think you will graduate from high school?	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. Yes	88.7%	64.4%	65.6%	87.7%	63.9%	66.5%
B. No	1.1%	4.7%	8.3%	1.5%	4.7%	8.5%
C. Not sure	10.1%	30.9%	26.1%	10.8%	31.4%	25.0%
Number of Respondents	368,540	18,311		364,843	20,302	

Two-thirds of the students who did not complete the CAHSEE requirement by the end of their senior year had been confident of graduating when they were in 10th grade, compared to 89 percent of the students who did pass.

It is noteworthy that taking and not passing the CAHSEE several times in their junior and senior years did not change the percentage of students who thought that they would graduate. If anything, the percent expecting to graduate increased slightly from 10th to 12th grade. The fact that these students made it to the 12th grade outweighed any negative impact failing the CAHSEE may have had on their expectations.

Table 5.6. Responses to Student Question 4 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 4: What might prevent you from graduating? (Mark all that apply.)	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. I may not pass all the required courses.	25.1%	21.9%	15.7%	26.8%	23.9%	15.6%
B. I may not pass the CAHSEE exam.	36.0%	51.3%	65.2%	38.7%	52.4%	66.6%
C. I may drop out before the end of 12th grade.	14.6%	10.7%	4.8%	12.8%	8.7%	4.4%
D. I may not meet some other graduation requirement.	24.3%	16.1%	7.9%	21.8%	14.9%	8.3%
E. I am confident I will graduate on time.	n/a	n/a	18.1%	n/a	n/a	16.7%
Number of Respondents	127,055		14,649	112,580		14,530

Question 4 was changed between 2006 and 2008, adding an option that allowed students to respond that they did not think anything would prevent them from graduating. In 2006, students who held this belief might not have marked any of the available options, making them appear to be nonrespondents to this question.

By the time they reached 12th grade, fewer students thought that they might not pass required courses (16% compared to 22% or 24% in 10th grade), although this is still a substantial proportion. Also, fewer students thought that they might drop out.

Students who did not complete the CAHSEE requirement were appropriately more likely than their classmates to believe that they might not pass (over 50% compared to less than 40%). By 12th grade, two-thirds of these students believed that they might not pass the CAHSEE.

Table 5.7. Responses to Student Question 5 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 5: What do you think you will do after high school?	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. I will join the military.	4.3%	8.4%	7.0%	4.9%	8.5%	6.8%
B. I will go to a community college.	17.1%	22.2%	43.5%	17.3%	24.8%	45.0%
C. I will go to a 4-year college or university.	56.1%	32.7%	18.2%	55.4%	31.8%	17.7%
D. I will go to a vocational, technical, or trade school.	3.5%	4.6%	4.8%	3.4%	4.5%	5.9%
E. I will work full-time.	2.9%	11.8%	14.4%	3.1%	11.0%	13.1%
F. I really don't know what I will do after high school.	16.1%	20.3%	12.1%	15.9%	19.5%	11.5%
Number of Respondents	367,923	18,299		363,830	20,295	

In the 10th grade, a third of the students who did not eventually pass the CAHSEE planned to go to a 4-year college compared to over half of their classmates. By 12th grade, the proportion of students not passing the CAHSEE who expected to attend a 4-year college after high school dropped below 20 percent. A few more of the students who did not eventually pass expected to work or go into the military compared to their classmates. By 12th grade a few more expected to work full-time and slightly fewer expected to join the military (perhaps because a recruiter explained academic requirements). By 12th grade, the percent of non-passing students who expected to go to a community college increased by more than 20 percent.

Table 5.8. Responses to Student Question 6 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 6: How sure are you about what you will do after high school?	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. Very sure	40.2%	45.4%	57.0%	41.5%	45.9%	56.7%
B. Somewhat sure	48.1%	36.9%	30.9%	47.0%	38.6%	32.2%
C. Not sure at all	11.7%	17.7%	12.0%	11.4%	15.4%	11.2%
Number of Respondents	367,872	18,261		364,232	20,280	

Students who did not pass the CAHSEE were somewhat more certain of their post-high school plans in the 10th grade than their classmates. The proportion saying they were sure of their plans increased substantially between 10th and 12th grade.

Table 5.9. Responses to Student Question 7 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 7: How well did you do on this test?	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
		2006	2006		2008	2006
A. I did as well as I could.	89.2%	78.8%	87.5%	84.6%	79.0%	87.5%
B. I did not do as well as I could have.	10.8%	21.2%	12.5%	15.4%	21.0%	12.5%
Number of Respondents	367,091	18,083		363,036	20,034	

In the 10th grade, students who did not pass were a bit less likely than their classmates who passed to report that they did as well as they could on the CAHSEE. By 12th grade, however, the proportion saying that they did as well as they could increased and, on the mathematics test, the proportion was higher than for all 10th graders in 2006.

Table 5.10. Responses to Student Question 8 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 8: The main reasons I did not do as well on this test as I could have are (mark all that apply)	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
		2006	2006		2008	2006
A. I was too nervous to do as well as I could.	34.4%	33.9%	34.3%	27.2%	31.1%	30.1%
B. I was not motivated to do well.	22.3%	15.6%	18.3%	20.0%	16.0%	16.4%
C. I did not have time to do as well as I could.	6.5%	10.5%	9.0%	5.7%	9.0%	8.0%
D. Conditions in the testing room made it difficult to concentrate.	13.0%	12.5%	10.3%	10.8%	10.3%	9.2%
E. There are questions on this test that cover topics I was taught, but I did not remember how to answer them.	17.4%	37.1%	37.1%	41.4%	29.9%	30.5%
F. There were other reasons why I did not do as well as I could.	28.8%	17.1%	18.3%	23.7%	18.2%	17.3%
Number of Respondents	129,246	10,066		133,999	10,307	

In 10th grade, students who did not pass the CAHSEE gave mostly the same reasons as did their passing classmates for not doing as well on the CAHSEE as they could have. Slightly fewer said that they were not motivated and a few more said that

they did not have enough time (even though the CAHSEE is essentially untimed). Reasons given in the 12th grade were pretty much the same.

Table 5.11. Responses to Student Question 9 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 9: Were the topics on the test covered in courses you have taken?	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. Yes, all of them.	54.7%	31.9%	31.1%	47.5%	24.4%	25.8%
B. Most, but not all of them (two-thirds or more were covered).	39.7%	51.2%	53.3%	44.3%	56.9%	57.8%
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	5.6%	16.9%	15.7%	8.2%	18.7%	16.4%
Number of Respondents	364,442	17,820		361,585	19,924	

Students who did not pass the CAHSEE were approximately three times more likely than their classmates to report that many topics on the test were not covered in their ELA courses, and twice as likely to say this regarding the mathematics test. Their responses in the 12th grade varied only slightly from their 10th grade responses.

Table 5.12. Responses to Student Question 10 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 10: Were any of the questions on the test different from the types of questions or answer options you have encountered in your homework assignments or classroom tests?	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. Yes, many were different from anything I had seen before.	10.2%	30.0%	25.9%	11.6%	29.0%	24.8%
B. Yes, a few were different from anything I had seen before.	48.1%	50.8%	53.5%	48.0%	53.6%	55.0%
C. No, all were similar to ones used in my classes	41.6%	19.2%	20.6%	40.4%	17.4%	20.3%
Number of Respondents	364,501	17,863		361,717	19,939	

Students who did not pass the CAHSEE were more likely than their classmates to report that the questions on the CAHSEE were different from those encountered in their courses. By the 12th grade, a few more reported that the CAHSEE questions were

similar to those in their classes, but still not nearly as frequently as their classmates in 10th grade.

Table 5.13. Responses to Student Question 11 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 11: Were the questions on this test more difficult than questions you were given in classroom tests or homework assignments?	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. Yes, the test questions were generally more difficult than the questions I encountered in my course work.	13.9%	40.1%	34.7%	18.0%	42.0%	36.5%
B. The test questions were generally about as difficult as the questions I encountered in my course work.	86.1%	59.9%	49.5%	81.2%	58.0%	51.9%
C. The test questions were generally easier than the questions I encountered in my course work.	n/a	n/a	15.7%	n/a	n/a	11.6%
Number of Respondents	364,020	17,742		361,003	19,818	

In 2006, the third response option for question 11 was that the test items were “not more difficult” than those in their classes, which was not much different from option B. These two response options were combined in 2006. A new, more clearly different option C was added in 2008.

Students who did not pass the CAHSEE were much more likely than their classmates to report that the questions on the CAHSEE were more difficult than those encountered in their courses. By 12th grade, somewhat fewer thought the CAHSEE questions were more difficult than questions in their coursework.

Table 5.14. Responses to Student Question 12 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 12 : If some topics on the test were difficult for you, was it because :	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. I did not take courses that covered these topics.	6.6%	18.1%	19.0%	11.3%	21.2%	19.8%
B. I had trouble with these topics when they were covered in courses I took.	15.9%	31.7%	36.6%	22.0%	36.7%	42.4%
C. I have forgotten things I was taught about these topics.	37.6%	35.1%	31.0%	45.2%	32.7%	30.0%
D. None of the topics was difficult for me.	39.9%	15.1%	13.3%	21.5%	9.4%	7.8%
Number of Respondents	353,870	17,640		350,342	19,629	

Students who did not pass the CAHSEE were much more likely than their classmates to report that topics on the test were difficult for them. About 10 percent more said that they did not take courses covering these topics. Even more said that they had trouble with these topics in the courses they did take. Their responses did not change much between 10th and 12th grades.

Many students who did not initially pass the CAHSEE received help and were able to pass by the end of 12th grade. Those who did not pass appeared to report similar difficulties in both 10th and 12th grades.

Table 5.15. Responses to Student Question 13 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 13 : Have you worked or will you work harder to learn the English-language arts or mathematics skills tested by the CAHSEE? (Mark all that apply)	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. I do not have to work any harder to meet the CAHSEE requirement.	49.0%	17.7%	14.9%	44.0%	13.2%	13.5%
B. I am taking additional courses.	5.7%	15.6%	25.3%	6.2%	13.0%	23.1%
C. I am working harder in the courses I am taking.	42.6%	47.3%	45.6%	43.3%	48.4%	44.2%
D. I am getting help outside of the classroom.	8.4%	16.6%	15.1%	9.5%	15.2%	18.0%
E. I am repeating a course to learn the material better.	3.8%	12.0%	11.9%	5.9%	12.0%	13.7%
Number of Respondents	344,554	15,331		348,989	19,191	

Students who did not pass the CAHSEE recognized the need to work harder because of the requirement, both in 10th and 12th grade. More of the students who did not pass reported taking additional courses because of the CAHSEE by the time they reached 12th grade. A few more reported working harder, getting help outside the classroom, or even repeating courses, compared to their classmates.

Table 5.16. Responses to Student Question 14 for Students Who Did Not Pass the CAHSEE by the End of 12th Grade

Question 14 : If you do not pass the CAHSEE in this administration, what are you most likely to do?	ELA Questionnaire Responses			Math Questionnaire Responses		
	Students Passing the CAHSEE	Students Not Passing the CAHSEE		Students Passing the CAHSEE	Students Not Passing the CAHSEE	
	2006	2006	2008	2006	2006	2008
A. I will stay in school and try to pass the CAHSEE again.	n/a	n/a	36.0%	n/a	n/a	36.9%
B. I will take courses at a community college and try to pass CAHSEE again.	n/a	n/a	22.6%	n/a	n/a	22.4%
C. I will participate in some other type of program that will help me to pass the CAHSEE.	n/a	n/a	11.5%	n/a	n/a	11.0%
D. I will try to get a GED certificate.	n/a	n/a	8.2%	n/a	n/a	8.5%
E. I will give up trying to get a diploma altogether.	n/a	n/a	3.1%	n/a	n/a	2.8%
F. I really do not know what I will do.	n/a	n/a	10.2%	n/a	n/a	10.7%
Number of Respondents			21,343			23,461

A new question was added in 2007 asking what students thought they would do if they did not pass the CAHSEE. About 36 percent of the students in the Class of 2008 who did not pass said that they would stay in school and continue to try to pass. This is consistent with the finding that about 40 percent of the students in the Class of 2007 who did not pass by the end of their senior year continued to take the CAHSEE a year later.

Passing Rates for Schools by Percent of Minority and Low Income Students

In previous years, we found that passing rates were lower for students in schools with a high proportion of minority and low-income⁵ students. This year, we were able to examine the overall passing rate for 10th graders from 2006. These analyses were limited to students who started in the Class of 2008 in their sophomore year. Students who switched to other classes or simply stopped taking the CAHSEE were counted in the denominator for these analyses; students who moved into the Class of 2008 were not. Tables 5.17 through 5.19 show overall CAHSEE passing rates for schools with different densities of minority and low-income students.

⁵ Low income students, also referred to elsewhere as economically disadvantaged students, are students who qualify for the National School Lunch Program or whose parents did not receive a high school diploma.

As we did previously, we separated out non-regular high schools (e.g., continuation schools) and then defined density levels that divided the regular high schools into 5 approximately equal-size groups of 200 to 250 schools each. Thus high density schools are defined differently for African-American students, of whom few schools have more than 10 percent, and Hispanic students, of whom a fifth of the schools have more than two-thirds. Figures 5.4 through 5.6 display these results graphically.

Table 5.17. Percent of Hispanic and All Students Passing the CAHSEE By Density of Hispanic Students in the School

School Type / Percent of Hispanic Students	Number of Schools	All Students		Hispanic Students	
		Number of Students	Percent Passing	Number of Students	Percent Passing
Not regular HS	698	37,257	77.2%	17,712	74.7%
0–14%	220	63,143	94.8%	5,251	88.9%
>14–<27%	257	95,445	90.7%	18,523	84.5%
27–<45%	246	100,523	86.7%	35,111	80.9%
45–67%	239	96,412	82.5%	50,960	79.0%
>67–100%	247	113,039	79.1%	92,177	77.8%

Table 5.18. Percent of African-American and All Students Passing the CAHSEE By Density of African-American Students in the School

School Type / Percent of African- American Students	Number of Schools	All Students		African-American Students	
		Number of Students	Percent Passing	Number of Students	Percent Passing
Not regular HS	698	37,257	77.2%	5,181	72.3%
0–0.4%	167	29,365	83.9%	188	85.6%
>0.4–2.1%	258	111,037	88.2%	1,387	82.4%
>2.1–<5%	278	120,056	88.1%	4,310	82.1%
5.0–<13%	260	122,746	85.7%	10,233	77.4%
13%–100%	246	85,358	80.9%	21,343	73.6%

Table 5.19. Percent of Low-Income and All Students Passing the CAHSEE By Density of Low Income Students in the School

School Type / Percent of Low-Income Students	Number of Schools	All Students		Low-Income Students	
		Number of Students	Percent Passing	Number of Students	Percent Passing
Not regular HS	698	37,257	77.2	18,889	74.7
0–14%	236	91,472	94.6	8,393	83.8
>14–<27%	240	91,470	90.0	22,597	80.8
27–<45%	247	94,593	85.7	38,581	79.1
45–67%	233	98,266	81.7	57,224	78.3
>67–100%	253	92,761	77.9	74,051	77.0

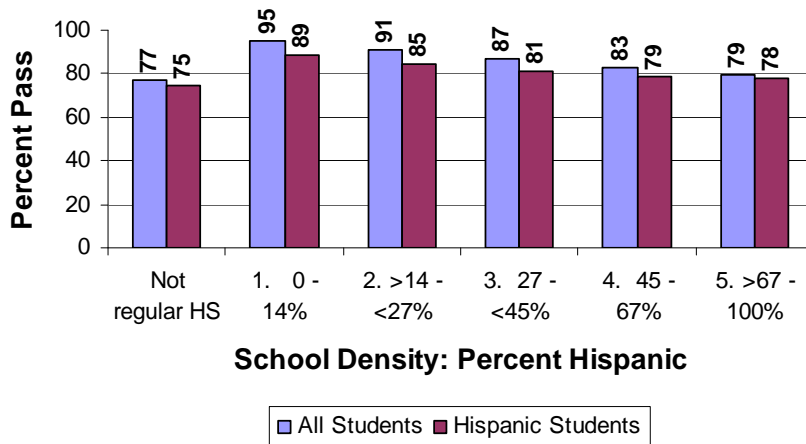


Figure 5.4. Overall CAHSEE passing rates for schools with different densities of Hispanic students.

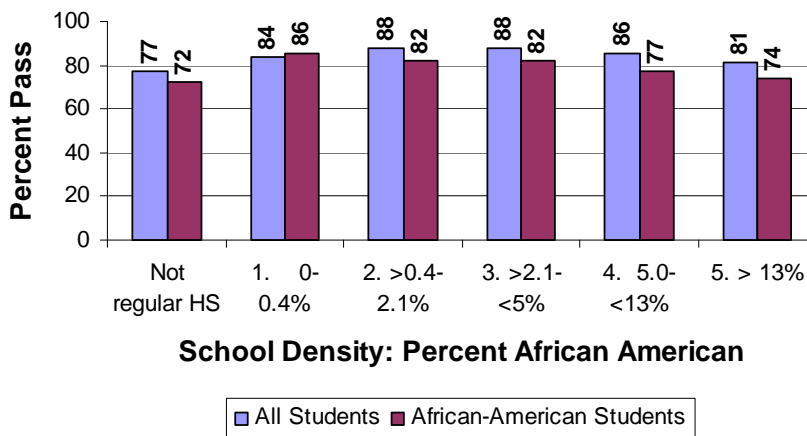


Figure 5.5. Overall CAHSEE passing rates for schools with different densities of African-American students.

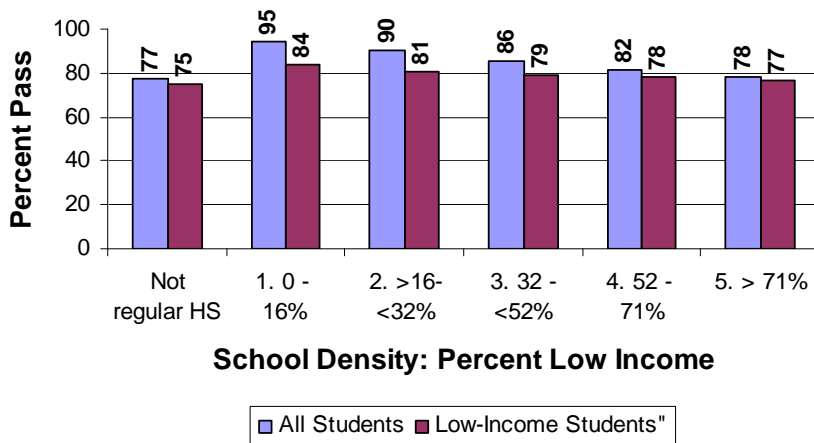


Figure 5.6. Overall CAHSEE passing rates for schools with different densities of low-income students.

In each case, the percentage of minority and low-income students who passed the CAHSE by the end of their senior year was quite a bit lower for schools with high densities of such students. More careful study is needed to sort out the effects of potential causes of these differences.

Summary of Findings

More than 50,000 seniors who took the CAHSEE this year, including both first-time seniors in the Class of 2008 and repeat seniors from earlier high school classes, did not satisfy the CAHSEE requirement by the end of the year. Nearly 35,000 of these students did not pass either part of the CASHEE. Students who did not pass showed small average score gains in their junior year and somewhat larger gains in their senior year. Even larger gains would be needed over the next 1 or 2 years for most of them to pass the CAHSEE.

Students who did not pass the CAHSEE were more likely than their classmates to say that passing the CAHSEE was very important to them (Question 2), both originally in 10th grade and again this year in the 12th grade. About two-thirds of the students who did not pass thought that they might not graduate because of the CAHSEE (Question 4).

Students who did not pass the CAHSEE were less likely to think they would graduate from high school (Question 3), but two-thirds of them still thought that they would. This rate did not change at all between 10th and 12th grade.

One correlate of not passing the CAHSEE is that, by 12th grade, more of those who did not pass planned to go to a community college and fewer thought they would go to a 4-year college than was the case in 10th grade (Question 5).

Students who did not pass were less likely than their classmates to report that they did as well as they could in the 10th grade, but by 12th grade more than 87 percent reported that they did their best on the CAHSEE (Question 7). Students who did not pass appeared to work harder because of the CAHSEE requirement. More reported taking additional courses or getting help outside of the classroom compared to their classmates (Question 13).

Students who did not pass were more likely than their classmates to report that many of the topics on the CAHSEE were not covered in their courses and that the questions on the CAHSEE were different from and more difficult than questions they encountered in their coursework (Questions 9–11). They were more likely to report having difficulty with the CAHSEE topics that they encountered in their coursework (Question 12). The rate at which they reported these difficulties did not change much between 10th and 12th grade for students who still did not pass.

More than a third of the students who did not pass planned to stay in school and continue to try and pass the CAHSEE next year. Last year, about 40 percent continued

to take the CAHSEE a year after their original graduation date. Others thought they might go to community college or participate in some other type of program. Only about 3 percent said they would give up trying to get a diploma altogether.

Finally, both minority and non-minority students in schools with high densities of minority and low-income students had lower overall CAHSEE passing rates than students in schools with lower densities of minority and low-income students.

Chapter 6: Trends in Educational Achievement and Persistence During the CAHSEE Era

D. E. (Sunny) Becker

Introduction

The CAHSEE examination is used to satisfy both No Child Left Behind (NCLB) requirements and high school graduation requirements. As such, it is a high-stakes examination for both students and school staff that could have profound effects on the education system as a whole. Among the goals of a standardized graduation examination is to raise the bar for what young adults who hold a high school diploma know and can do; one of the dangers is that it may discourage struggling students. Since its inception, the CAHSEE has provoked predictions ranging from a surge in dropout rates to improved preparation for college.

Other chapters in this report address direct results of the CAHSEE program. This chapter explores the educational environment of high school students, over time, to detect trends that may be related to the CAHSEE. Specifically, we look at students who leave high school prematurely, examining them from a number of perspectives, including official CDE dropout rates and enrollment trends. We also explore officially reported graduation rates and indicators of achievement by college-bound students such as SAT and ACT participation and scores, as well as shifts in participation and success in Advanced Placement (AP) examinations.

In our previous evaluation reports our analyses have been limited by the largely decentralized data management system in California schools. California recently implemented a unique statewide student identifier that supports the merging of data across various sources as well as sophisticated analyses. At this time some limitations remain, however. For example, we can report the number and rates of students passing the CAHSEE at each test administration and estimate the cumulative pass rates. We can estimate the number of students who have not yet passed the CAHSEE. From separate data sources, we can report high school graduation rates. However, we cannot match individual students' CAHSEE results with their graduation status; thus we cannot report the extent to which non-graduates failed to graduate solely because of the CAHSEE requirement versus other graduation requirements. However, the CDE expanded its summary reporting in the 2006–07 school year. Trend analyses are not yet available for these new data so we have tried to strike a balance in this chapter between trend reporting for past years and providing a snapshot of new information.

Students Who Leave High School Prematurely

An early and persistent concern regarding the implementation of the CASHEE requirement was that struggling students would become frustrated and drop out at higher rates. This phenomenon is difficult to measure, however, because the definition of what a “dropout” is and the requisite data underpinnings to clearly identify dropouts are in flux. We provide multiple views here of trends in student persistence through

Grade 12. We first present the State of California's official dropout statistics. We then look at enrollment trends for grades 8 through 12 for various student cohorts.

Dropout Rates

The California Department of Education (CDE) reports dropout rates publicly on its Web site. Two types of dropout calculations are common: one is based on the number of students who drop out in a given school year; the other is based on the percentage of a cohort of students (e.g., Class of 2010) who drop out over the four years between their class entering the 9th grade and their original graduation date. We will look first at single-year dropout rates and then at cumulative 4-year dropout rates, both as reported by CDE.

Changes to dropout calculations. The introduction of statewide student identifier numbers in 2006–07 made possible more accurate identification of student outcomes once they left a school. New procedures were implemented to more accurately identify the status of students who left a school, and dropout rates are now derived from this student-level data. Due to this change, the dropout rates in 2006–07 are not comparable with dropout rates in previous years. At the time of this report, the local education agencies (LEAs) were still correcting the initially reported dropout rates.

CDE single-year dropout rate. The single-year dropout rate measures the percentage of students enrolled in grades 9–12 who are identified as dropouts in a single school year. The official CDE dropout calculation derives the total number of students who drop out of grades 9–12 as a percentage of the total grade 9–12 enrollment in a single school year. In 2002–03 the California Department of Education started using the National Center for Education Statistics dropout criteria, so we are reporting the trend from that point forward. As reported in our previous annual report (Becker and Watters, 2007), single-year dropout rates hovered between 3.9 and 3.2 percent per year from 2002–03 through 2004–05. The rate rose to 3.4 percent in 2005–06, the first year for which passing the CAHSEE was a graduation requirement. Under the revised reporting procedures described above, the single-year dropout rate in the 2006–07 school year was 6.4 percent.

Table 6.1 disaggregates the single-year dropout rate by race/ethnicity, ordered by rate. Notably the dropout rate for African American students is 11.9 percent—substantially higher than for other groups. Rates for American Indian/Alaskan Native, Hispanic, and Pacific Islander students also exceed the rate for the state as a whole.

Table 6.1. CDE Single-Year Dropout Rates by Race/Ethnicity

Ethnic Category	Adjusted Grade 9–12 One-year Dropout Rate
African American (not Hispanic)	11.9%
American Indian/Alaska Native	8.6%
Multiple/No Response	8.4%
Hispanic or Latino	7.9%
Pacific Islander	7.6%
White	4.0%
Filipino	3.0%
Asian	2.6%
State Total	6.4%

The single-year dropout rate described in Table 6.1 does not distinguish the point within the high school years at which dropouts were increasing. Our previous annual report (Becker and Watters, 2007) indicated that the number of students dropping out in grades 9, 10, and 11 stayed quite level at 11,000–13,000 per grade level per class for the graduating classes of 2000 through 2006. However, the number of students dropping out during 12th grade increased markedly starting in the Class of 2003, peaking at 34,097 for the Class of 2006.

The dropout counts for the Class of 2007 continued in a similar pattern, although the change in dropout calculations starting in 2006–07 (described earlier in this chapter) complicate interpretation. Table 6.2 shows the number of students dropping out at each grade level for the Class of 2007. The Grade 12 dropouts for this class, which occurred in school year 2006–07, were calculated under the new rules, so it is impossible to distinguish how much of the increase was due to the rule change.

Table 6.2. CDE Single-Year Dropout Counts by Grade Level for Class of 2007

Class of	Enrollment Grade 9	Grade 9 Dropouts	Grade 10 Dropouts	Grade 11 Dropouts	Grade 12 Dropouts*
2007	526,442	11,687	10,585	12,845	56,648

* Dropout calculation was modified in this year.

CDE cumulative 4-year dropout rate and graduation rate. CDE also routinely produces a cumulative 4-year dropout rate, which is another common dropout metric. This calculation accounts for students within a class cohort who drop out, over time, at the 9th, 10th, 11th, or 12th grade level. This rate more closely reflects what the public perceives as the meaning of dropping out of high school. Due to their cumulative effect, 4-year dropout rates are generally considerably higher than single-year dropout rates.

Our previous annual report (Becker and Watters, 2007) reported CDE’s published 4-year dropout rates, disaggregated by race/ethnicity. The dropout rate is calculated as the number of students in a cohort class who dropped out in grade 9, 10, 11, or 12, as a percentage of the 9th grade entering school population. The 2007 report indicated that the level plateaued from 2003 through 2005 between 12.6 and 13

percent, then increased to 14.8 percent in 2006—the year the CAHSEE requirement took effect.

Table 6.3 shows the CDE 4-year dropout rates by race/ethnicity, ordered by descending rates. As described earlier, the identification of dropouts changed in the 2006–07 school year, so is not comparable with previous years. Therefore Table 6.3 shows only the Class of 2007. The table indicates that nearly a quarter of students (24.2%) dropped out over the four years. Notably, 41.6 percent of African American students in the Class of 2007 dropped out, a higher percentage than for any other racial/ethnic group. Dropout rates for American Indian, Hispanic, and Pacific Islander groups also exceeded the overall state rate.

Table 6.3. CDE 4-Year Dropout Rates by Race/Ethnicity for Class of 2007 (Percentages)

Race/Ethnicity	4-Year Dropout Percentage
African American	41.6
American Indian	31.3
Hispanic	30.3
Pacific Islander	27.9
White	15.2
Asian American	10.2
State Totals	24.2

Reasons for Leaving School

Students leave a school for a variety of reasons, including high school graduation, transfer to another school, and medical reasons. Table 6.4 shows the frequency and percentage of reasons between January 1, 2006 and October 3, 2007.⁶ These reasons are ordered so that graduates appear first, followed by dropouts, then completers, then exit codes that count as none of those three categories. The CDE initially reported these data in the 2006–07 school year so trend information is unavailable. Table 6.5 shows more detailed descriptions of each of these exit codes.

All available codes are provided in Table 6.4. Nearly three-quarters (74.8%) of cases are exits to enroll in another public California school. The “dropout” column indicates whether a code is counted in the dropout calculation. Dropouts include students who did not pass the CAHSEE and left school, left without providing forwarding enrollment information, enrolled in adult education and then dropped out, completed Grade 12 but did not graduate, entered an institution not for high school graduation, did not show up in the fall (i.e., “no shows”), and other. Dropouts account for 4.1 percent of

⁶ The date range used to create dropout counts differs from the one used to create graduate counts. As a result, the counts in this table do not match the dropout or graduate counts found on other reports.

the exits. Graduates include students who graduated with a high school diploma, or who graduated with a CAHSEE waiver or exemption. Graduates accounted for 14.2 percent of the exiting students.

The new definition of dropouts, adopted in October 2003, explicitly excludes students who received a General Education Development (GED) or California High School Proficiency Examination (CHSPE) certificate. One possible attenuator of post-2002 dropout rate trends would be an exodus of students seeking alternate credentials.

The GED test is a nationally recognized test offered by the American Council on Education (ACE), intended to assess examinees on high-school-level knowledge. The examination sections are Language Arts, Writing (Parts I and II); Social Studies; Science; Language Arts, Reading; and Mathematics, comprising approximately seven hours of testing. The ACE Web site reports “In order to pass the GED Tests, the GED candidate must currently demonstrate a level of skill that meets or surpasses that of the top 60 percent of graduating high school seniors.”⁷ ACE also indicates that, “About one in seven high school diplomas issued in the United States each year is based on passing the GED Tests.”⁸ In California, individuals who pass the GED do not receive a high school diploma. Students must be at least 18 years old and can earn a California High School Equivalency Certificate via the GED. Research indicates that GED holders are more similar to high school dropouts than to high school graduates in terms of lifelong outcomes. James Heckman (Heckman and Krueger, 2005) concluded that GED recipients earn less than other high school dropouts with similar ability levels. The U.S. military has long treated GED holders as a lower tier than high school graduates when making recruiting decisions. Table 6.4 indicates that only 1,866 students exited California schools because they completed the GED.

Another alternative to a traditional high school diploma is the California High School Proficiency Examination (CHSPE). The CHSPE consists of a mathematics section and an English-language arts section, both of which must be passed to obtain a Certificate of Proficiency awarded by the California State Board of Education. California law treats the Certificate of Proficiency as equivalent to a high school diploma. Students who earn the Certificate of Proficiency and have parental approval may leave high school early. At the time of testing, eligible candidates must be at least 16 years old, or have completed at least one academic year of the tenth grade, or be enrolled in the second semester of tenth grade. The CHSPE is administered three times annually (once in the spring, once in the summer, and once in the fall) and is offered in English only. Table 6.4 indicates that only 741 students exited California schools because they passed the CHSPE.

⁷ Information from <http://www.acenet.edu/AM/Template.cfm?Section=Professionals&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=7857>, retrieved 08/31/06.

⁸ According to <http://www.acenet.edu/AM/Template.cfm?Section=Professionals&Template=/TaggedPage/TaggedPageDisplay.cfm&TPLID=58&ContentID=7788>, retrieved 08/31/06.

Table 6.4. Exits by Exit Code

Exit Code	Description	Number of Exits	Percentage of Exits	Dropout	Graduate	Completer	Grade Level ⁹
100	Graduated, HS diploma	351,035	14.0%	No	Yes	Yes	7-12
106	Grad, CAHSEE mods & waiver	1,498	0.1%	No	Yes	Yes	7-12
108	Graduated, CAHSEE exempt	3,430	0.1%	No	Yes	Yes	7-12
120	Exceptional needs w/certif	3,306	0.1%	No	No	Yes	7-12
320	Completed GED	1,866	0.1%	No	No	Yes	7-12
330	Passed CHSPE	741	0.0%	No	No	Yes	7-12
104	Left, failed CAHSEE	4,609	0.2%	Yes	No	No	7-12
140	Left, no known enrollment	49,308	2.0%	Yes	No	No	7-12
270	Enroll adult ed then drop	2,903	0.1%	Yes	No	No	7-12
300	Expelled	2,038	0.1%	Yes	No	No	7-12
360	Completed Gr 12, not grad	7,594	0.3%	Yes	No	No	7-12
380	Enter inst not for HS dipl	575	0.0%	Yes	No	No	7-12
400	Other (count as dropout)	17,440	0.7%	Yes	No	No	7-12
420	No show, in same schl, prior yr	14,413	0.6%	Yes	No	No	7-12
430	No show, matriculating	4,549	0.2%	Yes	No	No	7-12
460	Home school	850	0.0%	Yes	No	No	7-12
130	Died	770	0.0%	No	No	No	7-12
160	Enroll another pub CA schl	1,880,618	74.8%	No	No	No	7-12
180	Enroll in private CA school	18,584	0.7%	No	No	No	7-12
200	Enrolled outside CA	44,510	1.8%	No	No	No	7-12
240	Moved to another country	17,092	0.7%	No	No	No	7-12
260	Enroll adult ed program	27,048	1.1%	No	No	No	7-12
280	Entered college	1,599	0.1%	No	No	No	7-12
310	Entered health care facil	895	0.0%	No	No	No	7-12
370	Enter inst for HS diploma	8,341	0.3%	No	No	No	7-12
410	Left, medical reasons	1,857	0.1%	No	No	No	7-12
440	Remain in schl-left prog/gr	14,341	0.6%	No	No	No	K-12
450	Infant, PreK, K-6 exit	1,295	0.1%	No	No	No	K-6
470	Other no show (not 420 & 430)	30,557	1.2%	No	No	No	K-12
Total		2,513,662	100.0%	4.1%	14.2%	14.4%	

Source: <http://dq.cde.ca.gov/dataquest/DropoutReporting/>

⁹ Note. 7-12 = 7-12, ungraded secondary, adults in K-12 programs; K-12 = K-12, ungraded elementary, ungraded secondary, adults in K-12 programs; K-6 = Infant, PreK, K-6, ungraded elementary.

Table 6.5. Definitions of Student Exit Codes 2006–07

Exit Code	Description	Notes
100	Graduated, HS diploma	Typically used for grade twelve graduates although students who obtain a high school diploma at earlier grades and exit the school would also use this code.
104	Left, failed CAHSEE	Includes students who met all local graduation requirements, were required to pass the CAHSEE, but did not pass the CAHSEE.
106	Grad, CAHSEE mods & waiver	Typically used for Grade twelve graduates although students who obtain a high school diploma at earlier grades and exit the school would also use this code.
108	Graduated, CAHSEE exempt	Typically used for Grade twelve graduates although students who obtain a high school diploma at earlier grades and exit the school would also use this code.
120	Exceptional needs w/certif	See <i>Education Code</i> sections 56390- 56392 in Appendix A for more information pertinent to this Exit/Withdrawal code.
130	Died	
140	Left, no known enroll	Includes those students that left school due to pregnancy.
160	Enroll another pub CA schl	This code is also used for students that leave a district school and then enroll and attend another school in the same district.
180	Enroll in private CA school	This code is also used for students completing the highest grade at a middle/intermediate/junior high and leaving the school to attend a private high school. In this case there is no need for documentation of enrollment in a private school.
200	Enrolled outside CA	This code should also be used for students matriculating from middle/intermediate/junior high to a high school outside of California. In this case there is no need for documentation of enrollment in a school outside of California.
240	Moved to another country	This code should also be used for students matriculating from middle/intermediate/junior high to a high school in another country.
260	Enroll adult ed program	Enrollment in an adult education program must be verified as of information day in order to use this code.
270	Enroll adult ed then drop	Also used when a student's enrollment in an adult education program cannot be verified on information day.
280	Entered college	
300	Expelled	
310	Entered health care facil	Does not include pregnancy.
320	Completed GED	
330	Passed CHSPE	
360	Completed gr 12, not grad	Included under this code are those students who completed four years of high school, have not graduated or received a GED or CHSPE certificate, and are not known to be in an educational program leading toward a high school diploma or its equivalent and whose situation cannot be described more accurately by another of these Exit/Withdrawal codes.
370	Enter inst for HS diploma	Does not include the following types of schools: Community Day, Continuation, Juvenile Hall, California Youth Authority, and Alternative School of Choice – for a student enrolling in these types of schools use code 160. The “justice system” in the code description is considered prison or jail.
380	Enter inst not for HS dipl	See notes for 370.

Exit Code	Description	Notes
400	Other (count as dropout)	Use this code if you do not know the reason the student left the school.
410	Left, medical reasons	If the student entered a health facility, use code 310. This code is to be used for serious long-term medical reason (does not include pregnancy).
420	No show, in same schl, prior yr	Use this code when a student is expected to return to, and attend the school and the student is not in attendance on the reporting date. If there is another reason (other than a no show) that the student is not attending, use the appropriate Exit/Withdrawal code (for example if the student was expected to attend the school, did not show up, but is know to be attending another California public school, code 160 would be used).
430	No show, matriculating	Use this code when a student is expected to matriculate to a school and attend the school and the student is not in attendance. If there is another reason (other than a no show) that the student is not attending, use the appropriate Exit/Withdrawal code (for example if the student was expected to attend the school, did not show up, but is know to be attending another California public school, code 470 would be used)
440	Remain in schl-left prog/gr	For local use. May not be an exit/withdrawal from a school.
450	Infant, PreK, K-6 exit	May be used for all infant, pre-kindergarten, kindergarten through grade six, or ungraded elementary exits. In a unified district, it may be easier for all schools in the district to use the other exit/withdrawal codes so that two different code sets do not have to be maintained in the district.
460	Home school	Do not use for students in private schools (those schools that submit a private school affidavit). Also do not use for students in an Independent study program through a public school district.
470	Other no show (not 420 & 430)	

Source: <http://dq.cde.ca.gov/dataquest/DropoutReporting/>

Enrollment Trends

The new student identification system heralds a new stage in accurate reporting of student outcomes and trajectories. Because 2006–07 was the first year we could report dropout and graduation rates with the benefits of student-level tracking, we provide here another way to look at the dropout phenomenon: enrollment trends.

Enrollment counts are documented at the schoolhouse level in the fall of each school year. CDE maintains statewide aggregations of these figures. Since the beginning of this evaluation process, we have tracked enrollment figures by graduation class cohort. Comparing enrollment trend patterns over time serves here as an independent indicator of trends in retention or dropout rates. Until California’s student-level data tracking matures, we cannot assess trends in the comings and goings of individual students. However, overall enrollment figures provide an indication of the extent to which students in each grade do not proceed to the next grade with the rest of their classmates.

Before investigating the California enrollment trends, we offer a description of two typical enrollment patterns that are commonly seen both within and outside California. One persistent enrollment pattern is a 9th grade “bubble.” That is, in any given year

more students are enrolled in the 9th grade than in either the 8th or 10th grades. One oft-theorized explanation is that some first-time 9th graders fail to earn sufficient credits to achieve 10th grade status on time. Therefore in the fall of each year the 9th grade population comprises the prior year's 8th grade graduates plus a bubble of some number of students who would have been 10th graders, if they were on pace with their classmates. [These students may earn extra credits in the coming year and "catch up" with their classmates, or may drop back to a later graduating class.] At the same time, the 10th grade enrollment would be suppressed by exclusion of those same students. A second persistent enrollment pattern is a decrease in enrollment (drop-off) each year after the 9th grade. This decrease is generally considered to include high school dropouts.

The CDE website provides enrollment counts. To present enrollment trends in a manner that is comparable across years despite population growth or declines, we have converted these enrollment counts to percentage decreases. Table 6.6 and Figure 6.1 show the decrease in enrollment from the 9th to the 10th grade for several recent years, going back far enough to precede the introduction of the CAHSEE. The most recent classes are listed first. As noted in the 2004 evaluation report (Wise, et al., 2004), the 10th grade drop-off rate increased by 0.1 percent for the Class of 2006. It was hypothesized that the increased drop-off rate was primarily due to a larger than usual increase in the number of students being retained in 9th grade. In the 2004–05 school year, the drop-off rate declined somewhat to 5.6 percent. This was followed by a substantial increase to 6.1 percent in 2005–06, an even more substantial decrease to 5.3 percent in 2006–07, then an increase to 5.7 percent in 2007–08.

Table 6.6. Enrollment Declines From 9th to 10th Grade by High School Class

School Year	High School Class	10 th Grade Enrollment	Prior Year's 9 th Grade Enrollment	Decrease	
				Number	Percent
2007–08	2010	513,943	545,040	31,097	5.7%
2006–07	2009	517,873	*547,014	29,141	5.3%
2005–06	2008	*515,761	549,486	33,790	6.1%
2004–05	2007	*497,203	526,442	29,238	5.6%
2003–04	2006	490,465	520,287	29,822	5.7%
2002–03	2005	471,726	499,505	27,779	5.6%
2001–02	2004	459,588	485,910	26,322	5.4%
2000–01	2003	455,134	482,270	27,136	5.6%
1999–00	2002	444,064	468,162	24,098	5.1%
1998–99	2001	433,528	458,650	25,122	5.5%
1997–98	2000	423,865	450,820	26,955	6.0%

Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>). August 18, 2007.
 The * before a number represents a change in data from the 2006 evaluation report.

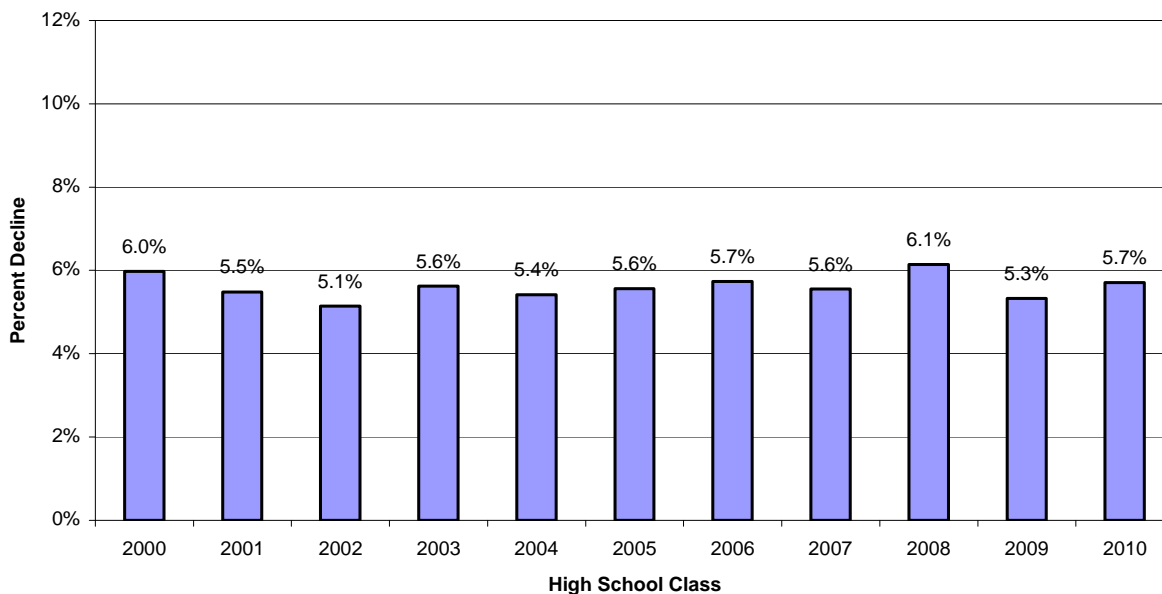


Figure 6.1. Enrollment declines from 9th to 10th grade by high school class.

Table 6.7 and Figure 6.2 show similar information for the drop-off between 10th and 11th grade enrollments. Results show that the drop-off rate between 10th and 11th grade enrollments declined beginning with the Class of 2004. The rate declined to 5.5 percent for the 2006–07 year, then rose to 5.7 percent in 2007–08.

Table 6.7. Enrollment Declines From 10th Grade to 11th Grade

School Year	High School Class	11 th Grade Enrollment	Prior Year's 10 th Grade Enrollment	Decrease	
				Number	Percent
2007–08	2009	488,473	517,873	29,400	5.7%
2006–07	2008	*487,522	*515,761	28,239	5.5%
2005–06	2007	467,304	497,203	29,963	6.0%
2004–05	2006	459,114	490,465	31,339	6.4%
2003–04	2005	441,316	471,726	30,396	6.4%
2002–03	2004	428,991	459,588	30,597	6.7%
2001–02	2003	420,295	455,134	34,839	7.7%
2000–01	2002	409,119	444,064	34,945	7.9%
1999–00	2001	401,246	433,528	32,282	7.4%
1998–99	2000	390,742	423,865	33,123	7.8%

Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>). August 18, 2007. The “*” before a number represents a change in data from those available for the 2006 evaluation report.

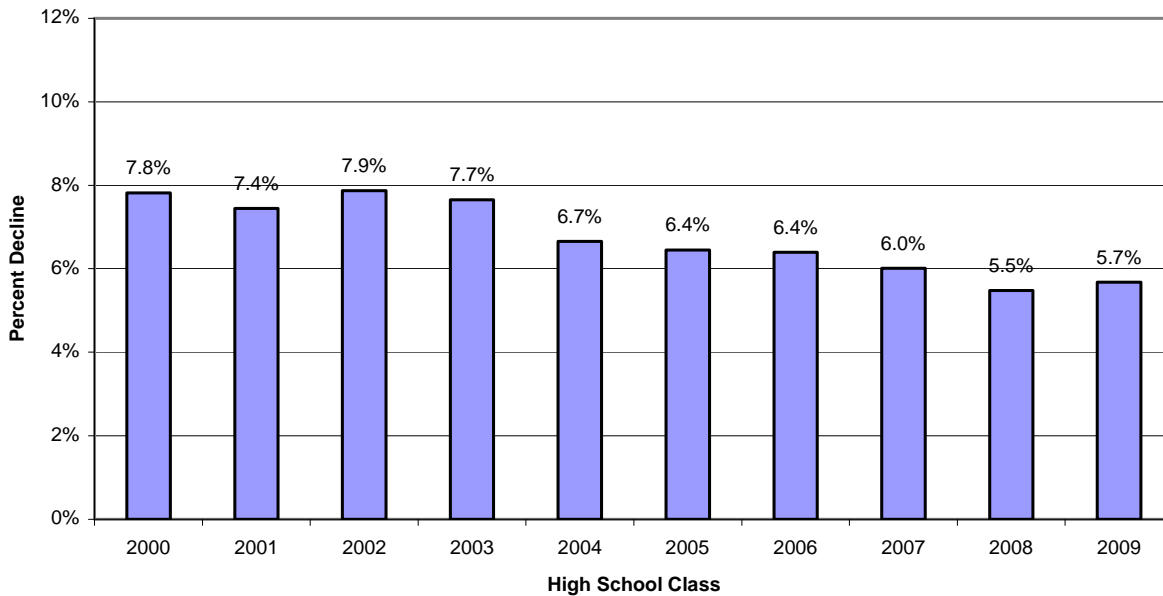


Figure 6.2. Enrollment declines from 10th to 11th grade by high school class.

Table 6.8 and Figure 6.3 show similar information for the drop-off between 11th and 12th grade enrollments. This rate decreased substantially (2.5 percentage points) with the Class of 2003. The reduced drop-off rate continued for subsequent cohorts, with the exception of the Class of 2006. The drop-off rate from 11th to 12th grade for the Class of 2008 is markedly lower than for any previous cohort analyzed here. This may be partly due to the continuation of 12th graders after failing to graduate with their original graduating class.

Table 6.8. Enrollment Declines From 11th Grade to 12th Grade

School Year	High School Class	12 th Grade Enrollment	Prior Year's 11 th Grade Enrollment	Decrease	
				Number	Percent
2007–08	2008	468,465	487,493	19,028	3.9%
2006–07	2007	443,154	*467,304	24,150	5.2%
2005–06	2006	423,241	459,114	35,885	7.8%
2004–05	2005	409,568	441,316	31,762	7.2%
2003–04	2004	396,272	428,991	32,719	7.6%
2002–03	2003	386,379	420,295	33,916	8.1%
2001–02	2002	365,907	409,119	43,212	10.6%
2000–01	2001	357,789	401,246	43,457	10.8%
1999–00	2000	347,813	390,742	42,929	11.0%

Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>). August 18, 2007.

The * before a number represents a change in data from those available for the 2006 evaluation report.

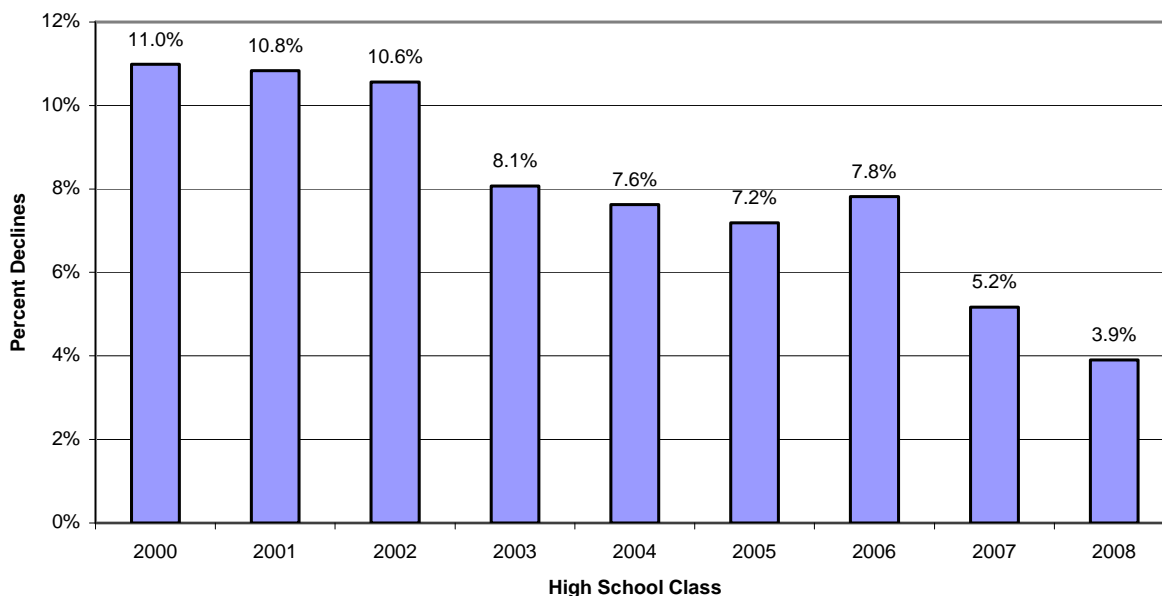


Figure 6.3. Enrollment declines from 11th to 12th grade by high school class.

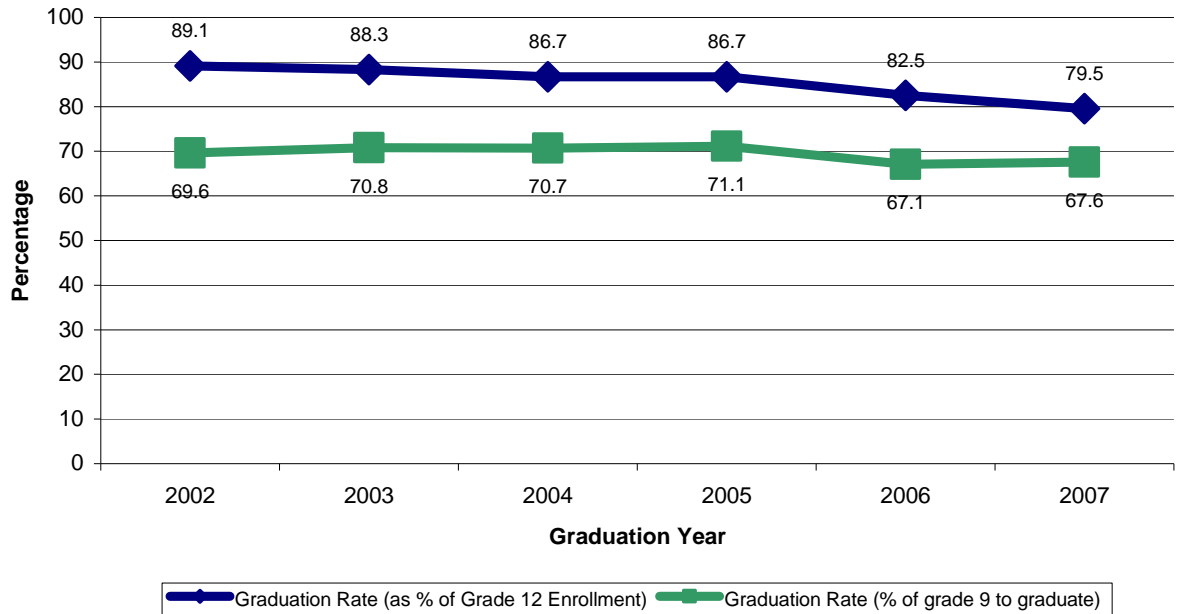
Enrollment Trends: Summary

We analyzed enrollment trends by graduation class cohort from the Class of 2000 through the Fall 2008 enrollment counts. The fall enrollment numbers for the 2007–08 school year reflect slightly higher grade-by-grade reduction than the previous year with the exception of Grade 12 enrollment. An increase in repeat 12th graders may have attenuated this decline.

Graduation Rates

Another indicator that could conceivably be affected by the CAHSEE requirement is the high school graduation rate. CDE publicly reports the graduation rate in two ways: (a) graduation rate as a percentage of Grade 12 enrollment and (b) graduation rate as a percentage of Grade 9 enrollment of this graduating class. The latter calculation is based upon the NCES definition: the numerator is the number of graduates in Year 4 and the denominator is the sum of the number of graduates in Year 4, plus the dropouts in grades 9–12.

Inspection of Figure 6.4 reveals that both graduation rates dropped in 2006, the first year CAHSEE took effect. The graduation rate as a percentage of Grade 12 fall enrollment had declined somewhat in previous years and declined by 4.2 percentage points in 2006 and another 3.0 percent in 2007. The percentage of graduates based on Grade 9 fall enrollment had increased slightly in previous years but dropped by 4.0 percentage points in 2006; the percentage recovered by 0.5 percent in 2007.



Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>). More recent data were unavailable as of August 13, 2008.

Figure 6.4. Graduation rates based on grades 9 and 12 fall enrollments.

A careful reader may notice that the graduation rate from Grade 9 for the Class of 2007, 67.6 percent, and the 4-year dropout rate reported in Table 6.3, 24.2 percent, do not total to 100 percent. Some of the unaccounted for students may have completed high school without graduating (see Table 6.4 for 320: completed GED, 330; passed CHSPE, and 120: exceptional needs with certificate) or may have continued on for a second year of 12th grade).

College Preparation (SAT/ACT/UC & CSU courses)

Indicators of educational quality include the rigor of coursework undertaken in high school as well as the proportion of students intending and prepared to engage in postsecondary education. We turn now to two sets of indicators (other than the CAHSEE) of student preparedness for college.

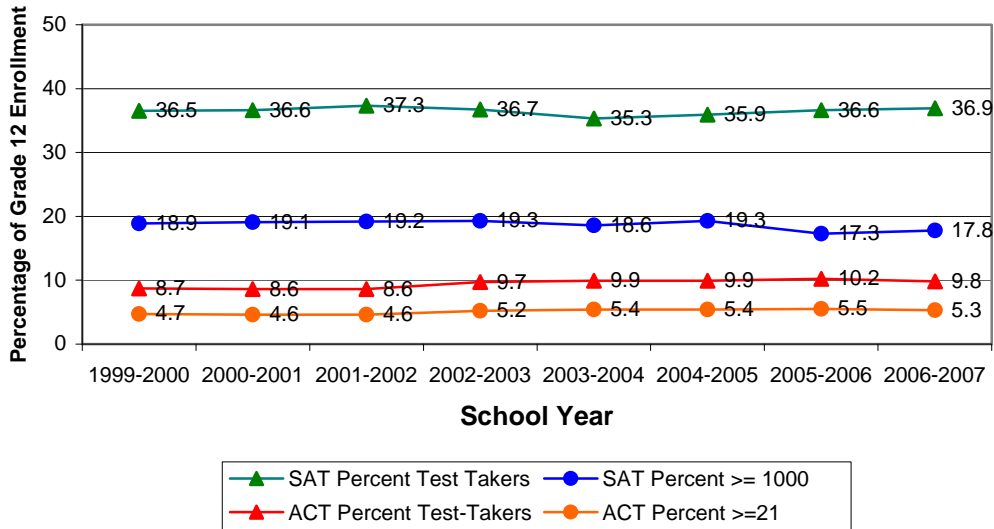
College Entrance Examination Participation and Performance

The level of student aspirations for education beyond high school is reflected in the proportion of students who sit for college entrance examinations. College readiness can also be examined by looking at the performance of students who take such tests. These two factors are confounded, in that higher participation may be related to lower scores overall. For example, if only a small, high performing proportion of a class takes an exam, scores will be high but participation will be low. If a larger proportion of students, who may be lower performing, are encouraged to take the test, the average scores will drop but participation rates will increase. Interpretation of patterns requires care because of this confounding effect.

Two college-entrance examination programs are prevalent in the United States: the SAT and the ACT. Figure 6.5 indicates the percentage of California students participating in these two examination programs. The lines with triangle-shaped markers represent the proportion of each Grade 12 class who took either the SAT or ACT. Approximately 37 percent of the Class of 2007 took the SAT and almost 10 percent took the ACT. This was an increase in SAT participation and a decrease in ACT participation relative to the previous year.

Figure 6.5 also shows the percentage of students who achieved a particular score on these two exams, over time. The graph uses the same cut points used for reporting on the CDE Web site. Through 2004–05 the lines with asterisk pointers reflect the percentage of students **in the class** achieving a minimum combined score of 1000 on the SAT or 21 on the ACT, respectively.¹⁰ Starting in 2005–06, the SAT line reflects a combined verbal, math, and writing score of 1500. The percentage of students attaining the designated score on the SAT remained fairly stable at slightly over 19 percent each year, but dipped in 2006–07 to 17.8 percent. The ACT performance also dropped slightly in 2006–07 to 5.3 percent of students reaching an ACT score of at least 21.

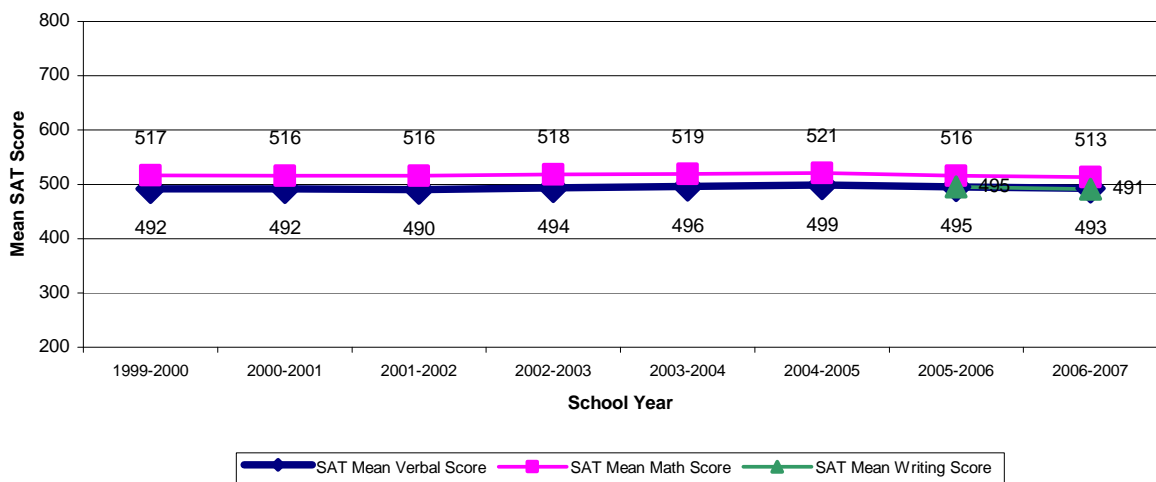
¹⁰ The national rank for a combined SAT score of 1000 is the 45th percentile. The national rank for an ACT Composite score of 21 is the 57th percentile.



Note. Last 2 years reflect combined SAT Verbal, Math, and Writing scores ≥ 1500 .
 Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

Figure 6.5. SAT and ACT participation rates and success rates over time.

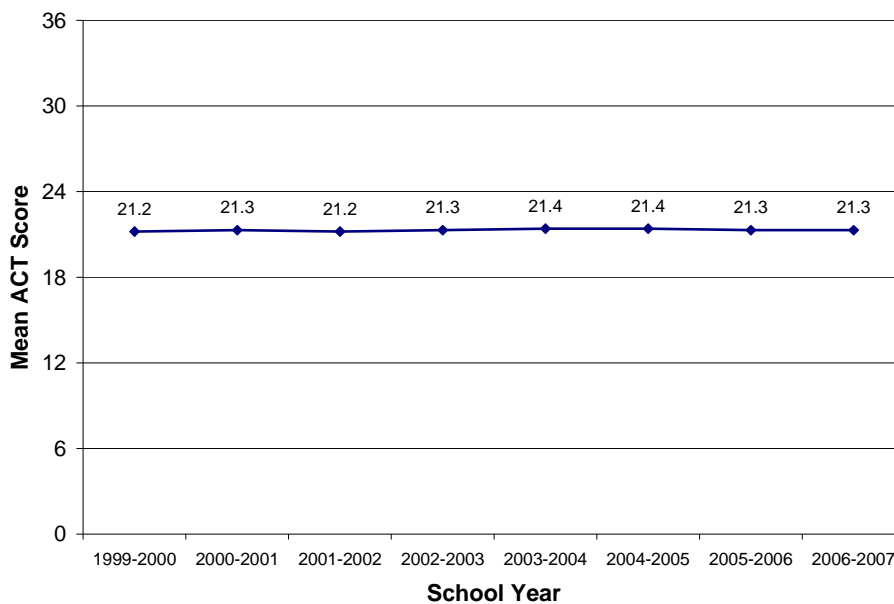
Another metric to assess success on tests such as the SAT and ACT is to look at mean scores. SAT exams are scored on a range of 200–800. Figure 6.6 indicates that mean SAT math and verbal scores generally increased each year between 2001 and 2005, but both verbal and mathematics mean scores dropped in 2006 and 2007 (the CAHSEE went into effect in 2006). The downward trend in mean scores mimicked a national trend; between 2005 and 2007 the nationwide mean score dropped from 508 to 502 in Critical Reading and from 520 to 515 in Mathematics (see http://professionals.collegeboard.com/profdownload/Total_Group_Report.pdf). SAT writing was introduced in 2006.



Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

Figure 6.6. SAT mean math, verbal, and writing scores over time.

Figure 6.7 shows mean scores on the ACT exam over the same period, revealing a high level of consistency. ACT exams are scored on a range of 1–36.



Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

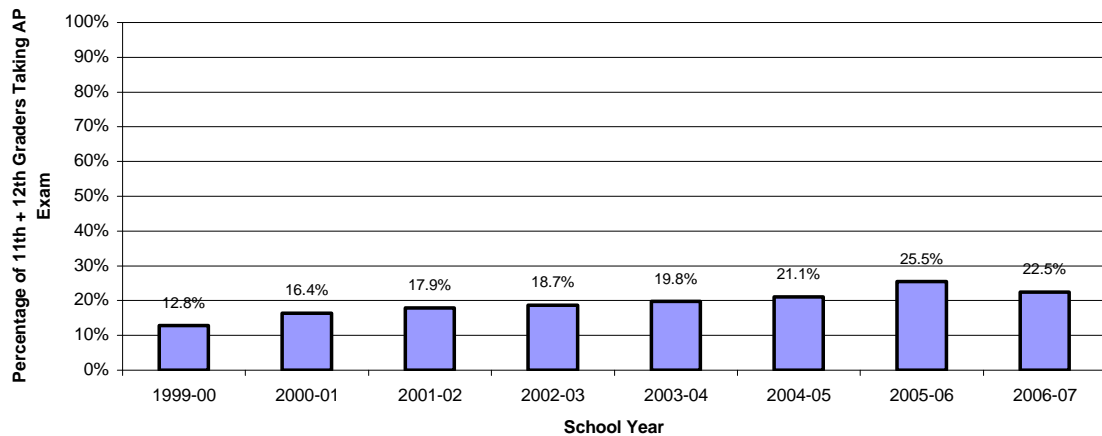
Figure 6.7. ACT mean scores over time.

Figure 6.7. ACT mean scores over time.

AP Test Achievement

The College Board's Advanced Placement (AP) program comprises a set of college-level courses offered in high school. Students have the option of taking a standardized AP examination after completing the course to earn college credit and/or gain placement in advanced college courses. AP exam participation rates and scores are indicators of the rigor of high school courses as well as of the intentions of students to attend college. The College Board currently offers 37 AP courses and exams over 22 subject areas, but not all courses are offered at all high schools.

Figure 6.8 displays AP examination participation rates among California students over time. Each bar represents the percentage of juniors and seniors taking at least one AP exam in a given school year. The rates increased every year between 1999–2000 and 2005–06, then declined in 2006–07.

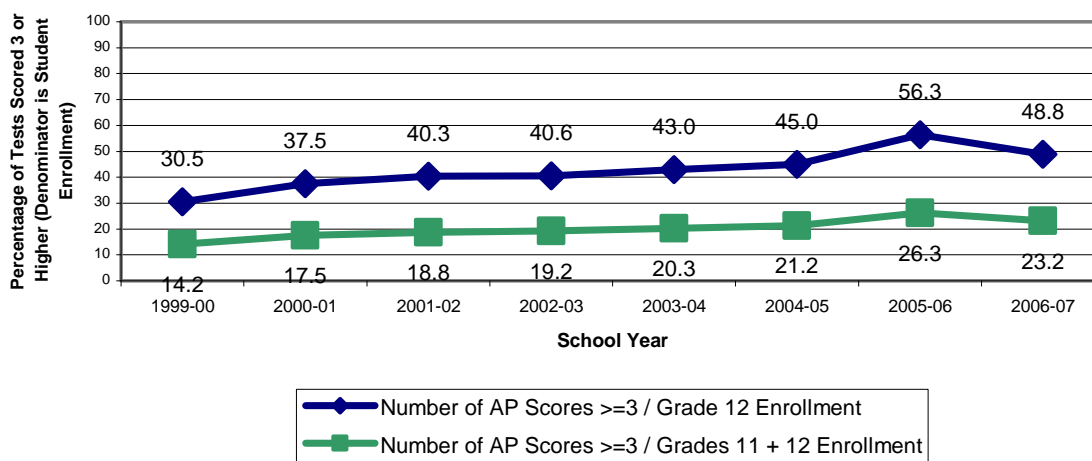


Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

Figure 6.8. AP participation rates over time.

The CDE Web site also reports AP pass rates over time. These data are summarized in Figure 6.9 but require some explanation. The numerator in each calculation is the number of AP tests on which a score of 3 or greater¹¹ was earned. The denominator for one line is Grade 12 enrollments; the denominator on the other line is total Grade 11 and Grade 12 enrollment. Note that students who earned a score of 3 or better on multiple AP exams were counted multiple times in the numerator, but only once in the denominator. Therefore, the rate of 48.8 percent pass rate among 12th graders in 2006–07 does not indicate that 48.8 percent of high school seniors earned AP credit; in fact, Figure 6.8 indicates that only 22.5 percent of seniors and juniors took one or more AP exams. However, these rates are useful to assess overall AP impact over time. Inspection of Figure 6.9 reveals that AP pass rates have increased over time, with a decrease in the 2006–07 school year.

¹¹ AP exam scores are on a scale of 1–5. Typically postsecondary institutions grant credit or advanced placement for minimum scores of 3 or 4. A score of 3 is a commonly accepted indicator of success on an AP exam.



Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

Figure 6.9. AP pass rates over time (i.e., number of AP exam scores ≥ 3 as a percentage of student enrollment).

College Preparation: Summary

The percentage of high schools seniors taking the SAT exam increased in the 2006–07 school year, from 36.6 percent to 36.9 percent. At the same time the mean score on the SAT dropped (from 516 to 513 on the verbal portion of the exam and from 495 to 493 on the math portion). This relationship of increased participation associated with reduced mean score is consistent with research on other testing programs and likely reflects inclusion of a wider range of students in this important step toward college participation. We note that the percentage of students earning a combined SAT score of 1500 or better declined from 19.2 to 17.8 percent. However, the percentage of students participating in the ACT dropped from 10.2 percent to 9.8 percent over the past two years, but the percentage of students achieving a score of 21 or higher still dropped from 5.5 percent to 5.3 percent.

Another indicator of the rigor of high school coursework is participation in, and success on, Advanced Placement examinations. While the 2005–06 school year brought increased participation and higher performance on these exams, these metrics both declined in 2006–07.

Summary Findings

Data sources outside the CAHSEE program provide indications of the state of education in California. The Class of 2006 was the first required to pass both parts of the CAHSEE to receive a high school diploma, so trends from 2006 and 2007 are of particular import.

One important indicator of the impact of the CAHSEE requirement is whether the proportion of students who leave high school without a diploma changes in some way.

This straightforward question demands a multifaceted answer. First, we note that official dropout rate calculations indicate that both single-year and 4-year dropout rates increased in 2006¹². Meanwhile, California made important improvements in its student-level data systems, facilitating more accurate dropout tallies in 2007. The 2007 dropout rates were substantially larger than previous rates but we cannot disentangle how much of this change is a real increase in dropouts versus more accurate reporting.

As a second look at students leaving high school prematurely we investigated enrollment trends by grade and over time. While this measure does not directly account for mobility in and out of the state, substantial changes in enrollment declines can be used as an indirect indicator of dropout rates. Enrollment patterns indicate that the drop-off rates of sophomores and juniors increased in fall 2008 while the drop-off rate of seniors declined. This 12th grade phenomenon may be attenuated by the continuation of students in a second senior year.

High school graduation rates can also be measured in multiple ways. CDE makes two metrics publicly available: the graduation rate as a percentage of Grade 12 enrollment (i.e., the rate at which the incoming senior class successfully completes high school) and the graduation rate from Grade 9 to graduation. The graduation rate as a percentage of Grade 12 fall enrollment had declined somewhat in previous years and declined by 4.2 percentage points in 2006 and another 3.0 percent in 2007. The percentage of graduates based on Grade 9 fall enrollment increased slightly in previous years but dropped by 4.0 percentage points in 2006; the percentage recovered by 0.5 percent in 2007.

Participation in the SAT college entrance examination increased slightly in the 2006–07 school year, while the mean score and the percentage of students earning a combined score of 1500 or better declined slightly. This combination of factors may indicate that a broader pool of students is considering continuing its formal education beyond high school. Conversely, participation and success on the ACT—which only receives about a quarter of the participation among California students that the SAT program did — declined slightly.

In short, we found that graduation rates declined and dropout rates increased for the Class of 2007. The accuracy of documenting dropout rates has improved due to the new student identification system (which limits comparability over time), but it is notable that dropout rates increased most for African American students, reaching 41.6 percent over 4 years. We found that dropouts during the senior year spiked for all racial/ethnic groups. Participation in (and success on) Advanced Placement exams decreased in 2007. Participation in the most common college entrance exam, the SAT, increased while mean scores dropped, perhaps reflecting an interest in college by a broader range of the graduating class.

¹² Long-term trend results should be interpreted with caution because CDE amended its definition of dropouts in 2003 to conform to federal NCES guidelines.

Chapter 7: Progress of Instruction Study Activities

Sheila R. Schultz

Background

As part of the independent evaluation of the CAHSEE, HumRRO conducted two extensive studies of curriculum and instruction. Assembly Bill (AB) 1609, enacted in 2002, required the CDE to contract for a study of whether standards-based instruction was adequate to require students in the Class of 2004 to pass the CAHSEE to receive a high school diploma. HumRRO, as the independent evaluator for the CAHSEE, conducted the study and issued a report in May 2003. The report indicated that, while both initial and remedial courses covered the content standards in nearly all schools, many of these courses were not yet effective. Many students taking these courses, particularly Algebra I, were still unable to pass the CAHSEE. The most likely reason for the limited effectiveness of these courses was that many students lacked the prerequisite knowledge and skills to fully benefit from the courses. The report also indicated that instruction in the standards was being improved for subsequent classes of students. Based on these findings, we recommended a two-year deferral of the CAHSEE requirement.

The Board subsequently adopted HumRRO's recommendation for deferral and reinstated the CAHSEE requirement for the Class of 2006. The Board also reduced the Algebra content of the test somewhat in 2004. Board staff asked that a second study of instruction be conducted to assess improvements. HumRRO conducted the second study and reported on it in the 2005 annual evaluation report. Based on findings from the second instruction study, HumRRO recommended the Board "stay the course" and continue the CAHSEE requirement.

2009 Instruction Study

Continuing to gather information on curriculum and instruction is important to the CAHSEE evaluation for at least three reasons. First, the CDE hoped and expected the CAHSEE requirement would lead to improvements in instruction and additional remediation opportunities for students who need them. To evaluate the effectiveness of the CAHSEE, the CDE needs data regarding the quality and effectiveness of available instruction and remediation. Second, if California schools could identify specific programs that prepare students to pass the CAHSEE or that help students who do not initially pass, they could further improve student learning by wider adoption of these programs. Finally, determination of whether students are provided with "adequate" opportunities to learn the material covered on the test is a key issue in most litigation surrounding high school graduation tests in California and in other states. Because the information to be gathered is so important, the CDE requested a new instruction study be conducted in 2009.

While the design of the new study will be similar to that of the previous studies, there are some differences. Specifically, the new study will gather information only at

the high school level (not from middle-grade feeder schools); researchers will not visit school sites; and the study will sample fewer high schools (400 compared to 600 schools in previous studies). The new instruction study will focus on the following questions:

- What changes have there been to the standards-based courses reported in the earlier surveys?
- Are more students who need additional instruction in the standards taking the courses and participating in the intervention programs offered by the schools?
- Are the students who participate in the relevant courses and programs better prepared to succeed in these courses than were previous cohorts?

In addition, the CAHSEE passing rates for the Classes of 2007—2009 for the schools included in the new study will be used to assess whether the effectiveness of standards-based instruction in these school systems has improved.

Sample Selection

For the 2009 instruction study, we will select 400 high schools that form a representative sample of California schools. Following our already established procedure for working with California schools, our first stage of contact will be with superintendents of the districts with high schools included in the survey sample. We will inform the superintendents of the study's purpose and gain their permission to proceed working with the identified high schools. If a district declines to participate in the instruction study, we will contact a replacement district that has similar characteristics. Each cooperating superintendent's office will be asked to provide the principal's name and contact information for each school. This final sample information will be entered into our existing database and used to create mailing labels to ship surveys to participating schools.

Planning Workshop

A daylong workshop was held in Sacramento, California, on May 28, 2008, to begin planning the 2009 instruction study. The primary purpose of this workshop was to refine (a) study questions, (b) survey instruments and procedures, and (c) analysis plans.

Participants

We recruited workshop participants by soliciting nominations of qualified high school teachers, principals, and curriculum experts from district CAHSEE coordinators. All nominees were to meet the following minimum criteria:

- Have at least three years experience (teaching or as a principal) within a California high school;
- Be thoroughly familiar with high school standards-based courses in English language arts (ELA) or mathematics; and

- Be knowledgeable of various intervention programs designed to help students master the skills assessed by the CAHSEE.

The CAHSEE coordinators nominated 39 individuals for the workshop. Of those 39, 29 were interested and available to participate in the May 28 instruction-planning workshop.

The goals in selecting participants were to include teachers, principals, and curriculum experts who represent the diversity of the state while maximizing the expertise needed to complete workshop activities. Final selections were based on years of experience, familiarity with California's ELA and/or mathematics content standards, and experience working with students in special populations. We selected 15 experts to participate in the instruction-planning workshop, including California teachers (i.e., ELA, mathematics, and special education), a high school assistant principal, various district staff (e.g., Curriculum Specialist, Director of Special Education, Transition Specialist), staff from a county office of education curriculum/instruction, and a resource specialist. Background summary information about the experts who participated in the instruction-planning workshop is presented in Table 7.1.

Activities

The workshop began with an overview of the project, including the history and goals of the instruction study, and then proceeded to engage participants in both large and small group activities (see Appendix E for the workshop agenda). As a large group, participants discussed the key study questions. They provided perspective as to whether the proposed questions were appropriate to the instruction study, offered ideas about emerging issues related to the questions, and suggested additional questions the study might address. Following this discussion, participants convened in four small groups to review and revise surveys administered in previous instruction studies. The workshop continued with participants reconvening in a large group to share (a) their overall impression of the items on the survey they reviewed, (b) the general theme of suggested revisions, and (c) a summary of items they recommend adding and/or deleting. Finally, participants discussed and provided recommendations for approaches that might be used to increase survey participation.

Table 7.1. Background Summary Information for Instruction Planning Workshop Participants

Characteristic	Category	Number
Gender	Male	6
	Female	9
Race/Ethnicity	Caucasian	9
	African American	3
	Hispanic	2
	Native American	1
	Asian/Pacific Islander	2
	Other	1
Type of Position	District Staff	5
	High School Principal	1
	ELA Teacher	5
	Math Teacher	2
	Other	4
Years Experience	1-3 yrs	4
	4-10 yrs	3
	11-15 yrs	5
	16-20 yrs	1
	More than 20 yrs	2
Content Standards Familiarity	ELA	15
	Math	14
Special Populations Experience	English learners	14
	Special education	12

Note:

1. Totals do not add to 15 because participants reported multiple categories for race/ethnicity.
2. Totals do not add to 15 because participants reported serving multiple roles.
3. Other positions included County Office of Education Curriculum/Instruction, Assistant Principal, Special Education Teacher, and Resource Specialist.
4. The majority of workshop participants reported having familiarity with both ELA and mathematics content standards.

Results

Workshop participants provided feedback and recommendations that will be used to enhance our planning and implementation of the various instruction study activities.

Study Questions. Highlights of participants' feedback and recommended focus regarding the three primary study questions include:

1. What changes have there been to the standards-based courses reported in the earlier surveys?
 - How do 9th and 10th grade ELA and mathematics teachers actually teach the California content standards?

- What are the curricula in CAHSEE intervention/remediation classes?
 - What state-offered resources do teachers use to help students pass the CAHSEE (e.g., released CAHSEE items, blueprints)?
2. Are more students who need additional instruction in the standards taking the courses and participating in the intervention programs offered by the schools?
 - What types of students participate in non-mandatory intervention programs?
 - How does the school (system) integrate student participation across parallel programs?
 - How are students selected to participate in intervention courses and how long do students participate in these courses?
 3. Are the students who participate in the relevant courses/programs better prepared to succeed in these courses than were previous cohorts?
 - What instructional practices are employed to teach relevant course content?
 - To what extent is relevant course content taught?
 - How are remediation courses aligned with the Grade 10 content standards to ensure students learn what they need to succeed on the CAHSEE?
 - How do schools use data to determine areas where students' knowledge of the content standards is weak or deficient?
 - Site ownership of an intervention program is critical to its success; to what extent do the school and teachers support the program(s)?

Survey Item Revisions. Participants worked in small groups to provide feedback about the surveys to be administered for the 2009 instruction study. Participants in three groups reviewed and revised existing surveys used in previous CAHSEE instruction studies. As previous studies did not include a specific survey for teachers of special populations, participants in the fourth group were provided potential items and ideas to incorporate into a new survey. Major feedback and recommendations regarding the surveys is presented below.

- A. High School Principal Survey
 - New items were added for respondents to:
 - rate familiarity with the ELA and mathematics content standards;
 - indicate the proportion of teachers in the ELA and mathematics departments who participate in professional development designed to familiarize them with California's content standards assessed by the CAHSEE;
 - indicate percentage of ELA and mathematics teachers and administrators who participate in professional development that familiarizes them with the frameworks;
 - rate familiarity about state resources to support the CAHSEE;
 - rate effectiveness of materials provided by the state in preparing students to pass the CAHSEE;

- rate effectiveness of the district-wide CAHSEE preparation program;
- rate effectiveness of student preparedness for the CAHSEE;
- indicate percentage of teachers teaching the CAHSEE preparation classes who are certified in ELA or mathematics;
- indicate extent to which CAHSEE intervention programs are mandatory;
- indicate the programs in place to provide additional academic support to students with disabilities and English learners; and
- indicate delivery modes for CAHSEE core and intervention courses.
- Other items were modified through minor wording changes for clarification and/or updating.

B. High School Department Head Survey (ELA and mathematics)

- The survey added new items for respondents to indicate how many intervention programs are taught by credentialed teachers.
- The survey modified the following items:
 - Separated the item on “Year first offered and number of sections taught for primary and supplemental courses” into item dealing with primary courses and item dealing with supplemental courses, and updated list of courses;
 - Updated the list of intervention programs; and
 - Made minor wording changes in various items for clarification and/or updating.
- The survey deleted the following Items:
 - Highest degree of teachers in department; and
 - Extent to which course offerings are demanding for students.

C. High School Teacher Survey (ELA and mathematics)

- The survey added new items for respondents to indicate:
 - number of class periods of designated course they teach;
 - length of time the textbook has been used in the school;
 - proportion of CAHSEE content standards that are covered in designated courses;
 - type of teaching credential held;
 - frequency of using various instructional strategies;
 - frequency of using various types of assessments;
 - how they use assessment results;
 - collaboration with other teachers;
 - receipt of professional development in various areas; and

- importance of CAHSEE preparation relative to other course goals.
 - Various items were modified through minor wording changes for clarification and/or updating.
 - Some items, namely the description of students taking designated courses, were deleted.
- D. High School Teacher Survey (Special Populations)
- The survey added items asking respondents to indicate:
 - when and how long the course/program is offered;
 - number of students and grade level(s) of students taking the course/program;
 - how students are chosen for the course/program;
 - percentage of students who are credit-deficient;
 - proportion of students in the course/program who have disabilities/are English learners;
 - whether English learners receive support/services in their primary or native language, how long they have been in the United States, the percentage of them who are migrant/transitory, the number of primary or native languages represented among students in the course/program, and English proficiency of students in course/program;
 - use and frequency of various teaching strategies;
 - frequency of collaboration with students' core content teachers;
 - textbook and extent to which the entire book is used in the course/program;
 - use of supplemental materials in the course/program and the reason for their use;
 - service delivery mode for the course/program;
 - percentage of instruction time devoted to teaching test-taking skills;
 - extent to which various factors limit the effectiveness of the course/program; and
 - demographic information (most advanced degree, teaching credential, years experience teaching course/program, years experience teaching students with disabilities/students who are English learners).
 - Outstanding issues:
 - Should separate surveys be developed for teachers who work with students with disabilities and teachers who work with English learners, or should a single survey be developed to accommodate both special populations?

Discussion About Ways to Increase Survey Participation. Participants offered the following suggestions for improving survey response rates:

- Administer online surveys.
- Provide purpose of the survey and information about how survey results will be used.
- Acquire administrative support by working through department heads.
- Work with district/school staff to have surveys administered during staff meetings or other types of events.
- Offer incentive drawings (e.g., people who complete the survey are automatically entered into a drawing for something like an iPod or gas card).

Next Steps

HumRRO project staff are in the process of incorporating the feedback and recommended changes to the various instruction surveys. Once the changes have been made, the revised surveys will be shared with select workshop participants to ensure their feedback was appropriately captured. If necessary, we will make additional changes and submit draft versions of the surveys to the CDE for review, then integrate feedback and finalize the surveys.

The table below provides a summary of instruction study activities and the anticipated timeline for completing them.

Table 7.2. Instruction Study Activities and Anticipated Completion Dates

Activity	Anticipated Completion Date
Conduct planning workshop	May 28, 2008
Incorporate feedback/changes from planning workshop	June – August 2008
Review of surveys by select workshop participants; incorporate changes, as necessary	September 2008
Submit draft surveys for review by CDE; incorporate feedback	September 2008
Pilot test surveys; revise based on results	October 2008
Submit surveys for review by CDE; incorporate feedback	November 2008
Finalize surveys	December 2008
Prepare online surveys	December 2008 – January 2009
Select sample of districts/schools	December 2008 – January 2009
Gather contact information (e-mail addresses) for survey respondents	January – February 2009
Administer and track survey responses	March 2009
Analyze survey data	April 2009
Report survey results	May 2009

Chapter 8: Findings and Recommendations

Lauress L. Wise and D. E. (Sunny) Becker

Background

Although the CAHSEE requirement was enacted in 1999, 2008 was only the third year in which seniors had to pass this examination to receive a diploma. A major new factor in 2008 was that students with disabilities were no longer exempted from this requirement. The evaluation of the CAHSEE requirement and of the test itself continued under a new contract, awarded in October 2007. Key evaluation activities this year included:

- review of the quality of the assessment (Chapter 2)
- analyses of 2007–08 passing rates (Chapter 3)
- analyses of student questionnaire responses (Chapter 4)
- characterization of students who did not meet the CAHSEE requirement by the end of their senior year (Chapter 5)
- examination of other indicators of student achievement and success (Chapter 6)
- preparation for another survey of the impact of CAHSEE on instruction scheduled for Spring 2009 (Chapter 7)

In this final chapter, we summarize key findings from each of these activities and our conclusions about the CAHSEE and its impact derived from these findings.

Key Findings

Test Quality

HumRRO conducted a study of the alignment of the CAHSEE tests to the content specifications for these tests. We conducted a similar review in 2005. The new review showed modest improvements in the alignment of the CAHSEE to the target specifications. Overall the alignment was judged to be good, although a few specific areas were identified where the depth of knowledge required by the test questions or the clarity of their coverage of targeted standards might be improved. At the same time, we reviewed the accessibility of the test forms and questions for all students, following principles of universal design. The findings here also were positive, with a few questions or suggestions for improvement of specific questions.

We analyzed the consistency with which the CAHSEE essays were scored and found results generally comparable to last year and somewhat improved in comparison to previous years. We also examined the accuracy of pass/fail decisions based on test scores. Accuracy levels were similar to results from a similar analysis of a 2007 test form and judged to be acceptable.

We observed an administration of the CAHSEE in a school with a substantial number of English learners. No significant problems were encountered. We offer a few suggestions for improving test administrator training in Chapter 2.

Passing Rates

Many students who did not graduate in 4 years continued to take the CAHSEE. More than 12,000 of the 29,000 students from the Class of 2007 who had not passed took the CAHSEE again in 2008; of these, more than 4,000 (one-third of those retaking the test) have now completed the CAHSEE requirement. In addition, nearly 4,000 of 35,000 students from the Class of 2006 who had not passed by the end of 2007 took the CAHSEE in 2008, more than one year after their original graduation date. About 1,200 of these students (nearly a third of retakers) met the CAHSEE requirement this year.

12th grade passing rates were similar to last year. We estimated that 90.4 percent of first-time seniors in the Class of 2008 met the CAHSEE requirement. About 46,000 seniors were still taking the CAHSEE this year, but have not yet passed. Over a third of those were special education students. This was the first year students in special education were subject to the CAHSEE requirement. Of these, 54.5 percent met the requirement, but about 17,000 special education students who were still trying to pass the CAHSEE failed to do so by the end of their senior year. In California SWDs are allowed educational services until they reach 22.

The passing rate for students who were not in special education was 93.7 percent this year, compared to 93.3 percent in 2007 and 90.4 percent in 2006, both years when special education students were exempted from the requirement.

Passing rates were lower for English learners (73.5%) and students with disabilities (54.5%) and for low-income (85.5%), African American (80.5%), and Hispanic (86.2%) students. Note that these passing rates exclude students who dropped out prior to 12th grade and that low-income and minority students had higher dropout rates than the general student population.

Increases in 10th and 11th grade passing rates. The 11th grade (Class of 2009) cumulative passing rate increased significantly, from 78.0 percent last year to 81.9 percent this year. Similarly the 10th grade (Class of 2010) passing rate increased from 65.2 percent to 69.2 percent.

Initial passing rates for the 10th grade (Class of 2010) remained lower for English learners (29.5%), students with disabilities (20.2%), and for low-income (57.2%), African American (52.5%), and Hispanic (58.5%) students.

More 10th graders were taking courses beyond Algebra I (68.0% this year compared to 64.2% in 2007) and fewer had not yet taken Algebra I (down from 4.2% to 2.3%). Passing rates for the mathematics test continued to be closely associated with

mathematics courses taken, ranging from 35 percent passing for those not yet taking Algebra I to 61 percent passing for those taking it in 10th grade and 85-99 percent passing for those taking more advanced courses.

Student Questionnaire Responses

Students completed a brief questionnaire following each part of the CAHSEE. Analyses of responses for 10th graders, where all students were required to participate, indicated several interesting findings, including:

- The proportion of students who said that the CAHSEE was an important test for them remained high, (79%) and was even higher (about 85%), for students who did not pass one or both parts.
- Most 10th graders, nearly 90 percent, expected to graduate from high school, an increase of one percentage point from 2007. Nearly 95 percent of those passing both parts expected to receive a diploma. Very few (1%) said they would give up trying to get a diploma if they could not pass the CAHSEE, although about 5 percent said they did not know what they would do in this case.
- The percentage of students expecting to go on to a 4-year college rose about 2 percentage points, to about 55 percent.
- The percentage of students saying that they did as well as they could on the CAHSEE increased for both ELA (89% to 90%) and mathematics (85% to 87%).
- The percentage of students saying that most or all of the topics on the CAHSEE were covered in their courses remained high, at 94 percent for the ELA test and 92 percent for the mathematics test. Even among students who did not pass either part, 85 percent of ELA test takers and 94 percent of mathematics test takers said the topics on the CAHSEE had been covered in their courses.
- Students also said that the questions on the CAHSEE were of about the same difficulty as questions encountered in their courses (83% for ELA and 82% for mathematics).
- About 47 percent of ELA test takers said that they were working harder, but only 8 percent said they were getting help outside the classroom to meet the CAHSEE requirement. Among mathematics students, 46 percent responded they were working harder and 9 percent said they were getting outside help.

Students Who Did Not Pass

We analyzed student questionnaire responses for about 20,000 Class of 2008 students (seniors) who did not pass. We compared their 12th grade responses this year (2008) to the responses these same students gave in 2006 as 10th graders. We also compared 10th grade questionnaire responses for students who did not pass by the end of their senior year to responses from their classmates who did.

Some key findings were:

- About two-thirds of the students who did not pass still thought they would graduate from high school; surprisingly, this rate did not change from 10th to 12th grade.
- By 12th grade, fewer of those who had not passed thought they would go to a 4-year college (18% compared to 32% in 10th grade and 55% of their classmates in 10th grade); the percent thinking they would go to a community college rose from 23 percent to 44 percent.
- Students who did not pass were more likely to say that many ELA and math topics on the CAHSEE were not covered in their courses (17% compared to 8% for all students); many more said that the questions on the test were more difficult than those encountered in their coursework (40% compared to 18% for all students).

We also looked at passing rates by school demographics, for students attending regular high schools. Economically disadvantaged students in schools with high densities (over 70%) of economically disadvantaged students passed the CAHSEE by the end of their senior year at lower rates than economically disadvantaged students in school with relatively low densities (16% or less) of such students. The passing rates were 77 percent for economically disadvantaged students in high-density low-income schools compared to 84 percent in low-density schools. Similarly, Hispanic students in schools with low densities (below 14%) of Hispanic students passed at higher rates than Hispanics students in high-density (more than two-thirds), Hispanic schools, 89 percent compared to 78 percent. Also, African American students in schools with low African-American densities (less than 0.4%) passed at a rate of 86 percent compared to 74 percent for African-American students in high-density (13% or more) African American schools.

Trends in Other Outcomes

Dropout rates could not be compared to those in prior years because of changes in procedures. Schools were required to supply exit codes for each student leaving a school this year, increasing the number considered to be dropouts. The large number of dropouts overall (24% total 4-year dropout rate) and for particular demographic groups

(30% for Hispanic and 42% for African-American students) identified by the new procedures is a significant concern.

Grade-to-grade enrollment declines from 9th to 12th grade remained about the same and continued to be lower than in pre-CAHSEE years. However, the ratio of graduates to fall enrollment of 12th graders dropped 4 percentage points in 2006, from 86.7 percent to 82.5 percent, and another 3 percentage points in 2007, to 79.5 percent. Note, however, that the 2007 rates included a significant number of repeat 12th graders, students from the Class of 2006 still trying to meet the CAHSEE requirement. The lower graduation rate was thus due, in part, to an increase in the denominator.

SAT score means declined slightly in 2007 (2 to 3 points), while ACT score means remained unchanged in 2007, the most recent year for which results were available. AP participation rates and test scores declined slightly, but remained above pre-CAHSEE levels.

Plans for the 2009 Instruction Study

A new instruction study will be conducted in 2009. While the design of the new study will be similar to that of the previous studies, there are some differences. Specifically, the new study will gather information only at the high school level (not from middle-grade feeder schools); researchers will not visit school sites; and the study will sample fewer high schools (400 compared to 600 schools in previous studies). The new instruction study will focus on the following questions:

- What changes have there been to the standards-based courses reported in the earlier surveys?
- Are more students who need additional instruction in the standards taking courses and participating in intervention programs offered by the schools?
- Are the students who participate in the relevant courses and programs better prepared to succeed in these courses than were previous cohorts?

As described in Chapter 7, a workshop was held this spring to plan for the new study. New findings concerning the impact of the CAHSEE on instruction will be included in next year's evaluation report.

Recommendations

Many students from the Classes of 2006 and 2007 who did not meet the CAHSEE requirement by the end of their senior year continued on for a fifth and, in some cases, a sixth year to master the required skills, meet the CAHSEE requirement, and receive a diploma. While many have not yet been successful, a significant number were. This leads to our first recommendation:

Recommendation 1: California should seek ways to encourage students who do not pass in 4 years to continue their studies for 1 or more

additional years. Students who do should be studied to identify programs that help them succeed.

CAHSEE passing rates are increasing, but many students with disabilities and English learners are not meeting the CAHSEE requirement. Now that students with disabilities are no longer exempt from the CAHSEE requirement, consequences of their low passing rates have increased significantly. Findings from prior years of the evaluation suggest that many of these students are judged not able to receive instruction in the knowledge and skills required to pass the CAHSEE, leaving them without skills judged essential for subsequent success.

Recommendation 2: Districts, schools, and IEP teams should make all possible efforts to provide access to the general curriculum to students with disabilities so that these students can obtain the skills needed to pass the CAHSEE. The State Board of Education should establish alternative goals and ways of recognizing the accomplishments of students who cannot meaningfully participate in the general curriculum.

Recommendation 3: Curricular goals, possibly including a fifth year of high school, should be studied for English learners who enter U.S. schools during high school. California schools should also find further ways to help English learners who enter U.S. schools prior to high school but continue to have difficulty learning English.

Many low-income and minority students have difficulty passing the CAHSEE. Dropout rates are also higher for these groups of students, leading to a greater proportion of students in these groups who do not receive a high school diploma. Failure to receive a diploma has significant societal costs as well as costs to the individual students. Our fourth recommendation is:

Recommendation 4: California schools need to find ways to increase graduation rates for low-income and minority students.

Finally, it has been 8 years since the content framework for the CAHSEE was adopted. The State Board of Education indicated that they intended to increase the rigor of the requirement over time. Four years ago, the rigor of the mathematics test was actually decreased slightly when the exam was revised and restarted in 2004 for the Class of 2006. At its July 2008 meeting, the Board adopted a requirement for all students to take Algebra I in the 8th grade. The Board may therefore wish to consider whether it should extend coverage of Algebra I in the CAHSEE and whether it should require mathematics instruction beyond Algebra I during high school. Now that several years of CAHSEE data are available, it is possible to examine the extent to which success on the CAHSEE indicates preparation for life after high school. More generally, our final recommendation for this year is:

Recommendation 5: The State Board of Education should initiate a new review of the CAHSEE content requirements. The Board should plan to allow at least 3 years for implementation of changes to the CAHSEE test specifications, including development and field testing of new questions and test forms based on the revised specifications.

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Appendix A: Prior Evaluation Activities and Outcomes

Summary of Year 1 Evaluation Activities (June 2000)

The Year 1 evaluation report reviewed and analyzed three types of information:

Test Developer Plans and Reports. No formal reports were available during the first year; thus, HumRRO attended meetings and attended presentations by the development contractor, American Institutes for Research (AIR), and by the California Department of Education (CDE). We also monitored various presentations to the High School Exit Examination (HSEE) Panel and to the Board, and had direct conversations with members of each of these groups.

Statewide Data Sources. An initial source of information for the evaluation was data from the CAHSEE pilot administration. HumRRO also examined 1999 Standardized Testing and Reporting (STAR; for details see <http://www.cde.ca.gov/ta/tg/sr/index.asp>) results with plans to monitor trends in STAR results over the course of the evaluation.

District and School Sample. HumRRO selected a representative sample of 24 districts and 84 of their high schools to establish a longitudinal study group. The baseline surveys, which were administered to principals and ELA and mathematics teachers, provided an initial look at schools' perspectives of the impact of CAHSEE on their programs. We also recruited teachers and curriculum experts from these schools and their districts to review test items and tell us whether they covered knowledge and skills not all students would be taught in their current curriculum.

The following summarizes the specific recommendations made at the end of the Year 1 evaluation activities:

Recommendation 1. The Legislature and Governor should give serious consideration to postponing full implementation of the CAHSEE requirement by 1 or 2 years.

Recommendation 2. The CDE should develop and seek comment on a more detailed timeline for CAHSEE implementation activities. This timeline should show responsibility for each required task and responsibility for oversight of each task's performance. The plan should show key points at which decisions by the Board or others would be required along with separate paths for alternative decisions made at each point.

Recommendation 3. The CDE and the Board should work with districts to identify resource requirements associated with CAHSEE implementation. The Legislature must be ready to continue to fund activities supporting the

preparation of students to meet the ambitious challenges embodied in the CAHSEE.

Recommendation 4. The Board should adopt a clear statement of its intentions in setting CAHSEE content and performance standards. This statement should describe the extent to which these standards are targeted to ensure minimum achievement relative to current levels or to significantly advance overall expectations for student achievement.

Recommendation 5. The Board should exhibit moderation in selecting content standards and setting performance standards for the initial implementation of CAHSEE. Subsequently, standards should be expanded or increased based on evidence of improved instruction.

Recommendation 6. Members of the HSEE Panel and its Technical Advisory Committee should participate in developing recommendations for minimum performance standards.

Recommendation 7. The CDE should move swiftly to establish an independent Technical Issues Committee (TIC) to recommend approval or changes to the CAHSEE development contractor's plans for item screening, form assembly, form equating, scoring, and reporting.

Complete details of the Year 1 evaluation, including selection procedures for the longitudinal sample, are presented in a primary and a supplemental report describing evaluation activities, findings, and recommendations (Wise et al., June 2000a; Wise et al., August 2000b). These two evaluation reports emphasize both the positive aspects of the results, as indicated by several measures of the quality of the test questions, and the amount of work remaining to be done before operational administration of the CAHSEE. The primary apprehension noted in these reports was educators' concern that, at that time, students were not well prepared to pass the exam.

District Baseline Survey Resulting from Year 1 Activities (December 2000)

The results of the baseline survey of teachers and principals in the longitudinal sample of high schools indicated concern with the degree to which students were provided sufficient opportunities to learn the material covered by the CAHSEE. After reviewing these concerns, the Board and the CDE requested an additional survey of all California public high schools and unified districts. The contract required that a CAHSEE District Baseline Survey be conducted prior to October 1, 2000. HumRRO developed and administered the survey shortly after the Board adopted specifications for the CAHSEE. The survey covered plans for changes in curriculum and other programs to help students pass the examination. We asked that each district have the survey completed by an Assistant Superintendent or Director of Curriculum and Instruction, or by the individual at the district level who was most knowledgeable about the CAHSEE.

The survey, which built on and benefited from the results of the longitudinal sample survey, addressed five critical topics:

- *awareness* of the CAHSEE, its content, administration plans, and requirements for student participation;
- *alignment* of the district's curriculum to statewide content standards, particularly those to be covered by the CAHSEE;
- *plans and preparation* for increasing opportunities for all students to learn the material covered by the CAHSEE and to help students who do not initially pass the examination;
- *expectations* for passing rates and for the effect of the CAHSEE on instruction and the status of specific programs offered in the district; and
- *outcome baselines*, including retention and graduation rates and students' post-graduation plans.

The following general conclusions were drawn from results of the district survey:

1. *General awareness* of the CAHSEE was high, but more information was needed, particularly for students and parents, about (a) the knowledge and skills covered by the CAHSEE and (b) plans for administration and reporting.
2. *Districts reported high degrees of alignment* of their own content standards to the state content standards. The survey addressed this question at a general level; we concluded more work was needed to assess and document the degree to which each district's curriculum covered the content standards tested by the CAHSEE and the degree of student access to courses that offered such coverage.
3. *Districts had implemented or planned a number of programs* to prepare students and teachers for the CAHSEE and to assist students who did not initially pass. The most frequently planned activities included more summer school, tutoring, and matching student needs to specific courses.
4. *Districts believed the CAHSEE would have a positive impact* on curriculum and instruction. Most expected at least half of their students to pass the CAHSEE on their first attempt.
5. *Outcome baselines* would be used in future years.

Complete details of the district-wide survey effort were presented in a final technical report describing evaluation activities, findings, and recommendations (Sipes, Harris, Wise, & Gribben, 2001).

Summary of Year 2 Evaluation Activities (June 2001)

The Year 2 evaluation reviewed and analyzed three types of information:

1. *Developer Plans and Reports.* HumRRO continued to monitor test development activities, ranging from observation of and presentations to the HSEE Panel to observation of the standard-setting workshops to develop recommendations for minimum passing scores for each of the two portions of the CAHSEE test: mathematics and ELA. We reviewed and participated in numerous discussions concerning equating of alternate forms, the score scale used, and minimum passing levels.
2. *Analysis of Field-Test and Operational CAHSEE Data.* HumRRO analyzed results from a second field test of new CAHSEE questions, conducted in Fall 2000, and began analyses from the operational administrations of CAHSEE in March and May of 2001. Initial analyses of technical characteristics of the test form used in the March administration and the resulting passing rates were described in our Year 2 Evaluation Report (Wise et al., June 2001).
3. *Longitudinal Surveys of District and School Sample Personnel.* The representative sample of 24 districts and approximately 90 of their high schools required replacement of one district with three schools. The surveys, which were administered to principals and ELA and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed to identify issues with administration of the CAHSEE.

The following summarizes the two general and six specific recommendations made in HumRRO's report of Year 2 evaluation activities:

Recommendation 1. Stay the course. The Legislature and Board should continue to require students in the Class of 2004 to pass the exam, but monitor schools' progress in helping most or all of their students to master the required standards.

Recommendation 2. The Legislature and Board should continue to consider options for English learners and students receiving special education services.

Recommendation 3. Provide more technical oversight for the continued development and administration of the CAHSEE.

Recommendation 4. For future classes, delay testing until the 10th grade.

Recommendation 5. Construct a practice test of released CAHSEE items for districts and schools to administer to 9th graders to identify students at risk of not passing the CAHSEE.

Recommendation 6. Monitor test administration more extensively and develop a system for identifying and resolving issues.

Recommendation 7. Develop and implement a more comprehensive statewide information system that will allow the CDE to monitor individual student progress.

Recommendation 8. The Superintendent, the Board, and the Legislature should specify in more detail the treatment of students in special circumstances (e.g., students receiving special education services and English learners) under CAHSEE requirements.

Complete details of the Year 2 effort were presented in the annual evaluation report and first biennial report describing evaluation activities, findings, and recommendations (Wise et al., June 2001; Wise et al., January 2002a). These two reports described results of the first administration of the CAHSEE to 9th graders in the Class of 2004. The reports also described preparation for and reactions to the CAHSEE as reported by principals and teachers. A key concern described in these reports was the relatively low passing rate for the mathematics portion of the exam, particularly for students receiving special education services and English learners.

Summary of Year 3 Evaluation Activities (June 2002)

The first biennial report of the CAHSEE evaluation was released in February 2002 (Wise et al., January 2002a). This report supplemented information on the 2002 administrations from the Year 2 report and included specific recommendations to the Legislature, the Governor, and the Board. These were:

General Recommendation 1. Stay the course. The Legislature and the Board should continue to require students in the Class of 2004 to pass the exam, but monitor schools' progress in helping most or all of their students to master the required standards.

General Recommendation 2. The Legislature and the Board should continue to consider options for students with disabilities and for English learners.

The first biennial report also included several specific recommendations:

- Provide more technical oversight.
- Delay testing of future classes until the 10th grade.
- Construct a practice test of released CAHSEE items for districts and schools to administer to 9th graders to identify students at risk of failing the CAHSEE.
- Monitor test administration more extensively and develop a system for identifying and resolving issues.
- Develop a more comprehensive information system that will allow the state to monitor individual student progress.

- Specify (the Superintendent, the Board, and Legislature working in concert) in more detail how students in special circumstances will be treated by the CAHSEE requirements.

Other Year 3 evaluation activities involved reviewing and analyzing four types of information:

Test Developer Plans and Reports. HumRRO continued to monitor test development activities and reports. These included changes to test administration procedures, equating alternate forms, and changes to reporting procedures.

Independent review of test questions. HumRRO assembled two panels of experts in curriculum and instruction, most of whom taught either ELA or mathematics. We asked them to review and analyze questions from recent CAHSEE administrations as well as questions from the (then) new test development contractor that had not yet been used operationally. Ratings indicated the extent to which the questions fairly and completely assessed targeted content standards. In addition, we asked the reviewers to note any specific issues with the quality of the questions or the response options.

Operational CAHSEE Data. HumRRO analyzed results from the operational administration of CAHSEE to 10th graders in March of 2002. We presented our initial analyses of technical characteristics of the test form used in the March administration and the resulting passing rates in our Year 3 Evaluation Report (Wise et al., June 2002b).

Longitudinal Surveys of District and School Sample Personnel. The representative sample of 24 districts and approximately 90 of their high schools required replacement of two districts (the original districts dropped out). The surveys, which were administered to principals and ELA and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, we surveyed testing coordinators to identify issues with administration of the CAHSEE.

The Year 3 report of evaluation activities summarized findings from the data that HumRRO analyzed (Wise, et al., June, 2002b). We reported that available evidence suggested the CAHSEE had not yet had any impact on retention, dropout rates, or expectations for graduation and post-high school plans. Progress in developing the exam continued to be noteworthy. We found no significant problems with the development, administration, or scoring of the March 2002 exam. Students had made significant progress in mastering the required ELA skills, but less progress in mathematics. For disadvantaged students, initial passing rates continued to be low and progress for repeat test-takers was limited. Teachers and principals remained positive about the CAHSEE's impact on instruction. We found more of them now expected positive impact on student motivation and parental involvement. Finally, teachers and principals reported planning and/or implementing a number of constructive programs to help students master the skills covered by the CAHSEE.

Based on these findings, HumRRO offered the following two general and four specific recommendations:

General Recommendation 1. Schools need to focus attention on effective ways of helping students master the required skills in mathematics. The CDE might consider a “what works” effort with respect to remedial programs, and disseminating information about effective programs and practices.

General Recommendation 2. State policymakers need to engage in a discussion about reasonable options for those students receiving special education services who were unlikely to pass the test.

Specific Recommendation 1. The score scale needs to be changed for students scoring below 300 (chance levels). As a short-term solution HumRRO recommended recoding scores below 300 to 299. Teachers, students, and parents would need to be cautioned against interpreting differences below the 300 level. (Our analysis indicated that the CAHSEE tests are acceptably accurate in determining whether students meet the achievement requirements. However, CAHSEE scores do not provide meaningful distinctions for students scoring below chance levels (about 300 on the current score scale). The recommendation refers to a potential danger that students, parents, and teachers could incorrectly interpret a gain below the 300 level as an indicator of significant progress when it is not).

Specific Recommendation 2. Districts and schools should be asked to supply more complete information on who had taken, was taking, and still needed to take the CAHSEE.

Specific Recommendation 3. The CDE should work with schools to collect more information on documentation of student needs for accommodations or modifications.

Specific Recommendation 4. Educational Testing Service (ETS) should follow up on (a) specific test question issues identified in our item review workshops and (b) specific suggestions to improve their new scoring process from our review of their current online training.

Summary of Year 4 Evaluation Activities (September 2003)

The Year 4 evaluation activities included reviewing and analyzing three types of information:

Test Developer Plans and Reports. We continued to monitor test development activities and reports. These included changes to test administration procedures, equating alternate forms, and changes to reporting procedures.

Operational CAHSEE Data. We analyzed results from the six operational administrations of CAHSEE from July 2002 through May 2003. These included continued administration to 11th graders in the Class of 2004 who had not yet passed one or both parts of the CAHSEE and a census administration to 10th graders in the Class of 2005.

Longitudinal Surveys of District and School Sample Personnel. The representative sample of 24 districts and approximately 90 of their high schools required replacement of one district with three schools. The surveys, which were administered to principals and ELA and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed for the second year to identify issues with administration of the CAHSEE.

The Year 4 report (Wise et al., September 2003b) of evaluation activities summarized findings from the data that were analyzed. The report stated that available evidence indicated the CAHSEE had not led to an increase in dropout rates. Passing rates for students in the Class of 2005 were slightly lower than passing rates for students in the Class of 2004. Yet in comparison with Class of 2004 students when they were in the 10th grade, more students in the Class of 2005 believed the CAHSEE was important to them. Schools were continuing efforts to ensure the California academic content standards were covered in instruction and to provide support for students who needed additional help to master these standards. Professional development in teaching the content standards had not yet been extensive. Teacher and principal expectations for the impact of CAHSEE on students was largely unchanged from prior years. There were no significant problems with local understanding of test administration procedures, but some issues remained with providing student data and assigning testing accommodations.

Subsequent to the 2003 administrations, the Board deferred implementation of the CAHSEE requirement to the Class of 2006. Based on information summarized in our general findings, we offered four recommendations for future administration of the CAHSEE:

Recommendation 1. Restarting the exam with the Class of 2006 would provide some opportunities for improvement; however, careful consideration should be given to any changes that were implemented.

Recommendation 2. The CDE and the State Board of Education should continue to monitor and encourage efforts by districts and schools to implement effective standards-based instruction.

Recommendation 3. Professional development for teachers offered a significant opportunity for improvement.

Recommendation 4. Further consideration of the CAHSEE requirements for students receiving special education services was needed, in light of the low passing rates for this group. Apparent disparities between racial and ethnic groups within the special education population required further investigation.

Year 4 evaluation activities also included a special study of standards-based instruction, as specified under AB 1609 legislation, which included several changes to the CAHSEE. Among other things, this bill called for a special study of the extent to which the development of the CAHSEE and standards-based instruction met the requirements for a high school graduation test. Evaluation activities were expanded to meet the requirements for this study. A detailed description of the study, along with findings and recommendations, was included in a report to the Board, May 1, 2003 (Wise et al., May 2003a). Key findings from the study were:

Finding 1. The development of the CAHSEE met all of the test standards for use as a graduation requirement.

Finding 2. The CAHSEE requirement had been a major factor leading to dramatically increased coverage of the California academic content standards at both the high school and middle school level and to development or improvement of courses providing help for students having difficulty mastering these standards.

Finding 3. Available evidence indicated many courses of initial instruction and remedial courses had only limited effectiveness helping students master the required standards.

Finding 4. Lack of prerequisite skills may have prevented many students from receiving the benefits of courses that provided instruction in relevant content standards. Lack of student motivation and lack of strong parental support may have played contributing roles in limiting the effectiveness of these courses.

Finding 5. Many factors suggested the effectiveness of standards-based instruction would improve for each succeeding class after the Class of 2004, but the speed with which passing rates will improve remained unknown.

The report did not offer a specific recommendation on whether the CAHSEE requirement should be deferred. The report suggested the Board consider the issue in terms of the following tradeoffs:

1. Schools might lose motivation for continued attention to students not achieving critical skills if the requirement were deferred.

Or:

2. Educators might become distracted by debates and legal actions concerning the adequacy of current instruction if the requirement were continued.

Balancing these tradeoffs required the Board to make a policy decision. The report offered several specific suggestions to consider if the requirement were continued and other suggestions in the case that the requirement was deferred. Ultimately, the Board decided to defer the requirement until the Class of 2006. (Please see the CDE Web site [<http://www.cde.ca.gov/ta/tg/hs/evaluations.asp>] for further details on this special study.)

The second biennial report of the CAHSEE evaluation was issued in February 2004 (Wise et al., February 2004a). This report summarized evaluation activities and findings since the first biennial report (Wise et al., January 2002a). The report included information on the 2002 and 2003 administrations and the AB 1609 study. It also included specific recommendations to the Legislature, the Governor, and the Board as presented in the Summary of Year 4 Activities above.

Summary of Year 5 Evaluation Activities (September 2004)

The Year 5 evaluation activities, which constituted the final year of the original evaluation contract, included reviewing and analyzing three types of information:

Test Developer Plans and Reports. HumRRO continued to monitor test development activities and reports. These included changes to test administration procedures, equating alternate test versions, and changes to reporting procedures.

Operational CAHSEE Data. HumRRO analyzed results from the three operational administrations of CAHSEE in February, March, and May of 2004. These were the first administrations to students in the Class of 2006, the first class now required to pass the CAHSEE for high school graduation.

Longitudinal Surveys of District and School Sample Personnel. We began in 2000 with a representative sample of 24 districts and approximately 90 of their high schools. The number varied slightly from year to year as districts and or schools declined to participate for the year or dropped out completely and were replaced. The 2004 sample included 26 districts (a result of contacting two districts in 2003 as replacements and one declining district agreeing to participate) and 86 schools that did not require any replacements. The surveys, which were administered to principals and ELA and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed for the third year to identify issues with administration of the CAHSEE.

The Year 5 report (Wise et al., September 2004b) of evaluation activities summarized findings from the data that were analyzed for students in the Class of 2006 who took the CAHSEE as 10th graders during the 2003–04 school year. The report compared these findings to results from the 2002–03 administrations for 10th grade

students in the Class of 2005 to look at trends across these two classes. The report stated that performance on the CAHSEE mathematics test improved significantly for the Class of 2006 relative to the Class of 2005 (accounting for differences in score scales). Passing rates for ELA were largely unchanged. Overall, 64 percent of the 10th graders in the Class of 2006 passed both parts, and performance improved for all demographic groups except students receiving special education services. We found no increase in dropout and retention rates despite teachers' and principals' predictions the CAHSEE requirement would lead to such increases. Principals reported significant increases from 2002 to 2004 in full implementation of programs and practices to help students who are not prepared to pass the CAHSEE and to promote learning for all students. Principal estimates of parents' knowledge of the CAHSEE increased significantly in 2004. Finally, about 90 percent of the students tested reported most or all topics on the test were covered in courses they had taken.

Based on these findings and those included in prior reports, HumRRO offered the following four general recommendations and one specific recommendation:

General Recommendation 1. Keep the CAHSEE requirement in place for the Class of 2006 and beyond.

General Recommendation 2. Continue efforts to help students prepare for and take more challenging courses.

General Recommendation 3. Encourage efforts to identify remedial programs that work and disseminate information about these programs to all schools.

General Recommendation 4. Continue to explore options for students receiving special education services (e.g., set realistic expectations, allow more time, investigate curricula, and collect accommodation information).

Specific Recommendation 1. Work to implement a system of student identifiers and student records that provide information, including (a) CAHSEE passing status, (b) students on track to graduate with their class, (c) students who have been retained, and (d) students who have dropped out.

Senate Bill 964 (California Education Code Section 60852.5 (d)) required a study to assess options and provide recommendations for alternatives to the CAHSEE for students with disabilities to be eligible for a diploma. WestEd was awarded the contract and the State Superintendent of Public Instruction appointed a 15-member advisory panel to complete a report in May 2005.

Summary of Year 6 Evaluation Activities (September 2005)

The first year of the evaluation continuation contract included reviewing and analyzing the same three types of information as in previous years plus some additional requirements:

Test Developer Plans and Reports. HumRRO continued to monitor test development activities and reports. These included changes to test administration procedures, equating alternate forms, and changes to reporting procedures. As part of our review, we conducted independent analyses leading to the conversion tables used to place number-correct scores from the February 2005 administration on the common, equated reporting scale. Results confirmed the conversion tables proposed by ETS. We also attended meetings of the Technical Advisory Group where technical issues relating to CAHSEE development, administration, and reporting were discussed.

Operational CAHSEE Data. We analyzed results from the operational administrations of CAHSEE to 11th graders in September and November of 2004 and to both 10th and 11th graders in February, March, and May of 2005. Tenth grade students took the CAHSEE for the first time in February, March, or May of 2005. Eleventh grade students who had not yet passed could take the CAHSEE twice more in any of the five administrations. In addition to investigating test score reliability, a key issue was the degree of progress made by students in the Class of 2006 who had not yet met the CAHSEE requirement. A second key issue involved the success rates for students in different demographic groups, most notably English learners and students receiving special education services. The operational test data also included a brief survey that students completed after each testing day.

Instruction Study—Academic Standards Tested by the CAHSEE. We conducted a study similar to one conducted in 2003 and specified under AB 1609 legislation. The 2005 study included surveys to all districts with high schools that had CAHSEE results (467), a representative sample of 400 high schools, and a sample of 97 feeder middle schools. We also sampled 50 high schools and 24 associated feeder middle schools through site visits.

Item Review Workshops: HumRRO conducted two sets of item review workshops in early June 2005 – one held in the northern part of the state and one in the southern. Participants were teachers and curriculum specialists familiar with the ELA and mathematics content standards. The reviews covered item quality, universal test design, content alignment, depth of knowledge, and overall coverage. The items reviewed were the most recent ones available, including some operational items.

Policymakers faced critical decisions about the CAHSEE as the Class of 2006 neared graduation. As in past years, the 2005 report offered several general recommendations based on observations and findings from evaluation activities. These recommendations were targeted to the Board and the Legislature as they considered additions or modifications to policies concerning the CAHSEE and its use. In addition, several technical recommendations were intended for the continued improvement of the CAHSEE, and were targeted to the CDE and to the test developer. The Year 6 report (Wise et al., September 2005) of evaluation activities included the following recommendations:

General Recommendation 1: Keep the CAHSEE requirement in place for the Class of 2006 and beyond.

General Recommendation 2: Identify specific options for students who are not able to satisfy the CAHSEE requirement and implement them by June 2006.

General Recommendation 3: Accelerate efforts to implement a statewide system of student identifiers, and develop and maintain a database with information on students who have and have not satisfied the CAHSEE requirements.

General Recommendation 4: Collect data from districts on students who are not able to satisfy the CAHSEE requirement by June 2006 and use this information to further refine options for students having difficulty mastering the skills assessed by the CAHSEE.

Specific Recommendation 1: The test development contractor might find it useful to consider a number of suggestions to improve specific test questions, particularly with respect to making them accessible to all students. These suggestions, based on the item review, provide useful insights on how to continue to improve and enhance item development and review procedures.

Specific Recommendation 2: Statistical review of test items should include checks for differential item functioning for students with disabilities.

Specific Recommendation 3: The CDE may want to link information on the curriculum and services received by students in special education programs to CAHSEE results on a more regular basis to support analysis, as this information was found to be quite useful

Specific Recommendation 4: Conduct a field trial or demonstration project with a small number of districts that already use student identification codes to model the design and use of detailed student data.

In January 2006 CDE documented options for students unable to pass the CAHSEE examination, in a paper titled *California High School Exit Examination (CAHSEE) Options for Students not Passing the Exam*.

The third biennial report of the CAHSEE evaluation was issued in February 2006 (Wise et al., February 2006a). This report summarized evaluation activities and findings since the second biennial report (Wise et al., February 2004a). It also included specific recommendations to the Legislature, the Governor, and the Board as presented in the Summary of Year 6 Activities above.

Summary of Year 7 Evaluation Activities (September 2006)

The second year of the evaluation continuation contract included reviewing and analyzing the same three types of information as the previous year:

Test Developer Plans and Reports. HumRRO continued to monitor test development activities and reports.

Operational CAHSEE Data. HumRRO analyzed results from the 2005–06 CAHSEE administrations. As this was the first school year for which the CAHSEE took effect, with the consequence that seniors who were unable to pass both parts of the CAHSEE did not receive a diploma, a special emphasis was placed on the senior class.

Longitudinal Surveys of District and School Sample Personnel. We began in 2000 with a representative sample of 24 districts and approximately 90 of their high schools. The number varied slightly from year to year as districts and or schools declined to participate for the year or dropped out completely and were replaced. The 2006 sample included 26 districts and 99 high schools. In an effort to boost response rates, three drawings for iPod Shuffle music players were held to reward survey respondents. The surveys, which were administered to principals and ELA and mathematics teachers, provided a continuing look at schools' perspectives of the impact of the CAHSEE on their programs. In addition, testing coordinators were surveyed for the third year to identify issues with administration of the CAHSEE.

This report was the first to include results for a graduating class. Policymakers faced critical decisions about the CAHSEE as members of the Class of 2006 reached its graduation date. As in past years, the 2006 report offered several general recommendations based on observations and findings from evaluation activities. These recommendations were targeted to the Board and the Legislature as they considered additions or modifications to policies concerning the CAHSEE and its use. In addition, two specific recommendations were intended for the continued improvement of the CAHSEE, and were targeted to the CDE and to the test developer. The Year 7 report (Wise et al., September 2006) of evaluation activities included the following recommendations:

General Recommendation 1: Having worked to publicize options for students who do not complete the CAHSEE requirement in time to graduate with their class, the CDE now needs to collect data on how many students take advantage of the various programs and on the effectiveness of each program in helping students to learn essential skills and earn their diploma.

General Recommendation 2: In addition to continued efforts to help seniors who have not yet passed the CAHSEE, the school system needs to improve programs for juniors who did not pass in the 10th grade and, even

more importantly, to improve programs to prepare students to be ready to pass on their first try as 10th graders.

General Recommendation 3: Research is needed on why many students remain classified as English learners for long periods of time. The CDE should gather lessons from districts and schools that have been successful in helping students achieve proficiency in English and make this information available to those with lower rates of success.

General Recommendation 4: Districts and the state should provide support and guidance to individualized education program (IEP) teams in making key decisions about whether students in special education programs can meaningfully participate in the regular curriculum. Students who can participate in the regular high school curriculum should be held to the same high expectations as the rest of their classmates. At the same time, districts and the state should identify alternative goals and ways of recognizing the accomplishment of these goals for students who are not able to participate meaningfully in the regular curriculum.

General Recommendation 5: Research is needed on factors that lead to lower CAHSEE passing rates in schools with higher concentrations of at-risk students. Programs in schools with high concentrations of at-risk students who are successful in passing the CAHSEE should be identified, and information about these programs should be disseminated widely.

General Recommendation 6: CDE should soon begin collecting data on success in college and other endeavors for students who pass the CAHSEE to determine whether the CAHSEE requirements are sufficiently rigorous.

Specific Recommendation 1: The CDE and ETS should seek ways to improve scoring consistency for the CAHSEE essays during high volume administrations.

Specific Recommendation 2: CDE should consider ways to increase teacher familiarity with and use of the CAHSEE Web site, as it includes a wealth of information about the CAHSEE that teachers should find useful.

Summary of Year 8 Evaluation Activities (September 2007)

The third year of the evaluation continuation contract included analysis of test results, the survey of a longitudinal sample of schools, and identification and analysis of potential indicators of CAHSEE impact. We reported several findings:

Finding 1: HumRRO verified the accuracy of the scoring and equating of the CAHSEE test forms. Scoring consistency for the essay improved this year.

Finding 2: Last year's seniors continued to test after their original target graduation date.

Finding 3: Passing rates through 12th grade for the Class of 2007, the 11th grade for the Class of 2008, and the 10th grade for the Class of 2009 were similar to the corresponding rates for previous classes.

Finding 4: More students are taking Algebra I by 10th grade.

Finding 5: Students in demographic groups with low pass rates (minorities, economically disadvantaged students, and students with disabilities) in schools with a high proportion of similar students continue to have lower passing rates than students in these groups in schools with fewer similar students.

Finding 6: As noted previously, many students are still classified as English learners after as many as 10 years of education in this country. Students in this group appeared to have more severe problems, many participating in special education programs as well as English language development programs.

Finding 7: For students with disabilities, participation in regular classroom instruction is closely related to meeting the CAHSEE requirement. Participation in regular instruction and also the specific services students receive vary by type of disability.

Finding 8: California Standards Test (CST) end-of-course test results and CAHSEE results provide consistent conclusions about students with disabilities.

Finding 9: Performance gaps for low-income and racial/ethnic minority students persist and these groups tend to be clustered in low-performing schools.

Finding 10: Many teachers continue to be unaware of state-provided CAHSEE resources such as the CDE Web site and Teacher Guide, while teachers who reported familiarity with these sources indicated they were useful.

Finding 11: Survey results suggest that the CAHSEE is reported to be useful for guiding instruction in schools where performance is lowest.

Finding 12: Principals and ELA and math teachers did not agree on whether teachers in other subjects perceive that they share in responsibility for students' success on the CAHSEE.

Finding 13: Graduation rates declined by about 4 percentage points for the Class of 2006 (the most recent data available), the first year students were required to pass the CAHSEE to obtain a diploma. Similarly, dropout rates increased, most markedly in Grade 12.

Finding 14: College preparation activities hint at a broader interest among high school students in going to college.

The Year 8 evaluation report also included several recommendations:

Recommendation 1: CDE should work with districts to track students who do not graduate on time.

Recommendation 2: For students who do graduate, it would be useful to link their high school test scores to information on community college, state college, and university experiences.

Recommendation 3: Reasons for low performance in schools with higher densities of minorities and low-income students should be studied to identify possible remedies.

Recommendation 4: Now that statewide student identifiers are generally in use, CDE should analyze student progress at earlier grades as measured by CSTs and, for English Learners, the California English Language Development Test (CELDT) to see where and when students begin to get off track.

Recommendation 5: California should explore options for supporting and improving professional development programs for high school teachers.

Recommendation 6: Districts, schools, and IEP teams should make all possible efforts to provide access to the general curriculum to students with disabilities so that these students can obtain the skills needed to pass the CAHSEE.

Recommendation 7: California should continue to explore alternate routes to demonstrating proficiency. Programs that consider grades and other factors besides test scores, introduced in Massachusetts and Washington, provide examples for consideration.

Appendix B
Example Materials from the Item Review Workshop

Alignment Task Instructions

These instructions below were given to panelists in ELA and math. Only the reference to the subject area differed per instruction sheet.

Item Alignment Tasks for English-Language Arts

Please ask the HumRRO staff if you have any questions at all.

Step 1: Rate the depth-of-knowledge of the CAHSEE Content Standards for ELA.

Step Instructions

- 1a. On your laptop, locate the file 'CAHSEE Standards DOK Ratings'.
- 1b. After you open the file, please enter your name in the top of the spreadsheet to the right of 'Name' (Your name will be deleted from the file once all of the data are merged).
- 1c. Enter 'ELA' at the top of the spreadsheet to the right of 'Content Area'.
- 1d. Locate the Depth-of-Knowledge (DOK) descriptions on the reverse side of this sheet.
- 1e. In the 'CAHSEE Standards DOK Ratings' file, rate each content objective per standard on the degree of cognitive processing expected of students to demonstrate proficiency. Enter the DOK level (number) in the spreadsheet under the column labeled DOK Rating. **Only enter a rating for the selected content objectives.**

If you find that a single content objective really requires several different tasks of varying complexity (i.e., "Students should be able to identify, distinguish, and explain..."), indicate the *highest* DOK level required by this content objective. Remember that *cognitive complexity* is related to *difficulty*, but these terms are not synonymous.

Step 2: Rate the depth-of-knowledge (DOK) level of the item.

Step Instructions

- 1a. Open the file on your laptop labeled 'CAHSEE Item Rating Sheet'.
- 1b. After you open the file, please enter your name in the top of the spreadsheet to the right of 'Name' (Your name will be deleted from the file once all of the data are merged).
- 1c. Enter 'ELA' at the top of the spreadsheet to the right of 'Content Area'.
- 1d. Again using the Depth-of-Knowledge (DOK) descriptions on the reverse side of this sheet, rate each item on the degree of cognitive processing required of students to answer the item adequately.
- 1e. Enter the DOK level (number) in the spreadsheet under the column labeled Item DOK Rating next to each item number.

If you find that a single item really requires several different tasks of varying complexity (i.e., "Students should be able to identify, distinguish, and explain..."), indicate the *highest* DOK level required by this content objective.

Step 3: Match the item to a specific content objective.

Step Instructions

- 1a. Using the 'CAHSEE Content Standards' printout, find the content standard that you think the item is supposed to assess. Within the content standard, identify the **specific content objective** that the item targets using the 3-digit code found in the right-hand column.

- 1b. On the 'CAHSEE Item Rating Sheet', enter the code into the Excel spreadsheet under the column labeled Content Standard/Objective 1 next to each item.

If you find that an item assesses two or more content standards or objectives equally, you may include the additional standard and objective in the column labeled Content Standard/Objective 2. Please only enter a secondary standard if the item assesses this standard at an equal level to the first standard you chose.

Note that many content objectives are NOT selected. These content statements were not intended for assessment on the CAHSEE; however, if you strongly feel that an item targets one of these content statements as the primary standard, please use the code listed to indicate your decision. This circumstance should be rare.

Step 4: Rate the overall match level of the item to the standard/objective you chose.

Indicate how well you think that the item actually assesses the standard you selected. Please use the rating scale below to make your judgment. Enter the appropriate rating number from the scale into your spreadsheet under the column 'Overall Alignment'.

Overall Alignment Rating Scale

- 1 Not aligned to any CAHSEE content standard (Use ONLY if you did not assign a standard to the item).
- 2 Weakly aligned to this CAHSEE content standard — Not a very good example of the standards.
- 3 Highly aligned this CAHSEE content standard — Good and reasonable example of the standards.
- 4 Fully aligned to the CAHSEE content standards — Exemplary item, clear example of standard for which it is matched.

Step 5: Rate the overall quality of the item.

Next, rate the overall quality of the item. Is the item clear and precise? Could you understand what the item is asking students to do (NOT whether you are capable of answering the question correctly)? Use the scale below to make your judgments.

Overall Item Quality

- 1 Item is of poor overall quality (Rating requires annotation).
- 2 Item is of good quality, but has some easily repairable flaw (Rating requires annotation).
- 3 Item is of good quality, typical of what you would expect on this and similar tests.
- 4 Item is of exceptional quality (annotations encouraged).

Step 6: Perform the steps above for each item on the assessment.

Depth of Knowledge Definitions for Mathematics

The following handout includes the definitions for the depth of knowledge given to math panelists.

- **Level 1 (recall)** Item requires recall of information such as fact, definition, term or simple procedure, as well as performing a simple algorithm or applying a formula.

Key words: use, identify, recall, recognize, measure

- **Level 2 (skill/concept)** Item calls for engagement of some mental processing beyond a habitual response, with students required to make some decisions as to how to approach a problem or activity, such as interpreting information from a simple graph, or visualization skills and probability skills.

Key words: classify, organize, estimate, make observations, collect and display data; and compare data, solve multiple parts, verify

- **Level 3 (strategic thinking)** Item requires students to use reasoning and evidence, plan, and make conjectures. Students should be able to explain phenomena in terms of mathematical concepts and decide which concepts to apply in order to solve a problem.

Keywords: combine multiple parts or solutions, make conclusions, explain (based on concepts or principals), interpret, apply

- **Level 4 (extended thinking)** Items require students to use complex and abstract reasoning and thinking, often over an extended period of time. Students must relate ideas within the content area or among content areas, or they should select one method among many alternatives for how the problem should be solved.

NOTE: Many on-demand assessment instruments will not include assessment activities that could be classified as Level 4. However, standards, goals, and objectives can be stated so as to expect students to perform thinking at this level. On-demand assessments that do include tasks, products, or extended responses would be classified as Level 4 when the task or response requires evidence that the cognitive requirements have been met.

Keywords: design, plan, and develop procedures; make inferences from results; critique; prove

Depth of Knowledge Definitions for English-language arts

The following handout includes the definitions for the depth of knowledge given to ELA panelists.

DOK Levels for Reading

- **Reading Level 1 (recall)** item requires students to receive or recite facts or to use simple skills or abilities, such as word pronunciation, verbatim recitation of text, or definitions of recognition of figurative language.

Keywords: identify, list, determine, define

- **Reading Level 2 (skills/concepts)** item calls for engagement of some mental processing beyond recalling or reproducing a response; it requires both comprehension and subsequent processing of text or portions of text. Examples include using context cues to identify the meaning of unfamiliar words or summarizing major events in a narrative.

Key words: summarize, interpret, classify, organize, collect, display, compare, determine whether fact or opinion. Literal main ideas are stressed.

- **Reading Level 3 (strategic thinking)** Students must synthesize ideas from the text to show understanding of ideas. They also may need to go beyond the text. Students must explain, generalize, or connect ideas. Items require reasoning and planning, and may involve abstract theme identification, inference across an entire passage, or students' application of prior knowledge.

Keywords: compare/contrast, analyze, explain, synthesize or connect ideas (single text), similarities and differences, apply, infer, support

- **Reading Level 4 (extended thinking)** Higher order thinking is central, such as complex, reasoning, planning, inference, and synthesis of ideas from multiple sources. Students may need to develop hypotheses, perform critical analysis, and make connections among texts. Items may require extended time and thinking.

NOTE: Many on-demand assessment instruments will not include assessment activities that could be classified as Level 4. However, standards, goals, and objectives can be stated so as to expect students to perform thinking at this level. On-demand assessments that do include tasks, products, or extended responses would be classified as Level 4 when the task or response requires evidence that the cognitive requirements have been met.

Keywords: predict, discuss, dispute, connect to self, critically analyze, synthesize or connect (multiple texts)

DOK Levels for Writing

- **Writing Level 1 (recall):** requires the student to write or recite simple facts. This writing or recitation does not include complex synthesis or analysis but basic ideas. The students are engaged in listing ideas or words as in a brainstorming activity prior to written composition, are engaged in a simple spelling or vocabulary assessment, or are asked to write simple sentences. Students are expected to write and speak using Standard English conventions. This includes using appropriate grammar, punctuation, capitalization and spelling. Some examples that represent but do not constitute all of Level 1 performance are:

1. Use punctuation marks correctly.
2. Identify Standard English grammatical structures and refer to resources for correction.

Keywords: identify, list, determine, define

- **Writing Level 2 (skills/concepts):** requires some mental processing. At this level students are engaged in first draft writing or brief extemporaneous speaking for a limited number of purposes and audiences. Students are beginning to connect ideas using a simple organizational structure. For example, students may be engaged in note-taking, outlining or simple summaries. Text may be limited to one paragraph. Students demonstrate a basic understanding and appropriate use of such reference materials as a dictionary, thesaurus, or web site. Some examples that represent but do not constitute all of Level 2 performance are:

1. Construct compound sentences.
2. Use simple organizational strategies to structure written work.

Key words: summarize, interpret, classify, organize, collect, display, compare, determine whether fact or opinion. Literal main ideas are stressed.

- **Writing Level 3 (strategic thinking):** requires some higher level mental processing. Students are engaged in developing compositions that include multiple paragraphs. These compositions may include complex sentence structure and may demonstrate some synthesis and analysis. Students show awareness of their audience and purpose through focus, organization and the use of appropriate compositional elements. The use of appropriate compositional elements includes such things as addressing chronological order in a narrative or including supporting facts and details in an informational report. At this stage students are engaged in editing and revising to improve the quality of the composition. Some examples that represent but do not constitute all of Level 3 performance are:

1. Support ideas with details and examples.
2. Use voice appropriate to the purpose and audience.
3. Edit writing to produce a logical progression of ideas

Keywords: compare/contrast, analyze, explain, synthesize or connect ideas (single text), similarities and differences, apply, infer, support

- **Writing Level 4 (extended thinking):** Higher-level thinking is central to Level 4. The standard at this level is a multi- paragraph composition that demonstrates synthesis and analysis of complex ideas or themes. There is evidence of a deep awareness of purpose and audience. For example, informational papers include hypotheses and supporting evidence. Students are expected to create compositions that demonstrate a distinct voice and that stimulate the reader or listener to consider new perspectives on the addressed ideas and themes. An example that represents but does not constitute all of Level 4 performance is:
 1. Write an analysis of two selections, identifying the common theme and generating a purpose that is appropriate for both.

NOTE: Many on-demand assessment instruments will not include assessment activities that could be classified as Level 4. However, standards, goals, and objectives can be stated so as to expect students to perform thinking at this level. On-demand assessments that do include tasks, products, or extended responses would be classified as Level 4 when the task or response requires evidence that the cognitive requirements have been met.

Keywords: predict, discuss, dispute, connect to self, critically analyze, synthesize or connect (multiple texts)

Example Rating Sheet for Depth of Knowledge Evaluation of Math Content Standards

Panelists provided depth of knowledge evaluations of the math content standards using an electronic rating sheet. A portion of this rating form is presented below.

Strand	Substrand	Standard	Enter DOK Level (1 to 4)
<p>1 Grade 6—Statistics, Data Analysis, and Probability</p> <p>1.0 Students compute and analyze statistical measurements for data sets:</p> <p>1.1 Compute the range, mean, median, and mode of data sets.</p> <p>1.2 Understand how additional data added to data sets may affect these computations of measures of central tendency.</p> <p>1.3 Understand how the inclusion or exclusion of outliers affects measures of central tendency.</p> <p>1.4 Know why a specific measure of central tendency (mean, median, mode) provides the most useful information in a given context.</p> <p>2.0 Students use data samples of a population and describe the characteristics and limitations of the samples:</p> <p>2.1 Compare different samples of a population with the data from the entire population and identify a situation in which it makes sense to use a sample.</p> <p>2.2 Identify different ways of selecting a sample (e.g., convenience sampling, responses to a survey, random sampling) and which method makes a sample more representative for a population.</p> <p>2.3 Analyze data displays and explain why the way in which the question was asked might have influenced the results obtained and why the way in which the results were displayed might have influenced the conclusions reached.</p> <p>2.4 Identify data that represent sampling errors and explain why the sample (and the display) might be biased.</p> <p>2.5 Identify claims based on statistical data and, in simple cases, evaluate the validity of the claims.</p>			

Example Rating Sheet for Depth of Knowledge Evaluation of ELA Content Standards

Panelists provided depth of knowledge evaluations of the ELA content standards using an electronic rating sheet. A portion of this rating form is presented below.

Strand	Substrand	Standard	Enter DOK Level (1 to 4)
Reading (Grades Nine and Ten with two standards from Grade Eight as noted)			
1 Word Analysis, Fluency, and Systematic Vocabulary Development.			
<p>Students apply their knowledge of word origins to determine the meaning of new words encountered in reading materials and use those words accurately.</p>			
<p>1.1 Identify and use the literal and figurative meanings of words and understand word derivations.</p>			
<p>1.2 Distinguish between the denotative and connotative meanings of words and interpret the connotative power of words.</p>			
<p>1.3 Identify Greek, Roman, and Norse mythology and use the knowledge to understand the origin and meaning of new words (e.g., the word narcissistic drawn from the myth of Narcissus and Echo).</p>			
2 Reading Comprehension (Focus on Informational Materials)			
<p>Students read and understand grade-level-appropriate material. They analyze the organizational patterns, arguments, and positions advanced. The selections in Recommended Literature, Grades Nine Through Twelve (1990) illustrate the quality and complexity of the materials to be read by students. In addition, by grade twelve, students read two million words annually on their own, including a wide variety of classic and contemporary literature, magazines, newspapers, and online information. In grades nine and ten, students make substantial progress toward this goal.</p>			
Structural Features of Informational Materials			
<p>†8.2.1 Compare and contrast the features and elements of consumer materials to gain meaning from documents (e.g., warranties, contracts, product information, instruction manuals).</p>			
<p>2.1 Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes.</p>			

Example Rating Sheet for Evaluation of Items

Panelists provided item evaluations using an electronic rating sheet. A portion of this rating form is presented below.

Item Number	Depth Of Knowledge	Content Strand/Objective 1	Content Strand/Objective 2	Overall Alignment	Overall Item Quality	Explanation
(Number Listed in Test Form)	(Enter Level 1 to 4)	(Enter Standard ID Code)	(Enter Standard ID Code)	(Enter Scale of 1 to 4)	(Enter Scale of 1 to 4)	Use ONLY IF you entered a 'Source of Challenge'
1						
2						
3						
4						
5						
6						
7						

Review Form for Universal Design Evaluation

Panelists completed the following form to make ratings of universal design.

	Pass -age	Item No.1	Item No.2	Item No.3	Item No.4	Item No.5	Describe Concerns and Suggestions for items and reading passages (include item no.)
Item tests its intended construct							
Item respects the diversity of the assessment population <ul style="list-style-type: none"> • Sensitive to test taker characteristics and experiences (gender, age, ethnicity, socioeconomic status, region, disability, language) • Avoids content that might unfairly advantage or disadvantage any student subgroup 							
Item has concise and readable text <ul style="list-style-type: none"> • Commonly used words (except vocabulary tested) • Vocabulary appropriate for grade level • Minimum use of unnecessary, construct irrelevant words • Technical terms and abbreviations avoided unless tested • Sentence complexity appropriate for grade level • Question to be answered identifiable • Present tense and active voice 							
Item has a clear format for text <ul style="list-style-type: none"> • Standard typeface • Twelve (12) point minimum size for all print, • High contrast between text and background • Sufficient blank space • Staggered right margins 							
Item has clear visuals (use NA for none) <ul style="list-style-type: none"> • Visuals are needed to answer the question • Visuals have clearly defined features • High contrast between visuals and background • Visuals are clearly labeled 							
Item allows changes to format without changing meaning or difficulty (check allowed accommodations) <ul style="list-style-type: none"> • Braille or other tactile format • Sign language interpretation • Oral presentation • Assistive technology • Translation into another language 							

Appendix C
Statistical Results for Webb Criteria by Content Area for the February 2008
CAHSEE Operational Items

Categorical Concurrence. To determine categorical concurrence, we first simply counted the number of items that each reviewer judged as assessing each strand. Next, we calculated the mean (M) to find the average item rating per strand, and we calculated the standard deviation (SD) to determine how much, or far, reviewers' ratings diverged from the mean number.

Starting with Column 1, the table lists the number of strands per content area, the title of the strand, the target number of items listed in the test blueprint, the average number of items matched by reviewers, and the conclusion of this alignment analysis (Yes or No).

Table C-1. Categorical Concurrence for Math: Mean Number of Items per Strand

	Content Strand	Number of Items Per Strand			At Least Six Items
		Target Number	Mean Number Matched	Standard Deviation	
1	Statistics, Data Analysis, and Probability	12	21.33	3.67	Y
2	Number Sense	14	23.00	3.71	Y
3	Algebra and Functions	17	28.11	4.28	Y
4	Measurement and Geometry	17	24.11	2.80	Y
5	Mathematical Reasoning	8	11.22	8.61	Y
6	Algebra I	12	16.78	2.77	Y
Percent of strands with at least six items					100%

Table C-2. Categorical Concurrence for ELA: Mean Number of Items per Strand

	Content Strand	Number of Items Per Strand			At Least Six Items
		Target Number	Mean Number Matched	Standard Deviation	
1	Word Analysis, Fluency, and Systematic Vocabulary Development	7	15.45	5.22	Y
2	Reading Comprehension	18	23.82	5.95	Y
3	Literary Response and Analysis	20	25.27	3.26	Y
4	Writing Strategies	12	9.64	3.88	Y
5	Writing Applications	1	3.00	3.35	N
6	Written and Oral English Language Conventions	15	19.18	3.37	Y
Percent of strands with at least six items					83%

Depth-of-Knowledge Consistency. The depth of knowledge (DOK) indicates whether the item and corresponding standard are both written at the same level of cognitive complexity.

To make these judgments, reviewers first determined the DOK level for each standard within a content strand using a rating scale. Next, as they reviewed items, they rated the level of processing needed to answer the question using the same DOK rating scales. These two separate judgments about cognitive complexity (one for the standard, one for the item) then were compared to determine the proportion of items written at the appropriate level. Webb refers to this comparison as *depth of knowledge consistency*.

The tables refer to consistency between the items and standards. The middle columns in the table include the mean percentage of items rated below the standard DOK level, items at the same level as the standard, and items above the standard. Column 5 (last column) specifies whether or not the amount of DOK consistency was acceptable per strand as well as noting the sum percentage of items at or above the strand DOK level.

Table C-3. Depth-of-Knowledge Consistency for ELA: Mean Percent of Items per Strand with DOK Below, At, and Above DOK Level of Standards

Content Strand	Mean Items per Strand	Depth-of-Knowledge Consistency						DOK Consistency (min 50% of Items At or Above)
		% Items Below		% Items At Same Level		% Items Above		
		M	SD	M	SD	M	SD	
1 Word Analysis, Fluency, and Systematic Vocabulary Development	15.45	24.31	26.87	63.95	25.81	25.81	14.52	Y
2 Reading Comprehension	23.82	69.51	18.25	28.55	18.39	18.39	3.59	N
3 Literary Response and Analysis	25.27	52.50	21.27	42.81	17.90	17.90	6.93	N
4 Writing Strategies	9.64	34.17	37.49	59.53	33.65	33.65	9.74	Y
5 Writing Applications	3.00	20.29	28.82	48.11	38.98	38.98	39.15	Y
6 Written and Oral English Language Conventions	19.18	26.53	29.19	47.62	24.37	24.37	30.59	Y
Percent of strands with 50% of item DOK at or above standard DOK:								67%

Table C-4. Depth-of-Knowledge Consistency for Math: Mean Percent of Items per Strand with DOK Below, At, and Above DOK Level of Standards

Content Strand	Mean Items per Strand	Depth-of-Knowledge Consistency						DOK Consistency (min 50% of Items At or Above)
		% Items Below		% Items At Same Level		% Items Above		
		M	SD	M	SD	M	SD	
1 Statistics, Data Analysis, and Probability	21.33	41.61	18.54	51.31	10.92	7.08	12.41	Y
2 Number Sense	23.00	22.98	17.06	63.47	18.29	13.55	12.10	Y
3 Algebra and Functions	28.11	51.84	21.38	48.16	21.38	0.00	0.00	N
4 Measurement and Geometry	24.11	27.01	15.12	57.98	14.61	15.02	12.87	Y
5 Mathematical Reasoning	11.22	26.67	29.77	57.17	31.47	16.16	16.82	Y
6 Algebra I	16.78	13.04	10.33	65.43	16.94	21.53	19.62	Y
Percent of strands with 50% of item DOK at or above standard DOK:								83%

Range of Knowledge. Range of Knowledge measures how completely the test items cover the content standards within each strand. At least 50 percent of the standards within a strand must be matched to one or more items.

We determined the range by counting the number of standards linked with at least one item. Next, we calculated a percentage for each reviewer by comparing the

number of standards associated with items (“yes”) to the total standards for a given strand. Finally, these percentages were averaged across reviewers.

The tables include the number of content standards listed in the blueprints per strand, the mean number of items per strand, the mean number of standards linked with at least one item, and the conclusion for this alignment analysis.

Table C-5. Range-of-Knowledge for ELA: Mean Percent Standards per Strand Linked with Items

Content Strand	Number of Target Standards	Mean Items per Strand	Range of Standards			Range-of-Knowledge Correspondence
			Standards with At Least One Item	% of Total Standards per Strand		
			M	SD	M	
1 Word Analysis, Fluency, and Systematic Vocabulary Development	2	15.45	2.00	0.00	100	Y
2 Reading Comprehension	6	23.82	5.00	1.00	83	Y
3 Literary Response and Analysis	12	25.27	9.18	0.98	77	Y
4 Writing Strategies	5	9.64	3.00	1.41	60	Y
5 Writing Applications	6	3.00	2.00	1.26	33	N
6 Written and Oral English Language Conventions	3	19.18	2.91	0.30	97	Y
Percentage of strands with 50% of standards linked to at least one item						83%

Table C-6. Range-of-Knowledge for Math: Mean Percent Standards per Strand Linked with Items

Content Strand	Number of Target Standards	Mean Items per Strand	Range of Standards			Range-of-Knowledge Correspondence
			Standards with At Least One Item	% of Total Standards per Strand		
			M	SD	M	
1 Statistics, Data Analysis, and Probability	7	21.33	5.78	0.97	83	Y
2 Number Sense	3	23.00	2.89	0.33	96	Y
3 Algebra and Functions	3	28.11	2.89	0.33	96	Y
4 Measurement and Geometry	10	24.11	8.89	0.78	89	Y
5 Mathematical Reasoning	6	11.22	3.67	1.73	61	Y
6 Algebra I	10	16.78	8.67	1.12	87	Y
Percentage of strands with 50% of standards linked to at least one item						100%

Balance of Representation. The content balance is determined by calculating an index, or score, for each strand.¹³ The minimum acceptable index for a single strand is a 70 (on a scale of 0 to 100). To be clear, a strand may include more standards than

¹³ The formula for calculating the balance index can be found: <http://www.wcer.wisc.edu/WAT/index.aspx>.

reviewers linked to items. Thus, only those standards actually used by the reviewers are included in calculations of the balance index. In the tables below, Columns 2 through 4 repeat item and standards information from other Webb criteria. Column 5 reports the mean percentage of items matched to the standards. Finally, Column 6 gives the mean balance index for each strand.

Table C-7. Balance of Knowledge for ELA: Mean Balance Index per Standard

Content Strand	Number of Target Standards	Balance-of-Knowledge Representation					Acceptability of Balance Index (70 or above)
		Mean Stds Linked with Items	Mean Items per Standard	Mean % of Items Linked to Standard	Mean Balance Index	SD	
		M	M	M	M	SD	
1 Word Analysis, Fluency, and Systematic Vocabulary Development	2	2.00	15.45	21	83	12.85	Y
2 Reading Comprehension	6	5.18	23.82	33	75	7.47	Y
3 Literary Response and Analysis	12	10.00	25.09	35	75	4.54	Y
4 Writing Strategies	5	3.00	9.27	13	84	12.82	Y
5 Writing Applications	6	2.00	3.00	4	96	9.42	Y
6 Written and Oral English Language Conventions	3	2.91	19.18	26	91	5.30	Y
Percentage of standards with a balance of representation index of 70 or greater							80%

Table C-8. Balance of Knowledge for Math: Mean Balance Index per Standard

Content Strand	Number of Target Standards	Balance-of-Knowledge Representation					Acceptability of Balance Index (70 or above)
		Mean Stds Linked with Items	Mean Items per Standard	Mean % of Items Linked to Standard	Mean Balance Index	SD	
		M	M	M	M	SD	
1 Statistics, Data Analysis, and Probability	7	5.89	21.00	27	82	5.72	Y
2 Number Sense	3	3.00	12.22	28	76	10.88	Y
3 Algebra and Functions	3	2.89	10.11	35	86	5.34	Y
4 Measurement and Geometry	10	9.11	24.11	30	75	3.71	Y
5 Mathematical Reasoning	6	4.00	11.22	14	78	12.12	Y
6 Algebra I	10	9.11	16.78	21	80	4.31	Y
Percentage of standards with a balance of representation index of 70 or greater							80%

Appendix D: Results from Merging Test Records from the 2007–08 and Prior-Year CAHSEE Administrations.

As in prior years, we encountered some difficulties in these analyses. Students taking the CAHSEE for the first time were sometimes unable to take both parts in the same administration and so had separate, albeit incomplete, records from two different administrations. In addition, a few students appear to have used two different answer sheets in the same administration, again generating separate incomplete records.

Beginning with the February 2006 administration, most CAHSEE test result records (about 95%) contained a new student identifier that should uniquely identify each student and remain constant over future test administrations. For the 2007–08 administrations, however, these identifiers were missing or incorrectly coded for a small, but significant, number of records (about .5%) so answer documents still had to be matched across administrations and test years by name and birth date and, in some cases, by district-level student identifiers. Inconsistencies or omissions in coding these fields complicated the process of linking separate records for the same student. Any failure in linking such records led to an overcount of the number of individual students tested.

For the 11th and 12th graders, linking problems were even more complicated. First, they may have taken each portion of the CAHSEE two, or in many cases, three times during the 2007–08 school year. Second, it was necessary to match the 2007–08 results for these students to results from 2006 and 2007 to determine which students had passed both parts. Many districts appeared to have changed their student identifiers one or more times between the 2005–06 and 2007–08 school years. In addition, many students changed schools between years, while others did not progress normally from one grade to the next. Accurate linking for the 11th and 12th graders is essential to answering questions such as “How many students in the Class of 2006 who did not pass last year are still taking the CAHSEE?” and “Where did students who appear to have taken the CAHSEE for the first time as 11th or 12th graders come from?”

Analysis of the Test Score Data

A number of potential issues with the test data were investigated before we analyzed the score results. First, we took steps to match records for students who participated in more than one testing session during the year and then matched this year's records to records from prior years. We wanted to remove duplication in counts of the total number of students tested, to be able to estimate the number of students who passed both parts of the CAHSEE, and to track students who did not progress normally from one grade to the next. Second, we checked score conversion tables and looked at the consistency with which the essays were scored.

ETS provided test results, including student responses to individual test questions and to the student questionnaire items, after each of the 2007–08

administrations and a total file containing score and demographic corrections for the year as a whole. While this last file did not contain student responses to individual test questions or questionnaire items, it did include corrections to demographic information provided by schools and districts as part of a routine verification process. We merged the item-level data from each administration with the year-end file and used the resulting combined data in computing the test results reported here.

Table D.1 shows the number of test records from each of the seven CAHSEE administrations during the 2006–07 school year that were included in the initial data files received from ETS. As noted above, many students participated in more than one administration so the number of students tested was lower than the number of answer documents processed. We describe our attempts to count individual students, rather than just answer documents, in the next section.

Matching Student Records from Different Administrations

In response to data analysis requirements in the 2001 federal No Child Left Behind (NCLB) Act, the state legislature passed SB 1453 requiring the establishment of student identifiers for all California public or charter school students. As the statewide student identifiers called for by SB 1453 are fully implemented by the California School Information Services (CSIS, 2004), matching records for students participating in different test administrations is becoming somewhat easier. CSIS student identifiers were introduced for nearly all students (over 90%) in the February 2006 CAHSEE administration. CSIS codes were filled in for some students in the Fall 2005 administrations, but many schools had not yet begun using these identifiers. In the 2007–08 test administrations, CSIS codes were available for nearly all students except those in adult education programs. For about one-half of one percent (0.5%) of the records, two or more different students had the same CSIS code, indicating a likely data entry error. Codes are missing altogether for another 2 to 3 percent of the records. The CSIS codes are extremely useful, but not yet infallible.

Table D.1. Number of CAHSEE 2007–08 Answer Documents and Number Passing Each Test by Administration Date

Test Date	Grade ¹	Total Answer Sheets	Blank Answer Sheets	ELA		Math	
				Number Taking	Number Passing	Number Taking	Number Passing
Jul-07	11	N/A	N/A	N/A	N/A	N/A	N/A
	12	20,683	4,389	10,793	2,704	10,361	2,823
	Adult Education	3,953	96	2,447	1,125	2,636	1,055
	Unknown	38	1	29	16	18	10
Total		24,674	4,486	13,269	3,845	13,015	3,888
Oct-07	11	33,056	3,057	22,321	9,108	22,770	6,903
	12	33,758	3,431	21,545	6,989	22,135	5,370
	Adult Education	3,379	42	2,193	1,082	2,412	755
	Unknown	0	0	0	0	0	0
Total		70,193	6,530	46,059	17,179	47,317	13,028
Nov-07	11	118,544	9,827	80,415	32,987	83,815	31,893
	12	59,343	6,684	37,151	12,321	38,688	12,724
	Adult Education	5,250	308	3,399	1,603	3,399	1,377
	Unknown	0	0	0	0	0	0
Total		183,137	16,819	120,965	46,911	125,902	45,994
Dec-07	11	826	0	537	212	595	205
	12	4,371	0	2,717	713	2,847	634
	Adult Education	1,162	0	682	355	798	334
	Unknown	0	0	0	0	0	0
Total		6,359	0	3,936	1,280	4,240	1,173
Feb-08	10	162,894	10,094	148,359	117,878	148,759	116,233
	11	30,763	3,879	18,918	5,787	20,454	5,952
	12	52,479	7,729	29,840	7,056	32,810	7,681
	Adult Education	4,791	345	2,884	1,369	3,157	1,189
	Unknown	0	0	0	0	0	0
Total		250,927	22,047	200,001	132,090	205,180	131,055
Mar-08	10	343,233	16,799	318,195	251,000	328,257	249,228
	11	58,147	6,139	36,533	10,695	38,749	10,985
	12	37,622	5,154	21,619	4,498	23,264	5,491
	Adult Education	5,026	195	3,171	1,420	3,419	1,241
	Unknown	819	38	759	681	756	672
Total		444,847	28,325	380,277	268,294	394,445	267,617
May-08	10	20,139	4,188	11,288	6,085	11,471	5,678
	11	28,452	3,747	17,141	5,609	18,121	4,797
	12	32,364	4,706	18,563	3,798	19,027	3,205
	Adult Education	4,803	306	2,904	1,479	3,219	1,138
	Unknown	235	10	160	105	161	58
Total		85,993	12,957	50,056	17,076	51,999	14,876
Total All Records		1,066,130	91,164	814,563	486,675	842,098	477,631

¹ 11th grade students are in the Class of 2009 and 12th grade students are in the Class of 2008. A few students had a missing or invalid value in the grade field on the files supplied by ETS.

We used the CSIS codes as part of our process for matching records in the 2007–08 administrations, but also matched records on other identifiers (school codes with student names and birth dates and, in some cases, the district’s own student identifiers). In matching student records to results from prior years, when CSIS codes were less fully available, we had to rely more heavily on the more fallible other identifiers. As usual, in numerous cases, student names and birth dates were not coded consistently across different administrations. In addition, the student identifiers supplied by districts were sometimes coded incorrectly or inconsistently.

We matched records in two phases. In the first phase, we matched records for 10th graders within and across the February, March, and May administrations and matched records for 11th and 12th graders within and across all seven administrations. Results of this phase are shown in Table D.2.

In the second phase, we matched the merged records from the 2007–08 administrations with records for from the 2005–06 and 2006–07 administrations. For the most part 12th graders from the 2007–08 administrations were matched to 11th graders in the 2006–07 administrations, and 10th graders in the 2005–06 administrations. Similarly, 11th graders in the 2007–08 administrations were matched to 10th graders in the 2006–07 administrations. There were, however, a number of cases in which students appear to have either skipped or repeated a grade from one year to the next. We described the matching process in more detail in our 2005 annual report (Wise, et al., 2005).

Table D.2. Number of Students Participating in One or More 2007–08 CAHSEE Administrations by Grade and Test

Count	Grade					Total
	10	11	12	Adult Educ.	Missing	
Total unique students	497,238	172,428	112,461	18,813	793	801,733
Blank answer documents	16,638	10,249	11,140	622	9	38,658
Number taking ELA	474,002	124,433	73,289	13,009	769	685,502
Number passing ELA	373,920	64,734	35,868	7,814	698	483,034
Percent passing ELA	78.9%	52.0%	48.9%	60.1%	90.8%	70.5%
Number taking math	474,351	128,225	75,699	13,756	765	801,733
Number passing math	369,978	61,348	34,990	6,647	674	473,637
Percent passing math	78.0%	47.8%	46.2%	48.3%	88.1%	59.1%

Table D.3 shows the number of answer documents for each test and grade, the number of students tested in each subject and grade (after accounting for students who tested more than once during the 2007–08 school year), and the number of students for whom prior-year records were identified. Prior-year matches were found for about 2 percent of the current 10th graders, and over 80 percent of the current 11th and 12th graders. Prior-year data were not found for students who were new to the state or new to public education and for students whose identifiers were significantly miscoded. The match rate for 12th graders increased significantly compared to the 2005–06 test year. In 2006, students who were repeating the 12th grade had not been required to take the

CAHSEE previously and so had no prior test records. In 2007, repeat 12th graders had been subject to the CAHSEE requirement, so prior-year test records were available for most of these students.

Table D.3. Estimated Number of Students Participating in 2007–08 CAHSEE Administrations and Number with Matching Prior Year Data by Grade

Grade (High School Class)	Number of Students with Non-blank Answer Documents	Number Matched to Prior-Year Records	Percent Matched
10 th Grade (Class of 2010)	480,600	8,010	1.7%
11 th Grade (Class of 2009)	162,179	133,706	82.4%
12 th Grade (Class of 2008)	101,321	86,096	85.0%
Adult Education	18,191	8,531	46.9%
Missing or Invalid	784	1	0.1%
Total	763,075	236,344	31.0%

Appendix E: CAHSEE Instruction Study Workshop: Agenda

May 28, 2008

Hyatt Regency Sacramento
1209 L Street
Sacramento, CA 95814
(916) 443-1234

8:00 – 8:30	Continental Breakfast
8:30 – 9:00	Overview of Project and Instruction Study
9:00 – 10:00	Discuss and Revise Study Questions
10:00 – 10:15	Break
10:15 – 12:00	Small Group Activity: Review and Revise Previous Surveys <ul style="list-style-type: none">• Group 1 – High School Principal Survey• Group 2 – High School Department Head Survey (English/ELA and Mathematics)• Group 3 – High School Teacher Survey (ELA and Mathematics)• Group 4 – High School Teacher Survey (Special Populations)
12:00 – 1:00	Lunch
1:00 – 3:00	Continue Small Group Activity: Review and Revise Previous Surveys <ul style="list-style-type: none">• Group 1 – High School Principal Survey• Group 2 – High School Department Head Survey (English/ELA and Mathematics)• Group 3 – High School Teacher Survey (ELA and Mathematics)• Group 4 – High School Teacher Survey (Special Populations)
3:00 – 3:15	Break
3:15 – 4:15	Report on Recommended Survey Revisions
4:15 – 4:45	Discuss Approaches/Methods to Increase Survey Participation
4:45 – 5:00	Wrap-up