

Independent Evaluation of the California
High School Exit Examination (CAHSEE):
2009 Evaluation Report

Volume 1

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

Prepared for:

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

November 10, 2009

Independent Evaluation of the California
High School Exit Examination (CAHSEE):
2009 Evaluation Report

Volume 1

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

Prepared for:

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

November 10, 2009

INDEPENDENT EVALUATION OF THE CAHSEE: 2009 EVALUATION REPORT

Executive Summary

In 1999, the California legislature established the requirement that, beginning with the Class of 2004, students pass a graduation examination in English-language arts (ELA) and mathematics (SB-2X, written into Chapter 9 of the California Education Code as Sections 60850–60859). In July 2003, after the completion of the 2002–03 CAHSEE testing, the State Board of Education (Board) voted to defer the CAHSEE requirement to the Class of 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. The Human Resources Research Organization (HumRRO) has served as the independent evaluator of the CAHSEE since January 2000. Over the past 9 years, a wide range of information has been gathered, analyzed, and reported by HumRRO as part of the independent evaluation of the CAHSEE. Copies of our annual and biennial evaluation reports may be found on the California Department of Education (CDE) CAHSEE Independent Evaluation Reports Web page at: <http://www.cde.ca.gov/ta/tg/hs/evaluations.asp>.

This annual report covers analyses of test results and other evaluation activities conducted through September 2009. Evaluation activities are reported under the following topics, each of which is summarized briefly here:

- Review of the quality of the assessment (Chapter 2)
- Analyses of 2008–09 passing rates (Chapter 3)
- Analyses of students who did not pass (Chapter 4)
- Analyses of results for students with disabilities (Chapter 5)
- Analyses of student questionnaire responses (Chapter 6)
- A new survey of instruction and remediation programs and their effectiveness (Chapters 7 and 8)
- Examination of other indicators of student achievement and success (Chapter 9)

The final chapter (Chapter 10) of this annual report includes both a summary of key findings from each of these activities and a number of general policy recommendations for further improving the CAHSEE and its use.

Review of CAHSEE Test Quality

This year's review and analysis of CAHSEE test quality included further study of the alignment of the English-language arts (ELA) test questions to the content standards they were designed to measure, analyses of consistency in scoring the essay questions, and observation of test administration activities. Results from these reviews are summarized briefly here and presented in more detail in Chapter 2 of this report.

Review of the CAHSEE Test Questions

HumRRO conducted another study of the alignment of the CAHSEE ELA test to the ELA content specifications. Both the study design and the study results were very similar to the study conducted in 2008. Overall the alignment was judged to be good, although we 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. As noted last year, the test developers and our independent reviewers disagreed somewhat about the specific objectives assessed by some test questions. ETS procedures for item development continue to evolve, but it might be 2 or more years before items developed under updated procedures are ready to use operationally on CAHSEE test forms.

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 comparable 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 2008–09 CAHSEE Test Administrations

Chapter 3 of this report summarizes analyses of CAHSEE passing rates for this year's 10th, 11th, and 12th graders and also for students from prior high school classes (Class of 2006 through Class of 2008) who were still trying to pass the CAHSEE. Key findings from these analyses are described briefly here.

Results for This Year's Seniors — The Class of 2009

The estimated passing rate for the Class of 2009 was 90.6%, only slightly higher than the corresponding cumulative passing rate for the Class of 2008 last year (90.4%). At the same time, cumulative passing rates for grade 12 students with disabilities increased much more significantly, more than 2 percentage points, from 54.5% to 56.6%.

Results for This Year's Juniors — The Class of 2010

Cumulative passing rates for 11th graders in the Class of 2010 increased just over a percentage point compared to 11th grade passing rates for the Class of 2009 at

the end of 11th grade (from 81.7% to 82.9%, as shown in Table 3.15). This was a significant increase and should lead to a continued reduction in the number of seniors who are denied diplomas next year due to the CAHSEE requirement.

Results for the Census Testing of Tenth Graders

About 69.9% of 10th graders completed the CAHSEE requirement this year compared to 69.2% in 2008, reflecting a continued improvement over earlier years (Table 3.16). Tenth grade passing rates increased for all demographic groups except for Native Americans and Pacific Islanders.

The gap in mathematics course levels widened. More 10th grade students had taken (or were taking) geometry or even more advanced mathematics courses. At the same time, the percentage of 10th graders who reported not yet taking Algebra I increased significantly, by about 10%. Students who were taking more advanced mathematics courses had very little trouble with the CAHSEE requirement, while students who had taken fewer courses had significantly lower passing rates on the CAHSEE mathematics test.

Results for Students From Prior High School Classes

Many students from the classes of 2006, 2007, and 2008 who had not passed the CAHSEE continued to test. About 2,000 students from the Class of 2006 continued to try to pass the CAHSEE, more than 2 years 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 but were not still trying to pass (Table 3.22). Similarly, roughly 4,000 students in the Class of 2007 were still trying to pass the CAHSEE in the second year after their original graduation date. A significant finding was that more than 40% of students in the Class of 2008 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. *Four-year graduation rate estimates provide an incomplete picture of eventual outcomes for these students.*

Further Analyses of Class of 2008 Students Who Did Not Pass

The most negative consequence of the CAHSEE requirement is that some students are denied diplomas. We conducted additional analyses of students who were not able to pass the CAHSEE. First, for students in the Class of 2008 (the most recent class for which senior year exit information was available), we looked at new information on whether students complete their diploma or leave school for other reasons. In another set of analyses, we looked at the extent to which students likely to have difficulty in meeting the CAHSEE requirement could be identified at a much earlier point. These analyses are described in more detail in Chapter 4 of this report. Key findings are summarized briefly here.

Analyses of How and Why Students Left School

As part of the California Longitudinal Pupil Achievement Data System (CALPADS), districts are now (or will be) coding reasons why each student leaves their schools. These reasons range from graduation to transfer, to alternate routes such as GED or CHSPE, to varying categories of dropouts. One code, in particular, identifies students who leave without a diploma after meeting all graduation requirements except for the CAHSEE. We looked at the exit codes assigned to students in the Class of 2008 to see whether students with various codes had passed the CAHSEE and, for those who had not, whether they were continuing to try to pass the CAHSEE in 2009, the year after their original senior year. Key findings from these analyses were:

- CAHSEE and CALPADS exit code information is largely, but not entirely, consistent.
- Relatively few students (about 1%) were denied diplomas because of the CAHSEE requirement alone.
- Nearly half of the Class of 2008 students who met all graduation requirements except the CAHSEE continued to try to pass the CAHSEE in 2009.
- Over half of the students in the Class of 2008 who dropped out, left California public education, or failed to graduate for other reasons had already met the CAHSEE requirement.
- The percentage of students coded as receiving a regular high school diploma varied across different demographic groups.

Early Identification of Students Who May Have Difficulty With the CAHSEE Requirement

We also examined the relationship between seventh grade Standardized Testing and Reporting (STAR) Program California Standards Tests (CST) for ELA and mathematics scores to CAHSEE success for Class of 2008 students. *Students who may need additional help to pass the CAHSEE were clearly identified in seventh grade STAR CST assessment results.* Nearly all Class of 2008 students (more than 95%) scoring near or above the median class score (325) on seventh grade ELA and mathematics tests met the CAHSEE requirement by the end of their senior year. In comparison, more than a third of the students scoring somewhat below (255–290) the median and over 70% of the students scoring well below (less than 255) the median in the seventh grade had not met the CAHSEE requirement by the end of their senior year. This finding is particularly significant because most CAHSEE remediation efforts have been targeted to students during or after the 12th grade, although many students needing additional help can be identified with reasonable accuracy much earlier.

There were considerable differences across demographic groups in the distribution of seventh grade STAR CST scores, particularly in the percentage of students scoring at the lowest score level in our analyses. Nearly 12% of African-American students and over 9% of Hispanic students in the Class of 2008 had seventh

grade STAR CST scores below 255 (well below the median class score of 325) compared to 2–3% of white and Asian students. Nearly 20% of English learners (ELs) and 28% of students with disabilities (SWDs) had scores in this lowest category. Achievement gaps reflected in CAHSEE passing rates were already evident in seventh grade test results. *Much earlier intervention will be required to close achievement gaps.*

The relationship between STAR CST score levels and CAHSEE passing rates was relatively similar for students in different demographic groups. The one exception was that SWDs at each STAR CST score level had lower CAHSEE passing rates compared to other students. For students just below the median (290–325) only 75% of students with disabilities met the CAHSEE requirement compared to 91% of all students at this STAR CST score level. At the lowest STAR CST score level, only 17% of SWDs subsequently met the CAHSEE requirement compared to 30% of all students at this score level.

Further Analyses of Results for Students with Disabilities

In our 2009 analyses, we took another closer look at SWDs, a group that has had particular difficulty meeting the CAHSEE requirement. We examined additional information on the characteristics of students in this population and on the nature of the services they received. We explored trends in the characteristics of students, testing accommodations, and CAHSEE passing rates from 2006 to 2009.

Participation in General Education Classes

About one-quarter of the students receiving special education services require more intensive assistance. These students participate in regular instruction less than 20% of the time and only about 10% of them pass the CAHSEE during the 10th grade. Those who retest in the 11th grade show only small gains in CAHSEE scores compared to other students. The services received by these students are specified by individualized educational plan (IEP) teams, who have statutory authority for making such judgments. There is no basis for second-guessing the services being provided to these students, although it is important to ask IEP teams to be sure student classifications are appropriate. It is less reasonable to hold students responsible for mastering the skills assessed by the CAHSEE when they are not receiving instruction related to the skills tested by the CAHSEE. The school system should make all possible efforts to provide alternate goals and some way of recognizing achievement of these alternate goals for students in this second group.

Another quarter of the students we analyzed received other combinations of services and showed mixed results on the CAHSEE. More detailed information on the needs of these students and the specific services provided is needed to determine which students have a reasonable chance of meeting the CAHSEE requirements.

Use of Testing Accommodations and Modification

The rate at which students with disabilities received testing accommodations and modifications increased slightly for 10th graders from 2006 to 2009 and increased much more dramatically for 12th graders. The percentage of students receiving oral presentation of the ELA test was about 3% for 10th graders in both years, but rose from 7% for 12th graders in 2006 to 28% in 2009. Similarly, the percentage of 10th grade students using a calculator on the mathematics test rose from 8% to 10% while the percentage of twelfth graders receiving this modification rose from 18% to 43%. One reason for the increases from 2006 was that waivers for students who achieve a passing score with a modification became much more common by 2009. With respect to the differences between 10th and 12th grade test modification rates, it should be noted that 10th grade CAHSEE results are also used for school accountability under the federal No Child Left Behind Act provisions and, except for students who take the math portion of the CAHSEE with a calculator, students taking the tests with a modification are not counted towards the 95% participation requirement.

Score Gains for 11th and 12th Grade students

Test results for 11th and 12th grade students showed a significant difference between 2006 and 2009. Score gains from both 10th grade to 11th and 11th to 12th grade were much higher in 2009, signaling a significant improvement in the effectiveness of remedial programs.

Student Perspectives on the CAHSEE

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 trends.

Trends in Overall Responses of 10th Graders

There were several changes in responses of 10th graders over the past 5 years in test preparation, perception of test importance and coverage of CAHSEE topics in class, and future plans. Specifically, in 2009 an increased percentage of 10th grade students reported receiving increased help preparing to take the CAHSEE, increased awareness of the importance of the CAHSEE, increased exposure to test topics and questions in their course, and increased intention to stay in school and try to pass again if they did not pass this time.

Some differences in questionnaire responses were observed for different demographic groups. Females were more likely than males to report that the CAHSEE was very important and that to prepare, they did work in addition to coursework; they used sample (released) items, and they used the Student Guides to prepare for the CAHSEE. A higher percentage of females than males expressed confidence in earning a high school diploma and planned to go to a 4-year college, university, or community

college upon finishing. Females also were more likely than males to report that test items were similar and of the same difficulty or easier than those seen in class.

African American and Hispanic 10th graders were the ethnic categories most likely to report that the CAHSEE was very important. However, these students, along with American Indian/Alaskan Natives, were the least likely to believe that they would graduate on time and were the most likely to report they would probably not receive a high school diploma.

Among students with other (non-ethnic) risk factors, English learners were most likely to report that CAHSEE was very important. Students with disabilities and English learners were more likely to take special classes to prepare for the tests than were non-English learners. However, English learners and students with disabilities were less likely than non-English learners to expect to graduate with the rest of their class and they were more likely to report they would probably not receive a high school diploma. Students with disabilities and English learners were less likely to report that test items and the difficulty of items were similar to what they experienced in their courses. In addition, the students with disabilities and English learners who reported that the CAHSEE was “not important,” also were the most likely to report they would not earn a high school diploma.

Like students with disabilities and English learners, those who were economically disadvantaged were less likely than those who were not to expect to earn a diploma with the rest of their class. They also were more likely to state that CAHSEE topics were not covered in class and that the items were unfamiliar and more difficult than those they had seen in their course or other tests. Students who were not economically disadvantaged were most likely to expect to attend a 4-year college or university.

Overall, the results of the 2009 student questionnaire were positive. Most students realized that the CAHSEE is important and reported they were learning the appropriate topics in their courses. However, this questionnaire also drew attention to particular groups who may need more attention, particularly students with disabilities, English learners, students who are economically disadvantaged, African Americans, Hispanics, and American Indian/Alaskan Natives. These student groups were less likely to believe they would earn a high school diploma and more likely to report that test items were more difficult and not covered in class.

Impact of the CAHSEE Requirement on Instruction

HumRRO conducted another study of instruction relative to the content standards assessed by the CAHSEE, similar to studies conducted in 2003 (after which the decision to defer the CAHSEE was made) and 2005. The purposes of this 2009 study included assessing continuing changes in curriculum and instruction associated with the CAHSEE requirement and also to identify programs and practices associated with greater student success in meeting CAHSEE requirements. Details of the study and its findings are presented in Chapters 7 and 8 of this report and summarized briefly here.

This year's survey was wide ranging, collecting information from and about principals, English and mathematics department heads, general curriculum teachers, and teachers of English learners and students with disabilities. We also collected information on the different courses taught by these teachers and the students participating in these courses. Where possible, we compared this year's responses to responses from the 2003 and 2005 studies. We also analyzed responses from schools serving different demographic mixes of students and schools where students had relatively high or low CAHSEE passing rates. Some of the more salient findings were:

Teacher Experience

Approximately three-fourths of schools operated with all or nearly all credentialed teachers in 2009, an increase from 2005. We found a significant correlation between the percentage of teachers with over 5 years of experience in ELA and student performance at the school level on the ELA CAHSEE. For math we found a correlation between the percentage of teachers having the appropriate teaching credential and the percentage of students at the school passing the CAHSEE math test. It is important to note that these correlations do not establish an unambiguous causal link. It is possible that other factors, such as district affluence, correlate with both greater teacher qualifications and higher CAHSEE passing rates.

Given the relationship between teacher qualification and experience with CAHSEE outcomes, one finding of potential concern was that math department heads reported a decrease in the percentage of teachers at their schools with over 5 years of experience compared to 2005. High school department heads also estimated the experience levels of teachers responsible for primary or supplemental courses and intervention programs. Between 2005 and 2009, the percentage of schools with few experienced teachers who taught primary or supplemental math courses increased slightly. Department heads at schools with **lower** concentrations of at-risk students were **more** likely to report that teachers were familiar with the content standards to a very great extent (see Table 7.12). The percentage of math teachers reported to have great or very great experience teaching the standards also decreased overall, for schools with both higher and lower concentrations of different types of at-risk students,

Courses and Course Effectiveness

We received responses from teachers of primary academic courses and from those who taught remedial courses for students needing additional help to pass the CAHSEE. Most classes, particularly primary courses, were offered during regular school hours and lasted a full school year. Remedial courses were more likely than primary courses to be held at nontraditional times and last for a shorter period of time.

When teachers were asked what factors limited course effectiveness, they indicated that low student motivation, a lack of prerequisite knowledge, poor attendance, and behavior problems were the leading limitations to course effectiveness.

The majority of principals reported their schools offered CAHSEE intervention or remediation courses. In most of these cases, the CAHSEE intervention or remediation courses were offered to grade 11 and 12 students and sometimes to grade 10 students. Approximately three-quarters of responding principals reported their district was effective or better at helping at-risk students to improve their CAHSEE scores. About two-thirds of the principals indicated the intervention or remediation courses provided at their schools had at least a moderate impact on preventing students from dropping out of school.

The most common suggestion provided by teachers of SWD and EL students for improving students' pass rates was to have more instructional materials available. Several EL teachers noted their textbooks needed to be more aligned with the CAHSEE standards and more relevant to high school EL students. Some SWD teachers commented on the need for more interesting materials at students' reading level.

Curricular Coordination

Approximately one-third of the principals reported their schools had no system developed to coordinate coverage of the California academic content standards associated with the CAHSEE among the elementary, middle, and high schools. However, about one-quarter reported their schools' systems were fully developed to coordinate between the middle and high schools. Slightly more than one-third of the principals reported their schools' systems were fully developed to coordinate between special education and general education and between English language development and general education. The majority of ELA and math teachers reported collaborating with other teachers by sharing ideas about teaching strategies, aligning instruction across courses, assessing individual student needs, and planning coverage of CAHSEE standards.

Use of Assessment Data

The majority of principals indicated their schools used a district-based tracking system. Principals in 2005 also reported district-based systems to be the most frequently used method to monitor and track student progress.

Teachers were asked how frequently they used a variety of assessments. ELA teachers reported using most frequently on-demand writing assessments and assessments they created themselves. Math teachers reported using most frequently the assessments they created themselves and assessments created by other teachers. Math teachers also tended to use released test items fairly frequently. Teachers of EL and SWD reported using assessments they created themselves. The teachers of EL students also reported using on-demand writing fairly frequently while the teachers of SWD used released test items fairly frequently. Many teachers were unsure how many of their students had achieved at least *basic* on last year's STAR CST. More teachers of SWD and EL students reported that they had no students or only a few students who had achieved at the basic level compared to ELA or math teachers.

Principals, department heads, and teachers were asked about the extent to which CAHSEE results were used to make decisions about changes in their schools' instruction and assessment as well as overall school improvement. More than two-thirds of the responding sample reported using the CAHSEE to make changes in the schools' instruction and assessment, and to make overall improvements to the school.

Trends in Other Outcomes

We examined trends in other academic indicators to see if there might be changes that could be associated with the implementation of the CAHSEE requirement, beginning with the Class of 2006. Details of the indicators analyzed and findings from these analyses are reported in Chapter 9 and summarized here.

Graduation and Dropout Rates

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. Answering this seemingly straightforward question demands a multifaceted answer. California made important improvements in its student-level data systems, facilitating more accurate dropout tallies beginning in 2007. Therefore we report here trends from 2007 to 2008; the reader is referred to previous reports in this evaluation series for earlier trends. We found that official dropout rate calculations indicated that both single-year and 4-year dropout rates decreased between 2007 and 2008, overall and for all ethnic categories. However, both dropout metrics revealed that African American students dropped out at a substantially higher rate than every other group, including disadvantaged groups such as EL and SWDs.

As a second look at students leaving high school prematurely, we investigated grade-to-grade enrollment trends. While this measure does not directly account for mobility in and out of the state, substantial changes in enrollment declines (drop-off rates) can be interpreted as an indirect indicator of dropout rates. Enrollment patterns indicated that the drop-off rates of sophomores increased in Fall 2009 while the drop-off rate of juniors and seniors declined. Drop-off rates for juniors and seniors remained substantially lower than the corresponding rates before the CAHSEE requirement was implemented.

High school graduation rates can also be measured in multiple ways. We examined two measures: the number of graduates as a percentage of Grade 9 enrollment 4 years earlier, and the graduation rate as measured by ESEA requirements. The rate as calculated under the ESEA requirements is based upon the number of graduates in a given year and the number of dropouts in the relevant Grade 9 through Grade 12 years. We found that the graduation rate as a percentage of ninth graders increased slightly in 2007 and 2008 while the ESEA rate merely slowed its decline. Just over two-thirds (68.5%) of students who entered ninth grade in the fall of 2004 graduated 4 years later.

Review of disaggregated ninth-grade-to-graduation rates revealed that only the African American graduation rate declined in 2008 from its 2007 level, widening the gap with other racial/ethnic groups. Graduation rates varied widely, from 54.6% among African American students to 92% for Asian students.

College Preparation

Participation in the SAT college entrance examination decreased slightly in the 2007–08 school year. Mean SAT scores increased, but the percentage of students earning a combined score of 1500 or better declined slightly. Both participation and success on the ACT—which had only about a fifth of the participation among California students that the SAT program did—increased.

One-third of Class of 2008 graduates completed the A–G courses required by the University of California and California State University systems. Rates varied widely among racial/ethnic groups. Participation in Advanced Placement exams increased in 2008, but measures of success on the AP yielded mixed trends.

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. The paths of students who do continue should be studied to identify programs that help them succeed.

Another key finding from this year's analyses is that a high proportion of the students who score low on seventh grade assessments will need additional help to meet the CAHSEE requirement. This leads to our second recommendation:

Recommendation 2: New interventions should be targeted at earlier grades, using test scores to identify students who have fallen behind their classmates and are at risk of failing to meet the CAHSEE requirement.

California's current fiscal crisis raises concerns about continued funding for CAHSEE remediation efforts at any level. Increased flexibility in the use of funds previously targeted for remediation may reduce focus on helping students master the skills required to pass the CAHSEE. It may be useful for the Department to monitor district remediation efforts to ensure that overall efforts are not diminished as well as to identify uses of remediation funds that are particularly effective in helping students pass the CAHSEE, particularly those students who fall behind their classmates at earlier grades.

An important finding from our instruction study was the significant relationship of teacher quality to student outcomes for both ELA and mathematics. We found that years of teacher experience was related to student performance on the CAHSEE ELA and math teaching credentials were related to higher CAHSEE math passing rates. This leads to our third recommendation:

Recommendation 3: In these tight financial times, districts may need particular help and direction to attract and retain teachers who are experienced and well qualified in the subjects that they teach. District and school efforts to increase coordination across grade levels and between general and special instructional programs should be encouraged and supported.

Students with disabilities continue to have greater difficulties meeting the CAHSEE requirement than their classmates. Our fourth recommendation is:

Recommendation 4: 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.

Findings from our analyses continue to show a close relationship between participation in the general curriculum and success in meeting the CAHSEE requirement. State efforts are currently focused on finding different ways for students with disabilities to demonstrate what they know and can do, but it is also very important to continue efforts to improve the effectiveness of programs to help them develop these skills in the first place. The current suspension of the CAHSEE requirement for students with disabilities could lead to reduced efforts to help and encourage students with disabilities to master these critical skills.

Our analysis reinforces the importance of recognizing the diverse needs of students with disabilities and points out how unlikely it is that one solution will be effective for all students. It is important to evaluate the progress of all students, even

those not yet able to pass the CAHSEE. The California Alternate Performance Assessment (CAPA) provides measures of progress for students not able to take the regular assessments; CAPA results should be used to evaluate the effectiveness of programs to help these students as well.

English learners also have more difficulty meeting the CAHSEE requirement than their classmates. Our fifth recommendation is:

Recommendation 5: 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.

The population of English learners is also quite diverse, with different ethnic and cultural backgrounds and different instructional needs. Many students who do not begin to learn English until high school simply need an additional year or two to master English as well as the skills assessed by the CAHSEE. Other English learners, however, have been in U.S. schools for a longer period and have still not achieved English proficiency. Additional study is needed to identify effective strategies for helping this latter group of English learners.

Some recent research suggests the importance of psychological as well as academic preparation for the CAHSEE. Students must believe that, with appropriate effort, they can master the required skills and pass the CAHSEE. It is important to eliminate any possible factors, such as “stereotype threat,” identified by some researchers as detrimentally affecting student success. In addition to ensuring “Yes, we can” beliefs, schools need to help some students overcome test anxieties and to cope with initial failures to pass the requirement. This leads to our sixth recommendation:

Recommendation 6: The state and districts need to support additional study of non-academic factors that may limit some student’s ability to meet the CAHSEE requirement. Procedures that are effective in overcoming psychological barriers should be identified and disseminated.

Low-income and minority students also have greater difficulty than their classmates in passing the CAHSEE. In addition, dropout rates are higher for these categories of students, leading to a greater proportion not receiving a high school diploma. Failure to receive a diploma has significant societal costs as well as costs to the individual students. Our seventh recommendation is:

Recommendation 7: California schools and districts should find ways to increase graduation rates for low-income and minority students.

Reducing the achievement gap has been a high priority for the Department under Superintendent O’Connell. It will take time, however, before efforts at earlier grades

lead to reduced gaps for students entering high school. Again, with the fiscal crisis there is a concern that efforts to reduce achievement gaps and attain equity in graduation rates may be diluted.

Finally, it has been 10 years since the content framework for the CAHSEE was adopted. The State Board of Education indicated its intention to increase the rigor of the requirement over time. Yet 5 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 both the ELA and mathematics portions of the CAHSEE indicates preparation for life after high school. More generally, our final recommendation for this year is:

Recommendation 8: The State Board of Education should initiate a new review of the CAHSEE content requirements. The Board should 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.

The availability of longitudinal data, including data on students moving from high school to community or other colleges, will enable us to study the relationship between skills measured by the CAHSEE and subsequent indicators of success. Preparation to take credit-bearing college courses or succeed in rigorous technical training is essential, both for individual student success and also for maintaining the global competitiveness of our workforce.

INDEPENDENT EVALUATION OF THE CAHSEE: 2009 EVALUATION REPORT

Table of Contents

	<u>Page</u>
Executive Summary	i
Review of CAHSEE Test Quality	i
Results From 2008–09 CAHSEE Test Administrations.....	ii
Further Analyses of Class of 2008 Students Who Did Not Pass.....	iii
Further Analyses of Results for Students with Disabilities	v
Student Perspectives on the CAHSEE	vi
Impact of the CAHSEE Requirement on Instruction.....	viii
Trends in Other Outcomes.....	x
Recommendations	xi
Chapter 1: Introduction.....	1
High School Exit Examinations	1
Organization and Contents of 2009 Evaluation Report.....	2
Summary of Year 9 Evaluation Activities (September 2008)	3
Chapter 2: 2009 Review of CAHSEE Test Quality.....	7
Alignment of CAHSEE Test Items to the CAHSEE Standards.....	8
Item Review Methods	8
Panelists	9
Materials	12
Procedures	12
Item Review Results.....	13
Summary and Recommendations on Test Content Alignment and Accessibility	19
Analyses of Test Scores	22
Equating the 2009 Test Forms	22
Consistency in Scoring the Essays.....	25
Test Administration	27
Chapter 3: Results from the 2008–09 Administrations	31
Introduction	31
Test Result Data	33
Computing Passing Rates	35
Test Results	37
Class of 2009 – This Year’s Seniors Struggle to Meet Graduation Deadline.....	37
Comparison of Results for this Year’s Seniors (Class of 2009) to Results for	
Last Year’s Seniors (Class of 2008).....	40
Class of 2010 — Improvement for Students Who Retested in 11th Grade.....	45
Initial Results for the Class of 2011	49
Analysis of Results by Mathematics Courses Taken	54
Class of 2006 – Some Students Continued to Try to Pass the CAHSEE	56

Table of Contents (Continued)

	<u>Page</u>
Class of 2007 – Many Students Continued to Try to Pass the CAHSEE in Their Sixth Year of High School	59
Class of 2008 – Many of Last Year’s Seniors Continued to Take the CAHSEE .	61
Summary of Test Results.....	64
Chapter 4: A Closer Look at Students Who Did Not Pass	67
Introduction	67
Exit Code Data	68
Focus on the Class of 2008.....	69
Pathways to Success.....	74
Summary of Findings.....	78
Exit Code Information	78
Predicting CAHSEE Success	79
Chapter 5: CAHSEE Results for Students with Disabilities.....	81
Introduction	81
Supplemental Data on Students Receiving Special Education Services	82
Who Took the CAHSEE	83
Passing Rates By Participation in Regular Classroom Instruction.....	84
Results for Students Receiving Special Education Services Who Retested in 11 th and 12 th Grade	86
Accommodations and Modifications.....	88
Summary of Findings.....	94
Chapter 6: Student Questionnaire Responses	95
Student Questionnaire Respondents	95
Comparisons on Student Perspective.....	96
Findings from 2009 10 th Grade Student Responses	96
Test Preparation	96
Importance of the Tests.....	100
Graduation Expectations and Post-High School Plans.....	102
Test Performance and Influencing Factors.....	110
Content and Instruction Coverage.....	112
Efforts Put Into the CAHSEE	118
Comparisons of 10 th Grade Student Responses in 2009 by Demographic Characteristics	122
Summary of Findings.....	133
Comparisons of 10 th Grade Students’ Responses 2005–2009.....	133
Comparisons of 10 th Grade Students’ Responses in 2009 by Whether They Passed the Tests	133
Differences in 10 th Grade Students’ Responses in 2009 by Key Demographic Characteristics	134
Overall Summary.....	135

Table of Contents (Continued)

	<u>Page</u>
Chapter 7: Evidence of the Effectiveness of Instruction for the Class of 2010	137
Introduction	137
Evidence from Surveys	138
Instruments	138
Survey Response Sample	138
Schools.....	139
Combining Survey Data with School Characteristics.....	140
Factors Related to the Effectiveness of Current Instruction	141
Principal Experience.....	141
Teacher Experience, Credentials, and Education.....	141
Information about Specific Courses.....	147
Course Timing and Duration.....	150
Course Materials	154
Assessment.....	156
Instructional Activities	159
Student Populations within Courses	163
Student Characteristics	165
Factors Related to Test Score Performance	169
Combining Survey Data With School-level CAHSEE Achievement Characteristics	169
Relationship of Survey Responses to Test Score Gains.....	172
Teacher Qualification and CAHSEE Performance.....	172
Summary of Findings.....	176
Principals.....	176
Teachers	176
Courses	177
Students	177
 Chapter 8: Impact of the CAHSEE on Instruction, Remediation, and Professional Development	 179
Introduction	179
Organization of Chapter.....	179
School and District-Wide CAHSEE Related Instruction and Assessment Practices	180
Integration of California Academic Content Standards Associated with the CAHSEE	180
CAHSEE Instructional Funding.....	186
CAHSEE Intervention and Remediation Courses.....	188
Perceived Effects of the CAHSEE Requirement.....	192
CAHSEE Instruction	193
Impact of the CAHSEE Requirement on Professional Development.....	197
Opinions About Implementation and Effect of the CAHSEE Requirement.....	200

Table of Contents (Continued)

	<u>Page</u>
Consequences, Counseling, and Impact of Intervention and Remediation Courses.....	200
EL and SWD Teacher Opinions	201
Additional Comments from Principals.....	204
Summary Findings.....	205
Chapter 9: Trends in Educational Achievement and Persistence During the CAHSEE Era	209
Introduction	209
Students Who Leave High School Prematurely	209
Dropout Rates	209
Enrollment Trends	213
Students Who Leave High School Prematurely: Summary	217
Graduation Rates.....	217
Graduation Rates: Summary	220
College Preparation	220
College Preparation Course-Taking	220
College Entrance Examination Participation and Performance	221
AP Test Achievement	223
College Preparation: Summary.....	225
A Note on Data Revisions.....	226
Summary Findings.....	227
Chapter 10: Findings and Recommendations	229
Background.....	229
Key Findings	229
Test Quality (Chapter 2)	229
Test Results (Chapter 3)	230
Further Analyses of Class of 2008 Students Who Did Not Pass (Chapter 4) ...	231
Further Analyses of Results for Students with Disabilities (Chapter 5).....	233
Student Questionnaire Responses (Chapter 6).....	234
Results from the Instruction Survey (Chapters 7 and 8).....	236
Trends in Other Outcomes (Chapter 9)	240
Recommendations.....	242
References.....	247

List of Tables

	<u>Page</u>
Table 2.1. List of Considerations for Universally Designed Assessments (NCEO)	9
Table 2.2. Professional and Demographic Characteristics of CAHSEE Panelists.....	11
Table 2.3. Characteristics of ELA Items on Reviewed 2009 CAHSEE Test Forms.....	12
Table 2.4. Inter-Rater Agreement on Content Assessed by ELA Items.....	14
Table 2.5. Percent Agreement Between Panelists and ETS on Target Content for Operational Items	14
Table 2.6. Mean Number of Items With Discrepant DOK Ratings Compared to ETS ...	16
Table 2.7. Results on Webb Alignment Indicators for ELA per Strand	17
Table 2.8. Percentage of ELA Operational Items Rated as Highly to Fully Aligned	18
Table 2.9. Percent of ELA Operational Items Rated as Good to Exceptional Quality ...	19
Table 2.10. Comparison of Alignment Outcomes for 2008 and 2009 CAHSEE Alignment Reviews by Content Strand	20
Table 2.11. Summary Alignment Conclusions for 2009 CAHSEE Alignment Review for English-language arts.....	21
Table 2.12a. Raw-to-Scale Score Conversions for the 2008–09 ELA Tests	23
Table 2.12b. Raw-to-Scale Score Conversions for the 2008–09 Mathematics Tests....	24
Table 2.13. Scoring Consistency for Student Essays.....	26
Table 2.14. Percentage of 10 th Grade Essays Assigned Each Score Level by Each Rater in the February Through May 2008 Administrations	26
Table 2.15. Percentage of 10 th Grade Essays Assigned Each Score Level by Each Rater in the February Through May 2009 Administrations	27
Table 2.16. Number of Students Scheduled Versus Present for Repeat of ELA and Math Test	27
Table 3.1. Estimated Number of Students Participating in 2008–09 CAHSEE Administrations and Number With Matching Prior Year Data by Grade	34
Table 3.2. Number of 2008-09 Examinees (Excluding Blank Answer Documents) Matched to Prior-Year Records by Current and Prior High School Class.....	35
Table 3.3. Tenth Grade Enrollment Estimates from California Basic Education Data System (CBEDS), STAR, and CAHSEE*	36
Table 3.4. Estimated Number and Percentage of Students in the Class of 2009 ¹ Passing Both Parts of the CAHSEE Through May 2009	38
Table 3.5. Estimated Number and Percentage of Students in the Class of 2009 ¹ Passing the CAHSEE ELA Test Through May 2009	39
Table 3.6. Estimated Number and Percentage of Students in the Class of 2009 ¹ Passing the CAHSEE Mathematics Test Through May 2009.....	40
Table 3.7. Estimated Percentage of Students in the Classes of 2008 and 2009 ¹ Passing Both CAHSEE Tests Through May 2009 ¹	41
Table 3.8. Estimated Number and Percentage of Students in the Class of 2009 ¹ Passing Both CAHSEE Tests Through May 2009, Excluding Students in Special Education.....	42
Table 3.9. Estimated Number and Percentage of Students in the Class of 2009 ¹ Passing the CAHSEE ELA Test Through May 2009, Excluding Students in Special Education.....	43

List of Tables (Continued)

	<u>Page</u>
Table 3.10. Estimated Number and Percentage of Students in the Class of 2009 ¹ Passing the CAHSEE Mathematics Test Through May 2009, Excluding Students in Special Education.....	44
Table 3.11. Comparison of Estimated Passing Rates for the Classes of 2006, 2007, 2008, and 2009 Through May of their Senior Year.....	45
Table 3.12. Estimated Number and Percentage of Students in the Class of 2010 ¹ Passing Both CAHSEE Tests Through 11 th Grade.....	46
Table 3.13. Estimated Number and Percentage of Students in the Class of 2010 ¹ Passing the CAHSEE ELA Test Through May 2009.....	47
Table 3.14. Estimated Number and Percentage of Students in the Class of 2010 ¹ Passing the CAHSEE Mathematics Test Through May 2009.....	48
Table 3.15. Comparison of CAHSEE Passing Rates for the Classes of 2009 and 2010 at the End of 11th Grade.....	49
Table 3.16. Percentage of 10 th Grade Students Passing Both Parts of the CAHSEE by Demographic Group.....	50
Table 3.17. Tenth Grade Student Passing Rates by Demographic Group—English-Language Arts.....	51
Table 3.18. Tenth Grade Student Passing Rates by Demographic Group—Mathematics.....	52
Table 3.19. Distribution of 10 th Grade Students by Highest Math Course Taken.....	54
Table 3.20. Trends in Math Courses Taken by Demographic Group.....	55
Table 3.21. Tenth Grade Mathematics Passing Rates by Class and Highest Math Course Taken.....	56
Table 3.22. Estimated Number and Percentage of Students in the Class of 2006 Passing Both Parts of the CAHSEE Through May 2009.....	57
Table 3.23. Estimated Number and Percentage of Students in the Class of 2006 Passing the CAHSEE ELA Test Through May 2009.....	58
Table 3.24. Estimated Number and Percentage of Students in the Class of 2006 Passing the CAHSEE Mathematics Test Through May 2009.....	58
Table 3.25. Estimated Number and Percentage of Students in the Class of 2007 Passing Both Parts of the CAHSEE Through May 2009.....	59
Table 3.26. Estimated Number and Percentage of Students in the Class of 2007 Passing the CAHSEE ELA Test Through May 2009.....	60
Table 3.27. Estimated Number and Percentage of Students in the Class of 2007 Passing the CAHSEE Mathematics Test Through May 2009.....	60
Table 3.28. Estimated Number and Percentage of Students in the Class of 2008 ¹ Passing Both CAHSEE Tests through May 2009.....	62
Table 3.29. Estimated Number and Percentage of Students in the Class of 2008 ¹ Passing the CAHSEE ELA Test Through May 2009.....	63
Table 3.30. Estimated Number and Percentage of Students in the Class of 2008 ¹ Passing the CAHSEE Mathematics Test Through May 2009.....	64

List of Tables (Continued)

	<u>Page</u>
Table 4.1. Class of 2008 Students by Exit Code Year.....	69
Table 4.2. Distribution of Exit Codes for Class of 2008 Students by Demographic Group	71
Table 4.3. Percentage of Class of 2008 Students Meeting the CAHSEE Requirement by Exit Code and Group	72
Table 4.4. Percentage of Class of 2008 Students Who Continued to Take the CAHSEE in 2009, by Exit Code and Demographic Group.....	73
Table 4.5. Number of Students and CAHSEE Passing and Continuation Rates by Exit Code and Exit Code Year	74
Table 4.6. Class of 2008 Students Matched to 2003 STAR CST Test Records.....	75
Table 4.7. Probability of Passing CAHSEE by 7th Grade STAR CST Score Levels	76
Table 4.8. Percentage of Students at Each 7th Grade STAR CST Score Level for Different Demographic Groups	77
Table 4.9. Probability of Passing CAHSEE by 7th Grade CST STAR Score Levels for Different Demographic Groups	77
Table 5.1. Number of Students in the Matched CAHSEE-CASEMIS Files by Grade on Each File	83
Table 5.2. Percentage of 10 th Grade Students with Disabilities Who Took and Passed the CAHSEE by CAHSEE Participation Code	84
Table 5.3. Number of 10 th Grade Students and Percentage Passing by Time Away From Regular Instruction (2006 and 2009 Students with CASEMIS Data)	85
Table 5.4. Primary Disability Codes for 10 th Grade Students Receiving Special Education Services With CAHSEE Success Information.....	86
Table 5.5. Number of 2006 and 2009 11 th Grade Students, Average Prior Year Scores, and Average Score Gain by Time in Regular Instruction.....	87
Table 5.6. Number of 2006 and 2009 12 th Grade Students, Average Prior Year Scores, and Average Score Gain by Time in Regular Instruction.....	88
Table 5.7. Percentage of Students With Disabilities Receiving Specific ELA Accommodations and Modifications in 2006 and 2009 by Grade	89
Table 5.8. Percentage of Students With Disabilities Receiving Specific Math Accommodations and Modifications in 2006 and 2009 by Grade	90
Table 5.9. Percentage of Students With Disabilities Scoring 350 or More in 2006 and 2009 by ELA Accommodation or Modification	91
Table 5.10. Percentage of Students with Disabilities Scoring 350 or More in 2006 and 2009 by Mathematics Accommodation or Modification.....	92
Table 5.11. Number of Matched 10 th Grade Special Education Students in 2006 and 2009 by Class Participation and Testing Condition	93
Table 5.12. Percentage of 10 th Grade Special Education Students Scoring 350 or More in 2006 and 2009 by Class Participation and Testing Condition.....	93

List of Tables (Continued)

	<u>Page</u>
Table 6.1. Demographic Characteristics of 2009 Student Questionnaire Respondents (10 th Graders in 2009)	95
Table 6.2. Question 1: How Did You Prepare for This Test? (Mark All That Apply) (10 th Graders' Responses From 2005–2009)	97
Table 6.3. Question 1: How Did You Prepare for This Test (Mark All That Apply) (Percentages of 10 th Graders' Responses by Pass or Not Pass)	98
Table 6.4. Question 2: What Materials Did You Use to Prepare for This Test? (Mark All That Apply) (10 th Graders' Responses, 2005–2009)	99
Table 6.5. Question 2: What Materials Did You Use to Prepare for This Test? (Mark All That Apply) (Percentages of 10 th Graders' Responses by Pass or Not Pass)	100
Table 6.6. Question 3: How Important Is This Test for You? (10 th Graders' Responses, 2005–2009)	101
Table 6.7. Question 3: How Important Is This Test for You? (Percentages of 10 th Graders' Responses by Pass or Not Pass)	101
Table 6.8. Question 4: Do You Think You Will Receive a High School Diploma? (10 th Graders' Responses in 2009)	102
Table 6.9. Question 4: Do You Think You Will Receive a High School Diploma? (Percentages of 10 th Graders' Responses by Pass or Not Pass)	103
Table 6.10. Perceived Test Importance by Whether Students Believe They Will Earn a High School Diploma (10 th Graders' Responses to Questions 3 and 4 in 2009)	104
Table 6.11. Question 5: What Might Prevent You From Receiving a High School Diploma? (Mark All That Apply) (10 th Graders' Responses From 2005–2009)*	105
Table 6.12. Question 6: What Might Prevent You From Receiving a High School Diploma? (Mark All That Apply) (Percentages of 10 th Graders' Responses by Pass or Not Pass).....	106
Table 6.13. Question 6: What Do You Think You Will Do After High School? (10 th Graders' Responses From 2005–2009)	107
Table 6.14. Question 6: What Do You Think You Will Do After High School? (Percentages of 10 th Graders' Responses by Pass or Not Pass)	108
Table 6.15. Question 7: How Sure Are You About What You Will Do After High School? (10 th Graders' Responses 2005–2009).....	109
Table 6.16. Question 7: How Sure Are You About What You Will Do After High School? (Percentages of 10 th Graders' Responses by Pass or Not Pass)	109
Table 6.17. Question 8: The Main Reasons I Did Not Do as Well on This Test as I Could Have (Mark All That Apply) (10 th Graders' Responses From 2005–2009)	110
Table 6.18. 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 10 th Graders' Responses by Pass or Not Pass)	111
Table 6.19. Question 9: Were the Topics on the Test Covered in Courses You Have Taken? (10 th Graders' Responses, 2005–2009).....	112

List of Tables (Continued)

	<u>Page</u>
Table 6.20. Question 9: Were the Topics on the Test Covered in Courses You Have Taken? (Percentages of 10 th Graders’ Responses by Pass or Not Pass)	113
Table 6.21. Question 10: Were Any of the Questions on the Test Different From the Types of Questions or Answer Options You Have Encountered in Class? (10 th Graders’ Responses 2005-2009).....	113
Table 6.22. 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 10 th Graders’ Responses by Pass or Not Pass)	114
Table 6.23. Question 11: Were the Questions on This Test More Difficult Than Questions You Were Given in Classroom Tests or Homework Assignments? (10 th Graders’ Responses, 2005–2009).....	115
Table 6.24. Question 11: Were the Questions on This Test More Difficult Than Questions You Were Given in Classroom Tests or Homework Assignments? (Percentages of 10 th Graders’ Responses by Pass or Not Pass)	116
Table 6.25. Question 12: If Some Topics on the Test Were Difficult for You, Was It Because: (10 th Graders’ Responses, 2005–2009).....	117
Table 6.26. Question 12: If Some Topics on the Test Were Difficult for You, Was It Because: (Percentages of 10 th Graders’ Responses by Pass or Not Pass)	118
Table 6.27. 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) (10 th Graders’ Responses, 2005–2009)	119
Table 6.28. 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 10 th Graders’ Responses by Pass or Not Pass)..	120
Table 6.29. Question 14: If You Do Not Pass the CAHSEE in This Administration, What Are You Most Likely to Do? (Mark the Most Likely Option) (10 th Graders’ Responses, 2005–2009)	121
Table 6.30. 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 10 th Graders’ Responses by Pass or Not Pass)	122
Table 6.31. Percentages of 10 th Grade Students’ Responses in 2009 By Gender, Ethnicity, Disability, and English Learner Status – After Taking CAHSEE ELA Exam	125
Table 6.32. Percentages of 10 th Grade Students’ Responses in 2009 By Gender, Ethnicity, Disability, and English Learner Status – After Taking CAHSEE Math Exam	128
Table 6.33. Perceived Test Importance by Whether Students Believe They Will Earn a High School Diploma After Taking the ELA Exam, by Demographic Group (10 th Graders’ Responses to Questions 3 and 4 in 2009)	131
Table 6.34. Perceived Test Importance by Whether Students Believe They Will Earn a High School Diploma After Taking the Math Exam, by Demographic Group (10 th Graders’ Responses to Questions 3 and 4 in 2009)	132

List of Tables (Continued)

	<u>Page</u>
Table 7.1. Survey Response Rates.....	138
Table 7.2. Comparison of 10 th Grade Students in Responding Schools to 10 th Grade Students in All Public California High Schools.....	139
Table 7.3. Empirical Classifications of High Schools Into Categories: Demographic Distributions ...	140
Table 7.4. Percentage of Principals Familiar With California’s ELA and Math Content Standards (P1, P3)	141
Table 7.5. Teacher Self-Reported Highest Level of Education, by Course Type (TELA27, TMath27, TEL32, TSWD28, TELA1, TMath1, TEL4, TSWD4)	141
Table 7.6. Years of Teaching Experience by Course Type (TELA1, TMath1, TELA31, TMath31, TSWD4, TSWD31, TEL4, TEL36)	142
Table 7.7. Mean Years of Teaching Experience and Experience Teaching Course/Program, According to Teachers (TELA31, TMath31, TEL36, TSWD32)	142
Table 7.8. Years of Experience Teaching Students With Disabilities and English Learners, According to SWD and EL Teachers (TEL35, TSWD31).....	143
Table 7.9. Percentage of High Schools With ELA Teachers With 5 or More Years of Teaching Experience, According to ELA Department Heads (DHELA6)	143
Table 7.10. Percentage of High Schools With Math Teachers With 5 or More Years of Teaching Experience, According to Math Department Heads (DHMath6).....	143
Table 7.11. Percentage of High Schools With Teachers Experienced Teaching ELA and Math Content Standards Assessed by CAHSEE, According to High School Department Heads (DHELA2, DHMath2)	144
Table 7.12. Teacher Experience Teaching California’s ELA/Math Standards in Schools With High and Not-High Concentrations of At-risk Students, According to High School Department Heads (DHELA2, DHMath2)	145
Table 7.13. ELA and Math Teacher Familiarity With California Content Standards in Schools With High and Not-High Concentrations of At-risk Students, According to High School Department Heads (DHELA2, DHMath2)	146
Table 7.14. Mean Number of Full-Time Teachers per ELA and Math Department, According to Department Head (DHELA1, DHMath1)	146
Table 7.15. Mean Number of Sections (Class Periods) of Reported Course Taught per ELA and Math Teacher, According to ELA and Math Teachers (TELA5, TMath5)	146
Table 7.16. Percentage of Teachers and Number of Sections (Class Periods) of Reported Course Taught, According to ELA and Math Teachers.....	147
Table 7.17. Highest Level of Education, According to Teachers (TELA27, TMath27, TSWD32, TEL28)	147
Table 7.18. Courses ELA Teachers Taught and on Which They Based Survey Responses	148
Table 7.19. Courses Math Teachers Taught and on Which They Based Survey Responses	149
Table 7.20. Distribution of Courses by Subject, Type, and Students Served (TELA1, TMath1, TELA7, TMath7, TELA8, TMath8)	150

List of Tables (Continued)

	<u>Page</u>
Table 7.21. Number of 2009 High School Course Offerings by When Course Was Offered, According to ELA and Math Teachers (TELA3, TMath3, TEL3, TSWD3; TELA1, TMath1, TEL4, TSWD4)	151
Table 7.22. Before/After School and Summer School Offerings in Schools With High and Not High Concentrations of At-risk Students in 2009, According to Teachers (TELA3, TMath3, TEL3, TSWD3, TELA1, TMath1, TEL4, TSWD4)	152
Table 7.23. Before/After School and Summer School Offerings in Schools With High and Not High Concentrations of At-risk Students in 2005, According to Teachers	153
Table 7.24. Duration of Courses/Programs, by Course Type (TSWD2, TEL2, TELA2, TMath2, TELA1, TMath1, TEL4, TSWD4)	153
Table 7.25. Percentage of Teachers Who Used a Primary Text	154
(TELA11, TMath11, TSWD20, TEL24).....	154
Table 7.26. Length of Time Teachers Using a Primary Textbook Did So (TELA11C, TMath11C, TSWD20C, TEL24C)	154
Table 7.27. Supplemental Material Used, by Teacher Type (TEL25, TELA12, TMath12, TSWD21).....	155
Table 7.28. Types of Assessments Used by ELA Teachers (TELA17)	156
Table 7.29. Types of Assessments Used by Math Teachers (TMath17)	156
Table 7.30. Types of Assessments Used by EL Teachers (TEL26).....	157
Table 7.31. Types of Assessments Used by SWD Teachers (TSWD22)	157
Table 7.32. Teachers' Use of Assessment Results in Percentages (TEL27, TELA18, TMath18, TSWD23).....	158
Table 7.33. Service Model Used to Deliver Courses/Instructional Programs, According to SWD Teachers (TSWD7)	158
Table 7.34. Percentage of Instruction in EL or SWD Courses/Instructional Programs Provided by a General Education Teacher, According to EL and SWD Teachers (TEL5, TSWD5)	159
Table 7.35. Use of Instructional Activities in the Classroom, According to ELA Teachers (TELA16)	159
Table 7.36. Use of Instructional Activities in the Classroom, According to Math Teachers (TMath22).....	160
Table 7.37. Percentage of High Schools With ELA and Math Teachers Who Worked With an Appropriate Credential, According to Department Heads (DHELA3, DHMath3)	160
Table 7.38. Percentage of High Schools With Intervention Programs Taught by Fully Credentialed ELA and Math Teachers, According to Department Heads (DHELA4, DHMath4)	161
Table 7.39. Rates of High School Teaching Credentials, According to Teachers (TELA28, TMath28, TSWD29, TEL33).....	162
Table 7.40. Rates of Multiple and Single Subject Teaching Credentials, According to Teachers (TELA28, TMath28, TSWD29, TEL33)	162
Table 7.41. Major Field of Teaching Credentials, According to ELA or Math Teachers (TELA29, TMath29)	163

List of Tables (Continued)

	<u>Page</u>
Table 7.42. Percentage of Schools With ELA and Math Teachers Who Worked With Emergency Credentials or Worked as District Interns, According to Department Heads (DHELA5, DHMath5).....	163
Table 7.43. Grade Level for Majority of Students, by Course Type in 2009 (TELA4, TMath4, TEL8, TSWD10, TELA1, TMath1, TEL4, TSWD4)	164
Table 7.44. Number of Students Taught Across All Sections of Courses, According to ELA and Math Teachers (TELA6, TMATH6)	164
Table 7.45. Percentage of Students in 2009 Who Achieved at Least Basic on Previous Year’s STAR CST, by Type of Teacher (TELA10, TMath10, TSWD13, TEL11).	165
Table 7.46. Percentage of Students in 2005 Who Achieved at Least Basic on Previous Year’s STAR CST, by Type of Teacher.....	165
Table 7.47. Percentage of Students in Courses Who Were Classified as EL, Economically Disadvantaged, or Received Special Education Services (TELA7, TMath7, TSWD12, TELA9, TMath9, TELA8, TMath8).....	166
Table 7.48. Average Number of Years Students in EL Courses Spent in U.S. and Were Classified as EL, According to EL Teachers (TEL12)	167
Table 7.49. English Proficiency of Students in Courses/Instructional Programs, According to EL Teachers (TEL17)	167
Table 7.50. Proportion of Courses/Instructional Programs Taught in English, According to EL Teachers (TEL14)	168
Table 7.51. Percentage of Teachers Who Reported That Particular Factors Limited Student Performance to a Great Extent or More, by Course Type (TELA23, TMath23, TSWD24, TEL28)	168
Table 7.52. Empirical Classifications of High Schools Into Categories: CAHSEE ELA Performance	170
Table 7.53. Empirical Classifications of High Schools Into Categories: CAHSEE Math Performance	171
Table 7.54. Relationship of Teaching Experience to CAHSEE Performance of 2009 10 th Grade Students	173
Table 7.55. Relationship of Teaching Experience to 2009 11 th Grade CAHSEE Gain Scores	173
Table 7.56. Relationship of Teaching Credential to CAHSEE Performance of 2009 10 th Grade Students	174
Table 7.57. Relationship of Teaching Credential to 2009 11 th Grade CAHSEE Gain Scores	175
Table 7.58. Relationship of Principals’ Familiarity With Content Standards to Performance of 2009 10 th Grade Students	175
Table 7.59. Relationship of Principals’ Familiarity With Content Standards to 2009 11 th Grade CAHSEE Gain Scores	175
Table 8.1. Percentage of Principals Reporting Completion of Their School’s Integration of the California Content Standards Contained in the Blueprints Adopted for CAHSEE by Year (P2, P4)	181

List of Tables (Continued)

	<u>Page</u>
Table 8.2. Degree of CAHSEE Content Coverage in Schools With High Concentrations of At-risk Students as Reported for the 2005 and 2009 School Years (P2, P4)	182
Table 8.3. Level of Development of Systems at Schools to Coordinate Coverage of California Academic Content Standards Associated With the CAHSEE Between Entities, According to Principals	183
Table 8.4. Regular Articulation Meetings With Feeder Middle Schools	183
Table 8.5. Frequency of Collaboration Between Teachers of Alternative/ Intervention Courses (or Resource Teachers) and Students' Core Content Teachers (TEL6, TSD6)	184
Table 8.6. Ways in Which ELA and Mathematics Teachers Collaborated With Other Teachers (TELA19, TMath19)	185
Table 8.7. Percentage of Strands Covered in Course/Instructional Program as Part of California's Content Standards Associated With the CAHSEE, According to Teachers (TELA22, TMath22)	186
Table 8.8. Extent to Which Principals Were Informed About State Resources to Support the CAHSEE (P20)	187
Table 8.9. Applied for CII Funding for Students Who Had Not Yet Passed.....	187
Table 8.10. Average Instruction Hours Provided to Students of Schools Whose Principal Applied for CII Funds (P21)	187
Table 8.11. How Schools Ensure Delivery of Coherent CAHSEE Intervention Program, According to Responding Principals (P19)	188
Table 8.12. CAHSEE Intervention/Remediation Courses Offered, According to Principals (P13)	190
Table 8.13. Frequency of Principals Observing CAHSEE Intervention/Remediation Courses at Their Schools (P13B, P13C)	190
Table 8.14. Schools' Programs/Systems That Provide Additional Academic Support to EL Students, According to Principals (P16).....	191
Table 8.15. Schools' Programs/Systems That Provide Additional Academic Support to SWD, According to Principals (P15)	191
Table 8.16. Extent to Which Students Received Counseling About Options for Additional Remediation or Testing, According to Teachers and Principals (P18, TEL30, TELA26, TMath26, TSD26)	192
Table 8.17. Modes Used to Deliver CAHSEE Core Courses and CAHSEE Intervention Courses (P13A, 14)	192
Table 8.18. Importance of CAHSEE Preparation Relative to Other Instructional Goals, According to Teachers (TEL22, TELA20, TMath20, TSD18).....	193
Table 8.19. Extent to Which CAHSEE Is Used to Change School's Instruction (P8, DHELA12, DHMath12, TELA13, TMath13, TEL18, TSD14), Assessment (P9, DHELA13, DHMath13, TELA14, TMath14, TEL19, TSD15), and Overall Improvement (P10, DHELA14, DHMath14, TELA15, 2009TMath15, TEL20, TSD16)	194

List of Tables (Continued)

	<u>Page</u>
Table 8.20. Extent Increased Focus of Using CAHSEE-like Tasks (P11, DHELA15, DHMath15, TELA21, TMath21, TSD19, TEL23), Matching Content of Instruction and Content of CAHSEE (P11, DHELA15, DHMath15, TELA21, TMath21, TSD19, TEL23), and Covering Test-Taking Skills to Prepare Students for CAHSEE (P11, DHELA15, DHMath15, TELA21, TMath21, TSD19, TEL23) ...	196
Table 8.21. Percentage of Schools' Administrators Who Participated in AB 75 or AB 430 Professional Development Institutes, According to Principals (P22)	197
Table 8.22. Percentage of Schools' ELA and Math Teachers Who Participated in Content-Related Professional Development Designed to Help Teach California Content Standards Associated with CAHSEE (DHELA 8, DHMath 8).....	198
Table 8.23. Areas in Which Teachers Received Professional Development (TELA32, TMath32, TEL37, TSD33)	199
Table 8.24. Percentage of School's ELA/Math Teachers Who Participated in SB 472 (AB 466) ELA/Math Professional Development Institute, According to Department Heads (DHELA9, DHMath9).....	199
Table 8.25. Training Offered At School for Teachers to Administer CAHSEE With Accommodations and Modifications, According to Principals (P23)	200
Table 8.26. Extent to Which Students in This Course/Instructional Program Understood Consequences of Not Passing CAHSEE, According to Teachers and Principals (P17, TELA25, TMath25, TEL29, TSD25)	200
Table 8.27. Effectiveness of District in Improving CAHSEE Scores for At-Risk Students (P12).....	201
Table 8.28. Impact of CAHSEE Intervention and Remediation Courses on Preventing Students From Dropping Out of School, According to Principals (P13D)	201
Table 8.29. Common Themes in SWD and EL Teachers' Responses (TEL31, TSWD27)	202
Table 8.30. Other Themes in SWD and EL Teachers' Responses (TEL31, TSD27) ..	203
Table 8.31. Extent to Which SWD and EL Students Are Prepared to Pass CAHSEE (TEL9, TSD11)	204
Table 8.32. Summary of Principals' Additional Comments (P24)	205
Table 9.1. CDE Single-Year Dropout Rates by Demographic Group	210
Table 9.2. CDE Single-Year Dropout Counts by Grade Level for Classes of 2007 & 2008	211
Table 9.3. CDE 4-Year Dropout Rates by Demographic Group	212
Table 9.4. Enrollment Declines From 9 th to 10 th Grade by High School Class	214
Table 9.5. Enrollment Declines From 10 th Grade to 11 th Grade	215
Table 9.6. Enrollment Declines From 11 th Grade to 12 th Grade	216
Table 9.7. Ninth Grade to Graduation Rates by Race/Ethnicity	219
Table 9.8. Combined Dropout and Graduation Rates by Race/Ethnicity.....	219
Table 9.9. Trends in Percentages of Graduates Completing Minimum Coursework (A–G courses) for Entry into UC or CSU systems	221
Table 9.10. Changes in Dropout Rates Resulting from Data Corrections	226

List of Figures

	<u>Page</u>
Figure 3.1. Trends in 10th grade CAHSEE passing rates.	53
Figure 3.2. Trends in overall 10th grade passing rates for selected groups.	53
Figure 4.1. Class of 2008 CAHSEE passing rates by 2003 STAR CST score levels.	76
Figure 8.1. Systems used to monitor and report student proficiency levels on California academic content standards associated with CAHSEE, according to principals. (P5).....	185
Figure 9.1. Enrollment declines from 9 th to 10 th grade by high school class.....	214
Figure 9.2. Enrollment declines from 10 th to 11 th grade by high school class.....	215
Figure 9.3. Enrollment declines from 11 th to 12 th grade by high school class.....	216
Figure 9.4. Trends in two graduation rates.....	218
Figure 9.5. SAT and ACT participation rates and success rates over time.	222
Figure 9.6. SAT mean math, verbal, and writing scores over time.	223
Figure 9.7. ACT mean scores over time.....	223
Figure 9.8. AP participation rates over time.	224
Figure 9.9. AP pass rates over time (i.e., number of AP exam scores ≥ 3 as a percentage of student enrollment).....	225

INDEPENDENT EVALUATION OF THE CAHSEE: 2009 EVALUATION REPORT

Chapter 1: Introduction

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

High School Exit Examinations

The California state legislature enacted the requirement in 1999 that students pass a graduation examination 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 60850–60859). 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 to the Class of 2006.

The original legislation mandating the requirements for the graduation exam also specified an independent evaluation of the CAHSEE. The California Department of Education (CDE) awarded the evaluation contract to the Human Resources Research Organization (HumRRO). The original contract period operated from 1999 through 2004; a second contract was awarded to HumRRO to continue the evaluation through 2007, and a third contract was awarded to continue the evaluation through 2010.

HumRRO's efforts have focused on analyses of data from tryouts of test questions and from the annual administrations of the CAHSEE. Reports have included analysis of trends in pupil performance, retention, graduation, dropout, and college attendance 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 2008–09 evaluation. 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; Becker, Wise, & Watters, 2008).

Organization and Contents of 2009 Evaluation Report

The 2009 Evaluation Report covers activities performed in the independent evaluation through September 30, 2009.

Chapter 2 presents analyses of ELA 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 2009. The review involved two related activities to monitor the quality and accessibility of the CAHSEE: an alignment review and a limited 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, 2005, and 2008 to meet No Child Left Behind (ESEA) requirements.

Chapter 3 analyzes the 2008–09 CAHSEE administrations, reporting results for the 12th graders in the Class of 2009 and comparing their passing rates to those of 12th graders in the classes of 2006, 2007, and 2008. In addition, we report passing rates for 10th graders in the Class of 2011 in comparison to passing rates for 10th graders in previous classes, and passing rates and score gains for 11th graders in the Class of 2010 who did not meet the CAHSEE requirements during their 10th grade year. This chapter also analyzes test modifications and accommodations and such factors as the relationship between mathematics courses taken and success on the CAHSEE mathematics test.

Chapter 4 provides more detailed analyses of students who failed to graduate because of the CAHSEE requirement. New data reporting requirements make it possible to distinguish between students who did not graduate because of the CAHSEE requirement and students who did not graduate for other reasons. Chapter 4 includes descriptive analyses of Class of 2008 students who did not graduate on time. The chapter also looks back in time to examine and analyze the extent to which problems with the CAHSEE requirement can be predicted from much earlier scores on the California Standards Test.

Chapter 5 examines CAHSEE results for students with disabilities. This group of students faces unique challenges and opportunities, including specialized instruction, testing accommodations and modifications, and legislative changes over time regarding waivers and exemptions. This chapter attempts to illuminate progress and remaining impediments in meeting the needs of these students.

Chapter 6 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).

Chapters 7 and 8 describe the procedures and findings from an instruction study conducted in Spring 2009. The study included surveys of a representative sample of high school educators (i.e., principals, math and reading department heads, math and reading teachers, EL teachers, and special education teachers). Chapter 7 investigates evidence for the current effectiveness of instruction in preparing students to pass the CAHSEE. Findings are compared to results from instruction studies in 2003 and 2005 to assess changes in educational focus and approaches. Chapter 8 presents evidence for the impact of the CAHSEE requirement on school educational practices and classroom instructional strategies.

Chapter 9 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.

Finally, Chapter 10 presents our findings and recommendations based on the data analyses and results presented in previous chapters.

Summary of Year 9 Evaluation Activities (September 2008)

In this section, we summarize the findings and recommendations from our most recent (September 2008) report to provide a context for the current study. The reader is advised that the September 2008 report includes an Appendix with all findings and recommendations from the entire evaluation process. We reported key findings in several areas:

Test Quality

- There were modest improvements since our 2005 review 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.
- The accessibility of the test forms and questions for all students, according to principles of universal design, were found to be positive, with a few questions or suggestions for improvement of specific questions.

Passing Rates

- Many students who did not graduate in 4 years continued to take the CAHSEE.

- Passing rates for 12th graders were similar to the previous year, at about 90% for first-time seniors overall.
- Passing rates increased for 10th and 11th graders.

Student Questionnaire Responses for Census Administration of 10th Graders

- 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%, expected to graduate from high school, an increase of one percentage point from 2007. Nearly 95% 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% 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%.
- 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% for the ELA test and 92% for the mathematics test. Even among students who did not pass either part, 85% of ELA test takers and 94% 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% of ELA test takers said that they were working harder, but only 8% said they were getting help outside the classroom to meet the CAHSEE requirement. Among mathematics students, 46% responded they were working harder and 9% said they were getting outside help.

Student Questionnaire Responses for Class of 2008 12th Grade Students Who Did Not Pass the CAHSEE

- 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 who passed in 10th grade); the percentage thinking they would go to a community college rose from 23% to 44%.
- 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

- 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% to 82.5%), and another 3% in 2007, to 79.5%. 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.

The Year 9 evaluation report also included several 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 were not yet successful, a significant number were. This led 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.

We found that CAHSEE passing rates were increasing, but many students with disabilities and English learners were not meeting the CAHSEE requirement. Now that students with disabilities were no longer exempt from the CAHSEE requirement, consequences of their low passing rates 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 had difficulty passing the CAHSEE. These groups of students also had higher dropout rates, so a greater proportion of them did 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 was:

Recommendation 4: California schools need to find ways to increase graduation rates for low-income and minority students.

Finally, it was 8 years since the content framework (blueprints) for the CAHSEE was adopted. The State Board of Education indicated that they intended to increase the rigor of the requirement over time. We noted that 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. We commented that the Board might 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 in our 2008 report was:

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.

Chapter 2: 2009 Review of CAHSEE Test Quality

Leslie R. Taylor and Laress L. Wise

This chapter describes HumRRO's 2008–09 efforts to evaluate the quality of the CAHSEE test. The primary task involved an evaluation of the CAHSEE test items and forms for English-language arts (ELA) through a review of content alignment and accessibility. 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 alignment review of test forms investigated the match between the CAHSEE ELA test items and the CAHSEE content standards, as well as the degree of accessibility of these test items and format for various student populations. An alignment review serves as one form of evidence supporting the validity of the state assessment system. Content alignment results should demonstrate that the assessments (a) represent the full range of the content standards and (b) measure student knowledge in the same manner and at the same level of complexity as specified in the content standards. In addition, assessments must be accessible to the widest possible range of students for whom the test was designed. Accessibility falls under the domain of universal test design with the purpose of determining that test items are appropriate in format, scope, and content (e.g., unbiased language) for all student groups, such as English learners and students with disabilities.

CAHSEE items have been subjected to alignment and bias reviews as part of standard procedures imposed by the test vendor. However, CDE requested this item review to meet state and federal requirements related to the No Child Left Behind (ESEA) Act of 2001. This law calls for states to provide *independent* evidence of the validity of the assessments they use to calculate Adequate Yearly Progress (AYP). All states receiving Title I funds must present evidence from an external evaluator that they have established a fair and consistent assessment system based on rigorous standards, sufficient alignment between standards and assessments, and high-quality educational results.

HumRRO previously conducted item reviews of the CAHSEE for CDE in 2002, 2005, and 2008. In 2002, the development of substantial new CAHSEE test items in ELA and mathematics led to the need for the first alignment review. Subsequently, the CAHSEE test specifications underwent modest revision in 2004 when the exam was restarted for the Class of 2006. Thus, HumRRO conducted a second alignment review of CAHSEE test forms administered in 2004–05. HumRRO continues to perform yearly alignment reviews on portions of the CAHSEE to confirm ongoing quality.

Starting with the 2005 review, HumRRO applied the alignment method of Norman Webb (1997; 1999; 2005), and added an evaluation of universal design by asking the National Center on Educational Outcomes (NCEO) to provide their expertise on test accessibility. We applied similar methods in this 2009 review, although the focus

was limited to ELA and the universal design review was reduced in scope. Each of these methods, along with corresponding outcomes, will be summarized in this chapter.

Alignment of CAHSEE Test Items to the CAHSEE Standards

The alignment review was held April 14–15, 2009 in Sacramento, California. In this section of the report, we provide the details of the meeting, including: (a) the methods used, (b) characteristics of the teachers who served as panelists, and (c) the types of materials and procedures used to conduct the review.

Item Review Methods

We describe the two approaches to evaluating the content alignment and accessibility.

Content Alignment Method. The Webb Alignment method (2005) includes four major dimensions to evaluate content alignment. These alignment dimensions correspond with statistical procedures used to assess how well individual portions of the assessments match to state standards documents. Each dimension provides different information about the degree of alignment between the assessment and content standards; hence, all four of Webb's dimensions must be considered for a complete picture of alignment. The four alignment criteria are as follows:

1. *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.
2. *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% of the test items should match the DOK expected in the content standards.
3. *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% of the objectives must be matched to one or more items.
4. *Balance-of-knowledge 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 0–100) to indicate good coverage by the assessment.

These criteria serve as guidelines for determining extent of alignment, and they must be considered within the context of available state documentation (e.g., test blueprints; grade-level expectations). There are cases when assessments may not meet the minimum criteria on some Webb dimension, 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, failure to adhere to certain Webb alignment criteria is of less concern.

Universal Design Method. HumRRO incorporated the universal design (UD) considerations created by NCEO (2005) into the item review for 2009. For this part of the item review, panelists rated the degree of accessibility, based on these considerations, to all students who take the assessment. However, we did not ask panelists to provide an in-depth review of ELA items this year since these same operational items were reviewed comprehensively in the 2008 workshop with the assistance of NCEO staff members. Table 2.1 includes a brief list of these considerations. A more detailed description can be found in Appendix B.

Table 2.1. List of Considerations for Universally Designed Assessments (NCEO)

Consideration	Description
1	Does the item measure what it intends to measure?
2	Does the item respect the diversity of the assessment population?
3	Does the item have concise and readable text?
4	Does the item have clear format for text?
5	Does the item have clear visuals (when essential to item)?
6	Does the item allow ... changes to its format without changing its meaning or difficulty (including visual or memory load)?

Panelists

We analyzed data from eight individuals (California educators and district staff personnel) for content alignment and accessibility. A total of nine reviewers participated in the workshop; however, data from one reviewer had to be omitted due to data entry errors by the reviewer.

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. Panelists were selected based on the following criteria: (a) strong familiarity with the CAHSEE content standards for subjects that they teach, (b) at least 3

years of experience teaching to these standards, and, (c) to ensure an independent process,¹ no involvement in CAHSEE test development (i.e., item writing, review) within the past 5 years. Every effort was made to include a diverse panel representative of the student population of California. However, the final panel of participants was more uniform in composition than usually desired for two reasons. First, California's budget crisis did impact availability and response rate of applicants. Second, three of the selected reviewers (one Asian, one Hispanic, and one African-American) cancelled for personal reasons (e.g., medical issue; district withdrew release time) close to the time of the workshop. As a result, when contacting alternate reviewers to fill these slots, the pool of applicants available on short notice was limited. Table 2.2 lists the characteristics of these panelists.

¹ 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 2.2. 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
Teacher, regular classroom	3	15	3	3	1	2	0	1	2	3	0	0	0	0	0
Teacher, SpED	1	18	1	1	1	0	0	0	1	1	0	0	0	0	0
Teacher, special school	2	8	1	2	1	0	1	0	2	2	0	0	0	0	0
Content Specialist	2	27	2	2	0	1	1	0	2	1	0	0	1	0	0
Total Panelists	8	16.5	7	8	3	3	2	1	7	7	0	0	1	0	0

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

Materials

Panelists reviewed ELA items administered in 2009 relative to the CAHSEE standards. Panelists received specific instructions on how to rate these documents along with preconstructed rating forms. These documents are described below.

CAHSEE Test Blueprints. The CAHSEE Test Blueprints (approved by the Board in 2003) 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. In order 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 ELA include a set number of assessed strands (6), substrands (17), and standards (32). One particular standard for ELA, Writing Applications, varies per test administration in the specific standard(s) assessed.

Test Forms. Each panelist reviewed one full 2009 test form as well as additional field-test items from a different February 2009 test form. Table 2.3 describes these test forms.

Table 2.3. Characteristics of ELA Items on Reviewed 2009 CAHSEE Test Forms

Number of Test Forms Reviewed	Total Items per Form	Selected Response Items	Constructed Response Items	Operational Items per Form	Field Test Items per Form	Number of Reporting Categories
2	80	79	1	73	7	6

* One full form (operational and field-test items) and one partial form (field-test items only) were reviewed. Operational items on 2009 forms were identical.

Rating Forms and Instructions. Panelists received printed instructions on how to perform the alignment and universal design 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 A.

Procedures

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

Following the overview, panelists received further training on performing the rating tasks using sample standards and released assessment items. Panelists received paper copies of all relevant materials, including the ELA content standards, rating forms, and definitions for DOK and UD considerations. 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 standards 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 standards to achieve consensus DOK ratings.

Reviewers then received more specific instructions for rating the assessment items. In particular, reviewers assigned 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 clearly as the primary standard. Reviewers then evaluated 10 released items as a group. Reviewers proceeded to rate the 2009 test forms by entering individual item ratings on provided rating forms. We conducted periodic calibration on some item ratings to ensure that reviewers applied rating scale criteria consistently.

Item Review Results

In this section, we present the results of the alignment analyses, including agreement analyses, the Webb measures, and accessibility analyses.

Agreement Analyses. Before presenting the main 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. We measured absolute agreement between panelists' ratings using the intraclass correlation coefficient (ICC). For content match agreement, we conducted two analyses to determine degree of (a) exact match (same strand, substrand, and standard), and (b) partial match (same strand and substrand, while standard may differ). Similar to Webb (2005), we applied the following decision criteria for judging the correlation outcomes:

- Exact agreement ICC = 1.00
- Good agreement ICC = 0.80 to 0.99
- Adequate agreement ICC = 0.70 to 0.79
- Weak agreement ICC = 0.69 or less

Table 2.4 below displays inter-rater agreement levels on exact match and partial match. Based on the decision criteria, panelists demonstrated good agreement in their ratings of the content assessed by items.

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

Degree of Match Between Reviewers	Intraclass Correlations	95% Confidence Interval	
		Lower Bound	Upper Bound
Exact Match	0.91	0.87	0.94
Strand-Substrand	0.94	0.89	0.98

Panelist-Test Developer Agreement Analyses. We evaluated agreement at two levels: exact match and partial match. The definition for exact match is the same as for the inter-rater agreement analyses, meaning that this measure indicates that panelists chose the same strand, substrand, and standard for the item as the test developer. The definition for partial match does differ from the inter-rater agreement analyses; in this case, we evaluated partial match only at the strand level (as opposed to strand and substrand) for a fair comparison with ETS². The column in Table 2.5 labeled ‘No Match’ indicates that panelists selected completely different strands than intended by ETS.

Table 2.5 compares agreement outcomes between 2008 panelists’ ratings and ETS item specifications and those from the 2009 panelists. . The left-hand portion of the table presents the agreement outcomes using the 2008 panelists, while the right-hand portion presents agreement levels with 2009 panelists. The agreement levels reported in Table 2.5 represent separate analyses; thus, rows add to greater than 100%.

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

Reviewers	2008: Percent Agreement with ETS Targeted Standards			2009: Percent Agreement with ETS Targeted Standards		
	Exact Match (same strand, substrand, and standard)	Partial Match (same strand)	No Match (different strand)	Exact Match (same strand, substrand, and standard)	Partial Match (same strand)	No Match (different strand)
Total Across Reviewers	46%	85%	15%	53%	94%	6%
Range	42% to 58%	74% to 92%	0 to 20%	46% to 65%	90% to 100%	0 to 7%

The 2009 panelists demonstrated modest agreement (53%) with ETS on the exact match of content targeted for assessment at the standard (most specific) level. Panelists considered many items to target standards other than those identified by ETS. However, 2009 panelists showed high agreement (94%) with ETS on the content category, or strands, targeted by the majority of items.

This pattern of low agreement between panelists and item developers at the *standard* level also occurred in the 2008 item review of ELA. As noted in the 2008 report, the low agreement with the test developer may be more indicative of the content overlap between standards than a true (and concerning) discrepancy between

² Since ETS uses reporting categories, the mid-level content category differs in some cases from the CAHSEE test blueprint.

alignment reviewers and the test developer. For example, reviewers matched items to standard Reading-Word Analysis 1.2 instead of Reading-Word Analysis 1.1 about half the time. These standards refer to the following content expectations:

Strand	Substrand	Standard
Reading (Grades 9 and 10 with two standards from Grade 8 as noted)		
1.0	Word Analysis, Fluency, and Systematic Vocabulary Development.	Students apply their knowledge of word origins to determine the meaning of new words encountered in reading materials and use those words accurately.
	1.1	Identify and use the literal and figurative meanings of words and understand word derivations.
	1.2	Distinguish between the denotative and connotative meanings of words and interpret the connotative power of words.

Reviewers noted in their comments that the concepts of “literal and figurative meanings of words” and “denotative and connotative meanings of words” both require students to derive meaning. Some items seemed to apply about equally well to one or the other content expectation in their view.

Another example of an instance when reviewers consistently selected between two standards seemingly crosses into different content expectations. Some reviewers selected Reading-Comprehension 2.4 due to the format of the item requiring students to evaluate several sources; however, the intended target of the item was really Reading-Comprehension 2.8, which requires students to evaluate an author’s argument. Based on discussion among reviewers about these two standards relative to the items in question, most agreed that both standards could apply.

Strand	Substrand	Standard
Reading (Grades 9 and 10 with two standards from Grade 8 as noted)		
2.0	Reading Comprehension (Focus on Informational Materials)	Comprehension and Analysis of Grade-Level-Appropriate Text
	2.4	Synthesize the content from several sources or works by a single author dealing with a single issue; paraphrase the ideas and connect them to other sources and related topics to demonstrate comprehension.
		Expository Critique
	2.8	Evaluate the credibility of an author’s argument or defense of a claim by critiquing the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author’s intent affects the structure and tone of the text (e.g., in professional journals, editorials, political speeches, primary source material).

Overlap in language arts standards is especially common in standards-based testing because the content knowledge is not always mutually exclusive or the structure of an item may assess multiple concepts simultaneously. 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 developing items that narrowly target only a single content expectation can be challenging.

In addition to examining panelist-test developer agreement on content alignment, we compared the 2009 panelists' ratings on depth-of-knowledge to the targeted item DOK assigned by ETS. Again, we found disagreement; however, the pattern of discrepancy between panelists and ETS is largely typical in that teachers often tend to rate the level of processing required by items as higher than those assigned by item developers. These differences mostly occurred in the form of adjacent ratings, meaning that panelists rated some items as one level higher in processing than did ETS. For example, ETS may have assigned an item a DOK level of 2, while panelists assigned this same item a DOK of 3. Adjacent ratings (DOK 2 versus 3) reflect less critical discrepancies than if ratings deviated by two or more scale values (DOK of 2 versus 4). These outcomes are presented in Table 2.6.

Table 2.6. Mean Number of Items With Discrepant DOK Ratings Compared to ETS

Panelist Item Ratings	Minimum Number of Items	Maximum Number of Items	Mean Items Across Raters	SD	Mean Number of 1-point Rating Discrepancies	SD	Mean Number of 2-point Rating Discrepancies	SD
Below ETS	1	6	2.75	1.75	2.75	1.75	0	0
Same as ETS	17	37	26.63	6.55	--	--	--	--
Above ETS	30	55	43.63	7.8	39.02	7.15	4.62	1.68
Percent Below ETS	1%	8%	4%	2%	--	--	--	--
Percent Same as ETS	23%	51%	36%	9%	--	--	--	--
Percent Above ETS	41%	75%	60%	11%	--	--	--	--

NOTE: Empty cells indicate analysis was not applicable.

Content Alignment Results. In this section, we review the general outcomes of item analyses on the four Webb criteria and the general alignment rating. 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 B.

Webb Alignment Statistics. 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. Table 2.7 includes the summative statistical outcomes for each alignment criterion per strand. The second and third columns of the table 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 B. Table 2.7 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 0.70 on a scale of 0 to 1), which provides a measure of how evenly items are distributed among standards. Those numbers highlighted in the table fall below the threshold for acceptable alignment.

Table 2.7. Results on Webb Alignment Indicators for ELA per Strand

Strand	Number of Standards per Strand	Target Number of Items per Strand	Webb Alignment Indicators			
			Categorical Concurrence (mean items)	DOK (percent items)	ROK (percent items)	Balance Index
Word Analysis, Fluency, and Systematic Vocabulary Development	2	7	8.38	73%	94%	0.71
Reading Comprehension	6	18	18.13	19%	83%	0.77
Literary Response and Analysis	12	20	18.50	57%	77%	0.75
Writing Strategies	5	12	11.88	57%	85%	0.86
Writing Applications	6	1	1.00	86%	15% ^a	0.85
Written and Oral English Language Conventions	3	15	15.00	64%	100%	1.00
Total Alignment Outcomes Across Standards			5 of 6	5 of 6	5 of 6	6 of 6

^a The Webb criterion of a minimum of 6 items per standard was not applied to the Writing Applications strand. This strand is intended to assess the single essay item.

Table 2.7 shows positive alignment outcomes for ELA, revealing acceptable assessment of most strands. One exception concerns the level of cognitive complexity assessed by items for Reading Comprehension in particular. Panelists rated only 19% of these items on average as assessing students at the same level of performance as expected in the content standards. Although panelists found that the cognitive complexity of some items assessing Reading Comprehension fell below the level of the standards, the remaining strands were assessed at an appropriate level of complexity by over half (range = 57% to 73%) of items based on ratings of these panelists.

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

Overall Alignment. While raters matched individual items to content standards, the Webb method does not provide a measure of how well these items align to the selected standards. We asked panelists to provide an additional rating to indicate degree of alignment on a 4-point scale. Table 2.8 includes the percentage of items rated as a 3 (highly aligned to central content of standard) or 4 (fully aligned to central content of standard). A list of items by position for each scale point can be found in Appendix B.

Table 2.8. Percentage of ELA Operational Items Rated as Highly to Fully Aligned

Content Area	Total Percentage of Operational Items with Good Alignment Ratings	Percentage of Operational Items Rated as 3 (Highly Aligned to Central Content of Standard)	Percentage of Operational Items Rated as 4 (Fully Aligned to Central Content of Standard)
ELA	92%	38%	54%

These findings indicate that reviewers found that most items were well aligned to the content standards that they were supposed to assess.

Content Accessibility Statistics. In this section, we review the overall outcomes of item analyses on the ratings of item quality. As noted previously, we include results only on operational items in this report because it is these items that are used in calculating Adequate Yearly Progress (AYP). A list of items by position for each scale point can be found in Appendix B.

For item quality, a rating of 3 indicated that panelists found the item to be of "Good Quality" with no flaws and accessible to a wide range of students. A rating of 4 indicates that panelists determined that an item was "Exceptional Quality" or no flaws and accessible to *all* students. Table 2.9 shows the percentage of items falling into these categories.

Table 2.9. Percent of ELA Operational Items Rated as Good to Exceptional Quality

Content Area	Total Percentage of Operational Items with Good Accessibility Ratings	Percentage of Operational Items Rated as 3 (Good Quality)	Percentage of Operational Items Rated as 4 (Exceptional Quality)
ELA	97%	47%	50%

These findings indicate that reviewers found the vast majority of items to be unbiased, well constructed, and accessible to a wide range of students.

Summary and Recommendations on Test Content Alignment and Accessibility

The purpose of the 2009 item review was to determine the level of content agreement and accessibility for the February 2009 version of the CAHSEE for English-language arts. Content alignment and accessibility are important stipulations of the No Child Left Behind Act of 2001. The results of these reviews provide supporting evidence for the content validity of the ELA portion of the CAHSEE overall. The results from the 2009 alignment review largely parallel findings from the 2008 alignment review.

In this section of the report, we present summary conclusions and recommendations based on the results of this review. We provide alignment conclusions for the 2009 review by ELA strand based on the statistical results. Alongside the 2009 results, we include the summary outcomes from the 2008 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 minor recommendations.

Table 2.10 provides a synopsis of the 2009 alignment judgments for the ELA strands (from Table 2.7) in the left-hand portion. The right side of the table displays the alignment judgments from the 2008 review of CAHSEE ELA operational items. The highlighted portions of the table reflect areas with lower degrees of alignment between the assessments and content standards.

Table 2.10. Comparison of Alignment Outcomes for 2008 and 2009 CAHSEE Alignment Reviews by Content Strand

Content Strand		Summary Alignment Outcomes per Webb Criteria							
		Test Alignment for 2008 Review				Test Alignment Outcomes for 2009 Review			
		Categorical Concurrence	DOK ^a	ROK ^b	Balance Index ^c	Categorical Concurrence	DOK	ROK	Balance Index
		ELA				ELA			
1	Word Analysis, Fluency, and Systematic Vocabulary Development	YES	YES	YES	YES	YES	YES	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	YES	YES	YES
5	Writing Applications	YES	YES	YES	YES	YES	YES	YES	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

Table 2.10 clearly demonstrates that the CAHSEE test forms in both 2008 and 2009 align well to the CAHSEE content standards on most Webb dimensions. In addition, it is also clear that the same pattern of alignment emerged. As noted earlier, the lower alignment for the Writing Applications standards is of less concern than other results, such as the depth-of-knowledge consistency outcomes for Reading Comprehension. Compared to 2008, the 2009 reviewers considered approximately 80% of operational items to assess Reading Comprehension at a lower level of cognitive depth than required by the CAHSEE content standards.

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 2.11 provides a summary of the alignment outcomes for ELA.

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 2.11. Summary Alignment Conclusions for 2009 CAHSEE Alignment Review for English-language arts

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

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

Review the depth-of-knowledge level of items assessing Reading Comprehension. Some items assessed content well below the level of cognitive complexity expected by the Reading Comprehension standards. Items assessing Literary Response did meet the minimum criterion for acceptability on depth of knowledge, but the correspondence between the items and standards is still somewhat low (Literary Response = 61%).

Analyses of Test Scores

HumRRO conducted a number of activities to evaluate statistical characteristics of the test scores, including reviewing results from form equating and analyzing the consistency of essay scores generated by independent readers. More detailed information about the CAHSEE test forms may be found in technical documentation provided by ETS (see www.ets.org/cahsee).

Equating the 2009 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 administrations³. The result of this equating is a conversion table showing the scale score 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. We did, however, examine the resulting score conversion tables for each administration to assess the degree of consistency across different test forms. Tables 2.12a and 2.12b show the raw-to-scale score conversions used for each of the 2008–09 test forms.

³ Equating is necessary to compensate in minor differences in difficulty in the forms used in different CAHSEE administrations.

Table 2.12a. Raw-to-Scale Score Conversions for the 2008–09 ELA Tests

Raw Score	Scale Score							Raw Score	Scale Score						
	Jul 08	Oct 08	Nov 08	Dec 08	Feb 09	Mar 09	May 09		Jul 08	Oct 08	Nov 08	Dec 08	Feb 09	Mar 09	May 09
0-15	275	275	275	275	275	275	275	51	344	342	338	338	341	340	339
16	275	277	275	275	275	275	275	52	346	344	340	340	343	342	341
17	277	280	275	275	275	275	275	53	348	346	342	342	345	344	343
18	<u>279</u>	<u>282</u>	<u>275</u>	<u>275</u>	<u>277</u>	<u>277</u>	<u>275</u>	54	350	348	344	344	347	346	345
19	282	284	276	275	279	279	277	55	352	350	346	346	349	348	347
20	284	286	278	275	281	281	279	56	354	352	348	348	351	350	349
21	286	288	280	278	283	284	281	57	356	354	350	350	353	352	351
22	288	290	282	280	285	285	283	58	358	356	352	352	355	355	353
23	290	292	284	282	287	287	285	59	360	359	355	354	357	357	355
24	292	294	286	284	289	289	287	60	363	361	357	356	360	359	358
25	294	295	288	286	291	291	289	61	365	363	359	359	362	361	360
26	296	297	290	288	293	293	291	62	367	365	362	361	364	363	362
27	298	299	292	290	295	295	293	63	369	367	364	363	366	366	364
28	300	301	293	292	297	297	295	64	372	370	366	366	369	368	366
29	302	302	295	294	299	299	297	65	374	372	369	368	371	370	369
30	304	304	297	296	300	301	299	66	376	374	371	370	374	373	371
31	306	306	299	298	302	302	301	67	379	377	374	373	376	375	374
32	308	307	301	300	304	304	303	68	381	379	377	375	379	378	376
33	309	309	303	302	306	306	305	69	384	382	379	378	381	380	379
34	311	311	305	304	308	308	307	70	387	385	382	381	384	383	382
35	313	313	307	306	310	310	309	71	390	387	385	384	387	386	384
36	315	314	308	308	312	312	311	72	393	390	388	386	390	389	387
37	317	316	310	310	314	314	312	73	396	393	391	389	393	392	390
38	319	318	312	312	316	315	314	74	399	396	395	393	396	395	393
39	321	320	314	314	318	317	316	75	402	399	398	396	400	399	397
40	323	322	316	316	319	319	318	76	405	403	402	399	404	402	400
41	325	323	318	318	321	321	320	77	409	406	406	403	407	406	404
42	327	325	320	320	323	323	322	78	413	410	410	407	412	410	408
43	329	327	322	322	325	325	324	79	417	414	414	411	416	414	412
44	330	329	324	324	327	327	326	80	421	418	418	415	421	419	417
45	332	331	326	326	329	329	328	81	426	423	423	420	426	424	422
46	334	333	328	328	331	331	330	82	431	428	429	425	432	430	427
47	336	335	330	330	333	333	332	83	437	434	434	430	438	436	433
48	338	336	332	332	335	334	333	84	443	440	441	436	445	443	439
49	340	338	334	334	337	336	335	85	450	447	448	443	450	450	446
50	342	340	336	336	339	338	337	86-90	450	450	450	450	450	450	450

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

Table 2.12b. Raw-to-Scale Score Conversions for the 2008–09 Mathematics Tests

Raw Score	Scale Score							Raw Score	Scale Score						
	Jul 08	Oct 08	Nov 08	Dec 08	Feb 09	Mar 09	May 09		Jul 08	Oct 08	Nov 08	Dec 08	Feb 09	Mar 09	May 09
0-9	275	275	275	275	275	275	275	44	352	352	354	356	352	352	352
10	277	275	278	.	.	276	278	45	354	354	355	358	354	354	354
11	281	279	282	285	280	280	282	46	356	356	357	360	356	356	355
12	284	283	285	288	284	283	285	47	358	358	359	361	358	358	357
13	288	286	288	291	287	287	288	48	359	360	361	363	360	360	359
14	291	289	291	295	290	290	291	49	361	362	363	365	362	362	361
15	294	292	294	297	293	293	294	50	363	364	365	367	364	364	363
16	296	295	297	300	296	295	297	51	365	365	366	369	365	366	364
17	299	298	300	303	299	298	300	52	367	367	368	371	367	367	366
18	302	300	302	305	301	301	302	53	369	369	370	373	369	369	368
19	<u>304</u>	<u>303</u>	<u>305</u>	<u>308</u>	<u>304</u>	<u>303</u>	<u>304</u>	54	371	371	372	375	371	371	370
20	306	305	307	310	306	306	307	55	373	374	374	377	373	374	372
21	309	308	310	312	308	308	309	56	375	376	376	379	376	376	374
22	311	310	312	315	311	310	311	57	377	378	378	381	378	378	376
23	313	312	314	317	313	312	313	58	379	380	381	383	380	380	378
24	315	314	316	319	315	314	315	59	381	382	383	385	382	382	381
25	317	316	318	321	317	317	317	60	384	385	385	387	384	385	383
26	319	318	320	323	319	319	319	61	386	387	387	390	387	387	385
27	321	320	322	325	321	321	321	62	388	389	390	392	389	389	388
28	323	323	324	327	323	323	323	63	391	392	392	395	392	392	390
29	325	324	326	329	325	325	325	64	393	395	395	397	394	395	393
30	327	326	328	331	327	327	327	65	396	397	398	400	397	397	395
31	329	328	330	333	329	328	329	66	399	400	401	403	400	400	398
32	331	330	332	334	331	330	331	67	402	403	404	406	403	404	401
33	333	332	334	336	333	332	333	68	405	407	407	409	406	407	404
34	334	334	336	338	334	334	334	69	409	410	410	413	410	410	408
35	336	336	338	340	336	336	336	70	412	414	414	416	414	414	411
36	338	338	339	342	338	338	338	71	416	418	418	420	418	418	415
37	340	340	341	344	340	340	340	72	421	423	422	425	422	423	420
38	342	341	343	345	342	341	341	73	426	428	427	430	427	428	425
39	343	343	345	347	343	343	343	74	431	433	433	435	433	433	430
40	345	345	346	349	345	345	345	75	438	440	439	442	439	440	437
41	347	347	348	351	347	347	347	76	446	448	447	450	447	448	445
42	349	349	350	352	349	349	348	77-							
43	350	350	352	354	351	351	350	80	450	450	450	450	450	450	450

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

Consistency in Scoring the Essays

For the 2008-09 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 2008–09 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 and different questions were asked in different administrations, we monitored the level of agreement between independent raters for the question used with each administration. Table 2.13 shows, for the 2008–09 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, all of whom had not passed when they were in 10th grade. The greater range of scores increases the possibility of disagreements by more than one point.

Overall the frequency of significant disagreements (more than one score point) declined slightly from 2007–08 to 2008–09 at each grade level. The exact agreement rate for 10th graders dropped slightly from 67.2 to 66.9 percent. The exact agreement rate for 11th graders rose from 76.8 to 77.4 and the agreement rate for 12th graders rose more significantly, from 77.9 to 79.5. In all cases, the agreement rates remained substantially higher than the rates for the 2005–06 CAHSEE administrations. 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 2008–09 testing year at the 10th grade level, but overall results were improved slightly and still quite acceptable. Still, ETS may wish to review their scorer training and monitoring processes to see if further improvements are possible.

Table 2.13. 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
All 2007-08	67.2	31.9	0.9	76.8	22.8	0.4	77.9	21.7	0.4
July 2008	-	-	-	-	-	-	81.8	18.2	0.0
October 2008	-	-	-	76.4	23.3	0.4	78.4	21.3	0.3
November 2008	-	-	-	77.2	22.4	0.4	79.5	20.2	0.3
December 2008	-	-	-	77.3	22.7	0.0	79.6	20.3	0.1
February 2009	66.2	33.0	0.9	77.9	21.7	0.3	79.6	20.1	0.3
March 2009	67.1	32.2	0.7	78.4	21.4	0.2	80.1	19.7	0.3
May 2009	72.6	27.1	0.4	76.7	23.1	0.2	79.0	20.9	0.2
All 2008-09	66.9	32.3	0.8	77.4	22.3	0.3	79.5	20.2	0.3

Tables 2.14 and 2.15 provide more detailed information on scores assigned by each of the two independent raters for 10th graders in the 2007–08 administrations and in the 2008–09 administrations respectively. There was 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. 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 (more than 1 point) disagreements involved one rater assigning a score of 2 and the other a score of 4.

Table 2.14. Percentage 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)					67.2
Percent with differences greater than one point					0.9

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

Table 2.15. Percentage of 10th Grade Essays Assigned Each Score Level by Each Rater in the February Through May 2009 Administrations

First Rater	Second Rater				
	0	1	2	3	4
0	1.20	0.00	0.00	0.00	0.00
1	0.00	1.15	0.76	0.01	0.00
2	0.00	0.74	33.99	11.72	0.35
3	0.00	0.01	11.72	28.05	3.63
4	0.00	0.00	0.39	3.72	2.54
Average score from first rater					2.5
Average score from second rater					2.5
Percent Exact Agreement (sum of diagonal elements)					66.9
Percent with differences greater than one point					0.8

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

Test Administration

HumRRO observed one of the May 2009 test administrations at a Central Coast California high school. Key findings from our observation included:

- **Participation.** As shown in Table 2.16, all 12th graders scheduled to repeat the ELA or mathematics test were present. Of the 10th and 11th grade students scheduled to test but absent on testing day, about ten students were known to be chronically absent from school.

Table 2.16. Number of Students Scheduled Versus Present for Repeat of ELA and Math Test

Test	Gr. 10		Gr. 11		Gr. 12		Total Number Scheduled	Total No-shows
	Number of students scheduled	No-shows	Number of students scheduled	No-shows	Number of students scheduled	No - shows		
ELA	25	12	8	1	11	0	44	13
Mathematics	24	12	3	1	9	0	36	13

- **Materials.** All arrived as scheduled, the week prior to testing. All tests were the same version. One copy of the Directions for Administration manual was missing the pages for ELA test administration (pp. 21-36).
- **Security.** Test materials were stored in a secure, locked location with access restricted to the Test Coordinator and his assistant. During test administration breaks, all student testing materials were collected and locked in a storage room located in the testing room. All staff working with the test materials signed the Test Security Affidavit.
- **Training.** All proctors scheduled to give the test in the 2008–09 school year participated in a 15-minute briefing in November 2008 consisting of a PowerPoint presentation covering the main topics from the Test Site

Coordinator's Manual. A make-up training session was held. The ETS video was not shown, as most staff had seen it earlier; it was available on request.

- **Communication with Students.** A week or two before the May 2009 testing, school counselors met individually with each 12th grade student who had not passed the February 2009 test to inform the student that he or she needed to retake one or both CAHSEE tests. Tenth and 11th grade students were notified in their classrooms over the loud speaker the day before the test to notify them of their test date(s).
- **Administration.** Rooms were adequate in terms of size, ventilation, and furnishings. No outside visitors were allowed in the testing rooms, other than a maintenance engineer and the HumRRO observer. The Test Coordinator at this school bubbles in all statewide student identifiers (SSIDs) after testing, since students don't know their SSID numbers. Regarding answer sheet demographic Question 20 (does student receive free or reduced lunch), the Test Coordinator commented that (in his district) this information is not supposed to be known by administrative staff and is not in any student records administrators have; he obtains this information informally from the lunch room personnel. Regarding timing of the test sessions, the examiners were unclear about how to deal with students who had not finished ELA Session 1 prior to the break. Though the manual indicates all students are allowed to take more time than scheduled, it does not provide direction for how to implement this. The large group examiner read aloud the Session 2 directions after the break but allowed students who hadn't completed Session 1 to finish it before going on to Session 2. In contrast, the small EL group examiner read aloud the Session 2 directions after the break but told students to complete Session 2 first before going back to finish Session 1. Since the ELA Session 1 includes the essay, this is the part students typically want more time to complete.
- **Accommodations.** EL students tested in a small group in a separate room. Several students were given extra time for the ELA test.
- **Student Motivation.** For the most part, students approached the tests seriously and appeared to be concentrating on their work and quietly responding to CAHSEE questions. Some students were confused about which test they were taking, since they had taken make-up STAR tests the week before.

The Test Coordinator suggested a few areas where improvements to the examiner script could be made:

- The read aloud directions regarding demographic fields are a bit confusing. Although his school orders the Pre-ID answer documents, there are always some latecomer students who will have blank answer

documents. This means the examiner has to read aloud from different pages of the Directions for Administration manual (p.23 for students with blank documents, p.27 for students with Pre-ID), finding the appropriate parts of the script for each situation.

- The script for explaining to students the “Mathematics Classes Taken” (p.40) is not adequate and requires additional ad lib explanation by the examiner. Providing an example in the script of how to bubble in the answer document for one of the classes would be helpful.

The Test Coordinator also noted several procedures followed in his district with regard to 12th grade students and the CAHSEE requirement:

- Letters of notification were mailed to parents of 12th grade students in the spring to inform them that the student needed to pass both CAHSEE tests to satisfy the state’s diploma requirements and to be able to participate in the end-of-year June graduation ceremony.
- 12th grade students who did not achieve passing results on the CAHSEE prior to graduation but did pass the May administration would be able to participate in a special graduation ceremony held in the summer.
- 12th grade students who did not pass the May administration would be notified by letter of alternatives for pursuing completion of the high school diploma requirements (e.g., fifth year high school enrollment, adult school CAHSEE testing).

Overall, no significant problems were observed in setting up for and conducting the CAHSEE test administration. Test security procedures were followed and students were able to complete testing without incident. There were, nonetheless, a few questions, such as confusion between CAHSEE and STAR testing, which might be further clarified in revisions to test administrator instructions and training. In addition, further ETS may want to review instructions for handling students who do not finish a section before a scheduled break to resolve ambiguities such as those observed at the test site we visited.

Chapter 3: Results from the 2008–09 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 2002-03 administrations, the requirement to pass the CAHSEE was deferred to the Class of 2006. In the 2003-04 school year, 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 and November 2004, or February, March, 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).

The 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 had not passed 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. Analyses of results from the 2006–07 administrations were reported in the 2007 evaluation report (Becker and Watters, 2007).

In 2002, a lawsuit (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 all other district and state requirements, although many of these students continued to take the CAHSEE. A final settlement was reached in March 2008 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. Analyses of results from the 2007–08 CAHSEE administrations, including passing rates for students with disabilities in the Class of 2008 were reported in our 2008 annual report (Becker and Watters, 2008). 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 2008–09 CAHSEE administrations are organized around four main questions:

1. How many first-time 12th graders in the Class of 2009 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 2009? How did these numbers compare to the results for the classes of 2006 through 2008?
2. How did performance improve for 11th graders in the Class of 2010 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 2010 compare to improvements seen in our previous analyses for 11th grade students in the classes of 2006 through 2009?
3. How did this year's results for 10th graders in the Class of 2011 compare to results for the classes of 2006 through 2010 when those students took the CAHSEE for the first time as 10th graders in 2004 through 2008 respectively?

4. How many students from the classes of 2006 through 2008 who had not met the CAHSEE requirement continued to try to pass the CAHSEE? How many of them passed?

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, 2007, or 2008.

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 contains 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.

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 2008–09 and a few students used two different answer sheets during the same administration. We also had to merge test results from the 2008–09 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 2008–09 CAHSEE administrations. The numbers in this and subsequent tables are estimates because the merging process, based on fallible identifiers, 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. A very small number of 10th graders (less than 2%) had prior-year records; most of these were students who had repeated 10th grade. Similarly, fewer

than half of the adult education students were tested in prior years. We found prior-year records for about 77% 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 not found for some 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.

Table 3.1. Estimated Number of Students Participating in 2008–09 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 2011)	496,688	7,213	1.5%
11 th Grade (Class of 2010)	157,530	121,579	77.2%
12 th Grade (Class of 2009)	110,575	85,972	77.7%
Adult Education	21,459	10,096	47.0%
Missing or Invalid	34	0	0.0%
Total	786,286	224,860	28.6%

Table 3.2 shows the relationship between current grade level on the 2008–09 test records and the same students’ grade level during the 2007–08 school year. As expected, most of the current 11th graders were 10th graders in 2007–08 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 2007–08 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 graduating class to another high school class. For example, repeat 10th graders were in the Class of 2010 last year but are now in the Class of 2011. Many of the results in the tables that follow show changes to passing rate estimates in our 2008 evaluation report due to recalculations reflecting migration of students to a different high school class.

Table 3.2. Number of 2008-09 Examinees (Excluding Blank Answer Documents) Matched to Prior-Year Records by Current and Prior High School Class

Grade and High School Class in 2007-08	Grade and High School Class in 2008-09 School Year					
	Grade 10 (Class of 2011 ¹)	Grade 11 (Class of 2010)	Grade 12 (Class of 2009 ²)	Adult Education	Missing or Invalid	Total Matched
Grade 9 (Class of 2011 ¹)	473,532	0	0	0	0	473,532
Grade 10 (Class of 2010)	6,208	115,843	4,740	536	0	127,327
Grade 11 (Class of 2009)	668	5,026	62,906	970	0	69,570
Grade 12 (Class of 2008)	111	390	15,095	3,128		18,724
Grade 12 in 2006-07 (Class of 2007)	53	122	2,251	2,107		4,533
Grade 12 in 2005-06 (Class of 2006)	115	79	801	1,459		2,454
Adult Education	52	41	175	1,895	0	2,163
Missing of Invalid	6	78	4	1	0	89
Total Matched	480,745	121,579	85,972	10,096	0	698,392

¹ Current 10th graders not matched to 2007-08 CAHSEE records were assumed to have been in the Class of 2011 last year as well as this year.

² Current 12th graders include students previously in the Classes of 2006 through 2008 as well as the Class of 2009.

Note: Shaded cells indicate normal grade progression. Normal progression for 12th grade students who did not pass is either to repeat 12th grade or to enter adult education.

Explanation of table contents: The number 115,843 in the second row and column means that 115,843 students tested as 11th graders in 2008-09 and also tested as 10th graders in 2007-08. All other numbers in the table have a similar meaning except for 473,532 current 10th graders in line 1 for whom we did not find 2007-08 test data and who were assumed to be in the 9th grade in 2007-08.

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 (a) the number of students who took each test and (b) 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 ESEA requirements. Essentially all students must be tested to meet ESEA participation requirements, so the CAHSEE counts appear to be reasonably complete. We used total CAHSEE record counts in computing 10th grade 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.

Table 3.3. Tenth Grade Enrollment Estimates from California Basic 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	2008–09 10 th Graders
Fall enrollment (CBEDS)	471,648	490,214	497,197	515,681	517,873	513,943	509,028
STAR reported enrollment	457,181	475,181	481,983	502,616	500,628	495,912	495,663
STAR students tested (10 th Grade ELA)	427,454	452,217	462,693	482,781	481,879	478,582	479,491
CAHSEE examinees**	425,066	459,199	470,891	505,045	502,106	493,559	496,688
Percent of fall enrollment	90.1%	93.7%	94.7%	97.9%	96.9%	96.0%	97.6%

* 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 2008–09. 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, the California Longitudinal Pupil Achievement Data System (CALPADS) will provide better data on students who do not participate in further CAHSEE testing, including both those who have passed the CAHSEE and those who have not.

We recognize that excluding students who dropped out before 12th grade from the computation of passing rates may overstate student success in meeting the CAHSEE requirement. There is no way of knowing, however, how many of the students who dropped out might have passed the CAHSEE had they kept trying. The high rate of high school dropouts is a serious and costly problem (Alliance for Excellence, 2007) that is somewhat beyond the scope of the present evaluation. While there is no evidence that the CAHSEE has led to increased dropout rates prior to 12th grade, there is some evidence (described in Chapter 4) that the CAHSEE requirement has prevented or delayed some seniors (1–4%) from graduating.

The denominators used in computing passing rates for the classes of 2006 through 2008 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.

Test Results

Class of 2009 – This Year’s Seniors Struggle to Meet Graduation Deadline

HumRRO worked with CDE to analyze test results for seniors after each of the 2008–09 administrations. HumRRO used corrected data files received in July to reanalyze results through May 2009. 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 3.4 through 3.6 show cumulative passing rates for students in the Class of 2009, this year’s first-time seniors. Again, to avoid duplication, we included students who had been seniors in either 2006, 2007, or 2008 in the counts shown later in this chapter for these classes and excluded them from the counts in Tables 3.4 through 3.6. 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 2009 to a different high school class, because they were retained in the 11th grade between the 2007–08 and 2008–09 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 2009 who had passed one, but not both of the CAHSEE tests by May 2008. Students who had passed both parts by May 2008 would not have retested this year and so would not be among those identified as leaving the Class of 2009, although some undoubtedly did.
- Next, we added in students who joined the target class because of grade skipping (from 10th grade in the 2007–08 school year to 12th grade in the 2008–09 school year). We did not, however, add students from the Class of 2008 or earlier who were retained in 12th grade. These grade-skipping students are included in Tables 3.4 through 3.9 below. Adding these students to the Class of 2009 may have increased the number of students in the class who had passed one but not both parts of the CAHSEE by May 2008. Students who had passed both parts by May 2008 would not have retested this year and so would not be among those identified as moving into the Class of 2009.
- Finally, for this report, we removed 20,794 Class of 2009 students who had met the CAHSEE requirement, but were not matched to a test record from the July 2008–May 2009 administrations. We also added back in 12th graders who participated in the 2008–09 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.

The most important values in the tables that follow, we believe, 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 3.4. Estimated Number and Percentage of Students in the Class of 2009¹ Passing Both Parts of the CAHSEE Through May 2009

Group	By May 2008		July 2008–May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Yet Passed	Not Tested	Current Passed	Not Yet Passed	Percent Pass
All Students	395,695	103,103	37,294	45,015	20,794	432,989	45,015	90.6%
Females	199,631	45,153	18,008	19,217	7,928	217,639	19,217	91.9%
Males	196,064	57,950	19,286	25,798	12,866	215,350	25,798	89.3%
Native American	3,300	831	272	326	233	3,572	326	91.6%
Asian	41,035	4,900	2,140	2,107	653	43,175	2,107	95.3%
Pacific Islander	2,718	732	276	308	148	2,994	308	90.7%
Filipino	13,532	1,369	634	542	193	14,166	542	96.3%
Hispanic	158,455	62,080	21,652	27,863	12,565	180,107	27,863	86.6%
African American	26,461	15,028	4,853	7,157	3,018	31,314	7,157	81.4%
White, non-Hispanic	150,001	18,031	7,467	6,712	3,852	157,468	6,712	95.9%
Economically Disadvantaged	151,328	63,432	21,403	29,175	12,854	172,731	29,175	85.6%
English Learner	39,645	39,526	12,878	18,861	7,787	52,523	18,861	73.6%
Reclassified Fluent English	72,790	6,404	3,522	1,960	922	76,312	1,960	97.5%
Special Education	15,945	26,572	4,786	15,924	5,862	20,731	15,924	56.6%

¹ Current 12th graders who also tested as 12th graders in 2005–06 (Class of 2006), 2006–07 (Class of 2007), or 2007–08 (Class of 2008) are *excluded* from this table. Class of 2009 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 2009 who had not passed by May 2008 have changed due to students entering or leaving the class as explained above.

Explanation of table contents: Tables 3.5 through 3.6 are formatted the same as Table 3.4. Line 1 shows that by May of 2008, 395,695 students now in the Class of 2009 (current first-time seniors) had passed the CAHSEE and 103,103 had not. In July 2008 through May 2009, 37,294 of the students who had not passed by May 2008 completed the CAHSEE requirement. Another 45,015 students took the CAHSEE, but have not yet passed both parts. Also, 20,794 Class of 2009 students who had not passed by May 2008 have not yet participated in the 2008-2009 administrations. Overall, 432,989 students in the Class of 2009 have now passed the CAHSEE, which is 90.6% of the total students in the Class of 2009 after adjusting for students moving into and out of this class and removing students not still trying to pass the CAHSEE.

Table 3.5. Estimated Number and Percentage of Students in the Class of 2009¹ Passing the CAHSEE ELA Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed ²	Not Tested ³	Passed	Not Passed ⁴	Percent Pass
All Students	417,617	81,181	30,206	28,459	20,794	447,823	30,181	93.7%
Females	212,693	32,091	12,868	10,677	7,928	225,561	11,295	95.2%
Males	204,924	49,090	17,338	17,782	12,866	222,262	18,886	92.2%
Native American	3,490	641	211	181	233	3,701	197	94.9%
Asian	41,455	4,480	1,996	1,744	653	43,451	1,831	96.0%
Pacific Islander	2,858	592	237	193	148	3,095	207	93.7%
Filipino	13,813	1,088	498	379	193	14,311	397	97.3%
Hispanic	171,680	48,855	16,901	18,380	12,565	188,581	19,389	90.7%
African American	30,007	11,482	4,103	4,061	3,018	34,110	4,361	88.7%
White, non-Hispanic	154,121	13,911	6,260	3,521	3,852	160,381	3,799	97.7%
Economically Disadvantaged	164,188	50,572	17,095	19,596	12,854	181,283	20,623	89.8%
English Learner	44,977	34,194	11,285	14,553	7,787	56,262	15,122	78.8%
Reclassified Fluent English	75,693	3,501	1,731	783	922	77,424	848	98.9%
Special Education	19,813	22,704	5,408	11,104	5,862	25,221	11,434	68.8%

¹ Current 12th graders who also tested as 12th graders in 2005-06 (Class of 2006), 2006-07 (Class of 2007), or 2007-08 (Class of 2008) are *excluded* from this table. Current 12th graders who tested as 10th graders last year have been moved into counts for the Class of 2009 and are included here along with students who tested as 11th graders last year. 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.

⁴ Excludes students who had not passed and have not taken one or both tests so far this year.

Table 3.6. Estimated Number and Percentage of Students in the Class of 2009¹ Passing the CAHSEE Mathematics Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed ²	Not Tested ³	Passed	Not Passed ⁴	Percent Pass
All Students	412,613	86,185	32,401	30,797	20,794	445,014	32,990	93.1%
Females	205,749	39,035	16,278	13,925	7,928	222,027	14,829	93.7%
Males	206,864	47,150	16,123	16,872	12,866	222,987	18,161	92.5%
Native American	3,387	744	246	238	233	3,633	265	93.2%
Asian	42,868	3,067	1,597	764	653	44,465	817	98.2%
Pacific Islander	2,840	610	240	203	148	3,080	222	93.3%
Filipino	13,775	1,126	582	325	193	14,357	351	97.6%
Hispanic	169,497	51,038	18,487	18,756	12,565	187,984	19,986	90.4%
African American	27,852	13,637	4,544	5,705	3,018	32,396	6,075	84.2%
White, non-Hispanic	152,201	15,831	6,705	4,806	3,852	158,906	5,274	96.8%
Economically Disadvantaged	163,039	51,721	18,096	19,529	12,854	181,135	20,771	89.7%
English Learner	49,358	29,813	10,400	11,097	7,787	59,758	11,626	83.7%
Reclassified Fluent English	73,871	5,323	2,862	1,421	922	76,733	1,539	98.0%
Special Education	18,637	23,880	5,385	12,135	5,862	24,022	12,633	65.5%

¹ Current 12th graders who also tested as 12th graders in 2005-06 (Class of 2006), 2006-07 (Class of 2007), or 2007-08 (Class of 2008) are *excluded* from this table. Current 12th graders who tested as 10th graders last year have been moved into counts for the Class of 2009 and are included here along with students who tested as 11th graders last year. 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.

⁴ Excludes students who had not passed and have not taken one or both tests so far this year.

Comparison of Results for this Year’s Seniors (Class of 2009) to Results for Last Year’s Seniors (Class of 2008)

Table 3.7 provides a comparison of passing rates for the classes of 2008 and 2009 at the end of their senior year. Results show very slight overall improvement (from 90.4 to 90.6%), but more significant improvement for students in special education programs (from 54.5 to 56.6%).

Table 3.7. Estimated Percentage of Students in the Classes of 2008 and 2009¹ Passing Both CAHSEE Tests Through May 2009¹

Group	Passed ELA		Passed Mathematics		Passed Both	
	Class of 2008 12 th Graders	Class of 2009 12 th Graders	Class of 2008 12 th Graders	Class of 2009 12 th Graders	Class of 2008 12 th Graders	Class of 2009 12 th Graders
All Students	93.0%	93.7%	92.4%	93.1%	90.4%	90.6%
Females	94.7%	95.2%	93.3%	93.7%	91.8%	91.9%
Males	91.5%	92.2%	91.7%	92.5%	89.0%	89.3%
Native American	93.3%	94.9%	91.2%	93.2%	89.2%	91.6%
Asian	96.3%	96.0%	97.9%	98.2%	95.7%	95.3%
Pacific Islander	-- ²	93.7%	-- ²	93.3%	-- ²	90.7%
Filipino	-- ²	97.3%	-- ²	97.6%	-- ²	96.3%
Hispanic	89.8%	90.7%	89.5%	90.4%	86.2%	86.6%
African American	86.9%	88.7%	82.8%	84.2%	80.5%	81.4%
White, non-Hispanic	97.4%	97.7%	96.5%	96.8%	96.0%	95.9%
Economically Disadvantaged	89.6%	89.8%	89.3%	89.7%	85.5%	85.6%
English Learner	79.7%	78.8%	83.4%	83.7%	73.5%	73.6%
Reclassified Fluent English	-- ²	98.8%	-- ²	98.0%	-- ²	97.5%
Special Education	66.3%	67.4%	61.1%	65.5%	54.5%	56.6%

¹ Note 12th graders who also tested as 12th graders in the previous year are *excluded* from this table. Students in special education programs are included in all rows.

² Passing rates for Pacific Islanders and Filipinos and also for students reclassified as fluent English were not previously computed in analyses of results for the Class of 2008.

Results reported for the class of 2008 and 2009 are not directly comparable to end of senior year results reported for earlier high school classes. The primary difference is that students with disabilities in the classes of 2006 and 2007 were excluded from passing counts due to the exemption granted to these students. The exemption was not granted for special education students in the classes of 2008 and 2009. Tables 3.15 through 3.17 show passing rates when students with disabilities are excluded from all subgroups (table rows) except the last.

Table 3.8. Estimated Number and Percentage of Students in the Class of 2009¹ Passing Both CAHSEE Tests Through May 2009, Excluding Students in Special Education

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Passed ²	Percent Pass
All Students	379,750	76,531	32,508	29,091	14,932	412,258	29,091	93.4%
Females	194,322	36,030	16,306	13,650	6,074	210,628	13,650	93.9%
Males	185,428	40,501	16,202	15,441	8,858	201,630	15,441	92.9%
Native American	3,105	574	230	192	152	3,335	192	94.6%
Asian	40,217	4,206	2,010	1,684	512	42,227	1,684	96.2%
Pacific Islander	2,654	584	256	214	114	2,910	214	93.1%
Filipino	13,263	1,124	582	394	148	13,845	394	97.2%
Hispanic	152,925	48,398	19,269	19,257	9,872	172,194	19,257	89.9%
African American	25,211	10,285	4,123	4,186	1,976	29,334	4,186	87.5%
White, non-Hispanic	142,196	11,276	6,038	3,164	2,074	148,234	3,164	97.9%
Economically Disadvantaged	145,455	47,707	18,813	19,291	9,603	164,268	19,291	89.5%
English Learner	37,783	31,561	11,585	13,632	6,344	49,368	13,632	78.4%
Reclassified Fluent English	71,337	5,478	3,282	1,448	748	74,619	1,448	98.1%
Special Education	15,945	26,572	4,786	15,924	5,862	20,731	15,924	56.6%

¹ Current 12th graders who also tested as 12th graders in 2005-06 (Class of 2006), 2006-07 (Class of 2007), or 2007-08 (Class of 2008) are *excluded* from this table. Current 12th graders who tested as 10th graders last year have been moved into counts for the Class of 2009 and are included here along with students who tested as 11th graders last year. Students in special education programs are included only in the last row.

² Excludes students who had not passed and have not taken one or both tests this year.

Table 3.9. Estimated Number and Percentage of Students in the Class of 2009¹ Passing the CAHSEE ELA Test Through May 2009, Excluding Students in Special Education

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed ²	Not Tested ³	Passed	Not Passed ⁴	Percent Pass
All Students	397,804	58,477	24,798	17,355	14,932	422,602	18,747	95.8%
Females	205,609	24,743	11,023	7,114	6,074	216,632	7,646	96.6%
Males	192,195	33,734	13,775	10,241	8,858	205,970	11,101	94.9%
Native American	3,257	422	169	87	152	3,426	101	97.1%
Asian	40,580	3,843	1,859	1,391	512	42,439	1,472	96.6%
Pacific Islander	2,778	460	208	126	114	2,986	138	95.6%
Filipino	13,503	884	448	273	148	13,951	288	98.0%
Hispanic	164,396	36,927	14,159	12,049	9,872	178,555	12,896	93.3%
African American	28,134	7,362	3,126	2,036	1,976	31,260	2,260	93.3%
White, non-Hispanic	144,977	8,495	4,829	1,393	2,074	149,806	1,592	98.9%
Economically Disadvantaged	156,390	36,772	14,050	12,298	9,603	170,440	13,119	92.9%
English Learner	42,381	26,963	9,763	10,361	6,344	52,144	10,856	82.8%
Reclassified Fluent English	74,027	2,788	1,513	470	748	75,540	527	99.3%
Special Education	19,813	22,704	5,408	11,104	5,862	25,221	11,434	68.8%

¹ Current 12th graders who also tested as 12th graders in 2005-06 (Class of 2006), 2006-07 (Class of 2007), or 2007-08 (Class of 2008) are *excluded* from this table. Current 12th graders who tested as 10th graders last year have been moved into counts for the Class of 2009 and are included here along with students who tested as 11th graders last year. Students in special education programs are included only in the last row.

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.

⁴ Excludes students who had not passed and have not taken one or both tests so far this year.

Table 3.10. Estimated Number and Percentage of Students in the Class of 2009¹ Passing the CAHSEE Mathematics Test Through May 2009, Excluding Students in Special Education

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed ²	Not Tested ³	Passed	Not Passed ⁴	Percent Pass
All Students	393,976	62,305	27,016	18,662	14,932	420,992	20,357	95.4%
Females	199,746	30,606	14,341	9,431	6,074	214,087	10,191	95.5%
Males	194,230	31,699	12,675	9,231	8,858	206,905	10,166	95.3%
Native American	3,166	513	202	143	152	3,368	159	95.5%
Asian	41,889	2,534	1,452	524	512	43,341	570	98.7%
Pacific Islander	2,764	474	207	136	114	2,971	153	95.1%
Filipino	13,476	911	523	221	148	13,999	240	98.3%
Hispanic	162,471	38,852	15,691	12,275	9,872	178,162	13,289	93.1%
African American	26,297	9,199	3,706	3,261	1,976	30,003	3,517	89.5%
White, non-Hispanic	143,734	9,738	5,235	2,102	2,074	148,969	2,429	98.4%
Economically Disadvantaged	155,572	37,590	15,042	11,976	9,603	170,614	12,945	92.9%
English Learner	46,498	22,846	8,760	7,317	6,344	55,258	7,742	87.7%
Reclassified Fluent English	72,288	4,527	2,627	1,045	748	74,915	1,152	98.5%
Special Education	18,637	23,880	5,385	12,135	5,862	24,022	12,633	65.5%

¹ Current 12th graders who also tested as 12th graders in 2005-06 (Class of 2006), 2006-07 (Class of 2007), or 2007-08 (Class of 2008) are *excluded* from this table. Current 12th graders who tested as 10th graders last year have been moved into counts for the Class of 2009 and are included here along with students who tested as 11th graders last year. Students in special education programs are included only in the last row.

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.

⁴ Excludes students who had not passed and have not taken one or both tests so far this year.

Table 3.11 compares current cumulative passing rates through May of their senior year for all four of the classes subject to the CAHSEE requirement. Students in special education programs, who may have received an exemption in 2006 or 2007, are excluded from these tables for comparability. When students with disabilities are excluded from the passing rates, there has been little or no change since increases after the first year of the requirement.

Table 3.11. Comparison of Estimated Passing Rates for the Classes of 2006, 2007, 2008, and 2009 Through May of their Senior Year

Group	Percent Passing Both Parts			
	Class of 2006	Class of 2007	Class of 2008	Class of 2009
All Students	90.4%	93.3%	93.6%	93.4%
Females	90.9%	93.6%	94.1%	93.9%
Males	89.9%	92.9%	93.2%	92.9%
Native American	-- ²	-- ²	93.6%	94.6%
Asian	95.3%	96.3%	96.5%	96.2%
Pacific Islander	-- ³	-- ³	-- ³	93.1%
Filipino	-- ³	-- ³	-- ³	97.2%
Hispanic	85.5%	88.6%	89.9%	89.9%
African American	83.7%	88.4%	87.2%	87.5%
White, non-Hispanic	97.3%	98.4%	98.2%	97.9%
Economically Disadvantaged	85.7%	88.3%	89.8%	89.5%
English Learner	76.0%	77.1%	78.6%	78.4%
Reclassified Fluent English	-- ³	-- ³	-- ³	98.1%

¹ Note 12th graders who also tested as 12th graders in the previous year are *excluded* from this table, as are all students in special education programs.

² Passing rates for Native Americans were not previously computed in analyses of results for the Classes of 2006 and 2007.

³ Passing rates for Pacific Islanders and Filipinos and also for students reclassified as fluent in English were not previously computed in analyses of results for the Classes of 2007 and 2008.

Class of 2010 — Improvement for Students Who Retested in 11th Grade

We analyzed the number of 11th grade students (Class of 2010) 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 2009 cohort last year to the Class of 2010 cohort. This year’s 11th graders also included some students new to the state and other students who were 9th graders in 2008. Students who repeated the 10th grade in 2008–09 were dropped from the Class of 2010 cohort as were students who did not pass in 2008 and failed to test at all during the 2008–09 school year. As shown in Table 3.2 above, over 6,000 students appear to be repeating 10th grade in 2008–09, moving out of the Class of 2010⁴. This still leaves a small but significant number of

⁴ 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.

students who have either left public education in California or simply skipped taking the CAHSEE in their junior year.

Tables 3.12 through 3.14 show the estimated number of students in the Class of 2010 passing both parts of the CAHSEE, the ELA test, and the mathematics test, respectively. Approximately 83% of the students still in the Class of 2010 have met the CAHSEE requirement. The passing rate is considerably lower for economically disadvantaged students (75%) and for Hispanic (76%) and African-American (71%) students and particularly lower for English learners (53%) and students in special education (38%).

Table 3.12. Estimated Number and Percentage of Students in the Class of 2010¹ Passing Both CAHSEE Tests Through 11th Grade

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Passed ²	Percent Pass
All Students	337,252	176,278	65,108	82,768	28,402	402,360	82,768	82.9%
Females	170,922	79,079	30,949	36,380	11,750	201,871	36,380	84.7%
Males	166,330	97,199	34,159	46,388	16,652	200,489	46,388	81.2%
Native American	2,792	1,569	526	695	348	3,318	695	82.7%
Asian	38,070	8,054	3,657	3,398	999	41,727	3,398	92.5%
Pacific Islander	2,342	1,185	498	500	187	2,840	500	85.0%
Filipino	11,937	2,796	1,414	1,069	313	13,351	1,069	92.6%
Hispanic	132,367	106,913	36,942	53,306	16,665	169,309	53,306	76.1%
African American	20,552	21,474	6,475	11,017	3,982	27,027	11,017	71.0%
White, non-Hispanic	129,057	34,224	15,596	12,783	5,845	144,653	12,783	91.9%
Economically Disadvantaged	129,016	108,256	36,274	54,843	17,139	165,290	54,843	75.1%
English Learner	23,621	61,869	16,839	35,696	9,334	40,460	35,696	53.1%
Reclassified Fluent English	70,899	16,818	9,950	5,174	1,694	80,849	5,174	94.0%
Special Education	8,763	36,901	5,536	23,386	7,979	14,299	23,386	37.9%

¹ Current 11th graders who also tested as 12th graders in 2005-06 (Class of 2006), 2006-07 (Class of 2007), or 2007-08 (Class of 2008) are *excluded* from this table. Current 11th graders who tested as 11th graders last year have been moved into counts for the Class of 2010 and are included here along with students who tested as 10th graders last year. Students in special education programs are included in all rows.

² Excludes students who had not passed and did not take one or both tests this year.

Explanation of table contents: Tables 3.19 through 3.21 are formatted the same as Table 3.11 above. Row 1 shows that by May of 2008, 337,252 students now in the Class of 2009 (current juniors) had passed the CAHSEE and 176,278 had not. This year, 65,108 of the students who had not passed by May 2008 completed the CAHSEE requirement. Another 82,768 students took the CAHSEE, but have not yet passed both parts. Also, 28,402 students who had not passed by May 2008 did not participate in the 2008-09 administrations. Overall, 402,360 students in the Class of 2009 have now passed the CAHSEE, which is 82.9% of the 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.

Table 3.13. Estimated Number and Percentage of Students in the Class of 2010¹ Passing the CAHSEE ELA Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed ²	Not Tested ³	Passed	Not Passed ⁴	Percent Pass
All Students	369,651	143,879	58,082	54,120	28,402	427,733	57,395	88.2%
Females	190,462	59,539	25,567	20,972	11,750	216,029	22,222	90.7%
Males	179,189	84,340	32,515	33,148	16,652	211,704	35,173	85.8%
Native American	3,057	1,304	517	390	348	3,574	439	89.1%
Asian	38,767	7,357	3,397	2,861	999	42,164	2,961	93.4%
Pacific Islander	2,544	983	436	342	187	2,980	360	89.2%
Filipino	12,454	2,279	1,203	728	313	13,657	763	94.7%
Hispanic	151,746	87,534	32,690	36,290	16,665	184,436	38,179	82.8%
African American	24,824	17,202	6,207	6,472	3,982	31,031	7,013	81.6%
White, non-Hispanic	136,124	27,157	13,632	7,037	5,845	149,756	7,680	95.1%
Economically Disadvantaged	147,523	89,749	32,782	37,843	17,139	180,305	39,828	81.9%
English Learner	29,680	55,810	17,147	28,384	9,334	46,827	29,329	61.5%
Reclassified Fluent English	76,828	10,889	6,808	2,172	1,694	83,636	2,387	97.2%
Special Education	12,627	33,037	7,044	17,435	7,979	19,671	18,014	52.2%

¹ Current 11th graders who also tested as 12th graders in 2005-06 (Class of 2006), 2006-07 (Class of 2007), or 2007-08 (Class of 2008) are *excluded* from this table. Current 11th graders who tested as 11th graders last year have been moved into counts for the Class of 2010 and are included here along with students who tested as 10th graders last year. 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.

⁴ Excludes students who had not passed and did not take one or both tests this year.

Table 3.14. Estimated Number and Percentage of Students in the Class of 2010¹ Passing the CAHSEE Mathematics Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed ²	Not Tested ³	Passed	Not Passed ⁴	Percent Pass
All Students	366,355	147,175	56,742	58,438	28,402	423,097	62,031	87.2%
Females	181,246	68,755	28,094	27,375	11,750	209,340	28,911	87.9%
Males	185,109	78,420	28,648	31,063	16,652	213,757	33,120	86.6%
Native American	2,998	1,363	448	523	348	3,446	567	85.9%
Asian	40,907	5,217	2,844	1,291	999	43,751	1,374	97.0%
Pacific Islander	2,541	986	439	333	187	2,980	360	89.2%
Filipino	12,511	2,222	1,185	693	313	13,696	724	95.0%
Hispanic	150,521	88,759	32,497	37,494	16,665	183,018	39,597	82.2%
African American	22,588	19,438	6,093	8,834	3,982	28,681	9,363	75.4%
White, non-Hispanic	134,154	29,127	13,236	9,270	5,845	147,390	10,046	93.6%
Economically Disadvantaged	148,296	88,976	31,532	38,126	17,139	179,828	40,305	81.7%
English Learner	36,630	48,860	15,721	22,796	9,334	52,351	23,805	68.7%
Reclassified Fluent English	74,690	13,027	7,409	3,686	1,694	82,099	3,924	95.4%
Special Education	12,198	33,466	5,949	18,850	7,979	18,147	19,538	48.2%

¹ Current 11th graders who also tested as 12th graders in 2005-06 (Class of 2006), 2006-07 (Class of 2007), or 2007-08 (Class of 2008) are *excluded* from this table. Current 11th graders who tested as 11th graders last year have been moved into counts for the Class of 2010 and are included here along with students who tested as 10th graders last year. 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.

⁴ Excludes students who had not passed and did not take one or both tests this year.

Table 3.15 shows cumulative passing rates through the end of 11th grade for the Class of 2010 in comparison to corresponding passing rates for the Classes of 2009. Eleventh grade passing rates for students in the Class of 2010 are more than a percentage point higher than for the Class of 2009 last year at this time. All demographic groups showed an increase in cumulative 11th grade passing rates this year, except for students in special education programs. The increase for lower scoring groups was nearly 3 percentage points for African American students, 2 percentage points for Hispanic and economically disadvantaged students, and over 1 percentage point for English learners. The 11th grade passing rate for students in special education programs dropped by over a percentage point.

Table 3.15. Comparison of CAHSEE Passing Rates for the Classes of 2009 and 2010 at the End of 11th Grade

Group	Passed ELA		Passed Mathematics		Passed Both	
	Class of 2009 11 th Graders	Class of 2010 11 th Graders	Class of 2009 11 th Graders	Class of 2010 11 th Graders	Class of 2009 11 th Graders	Class of 2010 11 th Graders
All Students	87.7%	88.2%	86.5%	87.2%	81.7%	82.9%
Females	90.6%	90.7%	87.1%	87.9%	83.7%	84.7%
Males	84.9%	85.8%	86.0%	86.6%	79.8%	81.2%
Native American	86.7%	89.1%	83.5%	85.9%	79.4%	82.7%
Asian	92.7%	93.4%	96.7%	97.0%	91.6%	92.5%
Pacific Islander	87.4%	89.2%	86.6%	89.2%	81.0%	85.0%
Filipino	94.9%	94.7%	94.8%	95.0%	92.4%	92.6%
Hispanic	82.1%	82.8%	81.0%	82.2%	74.1%	76.1%
African American	80.0%	81.6%	72.8%	75.4%	68.1%	71.0%
White, non-Hispanic	95.1%	95.1%	93.7%	93.6%	91.7%	91.9%
Economically Disadvantaged	80.7%	81.9%	80.0%	81.7%	72.7%	75.1%
English Learner	61.4%	61.5%	68.3%	68.7%	51.9%	53.1%
Reclassified Fluent English	97.1%	97.2%	94.9%	95.4%	93.2%	94.0%
Special Education	52.1%	52.2%	47.7%	48.2%	39.2%	37.9%

¹ Note: A few students who also tested as 12th graders in previous years are *excluded* from this table. Students in special education programs are included in each demographic category as appropriate and in results for all students.

Initial Results for the Class of 2011

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 3.16 shows the 10th grade CAHSEE completion rates (passing both parts) for the classes of 2006 through 2011. 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 3.17 and 3.18 show comparative passing rates for the ELA and mathematics tests respectively.

Table 3.16. Percentage of 10th Grade Students Passing Both Parts of the CAHSEE by Demographic Group

Group	10 th Graders Tested In 2009	Percent Passing					
		Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2011
All students	493,559	64.3%	65.4%	65.1%	65.2%	69.2%	69.9%
Females	240,918	67.1%	68.1%	67.9%	68.0%	71.8%	72.4%
Males	252,352	61.7%	62.8%	62.4%	62.5%	66.8%	67.4%
Native American	4,384	59.9%	59.6%	61.0%	61.6%	66.0%	64.8%
Asian	44,340	81.5%	82.5%	82.5%	83.2%	85.8%	86.1%
Pacific Islander	3,454	60.4%	63.4%	62.9%	63.3%	69.7%	68.9%
Filipino	14,268	80.8%	81.3%	81.3%	82.4%	84.5%	85.1%
Hispanic	227,531	49.0%	51.1%	52.4%	52.9%	58.5%	60.1%
African American	39,579	45.3%	46.4%	46.3%	47.8%	52.5%	53.3%
White (not Hispanic)	154,135	80.7%	81.4%	80.5%	80.5%	83.4%	83.2%
Economically disadvantaged	229,687	47.7%	50.1%	50.8%	51.4%	57.2%	58.8%
English Learners	81,094	29.6%	30.8%	27.0%	25.6%	29.5%	30.6%
Reclassified fluent English	86,071	76.3%	78.6%	78.1%	77.9%	83.3%	84.1%
Special education students	44,304	18.8%	20.2%	20.9%	21.1%	20.2%	21.1%

¹ Note. The numbers in different demographic categories may not add to the total because of missing demographic information.

**Table 3.17. Tenth Grade Student Passing Rates by Demographic Group—
English-Language Arts**

Group	10 th Graders Tested In 2009 ¹	Percent Passing					
		Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2011
All students	491,720	72.9%	74.8%	73.4%	73.3%	77.3%	76.9%
Females	239,935	77.4%	79.5%	78.1%	78.0%	81.6%	81.0%
Males	251,785	68.7%	70.2%	69.0%	68.8%	73.3%	73.1%
Native American	4,079	70.9%	70.8%	71.6%	71.4%	80.1%	74.1%
Asian	44,361	84.1%	85.2%	85.0%	85.2%	87.5%	87.7%
Pacific Islander	3,395	69.3%	73.5%	72.3%	72.5%	78.9%	75.3%
Filipino	14,536	86.3%	87.3%	86.7%	87.0%	87.0%	88.5%
Hispanic	233,891	59.8%	63.2%	62.8%	63.2%	66.7%	68.8%
African American	39,664	60.1%	62.1%	60.6%	61.5%	66.2%	65.7%
White (not Hispanic)	151,794	87.0%	88.0%	86.4%	86.1%	89.9%	88.2%
Economically disadvantaged	242,076	58.1%	61.8%	61.1%	61.4%	63.6%	67.3%
English Learners	80,306	38.0%	41.3%	35.8%	34.2%	39.8%	39.0%
Reclassified fluent English	89,665	85.2%	87.9%	86.5%	86.3%	86.8%	90.3%
Special education students	44,479	28.8%	31.5%	31.6%	30.7%	31.8%	32.0%

¹ Note. The numbers in different demographic categories may not add to the total because of missing demographic information.

**Table 3.18. Tenth Grade Student Passing Rates by Demographic Group—
Mathematics**

Group	10 th Graders Tested In 2009 ¹	Percent Passing					
		Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2011
All students	491,720	71.8%	72.1%	71.7%	72.2%	76.4%	76.9%
Females	239,935	72.8%	73.1%	72.8%	73.0%	77.1%	77.7%
Males	251,785	70.8%	71.3%	70.7%	71.4%	75.8%	76.2%
Native American	4,079	66.3%	66.3%	67.1%	67.6%	78.1%	70.8%
Asian	44,361	90.5%	90.9%	90.0%	91.0%	92.9%	93.1%
Pacific Islander	3,395	69.5%	70.4%	69.9%	71.3%	78.4%	77.2%
Filipino	14,536	86.0%	85.8%	85.6%	87.0%	87.1%	90.1%
Hispanic	233,891	59.2%	60.2%	61.5%	62.3%	66.1%	69.5%
African American	39,664	51.9%	52.5%	52.3%	54.0%	59.2%	60.2%
White (not Hispanic)	151,794	85.0%	85.4%	84.1%	84.4%	88.3%	86.8%
Economically disadvantaged	242,076	58.6%	59.9%	60.4%	61.3%	63.7%	68.8%
English Learners	80,306	47.6%	47.0%	44.3%	43.9%	49.1%	50.0%
Reclassified fluent English	89,665	81.9%	83.4%	82.9%	83.1%	84.2%	88.9%
Special education students	44,479	27.8%	28.6%	28.4%	29.1%	29.9%	30.3%

¹ 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 10th grade 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 shown in Figure 3.2, overall 10th grade passing rates increased slightly in 2009 compared to 2008 for all groups. The overall passing rate for 10th graders was nearly 6 points higher in 2009 compared to the initial 10th grade passing rate in 2004 (70% compared to 64%). Passing rates increased by 8 to 11 percentage points for different racial ethnic groups from 2004 to 2009, but only 1 or 2 percentage points for English learners and students in special education programs.

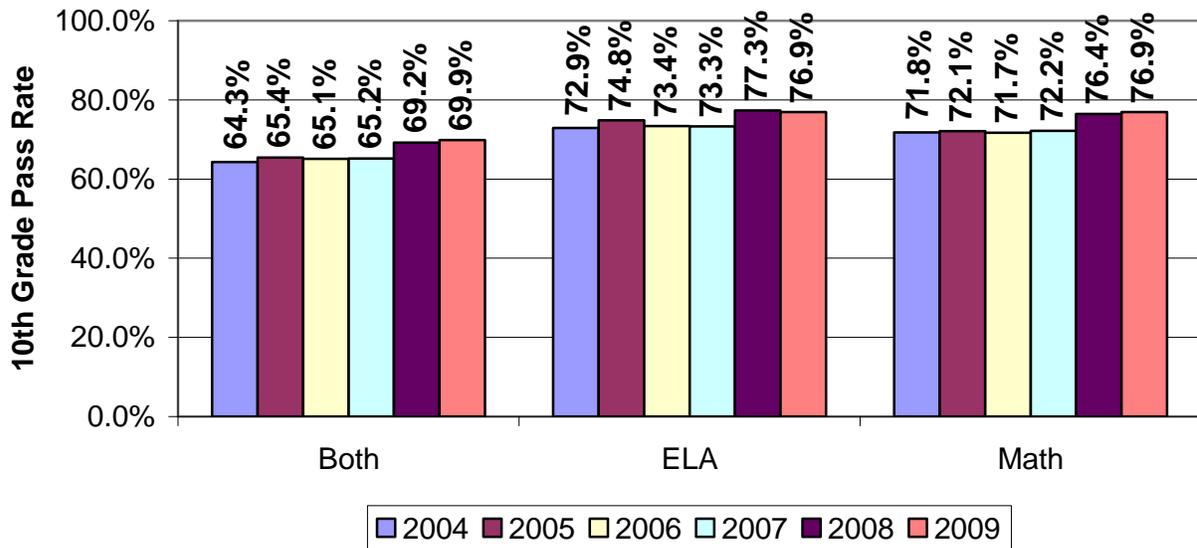


Figure 3.1. Trends in 10th grade CAHSEE passing rates.

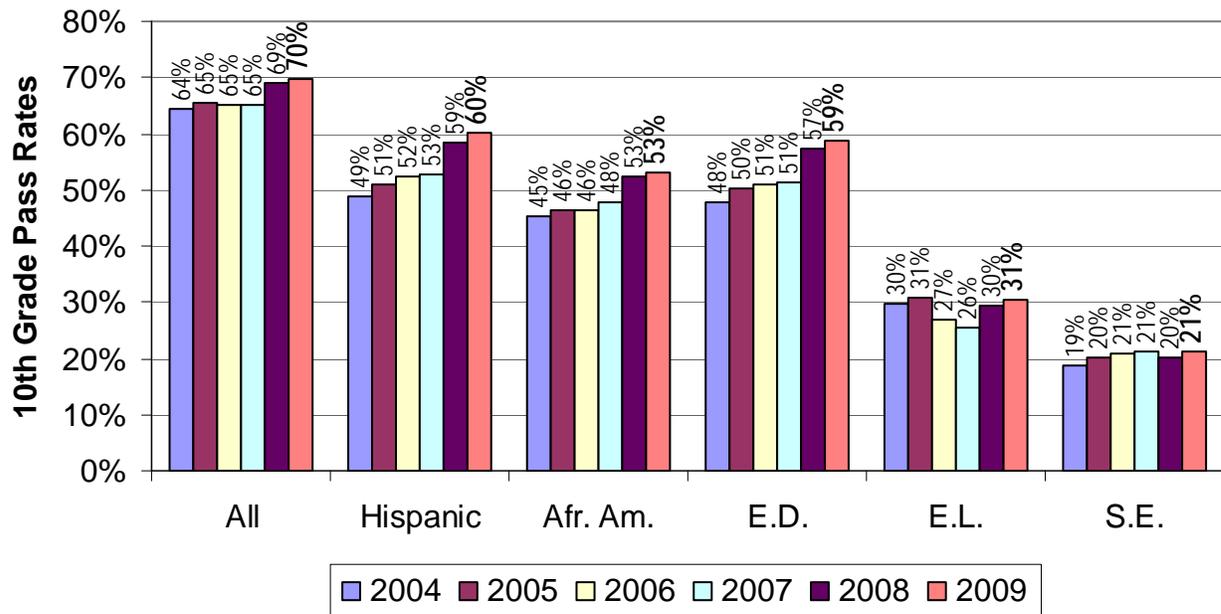


Figure 3.2. Trends in overall 10th grade passing rates for selected groups.

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

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 high school math courses. Table 3.19 shows the distribution of the highest level of mathematics course completed by the end of 10th grade for students in the Class of 2011 compared to students in the classes of 2005 through 2010. In 2009 and 2010 there was a significant increase in students taking Algebra I and a corresponding decrease in the numbers of students whose highest course was Pre-Algebra. This anomalous trend was reversed in students of the Class of 2011. It may be that the students or even some teachers were unclear about what constituted an Algebra I course and that a stricter interpretation was introduced this year. Apart from the apparent confusion between Algebra I and Pre-Algebra, the trend is quite positive. Significantly more students are taking Geometry (39%, up from 27%) or courses beyond Geometry (29%, up from 27%) in 10th grade compared to earlier years.

Table 3.19. 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	Class of 2011
General Math	3.0%	2.6%	2.0%	1.9%	0.9%	0.0%	1.2%
Pre-Algebra	11.5%	11.1%	9.9%	11.7%	3.1%	2.2%	8.7%
Algebra I/Int. Math I	27.6%	27.5%	24.9%	18.9%	28.3%	27.7%	18.3%
Geometry/Int. Math II	31.0%	31.0%	31.7%	34.3%	33.6%	36.9%	38.5%
Algebra II/Int. Math III	17.5%	18.4%	17.9%	20.4%	21.3%	23.4%	25.4%
Advanced Math	1.9%	2.2%	2.5%	2.7%	2.8%	3.1%	3.4%
None/Missing	7.7%	7.2%	10.1%	10.3%	10.0%	6.6%	4.6%
No. of Students	414,903	450,928	470,891	502,874	502,501	474,351	458,777

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

Table 3.20 shows the percentage of students in key demographic groups who have taken courses beyond Algebra I (meets expectation at Grade 10) when students with missing information are excluded. 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. More than two-thirds of the 10th graders had taken or were taking mathematics courses beyond Algebra I. Nearly 90% of Asian students were taking courses beyond Algebra I. The percentage of students in special education taking courses beyond Algebra I increased significantly (from 34% to 37%), but their rate is still very low compared to students in other demographic groups.

Table 3.20. Trends in Math Courses Taken by Demographic Group

Group ¹	Percentage 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	Class of 2011
All Students	54.6%	55.6%	59.6%	64.0%	64.2%	68.0%	70.4%
Females	57.8%	59.1%	62.9%	67.1%	67.6%	71.1%	73.3%
Males	51.5%	52.2%	56.5%	61.0%	60.9%	65.0%	67.6%
Native American	-- ²	-- ²	-- ²	-- ²	50.1%	55.6%	57.0%
Asian	78.7%	80.6%	83.8%	85.1%	85.0%	87.9%	88.9%
Pacific Islander	-- ²	-- ²	-- ²	-- ²	62.0%	67.5%	70.7%
Filipino	-- ²	-- ²	-- ²	-- ²	79.7%	82.1%	84.4%
Hispanic	42.0%	43.4%	49.2%	56.3%	56.3%	60.8%	64.1%
African American	48.6%	48.6%	53.4%	58.4%	59.2%	63.4%	64.9%
White (not Hispanic)	62.0%	63.1%	65.8%	68.8%	69.3%	72.5%	74.6%
Econ. Disadvantaged	43.4%	44.9%	51.1%	57.2%	57.3%	61.7%	64.6%
English Learners	33.8%	36.8%	42.8%	46.1%	43.3%	48.3%	52.3%
Reclassified Fluent	-- ²	-- ²	-- ²	-- ²	76.7%	78.7%	80.5%
Special Education	19.5%	19.0%	24.3%	33.3%	31.7%	33.9%	36.8%

¹ Students whose highest mathematics course was unknown were excluded from this table.

² Students in a few specific demographic groups were not analyzed separately prior to 2009.

For all groups, the percentage taking courses beyond Algebra I continued to increase this year. However, the percentage 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 (65%) was about the same as the percentage of white students taking courses beyond Algebra I 4 years ago.

Table 3.21 shows the CAHSEE mathematics passing rates for students at each course level. Passing rates dropped somewhat for students who had only taken Algebra I, dropped slightly for students whose highest course was Geometry, and increased somewhat for students taking courses beyond Geometry. Differences among these three levels were dramatic. About 99% of the students taking courses beyond Geometry passed the CAHSEE mathematics test on their first try compared to 85% of the students who were taking Geometry and only 58% of the students who had not taken courses beyond Algebra I.

Table 3.21. Tenth Grade 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	Class of 2011
Algebra I/Int. Math I	58.1%	57.5%	53.5%	59.0%	61.1%	58.3%
Geometry/Int. Math II	87.2%	85.2%	81.3%	84.2%	85.3%	84.9%
Algebra II/Int. Math III	95.3%	96.0%	91.9%	95.4%	96.0%	98.8%
Advanced Math	99.4%	99.5%	96.4%	98.9%	99.2%	99.7%
None/Missing	50.0%	41.2%	49.0%	35.4%	48.9%	64.6%
No. of Students	414,903	450,928	470,891	502,501	474,351	458,777

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

Tables 3.22 through 3.24 show the number of students in the Class of 2006 who are now estimated to have passed the CAHSEE through May 2009, 3 years after their original graduation date. 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 2008–09, over 2,000 non-special education students who had been in the Class of 2006 3 years earlier continued to try to pass the CASHEE. This is over 6% of the nearly 33,000 students in the Class of 2006 estimated to have not met the CAHSEE requirement by May of 2008. These students demonstrated commendable perseverance in trying to earn their diploma more than 2 years after their originally scheduled graduation. A significant number of them, over 650, 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 3.22. Estimated Number and Percentage of Students in the Class of 2006 Passing Both Parts of the CAHSEE Through May 2009

Group ¹	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Passed	Percent Pass
All Students	403,697	32,892	658	1,351	30,883	404,355	32,234	92.6%
Females	203,303	15,451	331	754	14,366	203,634	15,120	93.1%
Males	200,160	17,441	327	597	16,517	200,487	17,114	92.1%
Asian	42,082	1,727	49	94	1,584	42,131	1,678	96.2%
Hispanic	148,115	21,300	451	946	19,903	148,566	20,849	87.7%
African American	28,758	4,860	77	202	4,581	28,835	4,783	85.8%
White, non-Hispanic	160,702	4,046	63	85	3,898	160,765	3,983	97.6%
Economically Disadvantaged	142,205	17,371	182	370	16,819	142,387	17,189	89.2%
English Learner	55,670	13,588	266	636	12,686	55,936	13,322	80.8%
Special Education	19,276	14,100	20	124	13,956	19,296	14,080	57.8%

¹ Many students in special education programs who had not passed the CAHSEE by the end of the 12th grade were allowed an exemption from the CAHSEE requirement and so were *excluded* from all rows of the table except for the last row. Note that some racial/ethnic groups were not analyzed separately prior to 2008.

Explanation of table contents: The first row of the table indicates that 403,697 students who were 12th graders in 2006 had passed both parts of the CAHSEE by May of 2008 and 32,892 (non-Special Education) students had not. Of the 32,892 who had not passed by May 2008, 658 students took the CAHSEE in July 2008 through May 2009 and have now passed both parts. Another 1,351 Class of 2006 students took the CAHSEE at least once this year, but have not yet passed both parts, and 30,883 students who had not passed the CAHSEE were not matched to any of the 2008-09 CAHSEE records. A cumulative total of 404,355 Class of 2006 students have passed CAHSEE (the sum of those passing by May 2008 and those passing since then). The cumulative number not passing was reduced to 32,234 (those testing and not passing plus those not testing since May 2008). The cumulative percentage passing (92.6%) is the total passing (404,355) divided by the sum of those passing and those not passing (404,355 plus 32,234) and expressed as a percentage.

Table 3.23. Estimated Number and Percentage of Students in the Class of 2006 Passing the CAHSEE ELA Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Passed	Percent Pass
All Students	415,658	22,167	486	778	20,903	416,144	21,681	95.0%
Females	210,213	9,423	228	389	8,806	210,441	9,195	95.8%
Males	205,234	12,744	258	389	12,097	205,492	12,486	94.3%
Asian	42,350	1,428	45	81	1,302	42,395	1,383	96.8%
Hispanic	155,029	14,874	336	566	13,972	155,365	14,538	91.4%
African American	30,975	2,949	61	81	2,807	31,036	2,888	91.5%
White, non-Hispanic	161,560	2,312	34	35	2,243	161,594	2,278	98.6%
Economically Disadvantaged	148,720	12,266	146	226	11,894	148,866	12,120	92.5%
English Learner	58,875	10,799	219	488	10,092	59,094	10,580	84.8%
Special Education	24,024	11,047	25	84	10,938	24,049	11,022	68.6%

¹ Many students in special education programs who had not passed the CAHSEE by the end of the 12th grade were allowed an exemption from the CAHSEE requirement and so were *excluded* from all rows of the table except for the last row.

Table 3.24. Estimated Number and Percentage of Students in the Class of 2006 Passing the CAHSEE Mathematics Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Pass	Not Pass	Not Tested	Passed	Not Passed	Percent Pass
All Students	413,528	23,643	445	870	22,328	413,973	23,198	94.7%
Females	207,208	11,450	228	517	10,705	207,436	11,222	94.9%
Males	206,105	12,193	217	353	11,623	206,322	11,976	94.5%
Asian	43,159	756	16	23	717	43,175	740	98.3%
Hispanic	154,775	15,076	303	591	14,182	155,078	14,773	91.3%
African American	29,492	4,082	61	176	3,845	29,553	4,021	88.0%
White, non-Hispanic	161,591	3,032	50	69	2,913	161,641	2,982	98.2%
Economically Disadvantaged	148,911	12,268	126	239	11,903	149,037	12,142	92.5%
English Learner	61,887	8,296	136	288	7,872	62,023	8,160	88.4%
Special Education ¹	22,371	11,863	18	99	11,746	22,389	11,845	65.4%

¹ Many students in special education programs who had not passed the CAHSEE by the end of the 12th grade were allowed an exemption from the CAHSEE requirement and so were *excluded* from all rows of the table except for the last row.

Class of 2007 – Many Students Continued to Try to Pass the CAHSEE in Their Sixth Year of High School

Tables 3.25 through 3.27 show the number of students in the Class of 2007 who are now estimated to have passed the CAHSEE through May 2009. Because many students in special education programs were exempt from the CAHSEE requirement, we are continuing to report students in special education programs separately, excluding them from the counts for other student groups, including the counts for all students.

Results from the July 2008 through May 2009 CAHSEE administrations for students in the Class of 2007 showed that nearly 4,000 Class of 2007 students continued to try to pass the CAHSEE, more than a year after their original graduation date, and more than 1,000 of them did.

Table 3.25. Estimated Number and Percentage of Students in the Class of 2007 Passing Both Parts of the CAHSEE Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Passed	Percent Pass
All Students	410,672	32,184	1,113	2,855	28,216	411,785	31,071	93.0%
Females	207,044	14,964	597	1,624	12,743	207,641	14,367	93.5%
Males	202,678	17,220	516	1,231	15,473	203,194	16,704	92.4%
Asian	41,987	1,736	71	209	1,456	42,058	1,665	96.2%
Hispanic	152,523	20,445	747	1,948	17,750	153,270	19,698	88.6%
African American	30,245	4,871	136	411	4,324	30,381	4,735	86.5%
White, non-Hispanic	159,037	4,252	136	219	3,897	159,173	4,116	97.5%
Economically Disadvantaged	151,266	17,152	392	968	15,792	151,658	16,760	90.0%
English Learner	55,126	13,137	436	1,353	11,348	55,562	12,701	81.4%
Special Education	18,034	19,732	75	490	19,167	18,109	19,657	48.0%

¹ Many students in special education programs who had not passed the CAHSEE by the end of the 12th grade were allowed an exemption from the CAHSEE requirement and so were *excluded* from all rows of the table except for the last row.

Table 3.26. Estimated Number and Percentage of Students in the Class of 2007 Passing the CAHSEE ELA Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Passed	Percent Pass
All Students	424,377	22,257	785	1,686	19,786	425,162	21,472	95.2%
Females	215,014	9,113	380	865	7,868	215,394	8,733	96.1%
Males	208,168	13,144	405	821	11,918	208,573	12,739	94.2%
Asian	42,289	1,525	63	176	1,286	42,352	1,462	96.7%
Hispanic	160,457	14,546	531	1,209	12,806	160,988	14,015	92.0%
African American	32,840	2,948	88	171	2,689	32,928	2,860	92.0%
White, non-Hispanic	160,996	2,637	88	81	2,468	161,084	2,549	98.4%
Economically Disadvantaged	159,188	12,376	277	611	11,488	159,465	12,099	92.9%
English Learner	59,591	10,814	381	1,041	9,392	59,972	10,433	85.2%
Special Education	22,785	15,468	99	345	15,024	22,884	15,369	59.8%

¹ Many students in special education programs who had not passed the CAHSEE by the end of the 12th grade were allowed an exemption from the CAHSEE requirement and so were *excluded* from all rows of the table except for the last row.

Table 3.27. Estimated Number and Percentage of Students in the Class of 2007 Passing the CAHSEE Mathematics Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed*	Passed	Not Passed	Not Tested	Passed	Not Passed	Percent Pass
All Students	422,620	23,518	736	1,810	20,972	423,356	22,782	94.9%
Females	212,236	11,601	429	1,106	10,066	212,665	11,172	95.0%
Males	209,775	11,917	307	704	10,906	210,082	11,610	94.8%
Asian	43,452	707	25	50	632	43,477	682	98.5%
Hispanic	160,756	14,577	488	1,192	12,897	161,244	14,089	92.0%
African American	31,033	4,197	110	366	3,721	31,143	4,087	88.4%
White, non-Hispanic	160,028	3,397	96	166	3,135	160,124	3,301	98.0%
Economically Disadvantaged	159,789	12,114	263	588	11,263	160,052	11,851	93.1%
English Learner	63,194	7,727	203	599	6,925	63,397	7,524	89.4%
Special Education	21,200	16,904	86	391	16,427	21,286	16,818	55.9%

¹ Many students in special education programs who had not passed the CAHSEE by the end of the 12th grade were allowed an exemption from the CAHSEE requirement and so were *excluded* from all rows of the table except for the last row.

Class of 2008 – Many of Last Year’s Seniors Continued to Take the CAHSEE

Tables 3.28 through 3.30 show estimated cumulative passing rates for the Class of 2008 after including results from the July 2008 through May 2009 CAHSEE administrations. To avoid duplication, we have excluded students who were counted above as in the Class of 2006 or the Class of 2007, even though many of those students were also in 12th grade again in 2008. As with the Class of 2007, the definition of the Class of 2008 used here is students who were first-time 12th graders in Spring 2008. Unlike in the Classes of 2006 and 2007, students in special education in the Class of 2008 were no longer exempted from the CAHSEE requirement and thus are included in each row of the following tables.

Nearly 19,000 of the students in the Class of 2008 who had not passed the CAHSEE by the end of their senior year last spring have continued to try to pass the CAHSEE this year. So far, over 5,000 of them have now passed, bringing the total passing rate for all students, including students in special education programs, to 91.3%.

One interesting comparison is the passing rates for students with disabilities in different high school Classes. Students with disabilities in the Class of 2006 believed that they would have to pass the CAHSEE to receive a diploma until well into their senior year when an exemption for these students was established. Our best estimate is that 58% of these students did pass the CAHSEE (Table 3.22 above). Students with disabilities in the Class of 2007 were exempted from the CAHSEE requirement before their senior year. Only 48% of these students met the CAHSEE requirement (Table 3.25 above). The exemption was removed for students with disabilities in the Class of 2008 and the passing rate went back up to 57% (Table 3.28). This year, the passing rate for students with disabilities in the Class of 2009 is already 56%. This rate may go higher as many of these students continue for another year or two of high school, although many may now be exempted from having to meet this requirement.

Table 3.28. Estimated Number and Percentage of Students in the Class of 2008¹ Passing Both CAHSEE Tests through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Current Passed	Not Passed	Percent Pass
All Students	429,820	46,471	5,233	13,719	27,519	435,053	41,238	91.3%
Females	216,043	19,639	2,496	6,373	10,770	218,539	17,143	92.7%
Males	213,777	26,832	2,737	7,346	16,749	216,514	24,095	90.0%
Native American	3,671	380	36	70	274	3,707	344	91.5%
Asian	42,664	1,961	273	717	971	42,937	1,688	96.2%
Pacific Islander	2,981	321	27	72	222	3,008	294	91.1%
Filipino	13,943	508	72	170	266	14,015	436	97.0%
Hispanic	170,875	28,179	3,379	8,843	15,957	174,254	24,800	87.5%
African American	31,429	7,678	740	2,233	4,705	32,169	6,938	82.3%
White, non-Hispanic	164,053	7,222	706	1,614	4,902	164,759	6,516	96.2%
Economically Disadvantaged	163,295	26,969	2,859	7,836	16,274	166,154	24,110	87.3%
English Learner	50,262	18,375	2,073	6,297	10,005	52,335	16,302	76.2%
Reclassified Fluent English	69,174	2,085	367	577	1,141	69,541	1,718	97.6%
Special Education	20,400	16,479	753	4,643	11,083	21,153	15,726	57.4%

¹ Students who 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.

Table 3.29. Estimated Number and Percentage of Students in the Class of 2008¹ Passing the CAHSEE ELA Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed ²	Not Tested ³	Current Passed	Not Passed	Percent Passed
All Students	443,766	32,525	4,005	8,839	19,681	447,771	28,520	94.0%
Females	223,632	12,050	1,645	3,597	6,808	225,277	10,405	95.6%
Males	220,134	20,475	2,360	5,242	12,873	222,494	18,115	92.5%
Native American	3,813	238	30	41	167	3,843	208	94.9%
Asian	42,919	1,706	254	641	811	43,173	1,452	96.7%
Pacific Islander	3,066	236	19	48	169	3,085	217	93.4%
Filipino	14,080	371	59	126	186	14,139	312	97.8%
Hispanic	178,738	20,316	2,531	5,860	11,925	181,269	17,785	91.1%
African American	34,088	5,019	567	1,247	3,205	34,655	4,452	88.6%
White, non-Hispanic	166,781	4,494	545	876	3,073	167,326	3,949	97.7%
Economically Disadvantaged	170,447	19,817	2,233	5,359	12,225	172,680	17,584	90.8%
English Learner	53,657	14,980	1,771	4,883	8,326	55,428	13,209	80.8%
Reclassified Fluent English	70,265	994	178	241	575	70,443	816	98.9%
Special Education	24,344	12,535	1,014	3,256	8,265	25,358	11,521	68.8%

¹ Students who 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.

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 3.30. Estimated Number and Percentage of Students in the Class of 2008¹ Passing the CAHSEE Mathematics Test Through May 2009

Group	By May 2008		July 2008-May 2009			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed ²	Not Tested ³	Current Passed	Not Passed	Percent Passed
All Students	440,405	35,886	4,309	9,355	22,222	444,714	31,577	93.4%
Females	219,829	15,853	2,096	4,657	9,100	221,925	13,757	94.2%
Males	220,576	20,033	2,213	4,698	13,122	222,789	17,820	92.6%
Native American	3,732	319	28	54	237	3,760	291	92.8%
Asian	43,745	880	119	214	547	43,864	761	98.3%
Pacific Islander	3,077	225	18	48	159	3,095	207	93.7%
Filipino	14,099	352	40	89	223	14,139	312	97.8%
Hispanic	177,821	21,233	2,782	5,921	12,530	180,603	18,451	90.7%
African American	32,433	6,674	685	1,811	4,178	33,118	5,989	84.7%
White, non-Hispanic	165,253	6,022	637	1,218	4,167	165,890	5,385	96.9%
Economically Disadvantaged	169,806	20,458	2,393	5,130	12,935	172,199	18,065	90.5%
English Learner	56,569	12,068	1,476	3,464	7,128	58,045	10,592	84.6%
Reclassified Fluent English	69,588	1,671	310	430	931	69,898	1,361	98.1%
Special Education	22,733	14,146	1,060	3,493	9,593	23,793	13,086	64.5%

¹ Students who 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.

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.

Summary of Test Results

Cumulative passing rates for seniors were largely unchanged. Cumulative passing rates for seniors in the Class of 2009 were only slightly higher (90.6%) than the corresponding rates for the Class of 2008 (90.4%) passing both parts as shown in Table 3.7). Cumulative passing rates for students in special education programs increased much more significantly, more than 2 percentage points, from 54.5% to 56.6%.

Eleventh grade passing rates increased significantly. Cumulative passing rates for 11th graders in the Class of 2010 increased just over a percentage point compared to 11th grade passing rates for the Class of 2009 at the end of 11th grade (from 81.7% to 82.9% as shown in Table 3.15). This was a significant increase and should lead to a continued reduction in the number of seniors who are denied diplomas due to the CAHSEE requirement next year.

Passing rates for 10th graders also increased somewhat. About 69.9% of 10th graders completed the CAHSEE requirement this year compared to 69.2% in 2008, reflecting a continued improvement over earlier years (Table 3.16). Tenth grade passing rates increased for all demographic groups except for Native Americans and Pacific Islanders.

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 57% of special education students in the Class of 2009 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.

There was a widening gap in the mathematics courses taken. More 10th grade students had taken (or were taking) geometry or even more advanced mathematics courses. At the same time, the percentage of 10th graders who reported not yet taking Algebra I increased significantly, by about 10%. Students who were taking more advanced mathematics courses had very little trouble with the CAHSEE requirement, while students who had taken fewer courses had significantly lower passing rates on the CAHSEE mathematics test.

Many students from the classes of 2006, 2007, and 2008 who had not passed the CAHSEE continued to test. About 2,000 students from the Class of 2006 continued to try to pass the CAHSEE, more than 2 years 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 3.22). Similarly, roughly 4,000 students in the Class of 2007 were still trying to pass the CAHSEE in the second year after their original graduation date. A significant finding was that more than 40% of students in the Class of 2008 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. *Four-year graduation rate estimates provide an incomplete picture of eventual outcomes for these students.*

Chapter 4: 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, on the other hand, focused on the possibility that student motivation would not increase for many students, but dropout rates would increase instead. The end result would be to deny many students a high school diploma, with very negative consequences for their subsequent success in life.

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 (10th grade) and eventual (12th grade) passing rates have increased, suggesting improved effectiveness in instruction. Another study of CAHSEE's impact on instruction is reported here. 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.

The primary focus of our evaluation has been on academic preparation to pass the CAHSEE. We are reminded, however, that attention to psychological preparation may also be important. Louis Kruger (2009) produced a documentary on children struggling to pass the graduation test in Massachusetts. Although most of the children followed did eventually pass the exam, the psychological stress that they experienced was palpable. A similar issue of psychological preparation is raised in a recent report by Sean Reardon of Stanford University and his colleagues (Reardon, et al., 2009). Their results seem to support a phenomenon known as "stereotype threat" which suggests that students in various groups (e.g., gender, ethnic) perform less well on high stakes tests when they believe that their group is not expected to perform well on such tests. In both cases, students need adequate academic preparation but they also need to believe that, with effort, they can master the required skills and pass the exam. Unfortunately, we have not been able to study psychological preparation for the CAHSEE within the scope of our evaluation.

In previous evaluation reports, 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 when the CAHSEE requirement took effect. However, many students who failed to complete the CAHSEE requirement on time are continuing for a 5th, and even a 6th, year of high school and continuing to try to meet the CAHSEE

requirement. The 2008 CAHSEE Evaluation Report (Becker, Wise, & Watters, 2008), in particular, included extensive analyses of characteristics of students in the Class of 2008 who did not pass the CAHSEE requirement by the end of their senior year. This year, we explore additional data on these students and track the subsequent progress of those still trying to pass the CAHSEE.

New data collected as part of the California Longitudinal Pupil Achievement Data System (CALPADS) enable us to look more closely at the impact of the CAHSEE requirement on high school graduation. Beginning with the 2006–07 school year, CALPADS collected information (exit codes) on every K–12 student leaving a California public school. We have merged this information with CAHSEE test records to identify the characteristics of students who graduated or left school for various reasons, including whether they passed the CAHSEE and whether they were still trying to pass the CAHSEE after their initial senior year.

In a second set of supplemental analyses, we examine the extent to which success in meeting the CAHSEE requirement can be predicted from earlier test results. Specifically, we merged 2001–08 California Standards Test results for grades 4 through 11 with CAHSEE results for the Class of 2008. For this report, we chose to analyze the relationship between 7th grade ELA and mathematics scores and subsequent success in passing the CAHSEE tests.

Exit Code Data

We received files from CDE containing: (a) 1,027,006 exit code records for 9th and 10th graders in 2007 and 2008; (b) 1,508,316 exit code records for 11th and 12th students in 2007 and 2008; and (c) 24,527 exit code records for high school students in an ungraded status. The total number of records received was 2,555,848. Many students had more than one exit code record because they transferred multiple times or left school and then returned. After eliminating within-state transfers and duplicate records (by keeping the most recent exit code record), we found exit code information for 1,038,993 students who were in high school in 2007 and/or 2008.

We merged the exit code information with test result records for 2,407,919 students who took the CAHSEE in 2006 through 2009. We found matches for 653,004 students (62% of the students with exit code records). About 75% of the exit code records not matched were from students who were 12th graders in 2007, most of whom likely passed the CAHSEE as 10th graders in 2005 and thus were not in the CAHSEE test results file. Another 15% of the unmatched exit code records were for 9th and 10th graders who may have exited before taking the CAHSEE. About 10% of the unmatched exit code records were for 12th graders in 2008 or 11th graders in 2007 or 2008. These students would have taken the CAHSEE between 2006 and 2008, unless they passed in 2005 and then subsequently repeated a grade, moving them to a later high school class.

Focus on the Class of 2008

We identified 532,221 students in the CAHSEE data file who were considered to be in the Class of 2008⁵. Table 4.1 shows the number of Class of 2008 students with and without exit code information. No exit code information was found for about 19% of these students, because they (a) left prior to July 2006, (b) repeated a grade after passing the CAHSEE and were still in school, or (c) had errors or missing information in coding statewide student identifiers (SSIDs) on either the CASHEE or Exit Code records. About 6% of the students were matched to exit codes from the 2006–07 school year, their junior year; another three-quarters were matched to exit codes from their senior year. Over half of the students who left in their junior year or were missing exit code information had passed the CAHSEE compared with a 90% passing rate for students who did have exit codes as seniors.

Table 4.1. Class of 2008 Students by Exit Code Year

Group	All Students		Number and Percent Passing the CAHSEE	
	Total N	% of Total	Number	Percent
Last Exit Code in 2007	30,974	5.8%	15,859	51.2%
Last Exit Code in 2008	398,921	75.0%	359,455	90.1%
No Exit Code	102,326	19.2%	54,801	53.6%
Total	532,221	100.0%	430,115	80.8%

Tables 4.2 through 4.4 show results for each separate exit code. Table 4.2 shows the percentage of Class of 2008 students, overall and within key demographic groups, with each of the possible exit codes. Most students fell under a small cluster of the most common designations among the many possible exit codes. By far the largest percentage of the students in the Class of 2008 (64%) was coded as graduating with a high school diploma. Among English learners and students in special education programs only about 40% were coded as regular diploma graduates. Graduation rates also varied considerably across racial/ethnic groups. Code 104, used to indicate that a student had met all graduation requirements except the CAHSEE, was applied to approximately 1% of all students and 2–4% of English learners and students in special education. Other frequently used codes were 140 (left and subsequent status unknown, considered a drop-out), 200 (transfer out of state), 260 (transfer to adult education), and 360 (dropped out after completing 12th grade without receiving a diploma).

⁵ CAHSEE students were considered to be in the Class of 2008 if they were not 12th graders in 2006 or 2007 and: (a) took the CAHSEE as a 12th grader in 2008, or (b) took the CAHSEE as an 11th grader in 2007 and did not take the CAHSEE in 2008, or (c) took the CAHSEE as a 10th grader in 2006 and did not take the CAHSEE subsequently. Some students who passed the CAHSEE as 10th graders in 2006 may have left the Class of 2008 by graduating early or repeating a grade in 2007 or 2008, but we could not identify such students from the CAHSEE records.

Table 4.3 shows the percentage of students in each exit code and demographic category who had passed the CAHSEE. Some inconsistencies illustrate the limits of the exit code (or possibly the CAHSEE) information at this time. CAHSEE passing records could not be found for just under 2% of the students coded as receiving a regular high school diploma, but passing records were found for 14% of the students coded as meeting all graduation requirements except the CAHSEE. CAHSEE passing rates varied considerably across other exit code categories. About 80–85% of the students who received a GED or passed the California High School Proficiency Exam (CHSPE) had met the CAHSEE requirement. About half of the students who left for unknown reasons (44%), transferred out of California public schools (52%), transferred to adult education (58%) or just left without a diploma after completing 12th grade (62%) had passed the CAHSEE. Also 57% of the students with no matching exit code record had passed the CAHSEE. While difficulty passing the CAHSEE may have been a contributing factor for many of the students who left for these reasons, the majority had already met the CAHSEE requirement and thus left for other reasons.

Table 4.4 shows the percentage of Class of 2008 students in each exit code and demographic category who took the CAHSEE one or more times during the 2008–09 school year, the year after their expected graduation. Again, there were minor inconsistencies, with a few students coded as receiving a diploma in 2008 continuing to take the CAHSEE in 2009. An important finding is that 45% of the students coded as meeting all requirements except the CAHSEE continued testing in their 5th year of high school or in an adult education program. The percentage continuing was somewhat higher (61%) for Asian students in this category and for English learners (51%), many of whom simply needed an additional year of schooling. The continuation percentage was slightly lower (38%) for students who had been in special education programs.

In further analyses, we separated students who appear to have left during their junior year from students who exited during or after their senior year. Table 4.5 shows results for selected exit codes separately by year of exit. We did find exit records for most students who left during or at the end of their senior year. For students in the Class of 2008, exit information was not available prior to their junior year. The 2007 exit code information was somewhat less consistent with the CAHSEE results than the 2008 information. Nearly 20% of the students coded in 2007 as having met all graduation requirements except the CAHSEE had passed the CAHSEE by the end of their senior year, compared to 7% of students coded this way in 2008. Similarly, only 90% of students coded as having graduated with a regular diploma in 2007 were matched to passing CAHSEE records, compared to over 98% of students coded this way in 2008.

Table 4.2. Distribution of Exit Codes for Class of 2008 Students by Demographic Group

Exit Code	All	Females	Males	Asians	Blacks	Hispanics	Whites	E.D.	E.L.	S.E.
100-Grad: Regular Dipl.	64.4%	69.2%	59.8%	80.4%	49.5%	55.9%	73.9%	55.1%	42.6%	38.4%
104-Drop: CAHSEE Only	1.0%	1.1%	1.0%	0.8%	1.6%	1.4%	0.5%	1.4%	2.8%	3.6%
106-Grad: Waiver	0.3%	0.3%	0.4%	0.2%	0.7%	0.3%	0.3%	0.3%	0.4%	3.0%
108-Grad Exempt	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.4%
120-Excpt Needs Cert.	0.7%	0.6%	0.8%	0.4%	1.3%	0.8%	0.5%	0.9%	1.4%	5.7%
125-S.E. Prior Compl.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
130-Deceased	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%
140-Left Unknown	4.1%	3.5%	4.7%	1.4%	6.5%	5.5%	2.7%	5.8%	6.5%	5.4%
165-Transfer Involuntary	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
180-Transfer Private	0.3%	0.3%	0.3%	0.2%	0.4%	0.2%	0.4%	0.3%	0.2%	0.5%
200-Transfer Out Other	1.8%	1.7%	1.8%	1.2%	1.8%	2.1%	1.5%	2.1%	3.9%	1.8%
260-Transfer Adult Ed.	3.7%	2.9%	4.4%	1.6%	3.7%	5.0%	2.6%	4.6%	6.0%	3.6%
280-Enter College	0.2%	0.2%	0.2%	0.3%	0.2%	0.2%	0.2%	0.2%	0.4%	0.3%
300-Drop Disciplinary	0.1%	0.1%	0.2%	0.0%	0.4%	0.1%	0.1%	0.1%	0.1%	0.2%
310-Drop Health	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
320-Grad GED	0.3%	0.2%	0.4%	0.1%	0.5%	0.3%	0.4%	0.4%	0.2%	0.3%
330-Grad CHSPE	0.2%	0.1%	0.2%	0.2%	0.1%	0.1%	0.3%	0.1%	0.1%	0.1%
360-Drop After Grade 12	1.4%	1.1%	1.6%	1.1%	1.6%	1.8%	0.9%	1.7%	2.6%	1.9%
370-Trans Non-Academic	0.4%	0.2%	0.5%	0.1%	0.5%	0.6%	0.2%	0.6%	0.7%	0.6%
380-Drop Job Corps	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%
400-Drop Other	1.0%	0.8%	1.1%	0.3%	1.5%	1.4%	0.6%	1.4%	1.7%	1.4%
410-Drop Medical	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
420 No Show	0.6%	0.5%	0.6%	0.3%	0.9%	0.7%	0.4%	0.7%	1.0%	0.7%
440- Remains in School	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%
450-Infant, K-6 Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
460-Trans Home School	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
No Exit Code	19.2%	16.9%	21.4%	11.4%	28.3%	23.2%	14.3%	23.8%	28.9%	31.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of Students	532,112	258,680	273,432	46,549	47,110	231,426	183,114	221,485	86,918	51,234

Explanation of Table Contents: The first entry in this table shows that, as of June 2008, 64.4% of all Class of 2008 students had an exit code indicating that they graduated with a regular high school diploma. Other entries in the first row show the percentage of students in different demographic groups who had this same exit code.

Table 4.3. Percentage of Class of 2008 Students Meeting the CAHSEE Requirement by Exit Code and Group

Exit Code ¹	All	Females	Males	Asians	Blacks	Hispanics	Whites	E.D.	E.L.	S.E.
100-Grad: Regular Dipl.	98.1%	98.4%	97.8%	99.3%	96.2%	97.7%	98.4%	97.5%	95.9%	77.7%
104-Drop: CAHSEE Only	14.2%	14.8%	13.6%	17.0%	13.3%	14.5%	12.4%	12.8%	12.6%	4.8%
106-Grad: Waiver	10.2%	8.7%	11.3%	13.3%	9.1%	9.6%	11.3%	9.5%	9.1%	8.2%
120-Excpt Needs Cert.	10.2%	11.5%	9.3%	11.4%	6.1%	7.9%	16.1%	6.5%	6.7%	4.3%
140-Left Unknown	44.3%	43.9%	44.6%	52.2%	34.8%	40.6%	57.5%	41.3%	27.3%	15.7%
180-Transfer Private	66.3%	70.4%	62.8%	67.4%	47.2%	59.4%	76.3%	59.9%	44.4%	28.9%
200-Transfer Out Other	51.6%	54.7%	48.9%	61.9%	50.8%	39.1%	70.7%	41.5%	25.4%	19.8%
260-Transfer Adult Ed.	58.3%	56.2%	59.5%	61.6%	45.2%	53.8%	72.7%	54.8%	38.8%	27.4%
280-Enter College	55.2%	53.5%	56.5%	54.9%	35.6%	48.8%	71.0%	48.1%	32.5%	22.1%
300-Drop Disciplinary	34.5%	39.6%	33.2%	47.1%	25.1%	27.7%	55.1%	33.0%	16.3%	10.4%
320-Grad GED	80.0%	81.0%	79.5%	82.3%	77.8%	78.6%	81.5%	76.3%	72.4%	56.5%
330-Grad CHSPE	84.5%	83.5%	85.1%	77.5%	40.0%	73.0%	91.4%	65.7%	19.6%	39.1%
360-Drop After Grade 12	62.3%	59.1%	64.3%	64.0%	53.5%	58.3%	74.1%	57.8%	41.5%	23.3%
370-Trans Non-Academic	50.4%	56.1%	47.8%	68.0%	42.6%	46.9%	67.1%	49.1%	37.6%	19.1%
400-Drop Other	41.8%	42.1%	41.6%	51.9%	34.8%	37.6%	57.1%	38.6%	24.9%	16.8%
410-Drop Medical	52.6%	54.2%	50.0%	42.9%	45.5%	46.5%	65.7%	46.1%	37.9%	29.4%
420 No Show	37.4%	37.3%	37.5%	45.1%	31.1%	31.8%	50.6%	31.0%	20.1%	13.6%
440- Remains in School	72.1%	71.1%	72.9%	81.5%	72.7%	68.2%	79.3%	68.0%	56.9%	40.0%
No Exit Code	56.5%	58.8%	54.7%	71.0%	44.5%	50.9%	70.0%	51.2%	39.1%	22.4%

¹ Exit codes received by less than 0.5% of Class of 2008 students were excluded from this table.

Explanation of Table Contents: The first entry in the table indicates that 98.1% of the Class of 2008 students with an exit code indicating regular graduation were matched to test records indicating that they passed the CAHSEE. Remaining entries in the first line show, for different demographic groups, the percentage of students who were matched to CAHSEE records indicating that they passed both parts. All entries in this row are close to 100%, except the entry for students in special education (S.E.), where there may have been some confusion about coding students who received waivers.

Table 4.4. Percentage of Class of 2008 Students Who Continued to Take the CAHSEE in 2009, by Exit Code and Demographic Group

Exit Code ¹	All	Females	Males	Asians	Blacks	Hispanics	Whites	E.D.	E.L.	S.E.
100-Grad: Regular Dipl.	0.4%	0.4%	0.4%	0.2%	0.8%	0.7%	0.1%	0.6%	1.6%	1.7%
104-Drop: CAHSEE Only	45.0%	45.2%	44.7%	60.9%	42.6%	46.4%	36.9%	41.8%	51.3%	38.2%
106-Grad: Waiver	6.0%	5.8%	6.1%	8.0%	7.8%	8.4%	2.2%	6.2%	10.0%	4.1%
120-Excpt Needs Cert,	26.2%	25.5%	26.7%	22.8%	27.6%	31.6%	16.9%	24.2%	29.6%	21.4%
140-Left Unknown	4.9%	6.3%	4.0%	4.1%	7.8%	5.7%	1.6%	4.1%	7.8%	5.0%
180-Transfer Private	5.6%	6.4%	5.0%	2.3%	13.5%	6.7%	3.2%	6.8%	7.9%	13.7%
200-Transfer Out Other	2.3%	2.4%	2.2%	1.6%	2.6%	3.0%	1.0%	2.2%	3.4%	4.3%
260-Transfer Adult Ed.	8.0%	10.4%	6.6%	9.3%	9.6%	9.7%	3.7%	5.9%	13.8%	9.2%
280-Enter College	13.9%	18.2%	10.3%	17.4%	22.1%	15.5%	6.8%	15.1%	23.7%	20.2%
300-Drop Disciplinary	4.6%	6.3%	4.2%	5.9%	7.0%	4.6%	2.8%	5.8%	2.9%	3.9%
320-Grad GED	1.0%	1.4%	0.8%	0.0%	0.9%	1.9%	0.1%	1.1%	3.2%	1.5%
330-Grad CHSPE	3.8%	4.9%	3.1%	6.3%	10.0%	10.1%	0.8%	8.4%	34.8%	7.8%
360-Drop After Grade 12	13.4%	16.2%	11.7%	17.4%	16.2%	15.8%	5.9%	13.2%	23.2%	19.8%
370-Trans Non-Academic	17.3%	20.8%	15.8%	16.0%	21.1%	19.4%	7.2%	18.4%	25.3%	29.0%
400-Drop Other	4.4%	5.2%	3.8%	4.6%	5.7%	5.0%	2.2%	4.0%	6.8%	5.1%
410-Drop Medical	12.9%	14.6%	10.2%	21.4%	15.2%	15.7%	7.1%	14.5%	18.2%	16.2%
420 No Show	3.9%	4.0%	3.9%	4.9%	5.4%	4.2%	2.8%	3.0%	4.4%	6.5%
440- Remains in School	16.6%	17.3%	16.1%	18.5%	21.2%	21.2%	3.4%	22.1%	38.2%	15.4%
No Exit Code	11.6%	12.1%	11.2%	9.5%	14.5%	14.1%	6.0%	13.1%	19.3%	23.4%

¹ Exit codes received by less than 0.5% of Class of 2008 students were excluded from this table.

Explanation of Table Contents: The first entry in the table indicates that 0.4% of the Class of 2008 students with an exit code indicating regular graduation were matched to test records indicating that they took the CAHSEE one or more times during the 2008-09 school year, the year after their expected graduation. Remaining entries in the first line show, for different demographic groups, the percentage of students who were matched to 2008-09 CAHSEE records.

Table 4.5. Number of Students and CAHSEE Passing and Continuation Rates by Exit Code and Exit Code Year

Group	Total N	% of Total	Passed the CAHSEE		Testing in 2009	
			Number	Percent	Number	Percent
Last Exit Code in 2007						
Graduated 2007	6,019	1.1%	5,438	90.3%	18	0.3%
Drop 2007, CAHSEE Only	200	0.0%	39	19.5%	17	8.5%
Drop 2007 Other	10,557	2.0%	3,512	33.3%	276	2.6%
To AE in 2007	3,311	0.6%	1,227	37.1%	106	3.2%
Left CA Pub. Ed. 2007	5,881	1.1%	2,955	50.2%	83	1.4%
Trans. 2007 (no other code)	2,747	0.5%	1,413	51.4%	246	9.0%
Jump to College 2007	922	0.2%	685	74.3%	10	1.1%
Other 2007 Exit Code	1,337	0.3%	590	44.1%	78	5.8%
Last Exit Code in 2008						
Graduated 2008	336,552	63.2%	330,211	98.1%	1,274	0.4%
Grad w. Waiver 2008	1,726	0.3%	158	9.2%	102	5.9%
Drop 2008, CAHSEE Only	5,256	1.0%	356	6.8%	2,387	45.4%
Non-Grad, Other	7,050	1.3%	4,307	61.1%	944	13.4%
Drop 2008, Other	18,892	3.5%	8,899	47.1%	1,007	5.3%
To AE in 2008	16,203	3.0%	9,808	60.5%	1,392	8.6%
Left CA Pub. Ed. 2008	3,500	0.7%	1,835	52.4%	121	3.5%
Jump to College 2008	2,803	0.5%	2,020	72.1%	187	6.7%
Cert. of Compl. 2008	3,650	0.7%	263	7.2%	941	25.8%
Trans. 2008 (no other code)	2,002	0.4%	1,065	53.2%	292	14.6%
Other 2008 Exit Code	1,287	0.2%	533	41.4%	83	6.4%
No Exit Code	102,326	19.2%	54,801	53.6%	11,605	11.3%
Total	532,221	100.0%	430,115	80.8%	21,169	4.0%

Pathways to Success

Zau and Betts (2008) used data from San Diego Unified School District to show that success on the CAHSEE could be predicted from STAR CST test scores at much earlier grades. This finding is significant because additional resources, including 12th grade remediation and an extra year or two of high school, have been targeted primarily at helping students after they do not pass the CAHSEE in 10th grade. It might be considerably more cost-effective, and certainly kinder to the students themselves, to provide help at much earlier points before they fall so far behind their classmates.

With the availability of a statewide student identifier, we were able to conduct analyses similar to Zau and Betts on a statewide basis. Specifically, we merged 2003 STAR CST test results with CAHSEE results for the Class of 2008. Table 4.6 shows the number of students matched and the grade that they were in during the 2003 STAR

CST testing. We began with 532,221 CAHSEE records for students who were in the Class of 2008 (10th graders in 2006 plus students moving into the Class of 2008 subsequently as they transferred into the state or were retained in a grade). Records with 2003 STAR CST data were found for 420,465 of these students (79%). The remaining 111,756 students did not have 2003 STAR records because they were absent or not in public California schools at that time or did participate in the 2003 assessments, but could not be matched due to differences in identifying information.

As shown in Table 4.6, the vast majority of the students matched (94%) were in the 7th grade in 2003. Another 4% of the students matched were in 8th grade in 2003, but were subsequently retained in a grade, moving into the Class of 2008. Roughly 1% percent were in 6th grade in 2003 and subsequently skipped a grade; another 1% were in 9th grade and appeared to have been retained in a grade more than once. The remainder of the matches represented more unusual grade shift patterns or may have resulted from incorrect matches based on errors in entering identifiers.

Table 4.6. Class of 2008 Students Matched to 2003 STAR CST Test Records

Grade in 2003	Number of Students	Percent of Students
4	104	0.0%
5	268	0.1%
6	3,578	0.9%
7	395,267	94.0%
8	17,900	4.3%
9	2,882	0.7%
10	326	0.1%
11	140	0.0%
Total	420,465	100.0%

Most seventh grade students participated in both ELA and mathematics assessments. We identified score levels that divided the matched students into four approximately equal-sized groups based on the average of ELA and mathematics scale scores. We then split the lowest group into two levels using intervals of 35 score points. Table 4.7 shows the number of students and CAHSEE passing rates for each of the five resulting score-level groups (and also for a small number of students for whom we did not have scores on one or both of the STAR CST tests. The passing rates are displayed graphically in Figure 4.1.

As shown in Table 4.7 and Figure 4.1, students with scores of 325 and above (the approximate median for this sample of students) had very high CAHSEE passing rates. When the average of a student’s ELA and math score was 325 or better, the chances of meeting the CAHSEE requirement were above 98%. Students who were slightly below the median score (290 to 325) also fared reasonably well on the CAHSEE. However, over a third of the students scoring between 255 and 290 in 2003 did **not** pass the CAHSEE by the end of 12th grade and 70% of the students scoring lower than 255 also did not pass the CAHSEE by the end of 12th grade in 2008. Students with missing 2003 STAR scores (but records indicating that they were in

school at the time) were also at significant risk of failing to pass the CAHSEE when they reached high school.

Table 4.7. Probability of Passing CAHSEE by 7th Grade STAR CST Score Levels

Average Score Level	Number of Students	Percent Pass ELA	Percent Pass Math	Percent Pass Both
Missing	11,398	54.6%	51.3%	46.8%
150 - < 255	25,741	41.4%	39.2%	29.6%
255 - < 290	80,431	75.3%	69.7%	63.1%
290 - < 325	100,550	95.0%	92.9%	90.9%
325 - < 360	90,595	98.8%	98.6%	98.1%
360 - 600	111,750	99.7%	99.6%	99.5%
All Students	420,465	88.9%	87.1%	84.5%

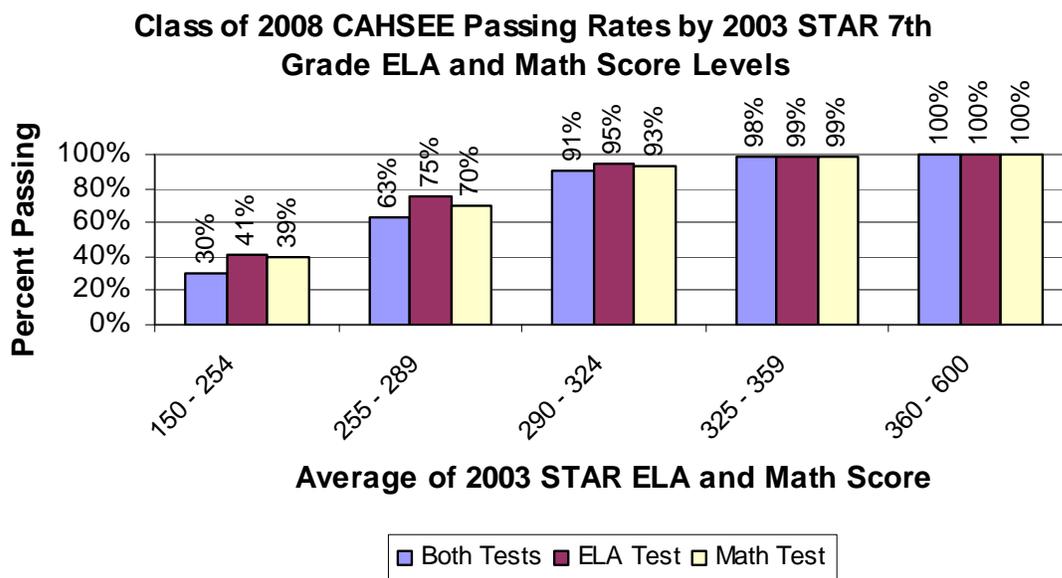


Figure 4.1. Class of 2008 CAHSEE passing rates by 2003 STAR CST score levels.

Table 4.8 shows the percentage of students in different demographic groups at each of the 2003 7th grade STAR CST score levels. The percentage of students at the lowest score level varied considerably across the demographic groups. Nearly 12% of African American students and over 9% of Hispanic students scored at the lowest level compared to 2.5% of white students and 2.1% of Asian students. Similarly, a much higher portion of disadvantaged students scored at the lowest level, including 9.4% for low-SES students, 19.9% for English Learners, and 27.5% for students in special education. Gaps in 7th grade achievement scores are every bit as significant as gaps in eventual CAHSEE passing rates.

Table 4.9 shows overall CAHSEE passing rates by average 2003 STAR CST score for these different demographic groups. The relationship between 7th grade STAR CST scores and CAHSEE passing rates was similar for the different demographic groups, with the one exception that students in special education programs (S.E.) may need additional help to pass the CAHSEE, particularly those scoring below the median (325 for this group). In other cases, it appears most important to target additional help for students at lower STAR CST score levels regardless of their demographic group.

Table 4.8. Percentage of Students at Each 7th Grade STAR CST Score Level for Different Demographic Groups

Group	Percent of Students at Each Score Level				
	150-255	255-290	290-325	325-360	360-600
All	6.1%	19.5%	24.6%	22.2%	27.5%
Female	4.5%	17.7%	25.3%	23.5%	29.0%
Male	7.7%	21.3%	23.9%	21.1%	26.0%
Native American	5.6%	18.9%	25.2%	26.1%	24.1%
Asian	2.1%	8.9%	16.1%	20.9%	51.9%
Pacific Islander	5.2%	21.2%	30.0%	22.9%	20.7%
Filipino	1.9%	10.1%	22.2%	28.2%	37.6%
Hispanic	9.1%	27.9%	30.2%	20.3%	12.6%
African American	11.8%	30.2%	28.3%	18.0%	11.7%
White	2.5%	10.1%	19.1%	25.4%	43.0%
Low SES	9.4%	28.0%	30.0%	19.9%	12.7%
English Learner	19.9%	47.5%	25.4%	5.9%	1.3%
Special Education	27.5%	42.8%	18.0%	7.1%	4.7%

Table 4.9. Probability of Passing CAHSEE by 7th Grade STAR CST Score Levels for Different Demographic Groups

Group	Percent at Each Score Level Passing the CAHSEE				
	150-255	255-290	290-325	325-360	360-600
All	29.8%	63.4%	91.1%	98.2%	99.6%
Female	28.7%	64.1%	91.7%	98.5%	99.6%
Male	30.4%	62.9%	90.6%	97.9%	99.5%
Native American	22.6%	61.9%	89.3%	96.2%	99.4%
Asian	42.1%	73.4%	95.3%	99.2%	99.9%
Pacific Islander	29.9%	67.9%	92.9%	98.6%	99.3%
Filipino	42.3%	77.5%	96.0%	99.6%	99.7%
Hispanic	29.9%	63.0%	90.8%	98.0%	99.4%
African American	25.0%	56.3%	88.4%	97.5%	99.3%
White	31.8%	66.4%	91.5%	98.3%	99.5%
Low SES	29.9%	63.8%	90.9%	98.0%	99.3%
English Learner	29.1%	60.4%	87.2%	95.0%	95.6%
Special Education	17.3%	40.7%	74.7%	91.8%	96.1%

Summary of Findings

In this chapter, we presented further analyses of students in the Class of 2008 who did not pass the CAHSEE. First, we looked at the relationship of passing the CAHSEE to graduation information provided by CALPADS exit codes. These analyses provided an estimate of the percentage of students who are denied a diploma because of the CAHSEE requirement alone and the proportion of students dropping out or not meeting other requirements who have already passed the CAHSEE.

In the second part of this chapter, we showed that it was possible to identify students who may need additional help mastering skills tested by the CAHSEE well before they enter high school. Results from 7th grade ELA and mathematics assessments were closely related to eventual CAHSEE passing rates. This relationship was similar for most demographic groups, although students in special education programs may have additional barriers to CAHSEE success as indicated by lower CAHSEE passing rates within each 7th grade score level.

Key findings from each of these analyses are listed here.

Exit Code Information

The following are key findings from these additional analyses of graduation information for Class of 2008 students. Given some degree of inconsistency between the CALPADS and CAHSEE data, these findings should be considered tentative until improved data are available.

1. CAHSEE and CALPADS Exit Code information is largely, but not entirely consistent.

Passing records were found for over 98% of students coded as receiving a regular diploma.

In addition 14% of the students coded as not meeting the CAHSEE requirement were matched to passing CAHSEE records.

Exit code information was found for 80% of Class of 2008 students with CAHSEE records. The remaining 20% may have been students who left at the end of the 2006 school year or who remained in school after their senior year.

2. Relatively few students, about 1%, were denied diplomas because of the CAHSEE requirement alone.

This result is considerably less than the 4% decrease in graduation rates previously estimated for the Class of 2006.

3. Nearly half of the students who met all requirements except the CAHSEE continued to try to pass the CAHSEE in 2009.

4. ***Over half of the students who dropped out, left California public education, or failed to graduate for other reasons had already met the CAHSEE requirement.***
5. ***Minority students have higher dropout rates (8% and 9% compared to 6% overall), as do economically disadvantaged (ED), English learners, and special education students.***
6. ***The CAHSEE requirement is a more significant barrier for English learners and special education students (2.8% and 3.7% meeting all graduation requirements except the CAHSEE) than for any racial/ethnic group (where only .5% to 1.7% met all requirements except the CAHSEE).***
7. ***A lower proportion of minority and disadvantaged (ED, EL, and SE) students are indicated as graduating and a higher proportion have no exit code information.***
8. ***About 3% of students in special education graduated with a waiver.***
9. ***Nearly a quarter of special education students with graduation exit codes were not matched to records indicating that they passed the CAHSEE.***
10. ***A significant percentage of students who met all but the CAHSEE requirement at the end of 12th grade in 2008 continued to try to pass the CAHSEE in 2009.***

This percentage was somewhat lower for white students (36%) and SE students (38%) compared to all students (44%).

11. ***A significant percentage of EL and SE students who did not have an exit code or were shown as not graduating for other reasons, continued to take the CAHSEE in 2009 (about 20%).***

Predicting CAHSEE Success

The following are key findings from the analyses of the relationship of 7th grade STAR scores to CAHSEE success for Class of 2008 students.

1. ***There were considerable differences across demographic groups in the distribution of 7th grade STAR CST scores, particularly in the percentage of students scoring at the lowest score level in our analyses.***
2. ***Students scoring near or above the median on 7th grade STAR CST ELA and mathematics tests had a very high probability of meeting the CAHSEE requirement by the end of their senior year.***

- 3. Many or most of the students who score well below the median on 7th grade STAR CST tests did not meet the CAHSEE requirement by the end of their senior year.**
- 4. At each 7th grade STAR CST score level, CAHSEE success rates were lower for students in special education programs than for other students, but were similar for most other demographic groups.**

Chapter 5: CAHSEE Results for Students with Disabilities

Lauress L. Wise

Introduction

One of the most vexing problems for the CAHSEE has been the low passing rate for students with disabilities (SWDs). Our prior evaluation reports have highlighted particular difficulties in meeting the CAHSEE requirement faced by students in special education programs. We have several times recommended consideration of alternatives for these students. In 2004, the California legislature passed Senate Bill (SB) 964, calling for a panel to identify options or alternatives for students in special education programs and requiring a contractor to support the work of this panel and report on options that are identified.

Pursuant to requirements of SB 964, a report was submitted to the California legislature in Spring 2005 recommending alternative graduation assessments and requirements for students receiving special education services (Rabinowitz, Crane, Ananda, Vasudeva, Youtsey, Schimozato, & Schwager, April 2005). The SB 964 report identified three types of options for students receiving special education services. First, there are options for *alternate forms of testing* to be sure students receiving special education services have adequate opportunities to demonstrate what they know and can do. Second, there are options for *modifying the CAHSEE requirement*. The main recommendation in this area, to defer the requirement for students receiving special education services, was based on the premise that instructional opportunities have not been adequate to provide sufficient opportunity for students receiving special education services to learn the required material. The deferral was also recommended to allow time to develop alternative requirements, such as coursework, that students in special education programs might pass to receive a diploma. Finally, there are options concerning *alternative types of diplomas* for students who are not able to demonstrate full mastery of the CAHSEE standards.

Our 2005 and 2006 CAHSEE evaluation reports described analyses of characteristics of students in this population and the types of services that they received in relation to success in passing the CAHSEE (Wise, et al., 2005b, Chapter 7; Wise, et al., 2006). Key results from that investigation included:

1. Nearly half of the students in special education programs receive relatively non-intensive services (e.g., in-class accommodations, resources specialists) and participate in the regular curriculum 80% of the time or more. About half of these students pass the CAHSEE on the first try and, perhaps with additional time and resources, the others would be capable of passing and should be held to the CAHSEE requirement.
2. About one-quarter of the students in special education programs require more intensive assistance (e.g., special day programs) and spend less than 50% of their time in regular instruction. Very few of these students pass the CAHSEE.

Other goals may be more appropriate for these students. It is worth noting, however, that 10% of the students in this category do pass the CAHSEE, so expectations for meeting the CAHSEE requirement should not lightly be abandoned.

This year, two new efforts are underway to identify additional CAHSEE options for students with disabilities. A study being conducted by the American Institutes for Research (AIR) is using cognitive laboratories to identify grade twelve students with disabilities who appear to have mastered the required skills but have not been able to pass the CAHSEE, even with available modifications and accommodations. The study will consider alternative forms of assessment that might allow these students to demonstrate what they know and can do.

In a second effort, a panel of experts in special education has been convened as called for by Assembly Bill (AB) 2040. This panel is also seeking to identify alternative ways that students with disabilities can meet the CAHSEE requirement.

In addition to these efforts, legislation has been passed that would again defer the CAHSEE requirement for students with disabilities until the SBE determines whether an alternative means option is feasible.

Supplemental Data on Students Receiving Special Education Services

In 2006, we merged additional data on students in special education programs from the California Special Education Management Information System (CASEMIS) with CAHSEE results. Our 2006 annual report included analyses providing descriptive information on students in this population and also analyses of differences by curriculum, services, and disability in the rates at which these students passed the CAHSEE. We conducted similar analyses this year to assess the extent of changes over the past 3 years in the nature of this population of students and their success in meeting the CAHSEE requirement.

A first step in our analysis was to gather and analyze more information on differences in special education services and the degree to which students receiving these various services are having difficulty passing the CAHSEE. To this end, CDE again provided new CASEMIS data. Two files were provided; one contained basic information on each special education student in grades 9 through 12 as of December 2008 and the other, with multiple records per student, contained data on specific services received.

Unlike earlier years, both the CAHSEE and the CASEMIS files contain a statewide student identifier (SSID) that uniquely identifies individual students. While quite useful, the coding of this information is not perfect, particularly in the CASEMIS files. We conducted secondary matching based on name, birth date, school, and other demographic information to identify: (a) instances where students with the same SSID appeared to be different and (b) instances where students with different or missing

SSIDs appeared to be the same. Further details of the matching process and outcomes can be added upon request. The final match rates assured reasonably complete and representative results from the analyses that follow.

Table 5.1 shows the number of records from the December 2008 CASEMIS data that were matched to the 2006–09 CAHSEE 10th, 11th, and 12th grade results. Over 90% of the 10th, 11th, and 12th grade CASEMIS records were matched to CAHSEE records. In a small number of cases, these students were shown as being in the next higher grade (high school class) in the CAHSEE records. We also matched a very small number of records to other grades in the CAHSEE files, and matched a modest number of 9th grade CASEMIS records to CAHSEE records, even though most of these students had not yet taken the CAHSEE. Where the grade levels were different, we used the grade shown at the time of CAHSEE testing in our analyses.

Table 5.1. Number of Students in the Matched CAHSEE-CASEMIS Files by Grade on Each File

	Grade According to December 2008 CASEMIS File					Total
	9*	10	11	12	Ungraded	
Original number of CASEMIS records	53,359	48,693	45,471	46,805	788	195,116
Number of CAHSEE Records by High School Class						
2006	4	20	24	220	22	290
2007	4	25	36	706	76	847
2008	23	115	277	4,272	60	4,747
2009	175	709	3,361	35,026	120	39,391
2010	471	3,121	38,135	1,280	32	43,039
2011	2,114	40,110	733	345	11	43,313
Adult Education	15	34	89	987	41	1,166
Not Matched	50,553	4,559	2,816	3,969	426	62,323
Total Records Matched	2,806	44,134	42,655	42,836	362	132,793
Percent of CASEMIS Records Matched	5.3%	90.6%	93.8%	91.5%	45.9%	68.1%

* Note. When matched, these were 9th grade students in the CASEMIS data file who were 10th graders in the CAHSEE data file.

Who Took the CAHSEE

The CASEMIS data file contains a code indicating level of participation in the CAHSEE according to the student’s IEP. Table 5.2 shows the number of 10th grade students with each code and the percentage who took the California Alternate Performance Assessment (CAPA) and each of the CAHSEE tests and also the percentage passing each of the CAHSEE tests. About 20% of the 10th grade students with disabilities had IEP plans indicating that they would take the CAHSEE without testing accommodations and another 40% had plans indicating the need for

accommodations. Roughly 15% of these students were flagged on the CAHSEE records as having taken the CAPA and 85% took each of the two CAHSEE tests.

One issue of concern, beyond minor inconsistencies between the CASEMIS CAHSEE participation code and results in the CAHSEE records, is that most of the students flagged as needing a testing modification took the CAHSEE in 10th grade without any modifications.

Another variable on the CASEMIS records indicated whether the student was on a graduation track (Grad-Plan=10) or not (Grad-Plan=20). About 86% of the 10th grade students on the CASEMIS file were on a graduation track. CAHSEE participation was 85% for students on a graduation track and about 28% for students who were not.

Table 5.2. Percentage of 10th Grade Students with Disabilities Who Took and Passed the CAHSEE by CAHSEE Participation Code

CAHSEE Participation Code	Number of Students*		% Taking CAPA	% Taking ELA With Mod			% Taking Math With Mod		
	N	%		Total	Mod	Pass ELA	Total	Mod	Pass Math
10 — Yes, with no Accomod.	9,426	20.6%	14.8%	85.2%	1.1%	36.3%	84.8%	2.9%	37.8%
11 — Yes, with Accommodation	18,390	40.1%	16.0%	84.0%	3.3%	28.2%	83.8%	6.2%	29.1%
12 —Yes with Modification	3,800	8.3%	15.6%	84.4%	12.7%	22.3%	84.2%	24.9%	22.3%
30 — No, take the CAPA	3,700	8.1%	92.2%	7.8%	0.9%	1.1%	7.6%	1.1%	1.1%
Other codes	7,592	16.6%	19.5%	80.5%	3.6%	32.7%	80.1%	6.9%	33.1%
Missing	2,925	6.4%	22.8%	77.1%	2.4%	29.2%	77.2%	4.8%	29.4%
	45,833	100.0%	22.9%	77.1%	3.5%	28.0%	75.2%	7.2%	30.7%

* CASEMIS students matched to CAHSEE records for higher grades are excluded from these counts.

Passing Rates By Participation in Regular Classroom Instruction

We examined a number of variables describing the nature and extent of special education services and some characteristics of the students receiving these services. The variable most closely related to CAHSEE success was the percentage of time the student participated in regular general education class instruction. Table 5.3 shows that 10th grade students in 2006 and 2009 who were in the general education class more than 80% of the time were much more likely to pass the CAHSEE as 10th graders than students who spent less than half of their time in regular instruction.

Table 5.3. Number of 10th Grade Students and Percentage Passing by Time Away From Regular Instruction (2006 and 2009 Students with CASEMIS Data)

Percent of Time In Regular Instruction	ELA				Math			
	Number of Students		Percent Passing CAHSEE ELA		Number of Students		Percent Passing CAHSEE Math	
	2006	2009	2006	2009	2006	2009	2006	2009
100 %	3,113	5,144	44.2%	43.6%	3,116	5,137	36.5%	47.9%
81 – 99%	11,600	11,893	50.5%	51.7%	11,572	11,846	46.7%	53.5%
67 –80%	6,053	4,962	34.5%	40.2%	6,037	4,945	30.8%	40.8%
51 –66%	5,742	3,939	25.3%	28.3%	5,747	3,930	21.3%	27.7%
11 – 50%	9,763	9,945	10.5%	16.0%	9,708	9,898	9.0%	15.0%
01 –10%	293	317	28.3%	33.1%	295	312	24.8%	26.6%
None	1,679	1,894	30.1%	34.7%	1,667	1,876	22.4%	29.3%
All Special Education Students	38,243	38,094	32.4%	36.5%	38,142	37,944	28.7%	36.9%

Note. Numbers differ for the ELA and mathematics tests because some students only took one of the tests.

As shown in Table 5.3, more than one-third of students receiving special education services are able to spend at least 80% of their day in regular instruction. Over half of these students passed the CAHSEE ELA requirement in the 10th grade and very nearly half passed the mathematics requirement. Except at the extreme, CAHSEE passing rates declined as students spent more time outside of regular instruction. For ELA, the 2006 and 2009 passing rates were the same at the higher categories, but the 2009 passing rates were higher than the 2006 rates for students spending less than 80% of their time in regular instructions. For mathematics, the 2009 passing rates were higher than the 2006 passing rates in all categories, indicating that the effectiveness of regular instruction and instruction outside the general education classroom had both improved for these students.

Table 5.4 shows the number and percentage of matched 10th grade students in each primary disability category and the ELA and math passing rates for students in each of these categories. The vast majority of students with disabilities in the matched sample had *specific learning disability* as their primary disability code. These students passed the CAHSEE at relatively low rates, slightly below the average for all students in both the 2006 and 2009 matched sample. Passing rates for students with learning disabilities improved from 2006 to 2009 (1 percentage point on the ELA test and 4 percentage points on the mathematics test), albeit less than the improvement for all students with disabilities (4 and 6 percentage points for ELA and math respectively). Students with vision, hearing, speech, or other health impairments passed the CAHSEE at relatively higher rates. Almost none of the students coded as having mental retardation passed the CAHSEE. These students are underrepresented in this matched sample, because many students coded in this category on the CASEMIS file did not take the CAHSEE at all.

The distribution of students across primary disability categories was similar in 2006 and 2009. Slightly more students were classified as having autism and other health impairments and slightly fewer were classed as having specific learning disabilities in 2009. Passing rates were predictably somewhat variable across years in categories with relatively few students. Passing rates for mathematics increased significantly for students with specific learning disabilities, the category accounting for about 70% of the students in special education.

Table 5.4. Primary Disability Codes for 10th Grade Students Receiving Special Education Services With CAHSEE Success Information

Primary Disability Category	Percent of Students with Disabilities in the Category		Percent Passing CAHSEE ELA		Percent Passing CAHSEE Math	
	2006	2009	2006	2009	2006	2009
010 = Mental Retardation	1.7%	1.7%	3.3%	3.4%	2.2%	3.0%
020 = Hard of Hearing	0.9%	1.2%	47.6%	42.8%	47.3%	50.4%
030 = Deaf	0.6%	0.7%	17.9%	19.6%	27.6%	30.6%
040 = Speech/Lang. Impairment	6.5%	5.5%	50.1%	39.6%	51.6%	44.8%
050 = Visual Impairment	0.5%	0.6%	55.8%	56.7%	55.1%	50.0%
060 = Emotional Disturbance	7.6%	7.3%	42.1%	46.7%	33.1%	39.6%
070 = Orthopedic Impairment	0.8%	1.0%	54.6%	52.3%	49.0%	45.8%
080 = Other Health Impairment	6.3%	9.5%	55.0%	55.8%	49.3%	50.2%
090 = Specific Learning Disability	73.1%	68.6%	30.6%	31.6%	29.1%	33.4%
100 = Deaf-Blindness	0.0%	0.0%				
110 = Multiple Disabilities	0.3%	0.2%	36.5%	25.9%	36.6%	27.1%
120 = Autism	1.5%	3.4%	56.5%	58.2%	56.4%	58.6%
130 = Traumatic Brain Injury	0.2%	0.4%	28.6%	32.0%	28.7%	35.9%
Number of Matched Students	40,395	38,094	34.6%	38.5%	32.6%	39.0%

Note. Only students taking the CAHSEE are included.

Results for Students Receiving Special Education Services Who Retested in 11th and 12th Grade

We also matched 11th and 12th grade students in the December 2008 CASEMIS file with CAHSEE results from 2006–09. Tables 5.5 and 5.6 show the average prior-year score and retest gain score for 11th and 12th grade students by the percentage of time students were included in regular instruction during the day. The prior-year scores indicate how close they were to passing when they took the CAHSEE in the prior grade and the gain scores indicate how much they learned in the indicated grade. As with 10th grade passing rates, students who were included in regular instruction at least half of the time had initial scores that were considerably higher than those of students who participated in regular instruction less than 50% of the time and also showed considerably larger gains from the previous year. This was true for 12th grade students in 2006 as well as for 11th grade students in both 2006 and 2009.

At each level, initial scores were similar for 2006 and 2009. Gain scores were quite a bit larger in 2009, particularly for ELA students in the lower grades and

mathematics students at all levels. This result suggests that remediation efforts for students who do not initially pass the CAHSEE have become considerably more effective over the past three years, particularly for students who most need this remediation. A key difference is that 11th and 12th grade students with disabilities were exempt from the CAHSEE requirement in 2006, but not in 2009. It will be important to see whether improvements to efforts to help these students master CAHSEE skills continues now that an exemption has been reinstated.

Table 5.5. Number of 2006 and 2009 11th Grade Students, Average Prior Year Scores, and Average Score Gain by Time in Regular Instruction

Percent of Time In Regular Instruction	Number of Matched Students		Average Prior Score (How Close to Passing*)		Average Gain	
	2006	2009	2006	2009	2006	2009
ELA						
> 80%	6,428	7,827	325.4	325.3	12.0	15.5
50–80%	7,151	6,025	320.7	321.1	10.5	15.9
11–49%	7,330	6,551	310.1	311.4	7.1	13.2
00–10%	1,119	1,332	311.0	311.6	8.0	14.2
All SE Students	22,028	21,762	318.1	319.1	9.7	14.9
(Std. Dev)			(19.4)	(20.2)	(21.2)	(23.3)
Mathematics						
> 80%	6,762	7,654	327.9	328.0	11.4	14.8
50–80%	7,612	6,171	324.8	324.8	10.5	14.9
11–49%	7,441	6,611	318.7	318.3	6.3	12.0
00–10%	1,206	1,405	319.6	320.3	7.6	18.6
All SE Students	23,021	21,841	323.5	323.7	9.3	13.7
(Std. Dev)			(13.2)	(15.5)	(17.3)	(20.7)

* Passing score is 350.

Note: Numbers differ for the ELA and mathematics tests because some students took only one of the tests. For all matched students, the standard deviations of the prior year scores and the gains are shown in parentheses.

Table 5.6. Number of 2006 and 2009 12th Grade Students, Average Prior Year Scores, and Average Score Gain by Time in Regular Instruction

Percent of Time In Regular Instruction	Number of Matched Students		Average Prior Score (How Close to Passing*)		Average Gain	
	2006	2009	2006	2009	2006	2009
ELA						
> 80%	3,664	5,130	324.1	323.6	11.6	15.8
50–80%	4,746	4,380	320.4	321.3	9.7	16.8
11–49%	4,962	5,319	310.6	313.7	6.3	14.3
00–10%	896	1,465	309.7	311.3	8.6	14.6
All SE Students	14,268	16,291	317.2	318.7	8.9	15.5
(Std. Dev)			(19.4)	(19.9)	(23.6)	(26.0)
Mathematics						
> 80%	4,013	5,429	328.0	326.7	11.3	16.4
50–80%	5,028	4,546	325.7	325.3	9.2	17.7
11–49%	5,096	5,444	319.4	320.0	6.0	14.9
00–10%	957	1,581	320.2	319.3	6.3	13.4
All SE Students	15,094	17,000	323.8	323.5	8.5	16.0
(Std. Dev)			(13.3)	(15.3)	(18.6)	(23.2)

Note. Numbers differ for the ELA and mathematics tests because some students took only one of the tests. For all matched students, the standard deviations of the prior year scores and the gains are shown in parentheses

*Passing score is 350.

Accommodations and Modifications

The CAHSEE allows a number of accommodations for students who need them. In addition, some students take the CAHSEE with modifications specified in their IEPs, even though these modifications invalidate their scores. Students who test with modifications and score above the passing level are allowed to petition for a waiver from the CAHSEE requirement. Tables 5.7 and 5.8 show the various accommodations and modifications recorded for the CAHSEE ELA and mathematics tests. Each table shows the number of 10th, 11th, or 12th grade students receiving each type of accommodation or modification. Tables 5.9 and 5.10 show the percentage who score 350 or better on the corresponding CAHSEE test (thus qualifying for the waiver). Note that students may have received multiple accommodations and/or modifications and thus be included in more than one row of these tables. In addition, students taking the CAHSEE multiple times during their 11th or 12th grade years may have received different accommodations or modifications in different administrations. For that reason, the entries in each table reflect test administrations; students were included more than once if they took a CAHSEE test more than once during the year.

The use of accommodations and modifications increased dramatically between 2006 and 2009, particularly for students taking the CAHSEE in the 11th and 12th grades. By 12th grade, a high proportion of students with disabilities taking the CAHSEE were given the ELA test orally. Similarly, for mathematics, calculator use increased very dramatically for 11th and especially 12th graders. Passing rates within most

accommodation and modification categories increased from 2006 to 2009, particularly for 11th and 12th graders. This result is implied by the larger score gains in 2009 (shown above) for these students.

Table 5.7. Percentage of Students With Disabilities Receiving Specific ELA Accommodations and Modifications in 2006 and 2009 by Grade

Description of Accommodation or Modification	2006			2009		
	Grade 10	Grade 11	Grade 12	Grade 10	Grade 11	Grade 12
Number of Administrations to SWDs	55,985	61,787	54,919	39,804	39,874	48,669
Accommodations						
Transfer of Responses to Answer Document	0.3%	0.2%	0.2%	0.2%	0.2%	0.5%
Oral Responses Dictated to a Scribe	0.1%	0.2%	0.2%	0.5%	0.4%	0.4%
Spell Checker or Grammar Checker Off	0.3%	0.3%	0.4%	0.5%	0.5%	1.0%
Essay Responses	0.1%	0.2%	0.2%	0.3%	0.4%	0.6%
Assistive Device	0.1%	0.1%	0.1%	0.3%	0.2%	0.4%
Braille Version	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%
Large Print Version	0.2%	0.1%	0.1%	0.3%	0.2%	0.2%
Test Over Multiple Days	0.4%	0.5%	0.6%	3.2%	4.2%	4.4%
Supervised Breaks	3.7%	4.1%	4.1%	9.2%	11.4%	11.0%
Beneficial Time	0.5%	0.7%	0.8%	1.4%	1.5%	1.8%
Tested Home or Hospital	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
Modifications						
Dictionary	1.0%	1.9%	2.5%	1.6%	5.4%	10.4%
Sign Language	0.1%	0.1%	0.1%	0.1%	0.3%	0.7%
Oral Presentation	2.8%	5.4%	7.4%	3.0%	16.3%	27.6%
Spell Checker or Grammar Checker	0.3%	0.6%	1.1%	0.3%	1.8%	3.6%
Essay Responses	0.1%	0.1%	0.2%	0.1%	0.3%	0.9%
Assistive Device	0.0%	0.0%	0.0%	0.0%	0.1%	0.2%
Unlisted Modification	0.2%	0.6%	0.7%	0.0%	0.2%	0.3%

Table 5.8. Percentage of Students With Disabilities Receiving Specific Math Accommodations and Modifications in 2006 and 2009 by Grade

Description of Accommodation or Modification	2006			2009		
	Grade 10	Grade 11	Grade 12	Grade 10	Grade 11	Grade 12
Number of Administrations to SWDs	55,985	61,787	54,919	39,654	40,735	50,732
Accommodations						
Transfer of Responses to Answer Document.	0.2%	0.1%	0.2%	0.4%	0.3%	0.3%
Oral Responses Dictated to a Scribe	0.1%	0.1%	0.1%	0.2%	0.1%	0.2%
Braille Version	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%
Large Print Version	0.2%	0.1%	0.1%	0.3%	0.2%	0.2%
Test Over More Than 1 Day	0.2%	0.3%	0.4%	2.2%	2.6%	2.7%
Supervised Breaks	3.0%	3.5%	3.5%	8.3%	10.2%	8.9%
Beneficial Time	0.4%	0.5%	0.6%	1.3%	1.3%	1.4%
Tested At Home or Hospital	0.1%	0.0%	0.1%	0.1%	0.1%	0.2%
Dictionary	0.1%	0.2%	0.4%	0.1%	0.7%	1.5%
Sign Language	0.1%	0.1%	0.2%	0.2%	0.3%	0.4%
Oral Presentation	2.4%	4.1%	5.1%	4.0%	10.9%	16.0%
Modifications						
Calculator	8.0%	15.7%	18.4%	10.2%	31.4%	42.8%
Arithmetic Table	0.3%	0.5%	0.9%	0.3%	1.8%	3.9%
Math Manipulatives	0.0%	0.1%	0.1%	1.4%	2.1%	3.0%
Assistive Device	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Unlisted Modification	0.2%	0.5%	0.6%	0.1%	0.2%	0.2%

Table 5.9. Percentage of Students With Disabilities Scoring 350 or More in 2006 and 2009 by ELA Accommodation or Modification

Description of Accommodation or Modification	2006			2009		
	Grade 10	Grade 11	Grade 12	Grade 10	Grade 11	Grade 12
Accommodations						
Transfer of Responses to Answer Document	54.7%	21.7%	16.1%	51.9%	36.3%	35.6%
Oral Responses Dictated to a Scribe	37.8%	14.5%	20.2%	50.0%	25.4%	25.6%
Spell Checker or Grammar Checker Off	70.5%	27.2%	28.4%	62.1%	29.6%	23.1%
Essay Responses	50.7%	19.1%	23.0%	42.4%	31.2%	35.8%
Assistive Device	41.7%	37.5%	31.6%	45.8%	14.7%	23.1%
Braille Version	80.0%	11.1%	16.7%	40.0%	30.0%	8.6%
Large Print Version	61.4%	24.2%	18.1%	55.4%	35.9%	20.2%
Test Over More Than 1 Day	26.8%	17.5%	19.3%	34.1%	24.3%	24.6%
Supervised Breaks	30.2%	16.6%	16.6%	29.8%	21.7%	21.1%
Beneficial Time	24.9%	14.0%	13.6%	28.0%	20.9%	19.9%
Tested At Home or Hospital	33.3%	38.7%	29.1%	67.1%	44.3%	34.2%
Modifications						
Dictionary	27.1%	18.1%	19.0%	20.8%	23.8%	21.9%
Sign Language	3.6%	12.8%	11.1%	34.8%	8.1%	14.9%
Oral Presentation	24.3%	17.8%	20.3%	25.3%	24.9%	22.6%
Spell Checker or Grammar Checker	44.1%	22.5%	18.3%	42.5%	25.1%	22.5%
Essay Responses	32.6%	22.1%	30.7%	40.9%	30.8%	32.3%
Assistive Device	22.2%	25.0%	33.3%	28.6%	19.4%	34.3%
Unlisted Modification	19.5%	11.2%	15.3%	42.3%	22.8%	25.2%

Table 5.10. Percentage of Students with Disabilities Scoring 350 or More in 2006 and 2009 by Mathematics Accommodation or Modification

Description of Accommodation or Modification	2006			2009		
	Grade 10	Grade 11	Grade 12	Grade 10	Grade 11	Grade 12
Accommodations						
Transfer of Responses to Answer Document.	42.4%	12.5%	23.2%	42.8%	27.9%	26.2%
Oral Responses Dictated to a Scribe	40.3%	23.5%	25.0%	52.9%	39.7%	33.8%
Braille Version	70.0%	22.2%	20.0%	34.2%	33.3%	18.0%
Large Print Version	45.7%	24.2%	18.6%	56.8%	27.7%	20.3%
Test Over More Than 1 Day	18.6%	16.8%	21.9%	34.9%	22.2%	24.7%
Supervised Breaks	28.0%	16.6%	15.8%	30.3%	21.3%	22.7%
Beneficial Time	26.7%	13.2%	11.6%	30.1%	22.9%	18.8%
Tested at Home or Hospital	24.4%	17.2%	32.4%	59.7%	43.9%	41.3%
Dictionary	15.6%	13.2%	19.8%	39.6%	32.5%	22.5%
Sign Language	25.6%	8.8%	11.2%	31.3%	16.9%	19.5%
Oral Presentation	21.2%	15.0%	18.5%	26.3%	21.9%	25.0%
Modifications						
Calculator	25.8%	17.5%	17.5%	28.4%	22.3%	21.8%
Arithmetic Table	18.5%	21.2%	16.6%	19.9%	22.0%	27.5%
Math Manipulatives	56.0%	28.2%	19.7%	34.6%	23.5%	24.4%
Assistive Device	50.0%	7.1%	14.3%	76.9%	30.8%	36.5%
Unlisted Modification	15.2%	12.3%	12.5%	32.1%	15.2%	38.1%

Table 5.11 shows the number of 10th grade students receiving testing accommodations and modifications in 2006 and 2009 by level of participation in regular instruction. Passing rates for each for each of these categories are shown in Table 5.12. Note that counts are slightly lower in these tables compared to the more detailed breakouts in Tables 5.7 and 5.8, where some students were included more than once.

In summary, a significant number of students with disabilities did receive testing accommodations and many took the test with modifications. The frequency of accommodations and, particularly, modifications increased as students moved to higher grades without yet meeting the CAHSEE requirement.

Note that students testing with accommodations or modifications may be different in many significant ways from students who did not receive accommodations or modifications. It is thus not possible to draw any firm conclusions about the impact of the accommodations from differences in passing rates for these groups. In addition, available data from either CASEMIS or CAHSEE do not provide information on other accommodations that students might be receiving in instruction but were not able to use on the CAHSEE. Additional information is needed to determine whether more students

could demonstrate mastery of the CAHSEE standards with additional accommodations or with a different type of assessment altogether.

Table 5.11. Number of Matched 10th Grade Special Education Students in 2006 and 2009 by Class Participation and Testing Condition

Percent of Time in Regular Class	2006			2009		
	No. Accom.	Accom.	Modif.	No Accom.	Accom.	Modif.
ELA						
81–100%	13,605	655	453	13,598	1,815	499
50–80%	10,609	631	555	7,877	1,314	362
11–49%	8,461	527	775	6,423	1,340	717
00–10%	1,679	225	68	1,628	397	89
All Students	34,354	2,038	1,851	29,526	4,866	1,667
Mathematics						
81–100%	12,874	576	1234	12,821	1,604	1,456
50–80%	10,012	584	1205	7,328	1,169	1,037
11–49%	7,885	538	1277	5,700	1,229	1,510
00–10%	1,580	164	215	1,520	328	259
All Students	32,351	1,842	3,931	27,369	4,330	4,262

Table 5.12. Percentage of 10th Grade Special Education Students Scoring 350 or More in 2006 and 2009 by Class Participation and Testing Condition

Percent of Time in Regular Class	2006			2009		
	No. Accom.	Accom.	Modif.	No Accom.	Accom.	Modif.
ELA						
81–100%	50.5%	55.6%	40.8%	49.6%	46.0%	31.9%
50–80%	31.6%	29.6%	30.5%	33.9%	31.4%	26.8%
11–49%	11.3%	11.8%	11.9%	14.1%	14.0%	14.5%
00–10%	31.6%	25.3%	30.9%	32.8%	34.0%	20.2%
All	34.1%	32.9%	25.2%	36.8%	32.2%	22.7%
Mathematics						
81–100%	48.8%	45.7%	42.1%	52.8%	48.3%	40.4%
50–80%	29.2%	27.5%	27.8%	34.6%	28.2%	31.0%
11–49%	10.3%	11.0%	10.0%	12.6%	13.5%	15.0%
00–10%	26.5%	17.7%	22.8%	27.6%	24.7%	25.1%
All	32.3%	27.5%	26.2%	38.1%	31.2%	28.2%

Summary of Findings

In our 2009 analyses, we took another closer look at students with disabilities who have had particular difficulty meeting the CAHSEE requirement. We examined additional information on the characteristics of students in each of these populations and on the nature of the services they received. Trends in the characteristics of students, testing accommodations, and CAHSEE passing rates from 2006 to 2009 were explored.

About one-quarter of the students receiving special education services require more intensive assistance. These students participate in regular instruction less than 20% of the time and only about 10% of them pass the CAHSEE during the 10th grade. Those who retest in the 11th grade show only small gains in CAHSEE scores compared to other students. The services received by these students are specified by individualized educational plan (IEP) teams, who have statutory authority for making such judgments. There is no basis for second-guessing the services being provided to these students, although it is important to ask IEP teams to be sure student classifications are appropriate. It is less reasonable to hold these students responsible for mastering the skills assessed by the CAHSEE when they are not receiving instruction related to the skills tested by the CAHSEE. The school system needs to provide alternate goals and some way of recognizing achievement of these alternate goals for students in this second group.

Another quarter of the students we analyzed receive other combinations of services and show mixed results on the CAHSEE. More detailed information on the needs of these services and the specific services provided is needed to determine which students have a reasonable chance of meeting the CAHSEE requirements.

The most significant difference between 2006 and 2009 results was the considerably higher score gains for 11th and 12th graders in 2009. This increase indicates a significant improvement in the effectiveness of remedial programs.

Chapter 6: Student Questionnaire Responses

Rebecca L. Norman Dvorak

HumRRO designed a student questionnaire that was administered to all students at the end of the CAHSEE ELA and mathematics tests. The questionnaire included 16 items. We designed 14 of the items to investigate multiple topics including how students (a) prepared for the CAHSEE, (b) made graduation and post-high school plans, (c) felt about course content and instruction coverage, and (d) put effort into the CAHSEE. The remaining two questions were included to aid in matching students for longitudinal study purposes. The questionnaire has been administered since 2001; we made significant changes in 2005 and minor changes in more recent years. This study is based on data from 2005 through 2009.

Student Questionnaire Respondents

Table 6.1 displays passing rates and demographic characteristics of the 10th grade students who completed the CAHSEE ELA and math tests in 2009. The majority of 10th graders (79.2% of those taking ELA and 79.5% of those taking math) passed the CAHSEE. Hispanics made up the largest ethnic group (47.4%), followed by whites (31%), Asian (9.2%), African Americans (7.9%), Filipino (3%), American Indian or Alaskan Native (0.8%), and Pacific Islander (0.7%). Just over 8% of the students had disabilities and 16% were English learners. Approximately half (48.9%) of the students were labeled economically disadvantaged.

Table 6.1. Demographic Characteristics of 2009 Student Questionnaire Respondents (10th Graders in 2009)

Variable		ELA (n = 476,891)	Math (n = 477,155)
Pass	No	20.8	20.5
	Yes	79.2	79.5
Gender	Female	48.9	49.0
	Male	51.1	51.0
Ethnicity	American Indian or Alaskan Native	0.8	0.8
	Asian	9.2	9.2
	Pacific Islander	0.7	0.7
	Filipino	3.0	3.0
	Hispanic	47.4	47.4
	African American	7.9	7.9
Disability (SWD)	White	31.0	31.0
	No	91.7	91.8
English Learner (EL)	Yes	8.3	8.2
	No	83.9	84.0
Economically Disadvantaged (ED)	Yes	16.1	16.0
	No	51.1	51.1
	Yes	48.9	48.9

Comparisons on Student Perspective

We analyzed the trends and changes in students' perceptions after they took the math and the ELA CAHSEE tests by comparing:

- 10th grade student responses from 2005 to 2009.
- 10th grade student responses in 2009 by passing categories (whether they passed both tests, only ELA, only math, or neither test).
- 2009 10th grade responses by key demographic characteristics (gender, ethnicity, disability status, English learner status).

The first part of this chapter presents the results of the first two sets of analyses—comparing student responses across years and by passing category. The results are organized by topic and question. In the 2009 survey, Question 2 and Question 8 did not allow comparisons across years.

The second part of this chapter presents the results from the third set of analyses, those comparing student responses by key demographic characteristics. A summary of findings is provided by topic.

Lastly, a summary of all three sets of comparisons is provided.

Findings from 2009 10th Grade Student Responses

Test Preparation

Question 1: How did you prepare for this test?

The percentage of students who reported a teacher or counselor told them the importance of the test increased each year from 2005 to 2009. In 2009 there was also an increase in the percentage of students who prepared for the CAHSEE by taking a special class that covered topics on the exam. The percentage of students who claimed they did not do anything in addition to coursework to prepare decreased slightly from previous years (see Table 6.2).

Table 6.2. Question 1: How Did You Prepare for This Test? (Mark All That Apply) (10th Graders' Responses From 2005–2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. A teacher or counselor told me about the purpose and importance of the test.	29.1	30.9	34.4	35.6	37.0	
B. I practiced on questions similar to those on the test.	31.1	32.4	33.8	33.6	32.0	
C. A teacher spent time in class helping me to get ready to take the test.	40.5	40.3	36.4	37.1	37.9	
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	6.4	
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	3.3	
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	29.5	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. A teacher or counselor told me about the purpose and importance of the test.	26.7	28.2	31.6	32.3	34.5	
B. I practiced on questions similar to those on the test.	31.3	32.6	33.25	33.2	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	25.3	
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	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	2.84	2.7	3.0	
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	35.7	

As shown in Table 6.3, students who passed both tests were most likely to report that their teachers or counselors emphasized the importance of the test. After taking the math test, those who passed only math or both tests more often reported that they practiced on similar math questions to prepare. Those who did not pass at least one test were more likely than those who passed both to report that they took a special class to prepare, either during or after school. Students who passed both tests were the least likely to report that they took extra effort to prepare for the CAHSEE outside of regular coursework.

Table 6.3. Question 1: How Did You Prepare for This Test (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. A teacher or counselor told me about the purpose and importance of the test.	38.5	32.2	34.3	32.0	
B. I practiced on questions similar to those on the test.	34.1	29.8	29.5	23.2	
C. A teacher spent time in class helping me to get ready to take the test.	40.2	33.7	35.6	28.8	
D. I took a special class during the regular school day that covered the topics on the CAHSEE	5.2	9.9	9.9	10.1	
E. I took a special class after school or during the summer that covered the topics on the CAHSEE	2.9	4.1	4.9	4.8	
F. I did not do anything in addition to regular course work to prepare for this test.	32.5	23.0	19.8	19.2	
After Taking Math	Pass				
Both Tests	ELA Only	Math Only	None		
A. A teacher or counselor told me about the purpose and importance of the test.	35.4	31.7	33.5	32.3	
B. I practiced on questions similar to those on the test.	34.0	32.6	36.3	27.8	
C. A teacher spent time in class helping me to get ready to take the test.	25.4	24.4	28.7	24.2	
D. I took a special class during the regular school day that covered the topics on the CAHSEE	4.6	8.4	8.4	8.4	
E. I took a special class after school or during the summer that covered the topics on the CAHSEE	2.7	3.6	4.0	3.9	
F. I did not do anything in addition to regular course work to prepare for this test.	40.3	27.5	21.8	20.8	

Question 2: What materials did you use to prepare for this test?

The most common material used to study for the CAHSEE was released (sample) test questions—39.5% of students reported using them to prepare for the ELA test and 29.7% for the math test. For math, students almost as commonly used textbooks to prepare as they used the released items. Fewer students reported using the math student guide (12.5%) to prepare for the math test than using the ELA student guide (19.1%) to prepare for the ELA test (see Table 6.4). This question was a new addition to the survey; therefore, comparisons could not be made across years.

Table 6.4. Question 2: What Materials Did You Use to Prepare for This Test? (Mark All That Apply) (10th Graders' Responses, 2005–2009)

After ELA	Percentage
	2009
A. Textbooks	20.1
B. ELA Student Guide (blue and gold booklet)	19.1
C. Mathematics Student Guide (green and gold booklet)	8.1
D. CAHSEE Web Site	8.4
E. Released (sample) test questions	39.5
F. Other resources	37.8
After Math	Percentage
	2009
A. Textbooks	28.9
B. ELA Student Guide (blue and gold booklet)	9.6
C. Mathematics Student Guide (green and gold booklet)	12.5
D. CAHSEE Web Site	7.4
E. Released (sample) test questions	29.7
F. Other resources	38.7

Students who passed both tests were most likely to have used released (sample) test questions to prepare for the CAHSEE, while those who did not pass either test were least likely to have used them. As shown in Table 6.5, a greater percentage of students who did not pass at least one test reported using the CAHSEE website than those who passed both.

Table 6.5. Question 2: What Materials Did You Use to Prepare for This Test? (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. Textbooks	19.2	20.3	23.2	22.9	
B. ELA Student Guide (blue and gold booklet)	19.7	18.0	19.0	16.6	
C. Mathematics Student Guide (green and gold booklet)	8.1	7.3	8.5	8.3	
D. CAHSEE Web Site	7.5	9.4	11.5	11.5	
E. Released (sample) test questions	45.1	32.3	27.3	19.0	
F. Other resources	37.3	40.1	38.9	38.3	
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Textbooks	28.6	28.6	31.8	29.4	
B. ELA Student Guide (blue and gold booklet)	9.3	10.0	10.5	10.4	
C. Mathematics Student Guide (green and gold booklet)	12.3	12.2	14.5	13.3	
D. CAHSEE Web Site	6.7	8.5	9.7	9.9	
E. Released (sample) test questions	33.3	25.3	22.8	16.1	
F. Other resources	39.1	39.4	37.8	36.3	

Importance of the Tests

Question 3: How important is this test for you?

The percentage of 10th graders who reported that the CAHSEE was “very important” increased from 2007 to 2009. However, in 2009 the percentage of students who reported that the test was “not important” also increased. The fact that the 2006 administration was the first year that passing the CAHSEE was required for graduation undoubtedly explains the higher percentages of students reporting the test as “very important” for that particular year (see Table 6.6).

Table 6.6. Question 3: How Important Is This Test for You? (10th Graders' Responses, 2005–2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. Very important	75.5	90.2	78.4	78.9	80.6	
B. Somewhat important	20.2	6.9	18.1	17.7	15.6	
C. Not important	4.4	2.9	3.5	3.3	3.8	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. Very important	74.8	89.9	78.5	79.0	80.1	
B. Somewhat important	20.6	7.3	17.8	17.4	15.6	
C. Not important	4.6	2.9	3.7	3.7	4.3	

Most students, regardless of tests passed, perceived the CAHSEE to be very important. Students who passed only one test (either ELA or math) were most likely to report that the CAHSEE was "very important" and least likely to report that it was "not important." Students who did not pass either test had the highest percent responding that the test was "not important." Those who passed both tests were the least likely to perceive the test as "very important" (see Table 6.7).

Table 6.7. Question 3: 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	79.4	88.3	85.5	81.7	
B. Somewhat important	16.8	9.8	11.8	13.5	
C. Not important	3.8	1.9	2.7	4.8	
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Very important	79.1	86.2	85.9	80.7	
B. Somewhat important	16.6	11.0	11.2	14.2	
C. Not important	4.3	2.8	2.9	5.1	

Graduation Expectations and Post-High School Plans

Question 4: Do you think you will receive a high school diploma?

Question 4 was revised for the 2009 CAHSEE administration from a question that allowed students to respond "yes," "no," or "not sure" to one without a "not sure" option. Further, additional options were added, as can be seen in Table 6.8. The wording of the question also was modified. Due to these changes, responses cannot be compared across years. In 2009 most 10th graders reported that they planned to earn a high school diploma; approximately 84% expected to do so with the rest of their class or early. Less than 4% of students did not expect to receive a high school diploma at all.

Table 6.8. Question 4: Do You Think You Will Receive a High School Diploma? (10th Graders' Responses in 2009)

After ELA	Percentage
	2009
A. Yes, with the rest of my class (or earlier).	84.1
B. Yes, but I will likely have to take classes after my original graduation date.	10.1
C. Yes, but I will pursue a diploma in Adult Education.	2.5
D. No, I probably will not receive a high school diploma.	2.1
E. No, I plan to take the GED.	0.8
F. No, I plan to take the CHSPE.	0.4
After Math	Percentage
	2009
A. Yes, with the rest of my class (or earlier).	83.7
B. Yes, but I will likely have to take classes after my original graduation date.	10.2
C. Yes, but I will pursue a diploma in Adult Education.	2.3
D. No, I probably will not receive a high school diploma.	2.5
E. No, I plan to take the GED.	0.8
F. No, I plan to take the CHSPE.	0.5

As shown in Table 6.9, students who passed both tests were most likely to think they would receive a high school diploma with the rest of their class (or early), with over 90% of passing students selecting this option. Only 56% of students who did not pass either test believed they would graduate on time. Students who passed only the ELA test were slightly more likely than those who passed only the math test to believe they would earn a high school diploma.

Table 6.9. Question 4: Do You Think You Will Receive a High School Diploma? (Percentages of 10th Graders' Responses by Pass or Not Pass)

After Taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Yes, with the rest of my class (or earlier).	91.5	73.3	70.0	55.7	
B. Yes, but I will likely have to take classes after my original graduation date.	5.9	19.1	19.4	24.0	
C. Yes, but I will pursue a diploma in Adult Education.	1.3	3.2	4.7	8.0	
D. No, I probably will not receive a high school diploma.	0.7	3.0	4.3	8.4	
E. No, I plan to take the GED.	0.3	1.1	1.1	2.6	
F. No, I plan to take the CHSPE.	0.3	0.3	0.5	1.3	
After Taking Math					
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Yes, with the rest of my class (or earlier).	90.9	72.3	71.5	56.1	
B. Yes, but I will likely have to take classes after my original graduation date.	6.1	19.2	8.6	24.0	
C. Yes, but I will pursue a diploma in Adult Education.	1.2	3.2	3.9	6.9	
D. No, I probably will not receive a high school diploma.	1.0	3.6	4.4	9.2	
E. No, I plan to take the GED.	0.4	1.2	1.1	2.4	
F. No, I plan to take the CHSPE.	0.3	0.5	0.5	1.3	

A cross-tabulation was performed to examine whether the perceived importance of the CAHSEE exam is related to whether students believe they will earn a high school diploma or not. Results show that those who reported the CAHSEE was “very important” were the most likely to state they would earn a high school diploma with the

rest of their class. Students who felt the CAHSEE was not important were most likely to believe they would not earn a high school diploma (see Table 6.10).

Table 6.10. Perceived Test Importance by Whether Students Believe They Will Earn a High School Diploma (10th Graders' Responses to Questions 3 and 4 in 2009)

After ELA	Yes, with class	Yes, later than class	Percent			
			Yes, diploma in Adult Ed	No	No, plan on GED	No, plan on CHSPE
Very Important (n=351,846)	85.8	10.0	2.2	1.5	0.4	0.2
Somewhat Important (n = 68,222)	79.1	10.5	3.9	4.1	1.7	0.7
Not Important (n =16,431)	69.6	11.1	3.9	7.0	4.8	3.6

After Math	Yes, with class	Yes, later than class	Percent			
			Yes, diploma in Adult Ed	No	No, plan on GED	No, plan on CHSPE
Very Important (n=347,345)	86.1	9.8	1.8	1.6	0.4	0.2
Somewhat Important (n = 67,469)	77.0	11.5	4.2	4.8	1.7	0.8
Not Important (n =18,347)	63.1	12.7	5.1	10.0	4.3	4.9

Question 5: What might prevent you from obtaining a high school diploma?

In 2009 there was a slight decrease from the previous year in the percentage of 10th graders who were confident that they would complete high school, citing not passing classes or the CAHSEE exam as possible inhibitors (see Table 6.11). A slight wording change, noted below, was made to the 2009 questionnaires. It is possible this change affected responses.

Because question 5 provided the opportunity for students to select all options that apply, a further analysis explored how many students selected both of the options a and b shown in Table 6.11 (“I may not pass all the required courses” and “I may not pass the CAHSEE exam”) as reasons they might not receive a diploma. Among the responding 10th grade students, 6.7% of all who took the ELA exam and 7.5% of those who took the math exam selected both of these options. Approximately one-third of those who selected the option a or b also selected the other after completing the CAHSEE ELA and math exams.

Table 6.11. Question 5: What Might Prevent You From Receiving a High School Diploma? (Mark All That Apply) (10th Graders' Responses From 2005–2009)*

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I may not pass all the required courses.	n/a	25.1	19.7	18.8	21.8	
B. I may not pass the CAHSEE exam.	n/a	38.4	20.6	18.9	20.6	
C. I may drop out before the end of 12th grade.	n/a	13.3	2.5	2.3	2.6	
D. I may not meet some other graduation requirement.	n/a	23.2	13.4	12.6	12.2	
E. I am confident I will receive a high school diploma.	n/a	n/a	63.3	65.6	63.1	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I may not pass all the required courses.	n/a	26.7	21.4	20.3	23.8	
B. I may not pass the CAHSEE exam.	n/a	41.1	23.3	21.4	22.8	
C. I may drop out before the end of 12th grade.	n/a	11.8	2.8	2.6	2.9	
D. I may not meet some other graduation requirement.	n/a	20.4	12.6	11.8	10.3	
E. I am confident I will receive a high school diploma.	n/a	n/a	59.8	62.2	59.4	

*In 2009 the wording of question 5 was changed from “what might prevent you from graduating high school” to “what might prevent you from receiving a high school diploma.”

The majority of 10th graders who passed both tests reported they were confident they would earn a diploma. Those who did not pass either test were most likely to report that not passing the CAHSEE might prevent them from graduating. Not passing the CAHSEE was found to be more of a concern for 10th graders than not passing the required courses for all categories of passing (see Table 6.12).

Table 6.12. Question 6: What Might Prevent You From Receiving a High School Diploma? (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 may not pass all the required courses.	18.5	34.0	30.7	29.3	
B. I may not pass the CAHSEE exam.	14.2	34.1	38.9	41.0	
C. I may drop out before the end of 12th grade.	1.7	2.9	5.1	6.6	
D. I may not meet some other graduation requirement.	11.1	18.4	15.3	13.3	
E. I am confident I will receive a high school diploma.	73.2	41.5	38.1	29.9	
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I may not pass all the required courses.	20.4	36.5	33.5	31.1	
B. I may not pass the CAHSEE exam.	16.2	40.9	38.9	42.8	
C. I may drop out before the end of 12th grade.	2.0	3.2	5.0	6.5	
D. I may not meet some other graduation requirement	9.4	14.5	12.8	11.5	
E. I am confident I will receive a high school diploma.	69.6	34.8	35.5	26.9	

Question 6: What do you think you will do after high school?

The response option "F" for Question 6 was modified in 2009 as shown in Table 6.13. This change influenced how students responded to the question. Because fewer students chose option "F" with the new wording, there was an increase in every other category for 2009; thus, the results cannot be compared directly to those of previous years. Table 6.15 shows that in 2009 more than half (approximately 60%) of 10th graders reported they would go to a 4-year college or university and approximately 23% to a community college.

Table 6.13. Question 6: What Do You Think You Will Do After High School? (10th Graders' Responses From 2005–2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I will join the military.	5.0	4.9	4.1	3.9	5.0	
B. I will go to a community college.	18.4	18.5	18.5	19.6	22.8	
C. I will go to a 4-year college or university.	55.9	54.8	53.8	55.7	60.0	
D. I will go to a vocational, technical, or trade school.	4.0	3.7	3.5	3.4	4.0	
E. I will work full-time.	3.5	3.9	3.6	3.7	4.3	
F. I really don't know what I will do after high school.	13.2	14.2	13.8	13.8	n/a	
F.* Do something else (besides school, work, or the military)	n/a	n/a	n/a	n/a	3.9	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I will join the military.	5.4	5.5	4.4	4.3	5.6	
B. I will go to a community college.	18.3	18.6	18.2	19.3	22.5	
C. I will go to a 4-year college or university.	55.0	54.1	53.2	55.1	59.6	
D. I will go to a vocational, technical, or trade school.	4.0	3.6	3.4	3.3	3.8	
E. I will work full-time.	3.7	4.0	3.8	3.8	4.4	
F. I really don't know what I will do after high school.	13.6	14.1	14.2	14.2	n/a	
F. Do something else (besides school, work, or the military)	n/a	n/a	n/a	n/a	4.1	

* Option 'F' was revised in 2009.

Students who passed both tests were most likely to report they would attend a 4-year college or university after high school. Those who passed ELA but not math were more likely than any other group of students to report that they planned to attend a community college. Those who did not pass either test were more likely than others to report they would work full time or do something besides go to school, work, or join the military after high school (see table 6.14).

Table 6.14. Question 6: 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.	3.9	6.7	7.8	9.1	
B. I will go to a community college.	20.4	33.2	27.5	28.1	
C. I will go to a 4-year college or university.	67.1	42.8	46.4	36.3	
D. I will go to a vocational, technical, or trade school.	3.6	4.8	4.8	5.5	
E. I will work full-time.	2.3	6.7	7.7	12.5	
*F. Do something else (besides school, work, or the military)	2.8	5.7	5.9	8.5	
After Taking Math	Pass				
Both Tests	ELA Only	Math Only	None		
A. I will join the military.	4.4	7.3	8.1	9.5	
B. I will go to a community college.	20.0	32.8	27.4	28.3	
C. I will go to a 4-year college or university.	66.8	42.4	46.1	36.0	
D. I will go to a vocational, technical, or trade school.	3.3	4.8	4.5	5.3	
E. I will work full-time.	2.4	6.8	8.0	12.5	
*F. Do something else (besides school, work, or the military)	3.1	5.9	5.9	8.3	

*Option 'F' was revised in 2009.

Question 7: How sure are you about what you will do after high school?

In 2009 there was an increase in the percentage of students who were very sure about their post-high-school plans. Less than 10% of the students reported they were “not sure at all” (see Table 6.15).

Table 6.15. Question 7: How Sure Are You About What You Will Do After High School? (10th Graders' Responses 2005–2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. Very sure	43.4	40.3	41.06	40.7	44.4	
B. Somewhat sure	44.2	47.4	46.84	47.5	46.5	
C. Not sure at all	12.4	12.2	12.01	11.8	9.1	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. Very sure	44.4	41.7	42.2	41.9	45.27	
B. Somewhat sure	42.9	46.3	45.45	46.1	45.66	
C. Not sure at all	12.7	12.1	12.21	12.0	9.07	

Students reported fairly similar levels of certainty of post-high school plans regardless of whether they passed both or one test, or they did not pass either test. Those who did not pass either test were slightly more likely to be “very sure” or “not at all sure” than those who had passed at least one test (see Table 6.16).

Table 6.16. Question 7: 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	44.0	44.6	44.5	46.4	
B. Somewhat sure	47.0	47.4	46.5	43.1	
C. Not sure at all	9.0	8.0	9.0	10.5	
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Very sure	44.7	46.0	46.0	47.9	
B. Somewhat sure	46.4	45.8	45.5	41.6	
C. Not sure at all	8.9	8.2	8.5	10.5	

Test Performance and Influencing Factors

Question 8: The main reasons I did not do as well on this test as I could have are:

Question 8 in 2009 was a combination of two questions (how well they did and why they did not do as well as they could have) asked in previous CAHSEE administrations; therefore responses cannot be compared across years. In 2009, most students (slightly over 86%) felt that they did as well as they could have on the ELA and math CAHSEE exams. Table 6.17 shows that for those who reported not doing their best, the most common reason was being too nervous.

Table 6.17. Question 8: The Main Reasons I Did Not Do as Well on This Test as I Could Have (Mark All That Apply) (10th Graders’ Responses From 2005–2009)

After ELA	Percentage
	2009
A. I did as well as I could.	86.6
B. I was too nervous to do as well as I could.	9.0
C. I was not motivated to do well.	4.2
D. I did not have time to do as well as I could.	1.5
E. Conditions in the testing room made it difficult to concentrate.	4.7
F. There were other reasons why I did not do as well as I could.	4.6
After Math	Percentage
	2009
A. I did as well as I could.	86.2
B. I was too nervous to do as well as I could.	9.4
C. I was not motivated to do well.	3.9
D. I did not have time to do as well as I could.	1.3
E. Conditions in the testing room made it difficult to concentrate.	3.6
F. There were other reasons why I did not do as well as I could.	5.3

Table 6.18 reveals that more than 90% of 10th graders who passed both tests, compared to approximately 70% of those who passed neither test, reported that they did as well as they could on the ELA and math CAHSEE exams. Students who did not pass one or both tests were more likely to report that nervousness or a lack of time were reasons they did not do as well as they could have.

Table 6.18. 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 did as well as I could.	90.7	88.3	73.6	68.7	
B. I was too nervous to do as well as I could.	6.3	8.9	19.6	19.2	
C. I was not motivated to do well.	3.5	3.5	6.7	7.1	
D. I did not have time to do as well as I could.	1.0	1.3	2.6	3.8	
E. Conditions in the testing room made it difficult to concentrate.	4.8	3.9	4.8	4.6	
F. There were other reasons why I did not do as well as I could.	4.2	3.8	6.4	6.0	
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I did as well as I could.	90.4	78.4	80.6	69.5	
B. I was too nervous to do as well as I could.	6.6	14.5	15.6	19.3	
C. I was not motivated to do well.	3.2	5.3	4.9	7.0	
D. I did not have time to do as well as I could.	0.8	1.5	2.0	3.4	
E. Conditions in the testing room made it difficult to concentrate.	3.5	3.6	3.3	4.1	
F. There were other reasons why I did not do as well as I could.	4.7	9.8	4.7	6.6	

Content and Instruction Coverage

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

Table 6.19 shows a positive trend from 2005 to 2009 in the percentage of students who reported that all or most of the CAHSEE topics were covered in their courses. This was true for students after both the math and the ELA exam, though a slightly higher percentage of students reported after they took the math exam that many topics were not covered.

Table 6.19. Question 9: Were the Topics on the Test Covered in Courses You Have Taken? (10th Graders' Responses, 2005–2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. Yes, all of them.						
B. Most, but not all of them (two-thirds or more were covered).	92.2	93.3	93.7	93.9	94.2	
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	5.8	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. Yes, all of them.						
B. Most, but not all of them (two-thirds or more were covered).	88.9	90.6	91.53	92.3	92.4	
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	7.6	

The majority of students who passed both tests reported that all of the topics on the test were covered in their courses. Students who did not pass either test were more likely to report that the topics on the test were not covered in courses they had taken. For those who passed only one test or did not pass either test, the most common response was that most, but not all topics, were covered in their courses. Those who did not pass a test were more likely to report that many of the topics on the test were not covered in their courses (see Table 6.20).

Table 6.20. Question 9: Were the Topics on the Test Covered in Courses You Have Taken? (Percentages of 10th Graders' Responses by Pass or Not Pass)

After Taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Yes, all of them.	62.9	46.2	34.9	33.9	
B. Most, but not all of them (two-thirds or more were covered).	33.5	47.2	53.1	51.5	
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	3.6	6.6	12.0	14.6	
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Yes, all of them.	58.7	29.0	35.9	28.1	
B. Most, but not all of them (two-thirds or more were covered).	36.2	55.6	54.3	55.3	
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	5.2	15.4	9.8	16.6	

In 2009, 4.1% more 10th graders than in 2008 reported that all of the CAHSEE questions were similar to the ones used in class for ELA. For math, the percentage of students reporting that all questions were similar to those used in classes remained the same from 2008 to 2009 (43.7%); however, this percentage was an increase from the years 2005 to 2007 (see Table 6.21).

Table 6.21. Question 10: Were Any of the Questions on the Test Different From the Types of Questions or Answer Options You Have Encountered in Class? (10th Graders' Responses 2005-2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. Yes, many were different from anything I had seen before.	9.3	11.9	11.37	11.3	11.1	
B. Yes, a few were different from anything I had seen before.	49.5	48.9	47.84	49.0	45.1	
C. No, all were similar to ones used in my classes	41.2	39.1	40.73	39.7	43.8	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. Yes, many were different from anything I had seen before.	14.4	13.5	12.62	11.7	12.4	
B. Yes, a few were different from anything I had seen before.	51.0	49.2	47.22	45.7	44.9	
C. No, all were similar to ones used in my classes	34.7	37.3	40.07	42.7	42.7	

Table 6.22 shows that approximately half of the students who passed both tests reported that all of the questions on the CAHSEE tests were similar to ones used in their classes. Those who passed neither test or passed only one test were less likely to report they had encountered similar questions in class.

Table 6.22. 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	11.5	21.0	25.4	
B. Yes, a few were different from anything I had seen before.	42.3	51.8	56.1	52.4	
C. No, all were similar to ones used in my classes	50.1	36.7	22.9	22.1	
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Yes, many were different from anything I had seen before.	8.7	18.9	18.4	27.0	
B. Yes, a few were different from anything I had seen before.	41.2	56.8	56.3	43.3	
C. No, all were similar to ones used in my classes	50.1	24.3	5.3	19.7	

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

Table 6.23 provides a summary of the percentage of students who felt test items were more difficult, the same, or easier than those they had encountered in class. Percentages for options B and C are combined because questions on the CAHSEE optimally will be either equally difficult or easier than those encountered in class. In 2009 a smaller percentage of students than in any previous year felt that the test questions on the CAHSEE were more difficult than what they encountered in their course work. This was true for students after they took both the ELA and math CAHSEE exams.

Table 6.23. Question 11: Were the Questions on This Test More Difficult Than Questions You Were Given in Classroom Tests or Homework Assignments? (10th Graders' Responses, 2005–2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
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	14.1	
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	85.9	
C. The test questions were generally easier than the questions I encountered in my course work.						
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
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	17.6	
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	82.4	
C. The test questions were generally easier than the questions I encountered in my course work.						

A greater percentage of students who passed both tests felt that the questions on the CAHSEE were easier than those they encountered in classroom tests or homework. Those who did not pass either test were more likely than others to report that CAHSEE questions were generally more difficult (see Table 6.24).

Table 6.24. 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)

After Taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Yes, the test questions were generally more difficult than the questions I encountered in my course work.	9.5	15.8	29.1	32.3	<p>Bar chart for ELA: Category A shows approximately 10% for Both, 16% for ELA, 30% for Math, and 34% for None. Category B/C shows approximately 85% for Both, 80% for ELA, 70% for Math, and 65% for None.</p>
B. The test questions were generally about as difficult as the questions I encountered in my course work.	90.5	84.2	71.0	67.7	
C. The test questions were generally easier than the questions I encountered in my course work.					
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. Yes, the test questions were generally more difficult than the questions I encountered in my course work.	12.0	31.9	26.0	37.4	<p>Bar chart for Math: Category A shows approximately 12% for Both, 32% for ELA, 26% for Math, and 37% for None. Category B/C shows approximately 88% for Both, 68% for ELA, 74% for Math, and 63% for None.</p>
B. The test questions were generally about as difficult as the questions I encountered in my course work.	88.0	68.1	74.0	62.6	
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:

Over the past 5 years the most common reason reported by students for having difficulty with the CAHSEE was forgetting things that they were taught, a trend that continued in 2009. Of this year's 10th graders, 10.6% responded that they had not taken courses covering topics on the math CAHSEE exam, and 7.3% reported that they had not taken courses covering topics on the ELA CAHSEE exam (see Table 6.25).

Table 6.25. Question 12: If Some Topics on the Test Were Difficult for You, Was It Because: (10th Graders' Responses, 2005–2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I did not take courses that covered these topics.	8.2	7.6	7.2	7.2	7.3	
B. I had trouble with these topics when they were covered in courses I took.	18.1	17.5	17.2	17.3	17.7	
C. I have forgotten things I was taught about these topics.	37.9	37.8	41.6	42.5	39.0	
D. None of the topics was difficult for me.	35.8	37.1	33.3	33.0	35.9	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I did not take courses that covered these topics.	13.5	12.6	10.8	9.5	10.6	
B. I had trouble with these topics when they were covered in courses I took.	22.6	23.8	21.9	22.8	24.1	
C. I have forgotten things I was taught about these topics.	44.7	43.8	45.0	46.1	44.2	
D. None of the topics was difficult for me.	19.2	19.8	20.8	21.7	21.2	

In 2009, students who passed neither test or only passed one were more likely to report that they did not take courses that covered the topics on the CAHSEE. Those who passed both tests were most likely to report that none of the topics were difficult for them (see Table 6.26).

Table 6.26. 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.	4.9	8.6	14.2	16.8	
B. I had trouble with these topics when they were covered in courses I took.	14.3	22.0	29.6	29.3	
C. I have forgotten things I was taught about these topics.	38.9	42.7	40.7	36.8	
D. None of the topics was difficult for me.	41.9	26.7	15.5	17.1	
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I did not take courses that covered these topics.	7.8	16.4	16.3	20.4	
B. I had trouble with these topics when they were covered in courses I took.	20.0	40.8	31.0	35.3	
C. I have forgotten things I was taught about these topics.	46.9	36.4	40.8	34.1	
D. None of the topics was difficult for me.	25.4	6.4	11.9	10.2	

Efforts Put Into the CAHSEE

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

In 2009 there the percentage of students who reported that they did not have to work any harder to pass the CAHSEE increased (see Table 6.27). Those who said they did have to work harder were most likely to have done so by working harder in the courses they were taking. Option “F” was added to the question this year.

Table 6.27. 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) (10th Graders' Responses, 2005–2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I do not have to work any harder to meet the CAHSEE requirement.	n/a	35.3	40.8	41.4	46.6	
B. I am taking additional courses.	n/a	3.9	6.2	6.1	5.9	
C. I am working harder in the courses I am taking.	n/a	33.0	47.3	47.3	41.4	
D. I am getting help outside of the classroom.	n/a	7.2	8.3	8.2	7.3	
E. I am repeating a course to learn the material better.	n/a	3.9	5.3	4.9	3.6	
F. I will stay in school an additional year to learn the required material.	n/a	n/a	n/a	n/a	3.9	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I do not have to work any harder to meet the CAHSEE requirement.	n/a	39.1	39.0	40.2	44.5	
B. I am taking additional courses.	n/a	5.0	6.5	6.2	6.2	
C. I am working harder in the courses I am taking.	n/a	39.9	46.3	45.8	41.0	
D. I am getting help outside of the classroom.	n/a	9.4	8.0	9.0	8.1	
E. I am repeating a course to learn the material better.	n/a	6.5	9.3	6.8	5.0	
F. I will stay in school an additional year to learn the required material.	n/a	n/a	n/a	n/a	4.2	

As shown in Table 6.28, students who passed only one test were more likely than other students to report that they were working harder in the courses they were taking to learn the skills required by the CAHSEE. Those who passed both tests reported most frequently not having to work any harder to meet the CAHSEE requirement.

Table 6.28. 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.	55.9	26.1	20.5	17.3	
B. I am taking additional courses.	3.9	8.5	11.9	13.0	
C. I am working harder in the courses I am taking.	39.0	53.7	50.8	44.5	
D. I am getting help outside of the classroom.	5.4	11.0	12.7	13.2	
E. I am repeating a course to learn the material better.	2.2	5.3	7.6	8.9	
F. I will stay in school an additional year to learn the required material.	1.7	5.4	9.3	12.4	
After Taking Math	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I do not have to work any harder to meet the CAHSEE requirement.	54.1	16.3	22.8	15.9	
B. I am taking additional courses.	4.2	9.8	11.5	12.7	
C. I am working harder in the courses I am taking.	38.2	56.5	49.6	44.8	
D. I am getting help outside of the classroom.	6.3	13.4	12.1	13.4	
E. I am repeating a course to learn the material better.	3.3	10.1	7.5	10.3	
F. I will stay in school an additional year to learn the required material.	2.1	6.4	8.4	12.3	

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

Table 6.29 shows that the majority of students (77.3% of ELA test takers and 78.6% of math test takers) intend to stay in school and try to pass the CAHSEE again if they did not pass during this administration. This is an increase from the preceding 2 years. Only a small percentage of the students indicated that they would give up trying to get a diploma.

Table 6.29. Question 14: If You Do Not Pass the CAHSEE in This Administration, What Are You Most Likely to Do? (Mark the Most Likely Option) (10th Graders' Responses, 2005–2009)

After ELA	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I will stay in school and try again to pass the CAHSEE.	n/a	n/a	68.2	75.8	77.3	
B. I will take courses at a community college and try again to pass CAHSEE.	n/a	n/a	5.0	5.3	5.2	
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	9.3	
D. I will try to get a GED certificate.	n/a	n/a	1.8	1.9	1.7	
E. I will give up trying to get a diploma altogether.	n/a	n/a	1.1	1.2	1.1	
F. I really do not know what I will do.	n/a	n/a	5.4	5.4	5.4	
After Math	Percentage					Percent
	2005	2006	2007	2008	2009	
A. I will stay in school and try again to pass the CAHSEE.	n/a	n/a	70.7	77.2	78.6	
B. I will take courses at a community college and try again to pass CAHSEE.	n/a	n/a	4.9	5.2	5.3	
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	7.4	
D. I will try to get a GED certificate.	n/a	n/a	1.8	1.9	1.7	
E. I will give up trying to get a diploma altogether.	n/a	n/a	1.3	1.4	1.3	
F. I really do not know what I will do.	n/a	n/a	5.8	5.7	5.8	

The majority of 10th grade students, regardless of how many tests they passed, reported they would stay in school and try again to pass the CAHSEE if they did not do so in this administration. Those who did not pass at least one test were most likely to claim they would take courses at a community college in order to pass the CAHSEE. These students also were most likely to report they would participate in some other type of program to help them pass. Only a small percentage of students said they would give up trying to get a diploma altogether or they would attempt to get a GED certificate; those who passed both tests were least likely to report intending to do anything besides staying in school and trying again to pass the CAHSEE (see Table 6.30).

Table 6.30. 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)

After Taking ELA	Pass				Percent
	Both Tests	ELA Only	Math Only	None	
A. I will stay in school and try again to pass the CAHSEE.	81.9	71.9	67.5	59.4	
B. I will take courses at a community college and try again to pass CAHSEE.	3.9	7.0	8.0	10.8	
C. I will participate in some other type of program that will help me to pass the CAHSEE.	7.8	12.2	4.1	14.1	
D. I will try to get a GED certificate.	0.9	2.4	2.9	5.2	
E. I will give up trying to get a diploma altogether.	0.7	0.9	1.6	2.9	
F. I really do not know what I will do.	4.9	5.7	6.0	7.6	
After Taking Math	Pass				Percent
Both Tests	ELA Only	Math Only	None		
A. I will stay in school and try again to pass the CAHSEE.	82.9	73.0	70.8	61.1	
B. I will take courses at a community college and try again to pass CAHSEE.	3.9	7.5	7.8	10.9	
C. I will participate in some other type of program that will help me to pass the CAHSEE.	6.0	9.9	11.3	12.5	
D. I will try to get a GED certificate.	1.0	2.4	2.7	4.8	
E. I will give up trying to get a diploma altogether.	1.0	1.2	1.4	2.8	
F. I really do not know what I will do.	5.3	6.0	5.9	8.0	

Comparisons of 10th Grade Student Responses in 2009 by Demographic Characteristics

We compared student questionnaire responses on four demographic variables: gender, ethnicity, disability, and English learner (EL) status. Overall, the response differences by these four variables were very similar for ELA and math questionnaires. The questionnaire results from students who took the ELA test are presented in Table 6.31 (pages 34–36) and the questionnaire results from those who took the math test are presented in Table 6.32 (pages 37–39). In addition, Tables 6.33 and 6.44 (pages 40 and 41) present a cross-tabulation of two questions of interest by demographic group.

Test Preparation (Table 6.31 and Table 6.32, Questions 1–2)

Students who identified as Asian, white, or American Indian/Alaskan Native and those who were not classified as economically disadvantaged were most likely to report that they did not do anything special to prepare for the CAHSEE. Females and Filipinos were most likely to report using released (sample) questions to prepare for the CAHSEE. Students with disabilities and English learners were least likely to report using released questions to prepare for the CAHSEE.

Importance of the Tests (Table 6.31 and Table 6.32, Question 3)

More females than males and more students labeled economically disadvantaged reported that the CAHSEE was very important. Hispanic and African American 10th graders were more likely than other ethnic groups to report that the test was very important.

Graduation From High School and Post-High-School Plans (Table 6.31 and Table 6.32, Questions 5–7)

The majority of all students expected to graduate on time. Females were more likely to expect to do so than males; Asian, Filipino, and white students were more likely than other ethnic groups; students who did not have a disability were more likely than those who did; and students fluent in English were more likely to expect to graduate on time than English learners.

Females, Asians, whites, students without disabilities, and non-English learners were most likely to be confident about receiving a high school diploma.

English learners, students with disabilities, African Americans, and Hispanics were most likely to report that the CAHSEE might prevent them from earning a diploma.

Most students, regardless of demographic group, plan to attend a 4-year college or university or a community college after high school.

Males and students with disabilities were most likely to plan to join the military after high school.

African Americans were more likely to say they were "very sure" about post-high-school plans than other groups.

Test Performance and Influencing Factors (Table 6.31 and Table 6.32, Question 8)

Females, Filipino, white, and students who were not economically disadvantaged were most likely to report that they did as well as they could on the CAHSEE.

Hispanic students, students with disabilities, English learners, and economically disadvantaged students were most likely to report that nervousness prevented them from doing as well as they could.

Content and Instruction Coverage (Table 6.31 and Table 6.32, Questions 9–12)

Females, Filipino, white, or Asian students were most likely to report that all of the topics on the CAHSEE were covered by their courses.

Males, African Americans, Hispanics, students with disabilities, English learners, and economically disadvantaged students were most likely to claim that many questions on the CAHSEE were more difficult and different than what they encountered in class homework and tests.

Students with disabilities and English-learners were most likely to report they did not take courses that covered the topics on CAHSEE.

Efforts Put Into the CAHSEE (Table 6.31 and Table 6.32, Questions 13–14)

Asian and white 10th graders were more likely than other ethnic group to report they did not have to work any harder to learn the skills required by the CAHSEE. Regardless of demographic characteristics, the majority of 10th graders planned to stay in school to try to pass the CAHSEE again if they did not pass during this administration. However, American Indian/Alaskan Native, African Americans, students with disabilities, and English learners were the most likely to report that they would give up trying to get a diploma altogether.

Table 6.31. Percentages of 10th Grade Students' Responses in 2009 By Gender, Ethnicity, Disability, and English Learner Status – After Taking CAHSEE ELA Exam

After Taking CAHSEE ELA Exam (Percentage of Student Responses in 10th grade)	Gender		Ethnicity								ED			
	F	M	Am Indian/ Alaskan Native	Asian	Pacific	Filipino	Hispanic	African	White	SWD	EL	Yes	No	
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.	39.3	34.6	35.1	37.5	37.8	44.5	37.7	33.3	35.9	32.2	35.2	37.8	36.2	
B. I practiced on questions similar to those on the test.	36.2	27.9	29.1	28.5	34.5	35.3	34.6	32.9	28.6	26.6	29.5	34.9	29.4	
C. A teacher spent time in class helping me to get ready to take the test.	41.3	34.6	36.0	32.4	39.3	40.6	40.2	38.7	35.6	33.0	35.9	40.3	35.7	
D. I took a special class during the regular school day that covered the topics on the CAHSEE.	6.5	6.4	5.4	2.9	5.4	3.9	8.7	8.8	3.8	10.0	10.4	9.0	4.1	
E. I took a special class after school or during the summer that covered the topics on the CAHSEE.	3.5	3.2	2.2	2.0	2.5	2.0	4.6	4.9	1.6	4.7	5.2	4.7	2.0	
F. I did not do anything in addition to regular course work to prepare for this test.	26.0	32.9	34.3	40.5	27.7	28.6	21.9	22.6	39.3	22.5	16.6	21.8	36.8	
2. What materials did you use to prepare for this test: (Mark all that apply.)														
A. Textbooks	19.3	20.9	20.6	17.1	18.9	18.7	20.6	19.8	20.4	20.5	22.6	20.7	19.5	
B. ELA Student Guide (blue and gold booklet)	20.3	17.9	19.0	19.1	20.1	20.9	19.4	21.1	17.9	17.5	18.7	19.8	18.4	
C. Mathematics Student Guide (green and gold booklet)	8.4	7.7	7.5	6.8	9.0	7.7	8.6	9.2	7.3	8.9	8.4	8.8	7.4	
D. CAHSEE Web site	8.7	8.2	6.6	8.9	9.3	8.3	9.0	11.2	6.6	11.9	11.8	9.7	7.2	
E. Released (sample) test questions	43.6	35.5	37.0	38.7	38.6	45.1	40.1	34.9	39.5	24.8	27.7	39.6	39.4	
F. Other Resources	36.7	38.9	40.8	37.9	40.9	37.5	37.3	36.2	38.8	40.2	36.9	37.3	38.2	
3. How important is this test to you?														
A. Very important	84.7	76.6	77.2	68.1	83.0	81.5	87.3	86.8	72.7	79.7	88.7	86.9	74.7	
B. Somewhat important	13.2	18.0	18.4	24.9	13.8	16.4	10.6	10.1	21.7	15.3	9.0	10.8	20.2	
C. Not important	2.1	5.4	4.5	7.0	3.1	2.1	2.1	3.1	5.7	5.1	2.3	2.3	5.2	
4. Will you receive a high school diploma?														
A. Yes, with the rest of my class (or earlier).	87.4	80.9	80.3	90.9	85.1	89.8	79.5	81.8	89.1	67.4	67.6	79.2	88.7	
B. Yes, but I will likely have to take classes after my original graduation date.	8.5	11.7	11.6	5.6	9.9	7.2	13.4	11.4	6.4	17.5	19.7	13.4	7.0	
C. Yes, but I will pursue a diploma in Adult Education.	1.9	3.2	3.2	1.6	2.5	1.5	3.1	3.1	2.0	5.7	5.1	3.1	2.0	
D. No, I probably will not receive a high school diploma.	1.6	2.6	2.9	1.3	1.4	1.0	3.0	2.1	1.1	5.9	5.9	3.0	1.3	
E. No, I plan to take the GED.	0.5	1.1	1.5	0.3	0.7	0.3	0.8	1.1	0.8	2.2	1.2	0.9	0.6	
F. No, I plan to take the CHSPE.	0.2	0.6	0.5	0.3	0.4	0.2	0.3	0.5	0.6	1.3	0.6	0.4	0.4	

Independent Evaluation of the CAHSEE: 2009 Evaluation Report

After Taking CAHSEE <u>ELA</u> Exam (Percentage of Student Responses in 10th grade)	Gender		Ethnicity								ED		
	F	M	Am Indian/ Alaskan Native	Asian	Pacific	Filipino	Hispanic	African	White	SWD	EL	Yes	No
5. What might prevent you from receiving a high school diploma? (Mark all that apply.)													
A. I may not pass all the required courses.	20.0	23.6	26.4	13.8	22.9	19.7	26.7	19.8	17.3	25.5	28.0	26.2	17.6
B. I may not pass the CAHSEE exam.	21.6	19.5	20.3	15.4	20.5	17.0	26.9	23.0	12.4	39.0	38.5	27.7	13.9
C. I may drop out before the end of 12th grade.	1.9	3.4	3.3	2.0	2.2	1.4	3.1	2.8	2.2	5.0	5.1	3.2	2.1
D. I may not meet some other graduation requirement.	10.7	13.7	16.0	9.7	14.3	14.6	14.3	11.4	9.7	14.1	13.1	14.6	10.0
E. I am confident I will receive a high school diploma.	67.2	59.1	58.9	75.0	62.8	70.0	53.6	60.1	74.0	39.3	38.8	53.5	72.2
6. What do you think you will do after high school?													
A. I will join the military.	2.1	8.0	7.2	2.1	5.8	4.6	5.4	4.4	5.5	9.1	6.3	5.6	4.5
B. I will go to a community college.	23.6	21.9	26.5	11.1	20.6	18.7	25.8	18.1	23.3	30.3	27.0	24.5	21.1
C. I will go to a 4-year college or university.	66.2	53.8	48.4	81.9	63.6	70.7	54.1	66.2	59.7	37.8	47.8	55.1	64.5
D. I will go to a vocational, technical, or trade school.	2.9	5.1	5.5	2.0	2.9	2.6	4.3	4.2	4.4	6.1	4.4	4.3	3.7
E. I will work full-time.	2.8	5.8	6.1	1.2	3.7	1.3	6.0	3.7	3.1	8.9	8.9	5.9	2.8
F. Do something else (besides school, work, or the military).	2.4	5.4	6.3	1.7	3.5	2.1	4.5	3.5	4.0	7.9	5.7	4.5	3.4
7. How sure are you about what you will do after high school?													
A. Very sure	47.0	41.8	43.0	43.9	45.7	39.4	43.6	54.1	43.8	45.7	46.1	44.1	44.6
B. Somewhat sure	45.5	47.4	45.9	45.9	47.2	50.9	48.2	39.3	45.5	43.7	45.1	47.5	45.6
C. Not sure at all	7.5	10.7	11.1	10.2	7.1	9.7	8.3	6.6	10.8	10.6	8.8	8.4	7.9
8. How well did you do on this test? (Mark all that apply):													
A. I did as well as I could.	89.6	83.6	86.8	85.7	87.1	89.9	84.3	86.3	89.9	76.8	74.5	84.2	88.8
B. I was too nervous to do as well as I could.	8.9	9.1	7.9	8.0	9.9	8.0	11.8	8.4	5.3	14.1	19.2	11.6	6.6
C. I was not motivated to do well.	2.8	5.6	4.5	5.4	4.5	4.0	4.1	4.4	3.9	5.9	5.4	4.3	4.1
D. I did not have time to do as well as I could.	0.9	2.0	1.3	1.4	1.3	1.1	1.6	1.9	1.2	3.4	2.5	1.7	1.2
E. Conditions in the testing room made it difficult to concentrate.	4.7	4.7	4.7	5.9	4.1	5.2	4.3	4.0	5.1	4.7	4.3	4.5	4.9
F. There were other reasons why I did not do as well as I could.	4.3	4.9	5.8	5.9	4.8	5.1	4.5	3.8	4.5	5.6	5.0	4.7	4.5
9. Were the topics on the test covered in courses you have taken?													
A. Yes, all of them.	60.2	52.2	54.8	59.7	55.1	63.2	50.8	51.2	63.8	38.9	37.0	49.8	62.1
B. Most, but not all of them (two-thirds or more were covered).	35.6	40.5	38.4	34.4	39.3	33.0	42.8	41.4	31.6	48.5	51.7	43.2	33.2
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	4.2	7.3	6.8	5.9	5.6	3.8	6.4	7.5	4.5	12.5	11.3	6.9	4.7

After Taking CAHSEE ELA Exam (Percentage of Student Responses in 10th grade)	Gender		Ethnicity							ED			
	F	M	Am Indian/ Alaskan Native	Asian	Pacific	Filipino	Hispanic	African	White	SWD	EL	Yes	No
	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.	7.8	14.2	11.3	11.6	11.1	9.2	12.3	13.0	8.7	22.0	21.0	13.0	9.2
B. Yes, a few were different from anything I had seen before.	41.7	48.5	44.3	44.1	46.2	46.0	49.2	45.7	39.0	51.6	55.6	49.4	41.1
C. No, all were similar to ones used in my classes.	50.5	37.3	44.4	44.3	42.7	44.8	38.6	41.3	52.3	26.5	23.4	37.6	49.7
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.	10.8	17.4	12.9	12.2	12.8	9.7	17.1	16.5	10.1	28.3	29.3	17.9	10.5
B. The test questions were generally about as difficult as the questions I encountered in my course work.	53.1	50.7	53.1	41.5	53.8	50.8	58.0	49.8	46.4	49.8	54.4	57.0	47.1
C. The test questions were generally easier than the questions I encountered in my course work.	36.1	31.9	34.0	46.4	33.4	39.4	25.0	33.7	43.5	21.9	16.3	25.1	42.3
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	9.0	6.7	7.6	7.5	5.4	8.4	9.3	5.3	13.7	15.0	8.9	5.9
B. I had trouble with these topics when they were covered in courses I took.	16.4	19.1	18.4	13.7	18.6	15.2	21.5	17.9	13.6	26.9	27.9	21.4	14.4
C. I have forgotten things I was taught about these topics.	41.6	36.5	36.9	37.8	40.0	42.1	43.3	36.3	33.2	35.5	41.2	42.5	35.7
D. None of the topics was difficult for me.	36.4	35.5	38.1	40.9	33.9	37.3	26.8	36.6	48.0	24.0	15.8	27.2	44.1
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.	45.3	47.9	46.5	56.0	39.7	48.5	35.2	39.7	62.7	26.9	19.4	35.0	57.5
B. I am taking additional courses.	4.8	7.0	6.3	4.2	7.0	4.4	7.4	7.9	3.8	11.0	11.2	7.6	4.3
C. I am working harder in the courses I am taking.	44.8	38.0	39.3	38.0	47.4	47.9	47.8	43.5	31.4	43.9	51.5	47.8	35.4
D. I am getting help outside of the classroom.	7.4	7.1	9.0	6.5	9.7	6.2	8.4	10.7	5.0	12.5	11.4	8.9	5.7
E. I am repeating a course to learn the material better.	3.4	3.8	3.8	2.0	3.6	2.0	4.9	3.8	2.2	6.8	7.3	4.8	2.5
F. I will stay in school an additional year to learn the required material.	3.8	3.9	3.9	2.6	4.1	1.9	5.6	4.0	1.8	9.1	10.3	5.7	2.2
14. If you do <u>not</u> 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 again to pass the CAHSEE.	77.7	77.0	76.5	81.4	79.4	82.4	74.5	72.3	80.8	64.5	67.0	74.1	80.2
B. I will take courses at a community college and try again to pass CAHSEE.	5.0	5.4	5.8	4.3	4.7	5.0	5.6	7.7	4.5	8.8	7.9	5.8	4.8
C. I will participate in some other type of program that will help me to pass the CAHSEE.	10.9	7.8	7.3	6.8	8.4	7.1	12.0	11.6	6.0	11.5	14.9	11.8	7.1
D. I will try to get a GED certificate.	1.1	2.3	2.6	0.9	1.6	0.8	1.8	2.4	1.6	4.4	2.7	2.0	1.4
E. I will give up trying to get a diploma altogether.	0.5	1.7	1.5	0.9	0.8	0.5	1.1	1.3	1.2	2.5	1.7	1.2	1.0
F. I really do not know what I will do.	4.8	5.9	6.4	5.7	5.0	4.2	5.0	4.7	6.0	8.3	5.8	5.2	5.5

Table 6.32. Percentages of 10th Grade Students' Responses in 2009 By Gender, Ethnicity, Disability, and English Learner Status – After Taking CAHSEE Math Exam

After Taking CAHSEE MATH Exam (Percentage of Student Responses in 10th grade)	Gender		Ethnicity							ED			
	F	M	Am Indian/ Alaskan Native	Asian	Pacific	Filipino	Hispanic	African	White	SWD	EL	Yes	No
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.	36.3	32.8	34.0	32.3	34.5	40.6	35.7	33.2	33.2	32.4	33.7	35.8	33.3
B. I practiced on questions similar to those on the test.	37.5	29.0	30.7	27.1	35.8	36.5	37.8	24.6	27.3	30.2	35.0	37.9	28.7
C. A teacher spent time in class helping me to get ready to take the test.	27.5	23.1	23.4	17.4	28.2	25.4	29.0	28.9	21.1	26.7	28.0	29.3	21.5
D. I took a special class during the regular school day that covered the topics on the CAHSEE.	5.8	5.6	5.1	2.4	4.5	3.1	7.6	8.0	3.5	8.6	8.4	7.8	3.6
E. I took a special class after school or during the summer that covered the topics on the CAHSEE.	3.2	2.9	2.3	1.8	3.0	1.9	4.1	4.5	1.6	4.0	4.3	4.2	2.0
F. I did not do anything in addition to regular course work to prepare for this test.	33.0	38.4	39.7	50.5	33.3	37.0	26.7	26.7	47.1	24.5	19.8	26.3	44.6
2. What materials did you use to prepare for this test: (Mark all that apply.)													
A. Textbooks	28.6	29.3	28.9	25.6	28.6	28.5	29.2	27.7	29.8	27.3	30.5	29.0	28.8
B. ELA Student Guide (blue and gold booklet)	9.0	10.2	9.7	8.2	10.5	9.0	9.7	12.2	9.2	10.8	9.8	10.1	9.1
C. Mathematics Student Guide (green and gold booklet)	13.4	11.6	11.9	11.1	13.8	13.2	13.6	14.2	10.7	13.7	14.4	13.9	11.2
D. CAHSEE Web site	7.7	7.2	5.9	7.6	7.9	7.5	7.9	10.2	6.0	10.7	10.0	8.5	6.4
E. Released (sample) test questions	33.2	26.3	27.0	26.5	29.7	33.3	31.9	27.3	27.5	20.2	22.8	31.6	27.9
F. Other Resources	38.3	39.2	42.2	42.3	40.6	39.3	37.1	35.7	40.9	38.8	35.7	37.1	40.3
3. How important is this test to you?													
A. Very important	84.7	75.6	76.7	67.7	83.3	81.0	86.9	85.9	72.1	79.1	88.1	86.4	74.2
B. Somewhat important	13.0	18.2	18.7	24.4	13.2	16.3	10.7	10.6	21.6	15.5	9.3	11.0	20.0
C. Not important	2.3	6.2	4.6	7.9	3.5	2.7	2.4	3.6	6.3	5.5	2.6	2.7	5.8
4. Will you receive a high school diploma?													
A. Yes, with the rest of my class (or earlier).	87.2	80.3	79.4	90.8	85.5	89.6	79.3	81.3	88.3	67.6	68.3	79.1	88.1
B. Yes, but I will likely have to take classes after my original graduation date.	8.6	11.8	11.7	5.5	9.6	7.5	13.3	11.7	6.7	17.5	19.3	13.4	7.2
C. Yes, but I will pursue a diploma in Adult Education.	1.6	3.0	3.1	1.4	1.8	1.4	2.8	2.9	1.8	5.2	4.4	2.8	1.9
D. No, I probably will not receive a high school diploma.	1.8	3.1	3.2	1.4	1.9	1.0	3.4	2.4	1.6	6.3	6.3	3.4	1.6
E. No, I plan to take the GED.	0.5	1.1	1.8	0.4	0.6	0.3	0.8	1.1	0.9	2.1	1.1	0.9	0.7
F. No, I plan to take the CHSPE.	0.3	0.7	0.9	0.4	0.6	0.2	0.4	0.6	0.7	1.4	0.6	0.5	0.5

After Taking CAHSEE MATH Exam (Percentage of Student Responses in 10th grade)	Gender		Ethnicity							ED			
	F	M	Am Indian/ Alaskan Native	Asian	Pacific	Filipino	Hispanic	African	White	SWD	EL	Yes	No
5. What might prevent you from receiving a high school diploma? (Mark all that apply.)													
A. I may not pass all the required courses.	21.9	25.7	29.1	15.3	25.2	21.6	29.1	21.1	18.9	27.2	30.5	28.4	19.4
B. I may not pass the CAHSEE exam.	24.7	21.0	22.8	15.8	23.3	18.8	29.5	25.3	14.5	41.1	40.4	29.9	16.1
C. I may drop out before the end of 12th grade.	2.0	3.9	3.6	2.3	3.1	1.7	3.2	3.2	2.8	4.9	4.9	3.4	2.5
D. I may not meet some other graduation requirement.	9.2	11.4	13.1	8.3	11.3	12.6	12.1	9.5	8.0	11.6	11.2	12.2	8.5
E. I am confident I will receive a high school diploma.	63.2	55.6	54.6	72.8	58.5	66.9	49.6	56.5	70.4	36.1	35.2	49.6	68.6
6. What do you think you will do after high school?													
A. I will join the military.	2.3	8.7	7.7	2.5	6.2	5.0	5.8	4.9	6.2	9.7	6.7	6.0	5.1
B. I will go to a community college.	23.4	21.6	26.6	11.1	19.9	18.6	25.5	18.4	22.8	30.1	26.8	24.4	20.8
C. I will go to a 4-year college or university.	66.1	53.2	48.4	81.6	63.2	70.2	53.9	65.3	59.3	37.6	47.6	54.8	64.1
D. I will go to a vocational, technical, or trade school.	2.7	4.9	5.0	1.7	3.0	2.5	4.0	4.0	4.2	5.9	4.1	4.1	3.5
E. I will work full-time.	2.9	6.0	5.8	1.2	4.0	1.5	6.1	3.9	3.2	8.9	9.0	6.1	2.9
F. Do something else (besides school, work, or the military).	2.6	5.7	6.5	2.0	3.8	2.2	4.6	3.6	4.4	7.9	5.7	4.6	3.7
7. How sure are you about what you will do after high school?													
A. Very sure	48.0	42.5	44.1	44.6	47.1	40.1	44.5	56.5	44.5	46.8	47.4	45.1	45.5
B. Somewhat sure	44.8	46.5	44.7	45.1	45.7	50.6	47.5	37.1	44.7	42.2	44.2	46.6	44.7
C. Not sure at all	7.1	11.0	11.2	10.2	7.3	9.3	8.1	6.5	10.8	11.0	8.4	8.3	9.8
8. How well did you do on this test? (Mark all that apply):													
A. I did as well as I could.	88.6	83.8	84.0	89.3	86.4	90.3	84.1	84.6	88.5	76.0	77.0	84.3	88.1
B. I was too nervous to do as well as I could.	9.6	9.1	9.4	6.0	10.7	7.8	12.1	9.7	6.2	14.7	17.9	11.6	7.2
C. I was not motivated to do well.	2.7	5.2	4.9	4.2	4.2	3.9	3.8	4.3	3.9	6.1	4.9	4.0	3.9
D. I did not have time to do as well as I could.	0.7	1.8	1.7	1.1	1.3	0.8	1.3	1.7	1.2	3.0	2.0	1.5	1.2
E. Conditions in the testing room made it difficult to concentrate.	3.5	3.7	4.5	3.6	3.1	3.5	3.3	3.2	4.2	4.1	3.2	3.4	3.8
F. There were other reasons why I did not do as well as I could.	5.4	5.2	4.7	5.8	5.2	5.3	5.1	5.5	5.5	7.0	5.1	5.4	5.2
9. Were the topics on the test covered in courses you have taken?													
A. Yes, all of them.	53.0	49.3	46.2	67.1	49.1	60.1	44.8	42.2	57.6	30.6	34.3	44.5	57.5
B. Most, but not all of them (two-thirds or more were covered).	41.0	41.4	43.7	28.2	43.1	35.4	47.0	47.0	35.3	53.3	54.5	46.9	35.8
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	6.0	9.2	10.1	4.7	7.9	4.5	8.2	10.8	7.0	16.1	11.1	8.6	6.7

Independent Evaluation of the CAHSEE: 2009 Evaluation Report

After Taking CAHSEE MATH Exam (Percentage of Student Responses in 10th grade)	Gender		Ethnicity							ED			
	F	M	Am Indian/ Alaskan Native	Asian	Pacific	Filipino	Hispanic	African	White	SWD	EL	Yes	No
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.	9.4	15.3	13.8	9.8	13.4	9.9	13.7	16.1	10.5	25.4	20.7	14.2	10.7
B. Yes, a few were different from anything I had seen before.	43.5	46.2	45.6	34.5	46.9	41.3	50.4	48.3	39.1	52.9	55.5	50.0	40.0
C. No, all were similar to ones used in my classes.	47.0	38.5	40.6	55.8	39.7	48.8	36.0	35.6	50.4	21.7	23.9	35.8	49.3
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.	15.6	19.6	19.6	9.8	17.3	11.1	20.7	23.1	14.4	36.0	29.8	21.2	14.2
B. The test questions were generally about as difficult as the questions I encountered in my course work.	51.6	46.1	50.6	33.5	51.4	47.4	55.9	49.2	42.8	46.4	53.5	54.5	43.5
C. The test questions were generally easier than the questions I encountered in my course work.	32.8	34.3	29.8	56.6	31.3	41.5	23.5	27.7	42.8	17.7	16.7	24.3	42.3
12. If some topics on the test were difficult for you, was it because:													
A. I did not take courses that covered these topics.	8.3	12.8	13.4	6.8	10.3	7.2	11.6	13.6	9.6	20.6	17.0	12.0	9.3
B. I had trouble with these topics when they were covered in courses I took.	25.9	22.4	25.6	13.2	25.2	18.5	29.0	27.9	19.6	30.8	32.1	28.3	20.2
C. I have forgotten things I was taught about these topics.	48.3	40.1	41.4	43.4	45.7	51.4	45.5	41.0	42.5	35.1	41.1	44.8	43.5
D. None of the topics was difficult for me.	17.6	24.7	19.7	36.6	18.8	22.9	13.9	17.6	28.3	13.6	9.8	14.9	27.0
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.	40.9	48.0	43.1	60.6	39.1	49.2	32.8	35.3	59.4	24.0	19.6	33.1	55.2
B. I am taking additional courses.	5.1	7.3	7.5	4.1	6.8	4.2	7.5	8.6	4.4	11.2	10.7	7.7	4.8
C. I am working harder in the courses I am taking.	45.9	36.3	39.0	31.9	45.4	44.4	48.2	44.8	31.6	45.1	50.7	47.8	34.7
D. I am getting help outside of the classroom.	9.0	7.3	10.1	5.9	10.0	7.0	9.1	12.2	6.3	12.5	11.2	9.4	6.9
E. I am repeating a course to learn the material better.	5.3	4.6	6.1	2.5	5.6	3.0	6.4	5.3	3.6	8.0	8.3	6.2	3.8
F. I will stay in school an additional year to learn the required material.	4.2	4.2	4.0	2.8	4.2	2.3	5.7	4.2	2.4	9.6	10.1	5.4	2.6
14. If you do <u>not</u> 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 again to pass the CAHSEE.	79.7	77.4	76.7	80.9	79.0	82.9	77.1	73.6	80.8	65.6	70.1	76.4	80.5
B. I will take courses at a community college and try again to pass CAHSEE.	5.0	5.5	5.7	4.5	4.6	4.8	5.5	8.0	4.5	9.2	7.8	4.8	4.8
C. I will participate in some other type of program that will help me to pass the CAHSEE.	8.4	6.5	5.6	5.7	8.5	5.9	9.3	9.6	4.9	10.0	12.1	9.4	5.7
D. I will try to get a GED certificate.	1.1	2.3	2.7	0.9	1.7	0.8	1.8	2.3	1.7	4.2	2.5	1.9	1.5
E. I will give up trying to get a diploma altogether.	0.6	1.9	1.7	1.2	0.8	0.8	1.1	1.4	1.6	2.6	1.6	1.2	1.4
F. I really do not know what I will do.	5.1	6.4	7.6	6.8	5.3	4.9	5.1	5.0	6.6	8.5	6.1	5.3	6.2

Additional analysis further explored the relationship between perceived test importance and students' high school diploma plans (see Tables 6.33 and 6.34). The majority of all students who reported that the CAHSEE is very important expected to earn their diploma with the rest of their class. This is especially true for females; students identified as Asian, Filipino, or white; and students who are not economically disadvantaged. Less than half of the English learners, students with disabilities, economically disadvantaged, African American, and Hispanic students who reported the CAHSEE as "not important" expected to earn their diploma with the rest of their class. These students also were the most likely to report they would not earn a diploma at all.

Table 6.33. Perceived Test Importance by Whether Students Believe They Will Earn a High School Diploma After Taking the ELA Exam, by Demographic Group (10th Graders' Responses to Questions 3 and 4 in 2009)

Variable			Percent						
			Yes, with class	Yes, later than class	diploma in adult ed	No	No, plan on GED	No, plan on CHSPE	
Gender	Female	Very Important (n=183,448)	88.1	8.5	1.7	1.3	0.3	0.1	
		Somewhat Important (n=28,612)	84.5	8.3	2.8	2.8	1.1	0.5	
		Not Important (n=4,564)	77.8	8.7	2.7	5.0	3.4	2.3	
	Male	Very Important (n=168,365)	83.3	11.5	2.7	1.7	0.5	0.2	
		Somewhat Important (n=39,602)	75.1	12.1	4.7	5.0	2.1	0.9	
		Not Important (n=11,865)	66.4	12.0	4.4	7.8	5.3	4.1	
Race	Am Indian/ Alaskan Native	Very Important (n=2,707)	83.5	11.0	2.9	1.7	0.6	0.2	
		Somewhat Important (n=642)	70.1	13.4	5.0	6.5	4.4	0.6	
		Not Important (n=156)	65.4	14.1	1.3	9.0	4.5	5.8	
	Asian	Very Important (n=28,086)	90.9	6.2	1.4	1.0	0.2	0.2	
		Somewhat Important (n=10,260)	91.0	4.6	2.0	1.5	0.5	0.2	
		Not Important (n=2,889)	89.9	3.3	1.7	3.0	0.9	1.1	
	Pacific Islander	Very Important (n=2,489)	86.9	9.6	2.0	1.0	0.4	0.1	
		Somewhat Important (n=412)	79.9	10.9	4.4	2.7	1.7	0.5	
		Not Important (n=92)	59.8	14.1	6.5	5.4	6.5	7.6	
	Filipino	Very Important (n=11,043)	90.5	7.1	1.4	0.8	0.2	0.1	
		Somewhat Important (n=2,225)	88.0	7.3	2.1	1.8	0.5	0.3	
		Not Important (n=282)	77.0	10.3	1.8	5.7	2.5	2.8	
	Hispanic	Very Important (n=179,650)	82.0	12.7	2.6	2.2	0.4	0.1	
		Somewhat Important (n=21,806)	65.0	17.4	6.4	8.0	2.4	0.9	
		Not Important (n=4,287)	47.0	20.0	6.4	12.6	8.4	5.7	
	African American	Very Important (n=28,666)	84.8	10.7	2.6	1.2	0.5	0.2	
		Somewhat Important (n=3,312)	67.9	14.6	6.3	6.8	3.3	1.1	
		Not Important (n=1,036)	44.4	20.2	7.5	11.9	9.8	6.2	
	White	Very Important (n=99,088)	91.0	6.1	1.7	0.6	0.4	0.3	
		Somewhat Important (n=29,544)	86.1	7.2	2.6	1.9	0.8	0.8	
		Not Important (n=7,682)	77.9	7.7	3.0	4.7	3.6	3.0	
	SWD	Yes	Very Important (n=25,826)	72.8	17.0	4.9	3.9	0.9	0.5
			Somewhat Important (n=4,938)	50.9	18.8	9.8	12.8	5.4	2.4
			Not Important (n=1,634)	33.0	22.0	6.5	16.3	12.4	9.8
EL	Yes	Very Important (n=59,921)	71.0	19.2	4.3	4.6	0.6	0.3	
		Somewhat Important (n=6,014)	43.5	23.7	11.7	15.4	4.1	1.6	
		Not Important (n=1,536)	30.0	24.7	8.6	18.1	10.4	8.1	
ED	No	Very Important (n=168,288)	90.0	6.9	1.7	0.8	0.3	0.2	
		Somewhat Important (n=45,418)	86.3	7.1	2.7	2.2	1.1	0.6	
		Not Important (n=11,698)	79.6	7.2	2.9	4.8	3.0	2.5	
	Yes	Very Important (n=183,558)	81.9	12.7	2.6	2.2	0.4	0.2	
		Somewhat Important (n=22,804)	64.6	17.3	6.4	7.8	2.8	1.0	
		Not Important (n=4,733)	44.9	20.7	6.3	12.4	9.3	6.4	

Table 6.34. Perceived Test Importance by Whether Students Believe They Will Earn a High School Diploma After Taking the Math Exam, by Demographic Group (10th Graders' Responses to Questions 3 and 4 in 2009)

			Percent						
Variable			Yes, with class	Yes, later than class	Yes, diploma in adult ed	No	No, plan on GED	No, plan on CHSPE	
Gender	Female	Very Important (n=182,776)	88.3	8.5	1.4	1.5	0.3	0.1	
		Somewhat Important (n=28,018)	82.8	9.3	2.6	3.4	1.2	0.6	
		Not Important (n=4,911)	72.6	10.4	3.7	6.9	3.5	3.0	
	Male	Very Important (n=164,544)	83.8	11.4	2.3	1.8	0.6	0.2	
		Somewhat Important (n=39,445)	73.0	13.0	5.3	5.7	2.1	1.0	
		Not Important (n=13,433)	59.6	13.6	5.6	11.1	4.6	5.5	
Race	Am Indian/ Alaskan Native	Very Important (n=2,667)	84.2	10.2	2.6	1.8	0.8	0.3	
		Somewhat Important (n=645)	68.1	15.8	5.0	6.4	3.6	1.2	
		Not Important (n=156)	46.2	18.0	2.6	13.5	10.9	9.0	
	Asian	Very Important (n=27,627)	91.5	5.9	1.1	1.0	0.3	0.2	
		Somewhat Important (n=9,951)	91.0	4.7	1.8	1.5	0.6	0.4	
		Not Important (n=3,223)	85.0	4.7	2.0	4.6	1.3	2.5	
	Pacific Islander	Very Important (n=2,477)	88.1	9.0	1.5	1.1	0.3	0.2	
		Somewhat Important (n=387)	77.8	12.4	3.4	3.4	2.1	1.0	
		Not Important (n=104)	55.8	12.5	2.9	16.4	3.9	8.7	
	Filipino	Very Important (n=10,882)	90.7	7.3	1.0	0.7	0.2	0.1	
		Somewhat Important (n=2,182)	87.3	8.3	2.2	1.7	0.3	0.2	
		Not Important (n=363)	72.2	9.9	5.2	6.1	2.5	4.1	
	Hispanic	Very Important (n=178,503)	82.5	12.5	2.1	2.4	0.4	0.1	
		Somewhat Important (n=21,895)	62.4	18.5	6.8	8.9	2.5	0.9	
		Not Important (n=4,947)	42.6	20.5	8.0	15.4	6.9	6.6	
	African American	Very Important (n=28,144)	85.2	10.6	2.1	1.3	0.6	0.2	
		Somewhat Important (n=3,424)	63.4	17.1	7.2	7.8	3.0	1.5	
		Not Important (n=1,164)	40.7	22.9	9.3	13.0	7.5	6.6	
	White	Very Important (n=96,938)	91.2	6.1	1.4	0.6	0.4	0.3	
		Somewhat Important (n=28,966)	84.4	7.9	2.7	2.6	1.5	0.9	
		Not Important (n=8,382)	69.9	9.9	4.0	8.5	3.4	4.4	
	SWD	Yes	Very Important (n=25,575)	73.9	16.6	4.1	4.1	0.9	0.5
			Somewhat Important (n=4,945)	49.0	20.5	9.5	13.1	5.4	2.6
			Not Important (n=1,757)	29.5	22.5	8.3	18.4	10.1	11.2
EL	Yes	Very Important (n=59,498)	72.2	18.7	3.5	4.8	0.6	0.2	
		Somewhat Important (n=6,231)	42.7	23.6	11.6	16.9	3.9	1.3	
		Not Important (n=1,724)	28.7	24.6	9.7	19.0	10.1	8.0	
ED	No	Very Important (n=165,506)	90.3	6.9	1.5	0.8	0.4	0.2	
		Somewhat Important (n=44,468)	84.9	7.9	2.8	2.6	1.2	0.7	
		Not Important (n=12,829)	72.3	9.5	3.9	7.7	2.8	3.8	
	Yes	Very Important (n=181,839)	82.4	12.5	2.1	2.3	0.5	0.2	
		Somewhat Important (n=23,001)	61.9	18.4	6.9	9.0	2.8	1.0	
		Not Important (n=5,518)	41.7	20.3	7.7	15.3	7.6	7.4	

Summary of Findings

Comparisons of 10th Grade Students' Responses 2005–2009

Over the past 5 years student perceptions about the CAHSEE have changed in several positive ways, including changes in test preparation, perception of test importance and coverage of CAHSEE topics in class, and future plans. Specifically, in 2009 an increased percentage of students reported that:

- A teacher or counselor told them about the purpose and importance of the test.
- Time was spent in class to prepare for the test.
- They took a special class to prepare for the CAHSEE.
- They perceived the tests to be "very important."
- Test topics and questions were similar to those they had been exposed to in their regular courses.
- If they did not pass the CAHSEE during this administration they would stay in school and try again to pass.

Comparisons of 10th Grade Students' Responses in 2009 by Whether They Passed the Tests

Student responses were examined for those who passed both tests, passed only ELA, passed only math, and passed neither. Overall, students who passed both tests reported the most positive perceptions about the CAHSEE and those who passed neither test reported the most negative perceptions.

A higher percentage of students who passed both tests reported that:

- They used released (sample) items to prepare for the test.
- They believed they would earn their diploma with the rest of their class or early.
- They planned to attend a 4-year college or university.
- They did as well as they could on the CAHSEE.
- All of the topics on the CAHSEE were covered in class and most of the questions were similar to those used in course homework and assessments.
- If they did not pass the CAHSEE during this administration they would stay in school and attempt to pass again.

Students who passed only one test (either ELA or math) had a higher percentage who reported that:

- The CAHSEE was "very important."
- If they did not graduate it would be because they may not pass all of the required classes.
- They had plans to attend a community college (those who passed ELA only).

Higher percentages of students who passed neither test reported that:

The CAHSEE was "not important."
They would likely earn their high school diploma later than the rest of their class.
The CAHSEE might prevent them from graduating.
They had plans to work full time or to join the military.
They had confidence in their post-high-school plans.
They were too nervous to do as well as they could on the CAHSEE.
Many topics on the CAHSEE were not covered in their courses and the test questions were more difficult than those they had seen on course homework and assessments.
They might have to take additional courses or stay in school an extra year to learn the material required to pass the CAHSEE.

Differences in 10th Grade Students' Responses in 2009 by Key Demographic Characteristics

By Gender. Females were more likely than males to report that the CAHSEE was very important. Females reported more often that to prepare for the CAHSEE they did work in addition to coursework, they used sample (released) items, and they used the Student Guides to prepare for the CAHSEE. A higher percentage of females than males expressed confidence in earning a high school diploma and planned to go to a 4-year college, university, or community college upon finishing. Females also were more likely than males to report that test items were similar and of the same difficulty or easier than those seen in class.

By Ethnicity. African American and Hispanic 10th graders were most likely to report that the CAHSEE was very important. However, these students, along with American Indian/Alaskan Natives, were the least likely to believe that they would graduate on time and were the most likely to report they would probably not receive a high school diploma.

By Disability and English Learner Status. English learners were most likely to report that CAHSEE was very important. Students with disabilities and English learners were more likely to take special classes to prepare for the tests than were non-English learners. However, English learners and students with disabilities were less likely than non-English learners to expect to graduate with the rest of their class and they were more likely to report they would probably not receive a high school diploma. Students with disabilities and English learners were less likely to report that test items and the difficulty of items were similar to what they experienced in their courses. In addition, the students with disabilities and English learners who reported that the CAHSEE was "not important," also were the most likely to report they would not earn a high school diploma.

By Economic Disadvantage Status. Like students with disabilities and English learners, those who were economically disadvantaged were less likely than those who were not to expect to earn a diploma with the rest of their class. They also were more likely to state that CAHSEE topics were not covered in class and that the items were

unfamiliar and more difficult than those they had seen in their course or other tests. Students who were not economically disadvantaged were most likely to expect to attend a 4-year college or university.

Overall Summary

Overall, the results of the 2009 student questionnaire were positive. Most students realized that the CAHSEE is important and reported they were learning the appropriate topics in their courses. However, this questionnaire also drew attention to particular groups who may need more attention, particularly students with disabilities, English learners, students who are economically disadvantaged, African Americans, Hispanics, and American Indian/Alaskan Natives. These student groups were less likely to believe they would earn a high school diploma and more likely to report that test items were more difficult and not covered in class.

One finding across all students after completing the math CAHSEE, regardless of demographic characteristics or tests passed was that students most frequently reported that some topics on the test were difficult, and that forgetting previously taught material was the reason why (Question 12). This was true overall for students after ELA as well; however, those who passed both tests, and certain demographic groups (e.g. White, not economically disadvantaged) were more likely to report that no topics on the CAHSEE were difficult for them. These findings suggest that it might be beneficial for teachers and students to spend more time reviewing relevant material taught early in the school year (or in previous years) before the CAHSEE administrations.

Chapter 7: Evidence of the Effectiveness of Instruction for the Class of 2010

*Rebecca L. Norman Dvorak, Wade W. Buckland,
Sheila R. Schultz, and Hilary Campbell*

Introduction

Gathering 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.

As part of the independent evaluation of the CAHSEE, HumRRO previously conducted two extensive studies of curriculum and instruction. Because valuable information was gathered during these previous studies, the CDE requested that HumRRO conduct a new instruction study in 2009. While the design of the 2009 study is similar to that of previous instruction studies, there are some notable differences:

- Surveys also were administered to teachers who teach English learners and students with disabilities.
- Information was gathered only at the high school level (not from middle-grade feeder schools).
- Researchers did not conduct school site visits.

This chapter presents some results of surveys that were administered to representative samples of high school teachers, department heads (English language arts [ELA] and math) and principals across California. These educators were chosen from randomly selected schools and asked to respond about their views of (a) instruction, assessment, and school management in response to the CAHSEE requirement; (b) methods they use to prepare students for the CAHSEE; and (c) learning objectives they strive for associated with the California Academic Content Standards (see Appendix C for a complete description of sampling procedures). Results of the 2009 instruction study are presented across two chapters. This chapter presents findings related to the effectiveness of instruction from these surveys. Chapter 8 presents results pertaining to the impact of the CAHSEE.

A copy of all survey questions can be found in Appendix D. In several instances throughout the chapter, comparisons are made to responses made by educators in HumRRO’s 2005 CAHSEE Instruction Study. Readers interested in a comprehensive

list of the 2009 survey responses, organized by respondent group, are referred to Appendix E. (Note that the parentheses after table titles refer the reader to the appropriate sections of the appendix, with the designation P1, for example, referring to Principals' responses, Question 1. DHELA would refer to Department Head, English-language arts, and so forth.)

Evidence from Surveys

Test results show which students are adequately prepared and pass the high school exit examination and which subgroups of students have lower passing rates. Surveys administered by the HumRRO team provide additional information regarding the current state of instruction, as well as its trajectory over time.

Instruments

To triangulate on the effectiveness of instruction and the impact of CAHSEE, we used multiple measures. Surveys were developed for principals, ELA department heads, math department heads, and teachers. Separate surveys were developed for teachers of ELA, math, students with disabilities (SWD) and English learners (EL). ELA and math department head surveys did not vary in format across the two content areas. The teacher surveys did not vary substantially across content areas.

Survey Response Sample

Details of the sample selection, substitution policy, and data collection issues are provided in Appendix A. A brief summary of salient points is provided here. Table 7.1 details the response rates for the survey. A description of each of the response rates and the representativeness of the responders follows the table.

Table 7.1. Survey Response Rates

Year	Data Collection Instrument	Target Sample Size	Number of Respondents	Survey Response Rate/Other Notes
2009	High Schools	400	271	68%
	Principal		136	
	ELA Department Head		138	
	Math Department Head		162	
	ELA Teacher		159	(1-6 ELA teacher surveys per school)
	Math Teacher		178	(1-5 Math teacher surveys per school)
	EL Teacher		95	(1-3 EL teacher surveys per school)
	SWD Teacher		126	(1-4 SWD teacher surveys per school)
2005	High Schools	400	227	57%
	Principal		220	
	ELA Department Head		201	
	Math Department Head		211	
	ELA Teacher		1,118	1-11 ELA teacher surveys per school
	Math Teacher		1,129	1-12 Math teacher surveys per school

Schools

A sample of 400 high schools was selected to represent all public high schools in California. The sampling design assured that the sample would match overall state distributions for academic performance (based on results from the 2008 10th grade STAR ELA assessment), school size, and the percentage of EL students. We obtained responses from 271 of the 400 high schools (68%), after substitutions. Surveys were provided to principals, ELA department heads and teachers, math department heads and teachers, and teachers of SWD and EL students.

Table 7.2 shows the distribution of 10th grade students in the responding high schools participating in the survey relative to the sample of all California 10th grade students. High schools that provided at least one completed survey were counted as respondents for this analysis. Overall, the sample appears to be fairly representative of the overall population with the exception that Hispanic students were slightly underrepresented and the population of African Americans had a higher passing rate than all California 10th grade African Americans.

Table 7.2. Comparison of 10th Grade Students in Responding Schools to 10th Grade Students in All Public California High Schools

School Characteristic	All 10th Grade Students (n=786,286)		10th Graders of Responding High Schools (n=271)		Difference Mean	Effect Size
	Mean %	SD	Mean %	SD		
10th Grade Student Demographics						
Hispanic Students	52.4	5.0	46.6	5.0	-5.8	-1.2
African American Students	8.1	2.7	7.4	2.6	-0.7	-0.2
Economically Disadvantaged Students	49.2	5.0	47.2	5.0	-2.1	-0.4
EL Students	16.3	3.7	15.8	3.6	-0.6	-0.1
SWD	9.0	2.9	9.0	2.9	0.0	0.0
2008-2009 CAHSEE 10th Grade Pass Rates: ELA						
All Students	76.9	4.2	76.8	4.2	-0.1	0.0
Hispanic Students	68.8	4.6	71.8	4.5	3.0	0.7
African American Students	65.7	4.7	70.7	4.6	5.0	1.0
Economically Disadvantaged Students	67.3	4.7	69.1	4.6	1.8	0.4
EL Students	39.0	4.9	41.3	4.9	2.3	0.5
SWD	32.0	4.7	34.7	4.8	2.7	0.6
2008-2009 CAHSEE 10th Grade Pass Rates: Math						
All Students	76.9	4.2	76.6	4.2	-0.3	-0.1
Hispanic Students	69.5	4.6	71.7	4.5	2.2	0.5
African American Students	60.2	4.9	66.7	4.7	6.5	1.3
Economically Disadvantaged Students	68.8	4.6	71.0	4.5	2.2	0.5
EL Students	50.0	5.0	52.3	5.0	2.3	0.5
SWD	30.3	4.6	33.4	4.7	3.1	0.7

Combining Survey Data with School Characteristics

Each high school within the sample was classified by several characteristics of its student population. Each characteristic was divided empirically into three ordinal categories and each high school was subsequently assigned to one and only one characteristic category. We used these same categories in previous CAHSEE reports. Table 7.3 presents the cut points and distribution of school classifications based on characteristics of the student populations. Each characteristic was divided into three classifications such that approximately 25% of schools were categorized as small, 50% medium, and 25% as large. These categories will be used later in this and subsequent chapters to compare survey responses across different types of schools.

Table 7.3. Empirical Classifications of High Schools Into Categories: Demographic Distributions

Category	Classifications	<i>n</i> =No. of Schools	% of Sample
Number of Students in Class of 2010 (<i>n</i>=271)			
	Small (< 450)	97	35.8
	Medium (450–700)	118	43.5
	Large (> 700)	56	20.7
Percentage of EL Students (<i>n</i>=271)			
	Small (<= 6%)	67	24.7
	Medium (>6–27%)	150	55.4
	Large (> 27%)	54	19.9
Percentage of SWD (<i>n</i>=271)			
	Small (<= 7%)	68	25.1
	Medium (>7–10%)	124	45.8
	Large (> 10%)	79	29.2
Percentage of Economically Disadvantaged Students (<i>n</i>=271)			
	Small (<= 20%)	58	21.4
	Medium (>20–60%)	117	43.2
	Large (> 60%)	96	35.4
Percentage of Hispanic Students (<i>n</i>=271)			
	Small (<= 20%)	51	18.8
	Medium (>20–60%)	133	49.1
	Large (> 60%)	87	32.1
Percentage of African American Students (<i>n</i>=271)			
	Small (<= 4%)	138	50.9
	Medium (>4–12%)	82	30.3
	Large (> 12%)	51	18.8

Factors Related to the Effectiveness of Current Instruction

Principal Experience

Principals were asked about their familiarity with California’s ELA and math content standards; Table 7.4 depicts the responses. Familiarity with the content standards in both subject areas is very similar, with about three-fourths (ELA standards, 74.1%; math, 73.5%) of the principals having reported they were either familiar or very familiar with the standards.

Table 7.4. Percentage of Principals Familiar With California’s ELA and Math Content Standards (P1, P3)

Degree of Familiarity with California's Content Standards	Percentage	
	ELA standards (n=135)	Math standards (n=132)
Very familiar	28.9	28.0
Familiar	45.2	45.5
Somewhat familiar	25.9	25.8
Not familiar	0.0	0.8

Teacher Experience, Credentials, and Education

We administered the teacher survey to a subset of teachers within each school, including ELA and math teachers and teachers of SWD and of EL students. Teachers were asked to self-report their highest level of education. As Table 7.5 shows, about half or more of the teachers across the various courses reported having an advanced degree; the range was from 42.5% for teachers of alternative courses targeted to SWD or EL students to 100% of teachers of remediation courses offered to post-12th grade students. Additionally, about one-third (29.9%) of the responding teachers reported having a teaching credential as their highest level of education.

Table 7.5. Teacher Self-Reported Highest Level of Education, by Course Type (TELA27, TMath27, TEL32, TSWD28, TELA1, TMath1, TEL4, TSWD4)

Course Type	% Bachelors Degree (n=10)	% Teaching Credential (n=116)	% Some Graduate School	% Advanced Degree (MA, EdD, PhD) (n=191)	% Other (n=14)
Primary (n=164)	2.1	34.2	12.8	48.1	2.7
Alternative, EL or SWD (n=18)	2.5	42.5	12.5	42.5	0
Remediation (n=79)	3.4	27.6	16.1	49.4	3.4
Alternative remediation, EL or SWD (n=9)	0	7.7	15.4	69.2	7.7
Other (n=48)	3.3	16.7	18.3	53.3	8.3
Total	2.6	29.9	14.4	49.5	3.6

Table 7.6 shows that teachers included in this survey had varying levels of experience, ranging from less than 1 year of teaching to 38 years. Those who taught courses primarily for SWD and/or EL (the alternate courses) had at least 2 years of experience. Teachers of remedial courses open to all students who did not pass the CAHSEE had the highest average years of education.

Table 7.6. Years of Teaching Experience by Course Type (TELA1, TMath1, TELA31, TMath31, TSWD4, TSWD31, TEL4, TEL36)

Course Type	Min	Max	Mean	SD
Primary (n=160)	1	35	10.6	7.9
Alternative (n=16)	3	24	9.6	5.8
Remedial (n=76)	< 1	38	13.5	9.9
Alternate remedial (n=9)	2	32	10.3	9.6
Other (n=46)	1	42	11.9	9.6

Additionally, we were interested in teachers' total years of experience teaching their current specific course or instructional program. The responses are reported in Table 7.7. Of the respondents, teachers of SWD had slightly more experience than the other three teacher types both in terms of total years teaching and years teaching the current course or program. ELA teachers had slightly less experience than the other three teacher types in terms of total years teaching, and teachers of EL reported slightly less experience in terms of years teaching the current course or program.

Table 7.7. Mean Years of Teaching Experience and Experience Teaching Course/Program, According to Teachers (TELA31, TMath31, TEL36, TSWD32)

Teacher Type	n	Total Years Teaching		Years Teaching Current Course/Program	
		Mean Number	SD	Mean Number	SD
ELA	147	10.3	7.8	4.8	3.9
Math	165	12.3	9.4	5.1	5.2
SWD	117	14.2	9.7	6.2	7.0
EL	78	12.7	9.2	4.2	4.5
Total	507	12.2	9.1	5.1	5.3

Teachers involved with special education were asked how many years of experience they had teaching students with disabilities, and EL teachers were asked how many years of experience they had teaching English learners. Table 7.8 indicates the responses from both types of teachers.

Table 7.8. Years of Experience Teaching Students With Disabilities and English Learners, According to SWD and EL Teachers (TEL35, TSWD31)

Teacher Type	<i>n</i>	Mean Years of Experience	Range of Years	SD
SWD	117	12.7	0-40	8.9
EL	79	9.0	0-34	7.9

High school department heads estimated the experience levels of teachers responsible for primary or supplemental courses and for intervention programs. Table 7.9 depicts the responses for ELA from the 2009 survey; 2005 ELA data was not available for comparison. Table 7.10 provides the responses for math from both the 2005 and 2009 surveys; however, comparison between the years should be made carefully, since the 2009 version of the questions offered the response option “not applicable” and it did not ask about basic courses (only intervention courses). In 2009, the percentage of schools with few experienced teachers teaching primary or supplemental math courses seems to have increased slightly. Also in 2009, over 10% of schools have more teachers with less experience teaching math intervention programs.

Table 7.9. Percentage of High Schools With ELA Teachers With 5 or More Years of Teaching Experience, According to ELA Department Heads (DHELA6)

Proportion of Math Teachers With Five or More Years of Teaching Experience	Percentage	
	Primary or Supplemental Courses (<i>n</i> =105)	Intervention Programs (<i>n</i> =104)
Most	65	59
About half	24	14
Few	11	13
Not applicable	-	14
Total	100	100

Table 7.10. Percentage of High Schools With Math Teachers With 5 or More Years of Teaching Experience, According to Math Department Heads (DHMath6)

Proportion of Math Teachers With Five or More Years of Teaching Experience	Percentage			
	Primary or Supplemental Courses		Basic or Intervention Programs	Intervention Programs
	2005 (<i>n</i> =185)	2009 (<i>n</i> =135)	2005 (<i>n</i> =185)	2009 (<i>n</i> =135)
Most	73	67	65	59
About half	22	24	24	14
Few	5	8	11	13
Not applicable	-	2	-	14
Total	100	101	100	100

Note: Percentage totals may not equal 100 due to rounding.

High school department heads were asked to estimate the extent of teacher experience in teaching the California ELA and math content standards assessed by CAHSEE. Table 7.11 indicates that 80% of the high schools' ELA teachers and over 70% of the math teachers have a "very great extent" or "great extent" of experience with the standards. At the lower end of the spectrum, however, slightly more than one-fourth (26.5%) of the schools' math teachers were reported to have only a "moderate" extent of experience.

Table 7.11. Percentage of High Schools With Teachers Experienced Teaching ELA and Math Content Standards Assessed by CAHSEE, According to High School Department Heads (DHELA2, DHMath2)

Extent of Teacher Experience in Teaching Content Standards	Percentage	
	ELA (n=106)	Math (n=136)
Very great extent	34.0	28.7
Great extent	50.9	41.9
Moderate extent	14.2	26.5
Slight extent	0.9	2.2
Not at all	0.0	0.7
Total	100.0	100.0

These data were analyzed by schools with high and not-high concentrations of at-risk students (See Table 7.12). For ELA, from 2005 to 2009, there was an increase in the percentage of teachers reported by department heads to have "great" or "very great" experience teaching California's content standards in schools where there was a high concentration of Hispanic students (2005: 73.9%; 2009: 91.1%). During the same time period, department heads reported lower percentages of ELA teachers with "great" or "very great" experience teaching California's content standards in schools with high concentrations of students with disabilities (2005: 87.3%; 2009: 78.9%), economically disadvantaged students (2005: 78.0%; 2009: 74.3%), and African American students (2005: 78.8%; 2009: 68.8%). In 2009, in schools where there was not a high concentration of Hispanic students, a lower percentage of responding department heads reported ELA teachers with "great" or "very great" experience in teaching California's content standards than in 2005. For math, a lower percentage of teachers for all types of at-risk students were rated to have "great" or "very great" levels of experience teaching California's content standards. This was true regardless of whether or not the school had a high concentration of the different types of at-risk students.

Table 7.12. Teacher Experience Teaching California’s ELA/Math Standards in Schools With High and Not-High Concentrations of At-risk Students, According to High School Department Heads (DHELA2, DHMath2)

Student Demographic Subgroup	School Group	2005		2009	
		<i>n</i>	% Great or Very Great Extent	<i>n</i>	% Great or Very Great Extent
ELA Department Heads					
EL Students	Not High	143	83.9	85	84.7
	High(>27%)	43	81.4	19	84.2
SWD Students	Not High	131	81.7	66	87.9
	High (>10%)	55	87.3	38	78.9
ED Students	Not High	145	84.8	69	89.9
	High (>60%)	41	78.0	35	74.3
Hispanic Students	Not High	140	86.4	70	81.5
	High (>60%)	46	73.9	34	91.9
African American Students	Not High	153	84.3	88	87.5
	High (>12%)	33	78.8	16	68.8
Math Department Heads					
EL Students	Not High	144	87.5	103	71.9
	High(>27%)	46	78.3	29	62.1
SWD Students	Not High	137	81.8	92	69.6
	High (>10%)	53	94.3	40	70.0
ED Students	Not High	145	88.3	88	70.4
	High (>60%)	45	75.6	44	68.2
Hispanic Students	Not High	138	87.7	85	70.6
	High (>60%)	52	78.8	47	68.1
African American Students	Not High	155	85.2	107	72.9
	High (>12%)	35	85.7	25	56.0

Department heads at schools without high concentrations of at-risk students were more likely to report that teachers were familiar with California content standards to a “very great extent.” At least 10% more department heads at schools without high concentrations of EL students, economically disadvantaged (ED) students, Hispanics, and African Americans reported their teachers were familiar with the standards to a “very great extent” (See Table 7.13).

Table 7.13. ELA and Math Teacher Familiarity With California Content Standards in Schools With High and Not-High Concentrations of At-risk Students, According to High School Department Heads (DHELA2, DHMath2)

Student Demographic Subgroup	School Group	Not at all	Slight extent	Moderate extent	Great extent	Very great extent
EL Students	Not High	0.6	2.5	16.9	45.6	31.6
	High(>27%)	0.0	0.0	25.6	44.9	29.5
SWD Students	Not High	0.5	1.1	20.7	43.6	34.0
	High (>10%)	0.0	4.2	25.0	52.1	18.8
ED Students	Not High	0.6	1.3	19.1	44.6	34.4
	High (>60%)	0.0	2.5	26.6	46.8	24.1
Hispanic Students	Not High	0.6	1.9	21.9	40.6	34.8
	High (>60%)	0.0	1.2	21.0	54.3	23.5
African American Students	Not High	0.5	2.1	17.9	46.7	32.8
	High (>12%)	0.0	0.0	39.0	39.0	22.0

Table 7.14 summarizes reports from department heads of how many full-time teachers worked in their ELA or math departments. Both the mean number and range of full-time teachers was similar across the two subject areas, although there was a tendency for math departments to have a slightly lower average number of full-time teachers.

Table 7.14. Mean Number of Full-Time Teachers per ELA and Math Department, According to Department Head (DHELA1, DHMath1)

Department	n	Mean Number	Standard Deviation	Range
ELA	102	14.8	8.1	1-36
Math	135	12.6	6.0	1-41

Each ELA and math teacher was asked how many sections (class periods) of the reported course or instructional program he or she taught. Table 7.15 indicates that both ELA and math teachers taught a mean number of 2.5 class periods of each reported course. Table 7.16 indicates that about one-fourth (26.0%) of ELA teachers and one-fifth (20.0%) of math teachers taught four or more class periods of their reported courses.

Table 7.15. Mean Number of Sections (Class Periods) of Reported Course Taught per ELA and Math Teacher, According to ELA and Math Teachers (TELA5, TMath5)

Teacher Type	n	Mean Number	Standard Deviation	Range
ELA	155	2.5	1.4	1-6
Math	169	2.5	1.9	1-15

Table 7.16. Percentage of Teachers and Number of Sections (Class Periods) of Reported Course Taught, According to ELA and Math Teachers

Teacher Type	Number of Sections Taught					
	1	2	3	4	5	6 or more
ELA	28	30	16	14	10	1
Math	35	30	15	7	9	4

Table 7.17 indicates the highest level of education reported by teachers. About half (50.9%) of all teachers reported having attained an advanced degree (MA, EdD, PhD), with SWD teachers having reported the highest percentage (56.4%) among the teacher types. More than 10% of each teacher type reported having some graduate school, with EL teachers reporting the highest percentage (20.3%). About one-third (33.9%) of math teachers reported their teaching credential as their highest level of education, which was a higher proportion than any other teacher type. The last row of the table provides 2005 data for all teachers for comparison, though in 2005 the response option “Teaching Credential” was not available. Compared to 2005, respondents in 2009 indicated a slight increase in percentage of teachers with an advanced degree and larger decreases in percentages of teachers with either a bachelor’s degree or some graduate school as their highest level of education.

Table 7.17. Highest Level of Education, According to Teachers (TELA27, TMath27, TSWD32, TEL28)

Teacher Type	Number of Teachers	Percentage of Teachers				
		Bachelor’s Degree	Some Graduate School	Advanced Degree	Teaching Credential	Other
ELA	148	2.0	14.9	50.7	28.4	4.1
Math	165	2.4	11.5	46.7	33.9	5.5
SWD	117	0.9	12.0	56.4	23.1	7.7
EL	79	3.8	20.3	51.9	24.1	0.0
All teachers, 2009	509	2.2	13.9	50.9	28.3	4.7
All teachers, 2005	2,337	19.1	33.8	44.6	-	1.9

Information about Specific Courses

Tables 7.18 and 7.19 present the course titles, in descending order of frequency, for responding ELA and math teachers. Note that the course names are listed exactly as reported in the survey. These lists represent only one course per teacher, and they are the courses upon which the teachers based their survey responses. Titles of courses may vary by school; therefore, some listed courses may be equivalent to others.

Table 7.18. Courses ELA Teachers Taught and on Which They Based Survey Responses

Course Title	<i>n</i>	Course Title	<i>n</i>
English 10	38	ELD 1-3	1
Undefined	17	ELD 4	1
English 9	15	ELD I & II	1
Read 180 (scholastic)	8	English 10 (Literature and Composition II)	1
English Language Development	4	English 10 CAHSEE	1
Basic English/Language Arts (proficiency development)	3	English 10 College Prep	1
High Point	3	English 10 CP	1
CAHSEE Boot Camp	2	English 10 GATE	1
CAHSEE English Intervention during Sustained Silent Reading (SSR)	2	English 10 Honors	1
English 11	2	English 10 Transitional	1
English Composition	2	English 11S (seniors who have not passed the CAHSEE)	1
Language Structure/Language Arts	2	English 12	1
Language! A Literacy Intervention Curriculum	2	English 1A	1
SRA/Reach Program (SRA/McGraw-Hill)	2	English 2R	1
Standards Review (CAHSEE Mastery)	2	English II	1
Sheltered American Literature	2	English Language Arts Foundations	1
Advisory - CAHSEE Intervention Class	1	Found Eng 1-4	1
American Literature	1	Freshman English Sheltered	1
		High Point - Reading Intervention for English Learners (Hampton Brown)	1
CAHSEE English Language Arts	1	LA 663	1
CAHSEE English Language Arts Special Education	1	Language Arts 2 Sheltered (basic English/Language arts (proficiency development))	1
		Language Arts I Honors	1
CAHSEE English Pres	1	Reading Improvement/Developmental Reading/Reading Recovery	1
CAHSEE Intervention	1	RSP English	1
CAHSEE Intervention lab (uses plato ELA)	1	Sheltered World Literature	1
CAHSEE Prep	1	Special Education	1
CAHSEE Support Class	1	Special Education (CAHSEE support)	1
CAHSEE Tutoring	1	Strategic Literature	1
College Prep Junior English	1	Writing	1
College Prep Senior English	1	No Title Provided	1
Comp. Lit. 2	1		
Edge	1		
ELD 1 oral/grammar	1		

Table 7.19. Courses Math Teachers Taught and on Which They Based Survey Responses

Course Title	<i>n</i>	Course Title	<i>n</i>
Algebra 1	23	Algebra Special Education	1
Undefined	16	Algebra Support (E SS STAND MATH)	1
Measuring Up	14	Algebra/Geometry Foundations	1
Beginning Algebra/Algebra 1 (one year course)	11	ASC Algebra	1
Geometry	10	Beginning Algebra Part II (second year of 2 year course)	1
Algebra Support	7	Beginning Algebra/Algebra 1 (one year course)	1
CAHSEE Math	5	CAHSEE Intervention (one year course)	1
Beginning Algebra Part I (first year of 2 year course)	4	CAHSEE Math (Chariott software based for SWD)	1
CAHSEE Math	4	CAHSEE Math (Chariott software based)	1
Pre-Algebra	4	CAHSEE Math (seniors only)	1
CAHSEE Class	3	CAHSEE Math Review	1
Exit Exam Math	3	CAHSEE Prep Math	1
Algebra 1 (1 year) (10-12 graders who have failed Algebra 1)	2	CAHSEE Preparation Class (current)	1
Algebra 1A/1B	2	Consumer Math	1
CAHSEE Boot Camp	2	Extended Algebra 1	1
CAHSEE Prep (revolution Math)	2	Extended Algebra 2B	1
Extended Algebra	2	Foundations of Algebra and Geometry (CAHSEE Prep)	1
Intermediate Algebra/Algebra II	2	I Can Learn Lab	1
Revolution	2	Inegrated Math I (college preparatory)	1
A.L.E.K.S	1	Math CAHSEE Prep	3
Accelerated Math	1	Math Explorations	1
After School Program	1	Math Standards Review	1
Algebra 1 (1st year in 1 year) (9th graders only)	1	Math Support	1
Algebra 1 Intervention	1	Math Topics	1
Algebra 1 two period block class	1	Momentum Math (Kaplan K-12 Learning Services)	1
Algebra 2	1	Opportunity Algebra 1	1
Algebra I	1	Reading Improvement/Developmental Reading/Reading Recovery	1
Algebra I - Bilingual	1	Remedial Mathematics/Proficiency Development	1
Algebra I (College Prep)	1	Skills Lab	1
Algebra I (Honors)	1	Special Education	1
Algebra I Honors Geometry	1	Tutorial Intervention	1
Algebra II	1	No title Provided	1
Algebra Readiness	1		

Table 7.20 shows what percentage of each type of ELA and math courses contains a large population of SWD and EL students, as distinct from courses that have mostly students from the general population (i.e., students who are not EL or who do not have disabilities). Most teachers reported that the majority of students who were in alternate courses were SWD or EL for both ELA and math. Primary courses were most often comprised of high levels of general education students (ELA, 89.8%; math, 92.8%).

Table 7.20. Distribution of Courses by Subject, Type, and Students Served (TELA1, TMath1, TELA7, TMath7, TELA8, TMath8)

Course Type	n	Percentage of Courses with at Least 75% Special Population		
		EL	SWD	General
ELA Courses				
Primary	80	7.6	2.6	89.8
Alternative, SWD or EL	11	63.6	27.3	9.1
Remedial	25	32.0	4.0	64.0
Alternate Remedial, SWD or EL	8	75.0	25.0	0.0
Other	30	20.0	13.3	66.7
Total	154	7.1	7.7	85.2
Math Courses				
Primary	84	4.8	2.4	92.8
Alternative, SWD or EL	7	14.3	42.9	42.8
Remedial	54	7.4	3.7	88.9
Alternate Remedial, SWD or EL	1	0.0	100.0	0.0
Other	18	11.2	0.0	88.8
Total	165	7.2	4.8	88.0

Note: Percentage totals may not equal 100 due to rounding.

Course Timing and Duration

For each course or instructional program, the teacher responding to the survey was asked to indicate the timeframe for when the course/program was offered. Respondents were asked to mark all offerings that applied to a given course. Table 7.21 shows the availability of various types of courses taught by responding ELA and math teachers during different timeframes. Teachers were instructed to mark all times when their courses were offered; an “other” response option was also available. The “other” timeframe drew the most respondents for all course types; however, only a very small number of teachers provided specific information about timing, such as that the courses were held on Saturdays or during tutorials or lunch periods. Caution should be taken, therefore, in interpreting the “other” data. As might be expected, the next most predominant timeframe for any course offering, regardless of course type, was during regular school hours. Outside of regular school hours, about twice as many courses were offered during summer school (58) as were offered before/after school (28). Most of the courses offered outside the school day were reported to be primary courses, with

most of those courses offered during summer school. Small numbers of remedial courses for all students who did not pass CAHSEE were offered before/after school (14) or during the summer (7).

Table 7.21. Number of 2009 High School Course Offerings by When Course Was Offered, According to ELA and Math Teachers (TELA3, TMath3, TEL3, TSWD3; TELA1, TMath1, TEL4, TSWD4)

Course Type	Number of Courses				
	Before/ After School	Summer Course or Program	During Normal School Hours	Intersession Breaks	Other
Primary (n=166)	8	34	198	2	202
Alternative (n=18)	0	10	43	0	43
Remedial (n=79)	14	7	83	1	94
Alternative Remedial (n=9)	1	1	14	0	16
Other (n=48)	5	6	61	1	64
Total	28	58	400	4	420

We analyzed before/after school programs and summer school offerings separately for schools with high and not-high concentrations of at-risk students. Table 7.22 reports the percentage of teacher surveys representing courses that were offered outside of normal school hours. These results should be interpreted with caution, because multiple courses were offered within individual schools and the surveys did not represent all courses. Table 7.23 provides 2005 data for comparison purposes.

Table 7.22. Before/After School and Summer School Offerings in Schools With High and Not High Concentrations of At-risk Students in 2009, According to Teachers (TELA3, TMath3, TEL3, TSWD3, TELA1, TMath1, TEL4, TSWD4)

Student Demographic Subgroup	School Group	<i>n</i>	Percentage of Courses Offered Before/After School	Percentage of Courses/Programs Offered in Summer
ELA Teachers				
EL Students	Not High	114	6.1	12.3
	High(>27%)	40	7.5	2.5
SWD	Not High	104	6.7	13.5
	High (>10%)	50	6.0	2.5
ED Students	Not High	79	7.6	12.7
	High (>60%)	75	5.3	6.7
Hispanic Students	Not High	74	6.6	8.1
	High (>60%)	80	6.3	11.3
African American Students	Not High	137	6.6	10.9
	High (>12%)	17	5.9	0.0
Math Teachers				
EL Students	Not High	123	8.1	17.9
	High(>27%)	41	9.8	7.3
SWD Students	Not High	122	9.0	17.1
	High (>10%)	42	7.1	9.5
ED Students	Not High	106	8.5	16.0
	High (>60%)	58	8.6	13.8
Hispanic Students	Not High	105	8.6	15.2
	High (>60%)	59	8.5	15.3
African American Students	Not High	125	9.6	15.2
	High (>12%)	39	5.1	15.4

Note. Paired numbers in bold indicate the high-concentration group percentage is smaller than the comparison group's; italics indicate the high-concentration group percentage is larger than the comparison group's.

Table 7.23. Before/After School and Summer School Offerings in Schools With High and Not High Concentrations of At-risk Students in 2005, According to Teachers

Student Demographic Subgroup	School Group	<i>n</i>	Percentage of Courses Offered Before/After School	Percentage of Courses/Programs Offered in Summer
ELA Teachers				
EL Students	Not High	855/856	2.7	16.4
	High(>27%)	293/294	2.7	10.5
SWD Students	Not High	804/806	3.1	<i>14.1</i>
	High (>10%)	344	1.7	<i>16.6</i>
ED Students	Not High	861/862	2.3	15.3
	High (>60%)	287/288	3.8	13.5
Hispanic Students	Not High	848/850	2.5	15.5
	High (>60%)	300	3.3	13.0
African American Students	Not High	936/938	2.9	15.0
	High (>12%)	212	1.9	14.2
Math Teachers				
EL Students	Not High	832	3.6	22.6
	High (>27%)	252	5.6	18.3
SWD Students	Not High	761	3.2	<i>21.7</i>
	High (>10%)	323	6.2	<i>21.4</i>
ED Students	Not High	856	3.6	22.3
	High (>60%)	228	5.7	18.9
Hispanic Students	Not High	818	4.2	22.7
	High (>60%)	266	3.8	18.0
African American Students	Not High	866	4.2	21.8
	High (>12%)	218	3.7	20.6

Note. Paired numbers in bold indicate the high-concentration group percentage is smaller than the comparison group's; italics indicate the high-concentration group percentage is larger than the comparison group's.

Teachers were asked to indicate the duration of the course described in their survey responses (See Table 7.24). Most courses, regardless of type, lasted either a semester or a full school year. Remedial courses open to all students who did not pass the CAHSEE (labeled remedial) were most likely to last shorter periods of time. Alternate courses for SWD or EL students (labeled alternative) were most likely to last 2 school years.

Table 7.24. Duration of Courses/Programs, by Course Type (TSWD2, TEL2, TELA2, TMath2, TELA1, TMath1, TEL4, TSWD4)

Course Type	Percentage						
	Few Days	Few Weeks	Quarter	Trimester	Semester	Full School Year	Two School Years
Primary (<i>n</i> =166)	0.0	1.2	1.8	1.2	7.2	86.1	2.4
Alternative (<i>n</i> =18)	0.0	0.0	0.0	0.0	11.1	77.8	11.1
Remedial (<i>n</i> =80)	1.3	7.6	3.8	1.3	43.0	41.8	1.3
Alternate Remedial (<i>n</i> =9)	0.0	0.0	0.0	0.0	44.4	55.6	0.0
Other (<i>n</i> =49)	0.0	2.0	2.0	0.0	22.4	65.3	6.1

Course Materials

Table 7.25 shows the percentage of ELA, math, SWD, and EL teachers who reported using a primary textbook for their course or instructional program and, for those who answered "yes," how much of the text they used. Most of the responding ELA (68.6%), math (67.5%), and EL (66.7%) teachers indicated they used a primary text. Just under half (46.4%) of SWD teachers reported they used one. Of those who responded they used a primary text, EL teachers (78.6%) most often reported they used most or all of the text; ELA teachers (35.6%) were least likely to have done so.

Table 7.25. Percentage of Teachers Who Used a Primary Text (TELA11, TMath11, TSWD20, TEL24)

	Percentage of ELA Teachers	Percentage of Math Teachers	Percentage of SWD Teachers	Percentage of EL teachers
Used primary text	68.6	67.5	46.6	66.7
For those who answered yes, how much did you use?				
Some (less than 40%)	39.4	14.0	12.7	7.3
About half (40-60%)	25.0	14.0	30.9	14.5
Most (61-95%)	20.2	48.2	40.0	36.4
All (96-100%)	15.4	23.7	16.4	41.8

For those who used a primary textbook, Table 7.26 summarizes the amount of time they did so by teacher type. All SWD and EL teachers who reported they used a primary text had used it for more than 1 year. Approximately one-fourth (24.2%) of math teachers who used a primary text reported using a new one in the 2008–09 school year.

Table 7.26. Length of Time Teachers Using a Primary Textbook Did So (TELA11C, TMath11C, TSWD20C, TEL24C)

Teacher Type	How long have you used the primary textbook?			
	First year	Second year	3-5 years	More than 5 years
ELA	11.9	12.6	28.3	13.2
Math	24.2	12.4	15.7	11.8
SWD	0.0	11.9	12.7	15.1
EL	0.0	23.2	15.8	13.7

Table 7.27 presents teacher self-reports of the frequency with which they used supplemental materials (e.g., other texts, commercially-prepared materials, materials they created, computer-based programs, Internet-based material, district-made materials, and materials created by another teacher) in their courses or instructional programs. Response options were: 3–5 days a week, 1–2 times a week, 1–2 times a month, or rarely. Teachers reported that the materials they used most frequently were those they created themselves. Additionally, slightly more than one-third (36.4%) to about half (54.8%) of these responding teachers reported using commercially-prepared

materials at least once or twice a week. They said district-made materials were used least frequently—approximately half (ELA, 54.0%) to two-thirds (math, 66.5%) said they rarely or never used these materials in their classes.

Table 7.27. Supplemental Material Used, by Teacher Type (TEL25, TELA12, TMath12, TSWD21)

	% Within ELA Teachers	% Within Math Teachers	% Within EL Teachers	% Within SWD Teachers
Supplemental Material Type				
Commercially prepared material(s)				
Three to 5 days a week	13.8	10.4	14.3	26.5
Once or twice a week	29	27	22.1	28.3
Once or twice a month	22.8	25.2	28.6	20.4
Rarely	25.5	17.2	24.7	15
Never	9	20.2	10.4	9.7
Self-created materials				
Three to 5 days a week	33.6	25.8	33.6	21.1
Once or twice a week	39.6	33.1	39.6	33
Once or twice a month	18.1	29.4	18.1	25.7
Rarely	6.7	6.1	6.7	16.5
Never	2	5.5	2	3.7
Computer-based program(s)				
Three to 5 days a week	14.3	15.2	12.5	10.8
Once or twice a week	14.3	19.6	20	20.7
Once or twice a month	21.8	17.7	23.8	22.5
Rarely	29.9	25.3	23.8	32.4
Never	19.7	22.2	20	13.5
Internet-based materials				
Three to 5 days a week	5.4	7.4	9.9	11.5
Once or twice a week	19.7	19	23.5	28.3
Once or twice a month	29.9	17.2	33.3	22.1
Rarely	32.7	27.6	17.3	28.3
Never	12.2	28.8	16	9.7
Materials another teacher created				
Three to 5 days a week	3.3	4.9	8.8	7
Once or twice a week	16	14.8	13.8	12.3
Once or twice a month	34.7	30.9	31.3	27.2
Rarely	32	32.1	26.3	35.1
Never	14	17.3	20	18.4
District-made materials				
Three to 5 days a week	4	5	8.8	4.4
Once or twice a week	16	11.8	16.3	19.5
Once or twice a month	26	16.8	15	16.8
Rarely	30.7	35.4	31.3	38.1
Never	23.3	31.1	28.8	21.2

Assessment

Tables 7.28 – 7.31 summarize the types of assessments teachers reported using and how often they used them. The ELA teachers reported using most frequently on-demand writing assessments (41.7% weekly and 27.8% monthly) and assessments they created themselves (51.7% weekly and 28.2% monthly). The math teachers reported using most frequently the assessments they created themselves (50.6% weekly, 23.5% monthly) and assessments created by other teachers (49.1% weekly, 32.1% monthly). The math teachers tended to use released test items fairly frequently (25.3% weekly, 30.7% monthly).

Table 7.28. Types of Assessments Used by ELA Teachers (TELA17)

Frequency	% Commercial Benchmark Tests (n= 159)	% Other Teacher-made Tests (n= 159)	% Released Test Items (n= 159)	% On-demand Writing (n= 159)	% District-wide Tests (n= 159)	% Self-Created Tests (n= 159)
Rarely	45.3	60.3	29.3	7.3%	41.6	4.7
Bimonthly	28.7	12.6	16.7	12.6%	37.6	4.7
Monthly	20.0	19.2	28.0	27.8	18.1	28.2
Weekly	4.7	7.3	18.7	41.7	1.4	51.7
Daily	1.3	.6	7.3	10.6	1.3	10.7

Table 7.29. Types of Assessments Used by Math Teachers (TMath17)

Frequency	% Commercial Benchmark Tests (n= 178)	% Other Teacher-made Tests (n= 178)	% Released Test Items (n= 178)	% On-demand Writing (n= 178)	% District-wide Tests (n= 178)	% Self-Created Tests (n= 178)
Rarely	48.8	10.9	12.6	70.8	39.4	8.0
Bimonthly	18.3	5.5	18.7	5.0	35.8	6.8
Monthly	22.6	32.1	30.7	11.2	13.9	23.5
Weekly	9.1	49.1	25.3	6.2	7.9	50.6
Daily	1.2	2.4	12.7	6.8	3.0	11.1

The SWD and EL teachers reported most frequently using assessments they created themselves (SWD: 34.8% 1–2 times monthly, 40.2% 1–2 times weekly, 4.5% 3–5 days per week; EL: 39.2% 1–2 times monthly, 36.7% 1–2 times weekly, 8.9% 3–5 days per week). Teachers of EL students also reported having used on-demand writing fairly frequently (32.9% 1–2 times monthly, 29.1% 1–2 times weekly, 15.2% 3–5 days per week) while the SWD teachers reported they used released test items fairly frequently (44.2% 1–2 times monthly, 23.4% 1–2 times weekly, 7.2% 3–5 days per week).

Table 7.30. Types of Assessments Used by EL Teachers (TEL26)

Frequency	% Commercial Benchmark Tests (n=78)	% Other Teacher-made Tests (n=78)	% Released Test Items (n=80)	% On-demand Writing (n=79)	% District-wide Tests (n=79)	% Self-Created Tests (n=79)
Not familiar	6.4	2.6	0.0	1.3	3.8	0.0
Never	26.9	41.0	7.5	3.8	26.6	8.9
Rarely	28.2	29.5	26.3	17.7	34.2	6.3
1-2 times/month	26.9	20.5	41.2	32.9	27.8	39.2
1-2 times/week	9.0	3.8	20.0	29.1	5.1	36.7
3-5 days/week	2.6	2.6	5.0	15.2	2.5	8.9

Table 7.31. Types of Assessments Used by SWD Teachers (TSWD22)

Frequency	% Commercial Benchmark Tests (n=111)	% Other Teacher-made Tests (n= 110)	% Released Test Items (n=111)	% On-demand Writing (n= 114)	% District-wide Tests (n=115)	% Self-Created Tests (n=112)
Not familiar	9.0	3.7	2.7	12.3	4.3	0.0
Never	16.2	32.7	7.2	21.9	22.6	9.8
Rarely	30.7	40.0	15.3	21.1	43.5	10.7
1-2 times/month	36.0	18.2	44.2	21.1	22.6	34.8
1-2 times/week	6.3	2.7	23.4	18.4	7.0	40.2
3-5 days/week	1.8	2.7	7.2	5.2	0.0	4.5

Table 7.32 shows how teachers used the results from the various assessments. Across teacher respondents, the most common way they reported using assessment results was by feedback to students, followed by modifying their lesson plans.

Table 7.32. Teachers' Use of Assessment Results in Percentages (TEL27, TELA18, TMath18, TSWD23)

Use	Teacher Type			
	% TELA (n= 159)	% TMath (n= 178)	% TEL (n= 95)	% TSWD (n= 126)
Provide feedback to students	87.4	88.8	81.1	86.5
Modify lesson plans	87.4	85.4	76.8	81.0
Practice differential instruction	70.4	68.5	63.2	72.2
Assign to supplemental/ remedial classes	29.6	30.9	23.2	23.0
Provide feedback to district	40.9	29.2	37.9	23.0
Other (e.g., track progress on standards, IEP decisions)	11.3	10.1	7.4	11.9

We asked SWD teachers to indicate the service model they used to deliver their courses or instructional programs (See Table 7.33). Two-thirds (66.7%) of these responding teachers reported their courses or instructional programs were self-contained.

Table 7.33. Service Model Used to Deliver Courses/Instructional Programs, According to SWD Teachers (TSWD7)

Delivery Modes	Percentage % (n= 136)
Self-contained pullout	57.4
Inclusion	56.6
Inclusion with additional support/tutorial class	73.5
After-school tutorial	65.4
Response to intervention (Rtl) model	33.8
Other	7.4

Teachers of students with disabilities and English learners reported on the percentage of instruction in their courses that was provided by a general education teacher (See Table 7.34). Approximately three-quarters (76.8%) of SWD teachers said that none of the instruction in their courses was provided by a general education teacher; only one-fifth (20.7%) of EL teachers said this was true of the instruction in their courses. In contrast, slightly more than two-thirds (67.8%) of EL teachers said nearly all the instruction in their courses was provided by a general education teacher and none of the SWD teachers said this was the case in their courses.

Table 7.34. Percentage of Instruction in EL or SWD Courses/Instructional Programs Provided by a General Education Teacher, According to EL and SWD Teachers (TEL5, TSWD5)

Percentage of Instruction	Percentage of Teachers	
	EL (n=95)	SWD (n=126)
None	20.7	76.8
Only a little (less than 25%)	2.3	4.0
Some (25-50%)	3.4	3.2
More than half (51-74%)	1.1	4.8
Most (75-90%)	4.6	11.2
Nearly all (more than 90%)	67.8	0.0
Total	100.0	100.0

Instructional Activities

Tables 7.35 and 7.36 provide responses from ELA and math teachers about their use of instructional activities in the classroom. ELA teachers reported using several activities to engage and teach the students. How often the ELA teachers used these activities seemed to depend largely on the duration of the activity (See Table 7.35). For example, writing workshops can be fairly intensive and could last days, so teachers reported using them fairly infrequently. In contrast, vocabulary instruction and assessment can be done in a relatively short period of time, so teachers reported they used them more frequently, either weekly or daily.

Table 7.35. Use of Instructional Activities in the Classroom, According to ELA Teachers (TELA16)

Frequency	Activity					
	Writing Workshop	Novel/Novella	Short Story	Short Passage	Real-life Activity	Vocab. Instruction/Assessment
Rarely	13.6	13.3	6.1	2.0	2.7	4.7
Bimonthly	19.7	16.0	11.5	7.5	12.8	4.0
Monthly	32.7	25.3	22.3	13.6	18.8	12.0
Weekly	26.5	26.7	45.9	46.3	42.3	53.3
Daily	7.5	18.7	14.2	30.6	23.5	26.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Math teachers were more likely to report using problems that emphasized relationships among math concepts (34.5%, weekly and 41.1% daily) than other activities. Most of them (62%) reported they rarely used short problems as teaching tools (See Table 7.36).

Table 7.36. Use of Instructional Activities in the Classroom, According to Math Teachers (TMath22)

Frequency	Activity			
	Open-ended problems	Short problems	Problems using manipulatives	Problems emphasizing relationships among math concepts
Rarely	17.2	62.0	26.8	3.6
Bi-monthly	8.9	9.0	22.6	7.1
Monthly	14.2	17.5	22.0	13.7
Weekly	31.4	9.0	23.2	34.5
Daily	28.4	2.4	5.4	41.1
Total	100.1	99.9	100.0	100.0

Note: Percentage totals may not equal 100 due to rounding.

High school ELA and math department heads were asked to characterize the credential status of teachers in their departments. Table 7.37 indicates the proportions of teachers who worked with an appropriate ELA or math credential. For ELA, the percentage of schools and proportions of teachers with an appropriate credential changed only very slightly from 2005 to 2009. Approximately three-fourths (74.3%) of schools continued to operate with nearly all credentialed teachers. However, about 12% of schools operated with more than 25% of their teachers lacking appropriate credentials. In math, the proportion of schools that operated with nearly all credentialed teachers declined from approximately three-quarters (72.3%) in 2005 to less than half (44.9%) in 2009. Also for math, the percentage of schools that operated with more than 25% of their teachers lacking appropriate credentials increased from 8% of responding math departments to almost 27%.

Table 7.37. Percentage of High Schools With ELA and Math Teachers Who Worked With an Appropriate Credential, According to Department Heads (DHELA3, DHMath3)

Proportion of Teachers With Appropriate Credential	ELA		Math	
	2005 (n=187)	2009 (n=105)	2005 (n=202)	2009 (n=136)
Nearly all (more than 90%)	75.4	74.3	72.3	44.9
Most (75%–90%)	12.3	14.3	19.8	28.7
Some (25%–74%)	8.0	6.7	5.9	22.1
Only a few (less than 25%)	3.7	2.9	1.5	2.9
None	0.5	1.9	0.5	1.5
Total	100.0	100.0	100.0	100.0

Note: For this table, the “Some” category actually represents collapsed response options for “Some (25-50%)” and “More than half (51-74%).”

High school department heads were asked to estimate the proportion of ELA and math intervention programs that were taught by fully credentialed ELA and math teachers, respectively. As can be seen in Table 7.38, about two-thirds (68.3%) of the schools reported nearly all of the ELA intervention programs were taught by fully credentialed ELA teachers, while only slightly more than half (53.8%) of the schools reported nearly all of their math intervention programs were taught by fully credentialed math teachers. At the lower end of the spectrum, 20% of schools reported having few or no math intervention programs that were taught by fully credentialed math teachers, and 12% of schools reported having few or no ELA intervention programs taught by ELA teachers who were fully credentialed.

Table 7.38. Percentage of High Schools With Intervention Programs Taught by Fully Credentialed ELA and Math Teachers, According to Department Heads (DHELA4, DHMath4)

Percentage of intervention programs taught by fully credentialed teachers	Percentage	
	ELA (n=104)	Math (n=132)
Nearly all (more than 90%)	68.3	53.8
Most (75-90%)	10.6	9.8
More than half (51-74%)	5.8	9.1
Some (25-50%)	3.8	7.6
Only a few (less than 25%)	4.8	11.4
None	6.7	8.3

The above responses were based on department head estimates of teacher credentials across the entire department. We also asked each teacher to indicate his or her specific teaching credential(s). As can be seen in Table 7.39, almost three-fourths (72.4%) of all teacher respondents reported having a single or multiple subject credential. Emergency-credentialed or intern teachers accounted for less than 4% of the total respondent teacher population. A few observations about responses by teacher type are noteworthy. First, although SWD teachers had the lowest rate of general credential (51.6%), they had the highest rate of credential specific to their field (teachers of SWD, 82.5%). Second, although math teachers had the highest rate of general credential (81.5%), they also had the highest rate of emergency credential or intern status (6.1%). Third, there was a fairly high rate of EL credentialing reported across the three non-EL teacher types (ELA, math, and SWD all at 42.1%), yet EL teachers reported the highest EL credentialing rate (64.2%).

Table 7.39. Rates of High School Teaching Credentials, According to Teachers (TELA28, TMath28, TSWD29, TEL33)

Teaching Credentials	Percentage of Teachers				
	All teachers	ELA	Math	SWD	EL
	(n=558)	(n=159)	(n=178)	(n=126)	(n=95)
General (single subject or multiple subject)	72.4	78.6	81.5	51.6	72.6
Special Education	22.8	6.3	5.1	82.5	4.2
EL (e.g., CLAD, ECD, SDAIE)	45.9	42.1	42.1	42.1	64.2
Emergency (PIP, STSP, waiver, emergency)	1.4	1.3	2.2	1.6	0.0
Intern	2.2	0.6	3.9	2.4	1.1

Note: Frequencies do not total to 100% as individual teachers may hold multiple credentials.

While the 2005 teacher survey included an open-ended question about credentials, the format of the 2009 credential question was changed to include both selected and open-ended responses. To allow some degree of comparison between responses for the two years, we analyzed the 2009 responses for “General (single subject or multiple subject)” credential with the teachers’ open-ended comments (See Table 7.40). Across all 2009 teacher respondents, a higher percentage (compared with 2005) reported having multiple subject (2005, 7.7%; 2009, 18.6%), math or English single subject (2005, 63.3%; 2009, 71.0%), and other single subject credentials (2005, 13.4%; 2009, 20.5%). These results should be interpreted with caution, however, due to the change in question format. When we analyzed the 2009 data by teacher type, it can be seen that a much higher percentage of SWD teachers held multiple subject credentials (49.2%) than held single subject credentials in ELA or math (13.8%). This pattern was opposite that of the other three types of teachers, among whom the largest proportion of teachers held single subject credentials in English or math.

Table 7.40. Rates of Multiple and Single Subject Teaching Credentials, According to Teachers (TELA28, TMath28, TSWD29, TEL33)

Teaching Credentials	2005 Percentage of All Teachers (n=2,381)	2009 Percentage of Teachers				
		All teachers (n=404)	ELA (n=125)	Math (n=145)	SWD (n=69)	EL (n=65)
Multiple subject	7.7	18.6	11.2	12.4	49.2	15.9
Single subject, English or math	63.3	71	89.6	79.3	13.8	73.9
Single subject, Other	13.4	20.5	17.6	21.4	32.3	13

Note: Frequencies do not total to 100% as individual teachers may hold multiple credentials.

Each ELA and math teacher was asked to indicate the major field for the teaching credential he or she held. Table 7.41 indicates that a strong majority (80.8%) of responding ELA teachers was credentialed in their subject area of English and that a similar majority (75.0%) of math teachers was credentialed in their subject area of math.

Table 7.41. Major Field of Teaching Credentials, According to ELA or Math Teachers (TELA29, TMath29)

Major Field	Percentage	
	ELA Teachers (n=146)	Math Teachers (n=164)
English	80.8	0.6
Math	0.7	75.0
Science	0.7	2.4
Education	7.5	5.5
Other	10.3	16.5

Table 7.42 indicates the proportion of teachers who either worked with emergency credentials or worked as district interns, according to responding department heads. The proportion of department heads in 2009 who reported that none of their teachers had emergency credentials increased to about three-fourths for both ELA (72.4%) and math (74.1%); this was an 11% increase for ELA and a 27% increase for math. There also was a decline for both subject areas (about 9% for ELA and nearly 24% for math) in the reported percentage of schools that operated with a few cases of emergency credentials.

Table 7.42. Percentage of Schools With ELA and Math Teachers Who Worked With Emergency Credentials or Worked as District Interns, According to Department Heads (DHELA5, DHMath5)

Percentage of teachers with emergency credential or district interns	ELA		Math	
	2005 (n=187)	2009 (n=105)	2005 (n=199)	2009 (n=135)
Nearly all (more than 90%)	2.1	1.0	0.0	0.0
Most (75-90%)	0.0	0.0	0.0	0.0
Some (25-74%)	2.1	2.0	7.5	4.4
Only a few (less than 25%)	34.2	24.8	45.2	21.5
None	61.5	72.4	47.2	74.1
Total	99.9	100.2	99.9	100.0

Note: Percentage totals may not equal 100 due to rounding.

Student Populations within Courses

The survey asked teachers to indicate the grade level for the majority of students enrolled in their courses (See Table 7.43). The teachers of primary courses indicated most of their students were at the 9th (42.4%) or 10th (41.4%) grade level. Teachers of alternative courses targeted to SWD or EL students said the majority of their students were at the 9th grade (30.2%), 10th grade (32.6%), or other (27.9%) levels. Slightly more than half (52.7%) of the teachers of remediation courses for students who had not passed CAHSEE reported most of their students were at the 11th grade level while about one-quarter (27.5%) of these teachers said most of their students were at the 12th grade level. Among teachers of alternative remediation for SWD and EL students,

35.7% said the majority of their students were at the 9th grade level, 21.4% said the majority of their students were at the 10th grade level, and 28.6% said most of their students were at the 11th grade level.

Table 7.43. Grade Level for Majority of Students, by Course Type in 2009 (TELA4, TMath4, TEL8, TSWD10, TELA1, TMath1, TEL4, TSWD4)

Course Type	Grade Level(s) of Majority of Students in This Course				
	9	10	11	12	Other
Primary (n=198)	42.4	41.4	8.6	2.0	5.6
Alternative targeted to EL or SWD (n=43)	30.2	32.6	4.7	4.7	27.9
Remediation (n=91)	3.3	9.9	52.7	27.5	6.6
Alternative remediation for EL or SWD (n=14)	35.7	21.4	28.6	7.1	7.1
Other (n=62)	38.7	32.3	3.2	8.1	17.7
All Courses (n=409)	31.5	31.3	17.8	9.3	10.0

Teachers who responded to the survey reported teaching anywhere from fewer than 10 to more than 100 students in their courses (see Table 7.44). Teachers of primary ELA or math courses reported more students in their courses: 60% of them taught 61 or more students across all sections of their courses. Teachers of courses targeted to SWD and EL students reported fewer students in their courses; 60% of teachers of alternate courses and 100% of teachers of alternate remedial courses reported 30 or fewer students.

Table 7.44. Number of Students Taught Across All Sections of Courses, According to ELA and Math Teachers (TELA6, TMATH6)

Course Type Number of Students Taught	n	Percentage of Teachers				
		Number of Students				
		0-10	11-30	31-60	61-100	Over 100
Primary in ELA or Math	164	3.0	10.4	25.6	29.3	31.7
Alternative to primary, targeted to EL or SWD	18	11.1	50.0	27.8	5.6	5.6
Remedial, all who did not pass CAHSEE	79	10.1	48.1	25.3	8.9	7.6
Alternative Remedial, targeted to EL or SWD	9	44.4	55.6	0.0	0.0	0.0
Other	48	4.2	29.2	39.6	16.7	10.4
Totals	319	6.6	26.3	27.0	20.1	20.1

Student Characteristics

Several survey items explored factors that impact effectiveness of current instruction. The teacher survey asked what proportion of their students achieved at least *Basic* performance on the previous year’s corresponding Standardized Testing and Reporting (STAR) California Standards Test (CST). The percentage of students within a course who achieved at least *Basic* varied according to the type of teacher (See Table 7.45). Table 7.46 shows the results from the 2005 survey, which included only math and ELA teachers. Approximately 30% of ELA teachers in 2009 reported that nearly all to more than half of their students had achieved the *Basic* level. This was true for 11.3% of math teachers, 9.9% of SWD teachers, and 12.5% of EL teachers. The highest percentage of teachers who reported having no students who achieved at least *Basic* level was those who taught students with disabilities (17.2%).

Table 7.45. Percentage of Students in 2009 Who Achieved at Least Basic on Previous Year’s STAR CST, by Type of Teacher (TELA10, TMath10, TSWD13, TEL11)

Teacher Response	Subject Area			
	ELA (n=154)	Math (n=170)	SWD (n=122)	EL (n=87)
Not sure	31.2	35.3	22.1	25.3
None	4.5	7.6	17.2	8.0
Only a few (less than 25%)	16.2	26.5	41.0	28.7
Some (25-50%)	18.2	19.4	9.8	25.3
More than half (51-74%)	13.0	7.1	6.6	8.0
Most (75-90%)	11.0	2.4	2.5	3.4
Nearly all (more than 90%)	5.8	1.8	0.8	1.1

Table 7.46. Percentage of Students in 2005 Who Achieved at Least Basic on Previous Year’s STAR CST, by Type of Teacher

Teacher Response	Subject Area	
	ELA (n=1,162)	Math (n=1,099)
Not sure	32.9	43.8
Only a few (less than 25%)	18.7	26.3
Some (25-74%)	27.1	23.2
Most (75-90%)	14.0	4.1
Nearly all (more than 90%)	7.3	2.6

The surveys asked teachers to indicate the proportion of students enrolled in their courses that were classified as EL, received special education services, and were economically disadvantaged. As Table 7.47 shows, about one-third (35.1%) of ELA teachers reported they had only a few (less than 25%) EL students in their courses; about 30% said that some (25-50%) students in their course were classified as EL. Slightly more than half (53.2%) of ELA teachers reported they had a few students in their courses who received special education services. Almost half (47.3%) of the math

teachers reported having a few students in their courses who were classified as EL; 27.8% of the math teachers reported having some students in their courses who were classified as EL. Approximately two-thirds (61.5%) of the math teachers said they had a few students in their courses who received special education services. About one-fifth (20.6%) of the math teachers reported some of the students in their courses were economically disadvantaged. The SWD teachers reported having students in their courses who were classified as EL (few, 47.3%; some, 27.8%).

Table 7.47. Percentage of Students in Courses Who Were Classified as EL, Economically Disadvantaged, or Received Special Education Services (TELA7, TMath7, TSWD12, TELA9, TMath9, TELA8, TMath8)

	Student Classification		
	EL	SWD	ED
ELA Teacher Responses			
Not sure	n/a	n/a	31.8
None	8.4	15.6	0
Only a few (less than 25%)	35.1	53.2	8.4
Some (25-50%)	27.3	19.5	14.3
More than half (51-74%)	7.8	3.9	16.9
Most (75-90%)	7.1	0.6	18.8
Nearly all (more than 90%)	14.3	7.1	9.7
Math Teacher Responses			
Not sure	n/a	n/a	31.2
None	5.3	9.5	0.6
Only a few (less than 25%)	47.3	61.5	12.4
Some (25-50%)	27.8	20.7	20.6
More than half (51-74%)	11.8	3.6	12.9
Most (75-90%)	4.1	1.2	17.1
Nearly all (more than 90%)	3.6	3.6	5.3
SWD Teacher Responses			
Not sure	n/a	n/a	n/a
None	10.7	n/a	n/a
Only a few (less than 25%)	45.9	n/a	n/a
Some (25-50%)	28.7	n/a	n/a
More than half (51-74%)	6.6	n/a	n/a
Most (75-90%)	4.9	n/a	n/a
Nearly all (more than 90%)	3.3	n/a	n/a

Table 7.48 shows that 18.6% of EL teachers either were unsure of or felt there was too much variability within their classes to rate the number of years students had been in the United States. Just over 37% of these teachers reported that most students had been in the U.S. for more than 4 years. Nearly one-third (32.9%) of these teachers were unable to rate the average number of years that students in their courses had been labeled as EL. Only 4.7% of EL teachers reported that most of their students had been

classified as EL for less than a year; more than 40% reported an average classification of 2 or more years.

Table 7.48. Average Number of Years Students in EL Courses Spent in U.S. and Were Classified as EL, According to EL Teachers (TEL12)

Years	Percent in U.S. (n=86)	Percent Classified as EL (n=85)
Not sure or too variable to rate	18.6	32.9
Less than 1	7.0	4.7
1 to 2	20.9	18.8
2 to 4	16.3	21.2
More than 4	37.2	22.4

In addition, more than half (53.0%) of EL teachers reported 2–3 native or primary languages spoken in their courses and 9.6% reported more than 7 languages. Many of the teachers (34.7%) were unsure what proportions of their students were migrant or transitory. Only 7.2% of EL teachers reported that more than half of their students were migrant or transitory.

Teachers of EL students were asked about the English proficiency of their students. In addition, they were asked what proportion of their classes was taught in English. Table 7.49 shows the proportion of EL teachers who rated their students as beginning English proficiency (California English Language Development Test, or CELDT, levels 1 or 2), moderate English proficiency (CELDT levels 3 or 4), advanced English proficiency (CELDT level 5), or reclassified fluent English proficient (RFEP). For this item, teachers were allowed to select all classifications that applied to their students. The majority of EL teachers (70.3%) indicated they taught students at a moderate level of English proficiency, and about half (49.4%) indicated they taught students at a beginning level. However, almost all EL teachers (91.8%) indicated nearly all of their courses’ content was taught in English (See Table 7.50). It seems plausible that students’ levels of English proficiency did not allow them to access all course content provided by their EL teachers.

Table 7.49. English Proficiency of Students in Courses/Instructional Programs, According to EL Teachers (TEL17)

Students' English Proficiency	Percentage
Beginning English proficiency (CELDT levels 1 or 2)	49.4
Moderate English proficiency (CELDT levels 3 or 4)	70.3
Advanced English proficiency (CELDT level 5)	25.3
Reclassified fluent English proficient (RFEP)	19.8

Note: 91 EL teachers responded to this item. Because teachers could select all response options that applied, total percentage sums to more than 100%.

Table 7.50. Proportion of Courses/Instructional Programs Taught in English, According to EL Teachers (TEL14)

Proportion of Course	Percentage
None	1.2
Some (25-50%)	1.2
More than half (51-74%)	0.0
Most (75-90%)	5.9
Nearly all (more than 90%)	91.8

Table 7.51 lists the factors that teachers believed limited the effectiveness of the courses they taught, to a great extent or more. The factors are presented in reported (total) order of perceived importance in limiting course effectiveness. Overall, teachers reported they faced the greatest limitations on effectiveness in the primary courses they taught. They rated low student motivation as the greatest limitation to course effectiveness, regardless of course type.

Table 7.51. Percentage of Teachers Who Reported That Particular Factors Limited Student Performance to a Great Extent or More, by Course Type (TELA23, TMath23, TSWD24, TEL28)

Limiting Factor	Primary	Alternative, SWD or EL	Remediation	Alternative remediation, SWD/EL	Other	Total
Low student motivation (n=387)	33.7	6.8	17.6	1.8	9.8	69.7
Lack of student prerequisite knowledge/skills (n=378)	30.6	5.3	15	1.6	7.2	59.7
Low student attendance (n=385)	25.5	5.2	14.1	1.2	8.3	54.3
Behavioral issues in class (n=386)	22.5	4.1	10.4	1.3	7.3	45.6
Low parental support (n=382)	18.1	4.1	7.5	1.1	5.2	36
Low English proficiency (n=386)	13.7	4.7	6	1.8	3.1	29.3
My own difficulty in engaging these students (n=384)	11.5	3.2	8.1	1.1	0	29.2
Limitations in my own knowledge or experience (n=381)	11.5	2.6	6.6	1	4.5	26.5
Lack of materials/resources (n=384)	9.6	2.1	5.5	1	3.6	21.8
Lack of administrative support (n=307)	6.5	1.3	4.9	0	3.6	16.3
Master schedule limitations (n=306)	5.2	1	2.3	0	3.3	11.8

Factors Related to Test Score Performance

One goal of the instruction study was to identify factors that impact student performance on the CAHSEE. To this end, we correlated survey responses with school characteristics to facilitate a deeper interpretation of those responses. This allowed us, for example, to analyze responses to a particular survey item to examine the extent to which changes were related to school size (small, medium, or large) or to gains in scores between 2008 and 2009 (small, moderate, or large). Gain scores describe gains among students in the Class of 2010 who took the test as 10th graders in 2007–08 and retested as 11th graders in 2008–09.

Combining Survey Data With School-level CAHSEE Achievement Characteristics

Each high school within the sample was classified by performance of its students on the CAHSEE in 2009. Tables 7.52 (ELA performance) and 7.53 (math performance) summarize the cut points and distribution of CAHSEE test performance among participating high schools. Pass rates describe students in the Class of 2011 taking the test as 10th graders in 2008–09. Gain scores were divided into three categories such that approximately 25% of schools were categorized as small, 50% medium, and 25% large. However, the categorizations of demographic groups passing either the ELA or math portion of the CAHSEE were divided into four (4) categories in order to be consistent with previous reports.

There were five schools that had high levels (over 90%) of SWD who passed the CAHSEE ELA and math exams (See Tables 7.52 and 7.53). Further analyses attempted to describe these schools further. A cross-tabulation determined that three of the schools that had high levels of SWD who passed the CAHSEE ELA had a low number ($\leq 7\%$) of economically disadvantaged students. One of the remaining two schools had a moderate percentage of economically disadvantaged students and the other had a large proportion. For the five schools with a high level of SWD who passed the CAHSEE math, four had low levels of economically disadvantaged students and one had a high level.

Table 7.52. Empirical Classifications of High Schools Into Categories: CAHSEE ELA Performance

Category	Classifications	N	% of Sample
Percentage in School Passing ELA (n=271)			
	Very low (<= 50%)	19	7.0
	Low (>50–75%)	88	32.5
	Moderate (>75–90%)	113	41.7
	High (> 90%)	51	18.8
Percentage African Americans in School Passing ELA (n=260)			
	Very low (<= 50%)	35	13.5
	Low (>50–75%)	111	42.7
	Moderate (>75–90%)	72	27.7
	High (> 90%)	42	16.2
Percentage Hispanics in School Passing ELA (n=271)			
	Very low (<= 50%)	19	7.0
	Low (>50–75%)	145	53.5
	Moderate (>75–90%)	88	32.5
	High (> 90%)	19	7.0
Percentage Economically Disadvantaged in School Passing ELA (n=261)			
	Very low (<= 50%)	20	7.4
	Low (>50–75%)	174	64.4
	Moderate (>75–90%)	70	25.9
	High (> 90%)	6	2.2
Percentage EL in School Passing ELA (n=263)			
	Very low (<= 50%)	190	72.2
	Low (>50–75%)	64	24.3
	Moderate (>75–90%)	5	1.9
	High (> 90%)	4	1.5
Percentage SWD in School Passing ELA (n=267)			
	Very low (<= 50%)	216	80.9
	Low (>50–75%)	40	15.0
	Moderate (>75–90%)	6	2.2
	High (> 90%)	5	1.9
Mean School ELA Gain (in scale score points) (n=270)			
	Small gain (<= 11)	18	6.7
	Moderate gain (>11–17)	119	44.1
	Large gain (> 17)	133	49.3
Mean School ELA Gain: Hispanic Students (n=264)			
	Small gain (<= 11)	32	12.1
	Moderate gain (>11–17)	117	44.3
	Large gain (> 17)	115	43.6
Mean School ELA Gain: African American Students (n=218)			
	Small gain (<= 11)	57	26.1
	Moderate gain (>11–17)	60	27.5
	Large gain (> 17)	101	46.3
Mean School ELA Gain: Economically Disadvantaged Students (n=261)			
	Small gain (<= 11)	26	10.0
	Moderate gain (>11–17)	128	49.0

Category	Classifications	N	% of Sample
Mean School ELA Gain: EL Students (n=258)	Large gain (> 17)	107	41.0
	Small gain (<= 11)	60	23.3
	Moderate gain (>11–17)	107	41.5
	Large gain (> 17)	91	35.3
Mean School ELA Gain: SWD Students (n=255)	Small gain (<= 11)	76	29.8
	Moderate gain (>11–17)	77	30.2
	Large gain (> 17)	102	40.0

Table 7.53. Empirical Classifications of High Schools Into Categories: CAHSEE Math Performance

Category	Classifications	Number	% of Sample
Percentage in School Passing Math (n=271)			
	Very low (<= 50%)	20	7.4
	Low (>50–75%)	74	27.3
	Moderate (>75–90%)	130	48
	High (> 90%)	47	17.3
Percentage African Americans in School Passing Math (n=260)			
	Very low (<= 50%)	49	18.8
	Low (>50–75%)	125	48.1
	Moderate (>75–90%)	54	20.8
	High (> 90%)	32	12.3
Percentage Hispanics in School Passing Math (n=271)			
	Very low (<= 50%)	23	8.5
	Low (>50–75%)	119	43.9
	Moderate (>75–90%)	109	40.2
	High (> 90%)	20	7.4
Percentage Economically Disadvantaged in School Passing Math (n=270)			
	Very low (<= 50%)	21	7.8
	Low (>50–75%)	134	49.6
	Moderate (>75–90%)	103	38.1
	High (> 90%)	12	4.4
Percentage EL in School Passing Math (n=263)			
	Very low (<= 50%)	123	48.7
	Low (>50–75%)	105	39.9
	Moderate (>75–90%)	19	7.2
	High (> 90%)	11	4.2
Percentage SWD in School Passing Math (n=267)			
	Very low (<= 50%)	218	81.6
	Low (>50–75%)	41	15.4
	Moderate (>75–90%)	3	1.1
	High (> 90%)	5	1.9
Mean School Math Gain (in scale score points) (n=269)			
	Small gain (<=7)	36	13.4
	Moderate gain (>7–13)	146	54.3

Category	Classifications	Number	% of Sample
Mean School Math Gain: Hispanic Students (n=265)	Large gain (> 13)	87	32.3
	Small gain (<=7)	63	23.8
	Moderate gain (>7-13)	120	45.3
Mean School Math Gain: African American Students (n=222)	Large gain (> 13)	82	30.9
	Small gain (<=7)	76	34.2
	Moderate gain (>7-13)	80	36
Mean School Math Gain: Economically Disadvantaged Students (n=265)	Large gain (> 13)	66	29.7
	Small gain (<=7)	58	21.9
	Moderate gain (>7-13)	134	50.6
Mean School Math Gain: EL Students (n=253)	Large gain (> 13)	73	27.5
	Small gain (<=7)	79	31.2
	Moderate gain (>7-13)	94	37.2
Mean School Math Gain: SWD Students (n=257)	Large gain (> 13)	80	31.6
	Small gain (<=7)	97	37.7
	Moderate gain (>7-13)	85	33.1
	Large gain (> 13)	75	29.2

Relationship of Survey Responses to Test Score Gains

Statistical analyses compared various survey responses to CAHSEE performance categories to determine whether school-reported activities were related to increased student performance. We examined two outcome variables—the percentage of students at a school passing the CAHSEE ELA and math exams and the average gain in scores on the CAHSEE ELA and math tests for 11th grade students in 2009 compared to the previous year.

Teacher Qualification and CAHSEE Performance

Table 7.54 displays significance tests for the relationship between teacher experience and the percentage of students who passed ELA and math for primary and supplemental courses and intervention programs. Department heads characterized the experience of their teachers as, “a few have 5 or more years teaching experience,” “about half have 5 or more years teaching experience,” “most have 5 or more years teaching experience,” or “not applicable.” “Not applicable” responses were treated as missing for the purposes of this analysis. One-way analyses of variance (ANOVAs) indicated a significant relationship between teacher experience and student test performance for ELA; this was not true for math. A closer analysis of these data indicates the scores for ELA were similar for departments with “about half” and “most” teachers who had 5 or more years experience, but were markedly lower in departments where only “a few” had 5 or more years experience. This relationship was not

statistically significant for math, although the pattern of test scores increasing as the proportion of teachers who had 5 or more years of experience held.

Table 7.54. Relationship of Teaching Experience to CAHSEE Performance of 2009 10th Grade Students

Indicator of Teacher Qualification	Statistical Findings	Significant Relationship	Reference Table
Years of Teaching Experience: Primary and Supplemental Courses			
ELA	$f(2, 96)=4.10, p<.05$	Yes	7.9
Math	$f(2, 127)=1.71, p>.05$	No	7.10
Years of Teaching Experience: Intervention Programs			
ELA	$f(2, 84)=4.85, p<.05$	Yes	7.9
Math	$f(2, 111)=2.39, p>.05$	No	7.10

Additional analyses examined the relationship between the same teaching experience variables listed above and CAHSEE gain scores for 11th grade students who took the CAHSEE in 2009 compared to their 2008 scores. The analyses revealed there was no significant relationship between years of teaching experience for teachers of either course type (primary and supplemental or intervention programs) and 11th grade gain scores on either CAHSEE ELA or math (See Table 7.55).

Table 7.55. Relationship of Teaching Experience to 2009 11th Grade CAHSEE Gain Scores

Indicator of Teacher Qualification	Statistical Findings	Significant Relationship	Reference Table
Years of Teaching Experience: Primary and Supplemental Courses			
ELA	$f(2,95)=0.06, p>.05$	No	7.9
Math	$f(2, 127)=0.56, p>.05$	No	7.10
Years of Teaching Experience: Intervention Programs			
ELA	$f(2, 84)=0.50, p>.05$	No	7.9
Math	$f(2, 111)=0.12, p>.05$	No	7.10

Table 7.56 presents statistical findings for one-way ANOVAs that examined the relationship between the percentage of fully credentialed teachers (as reported by department heads) and the percentage of students who passed the CAHSEE. Department heads reported the percentage of teachers who had appropriate credentials by selecting one of the following categories: “none”, “only a few (less than 25%)”, “some (25–50%)”, “more than half (51–74%)”, “most (75–90%)”, or “nearly all (more than 90%).” There was a significant relationship between the number of teachers in a department who were fully credentialed and student performance for both CAHSEE ELA and math. For ELA, post hoc tests revealed that this relationship did not follow a particular trend. Those who marked “nearly all” teachers as fully credentialed were from schools with significantly more students who passed the CAHSEE ELA than the department heads who marked “most” or “some.” However, department heads who

reported that “none” of their teachers were fully credentialed had significantly more students who passed the CAHSEE ELA than those who marked “some.” For math, those who said “nearly all,” “most,” and “more than half” of the teachers were fully credentialed had a significantly higher number of students in their schools who passed the CAHSEE math, as compared to those who reported that “only a few” or “none” of the teachers were fully credentialed. Also, those who indicated “some” of their math teachers were fully credentialed had significantly more students who passed than those who reported “none.” Therefore, for math, we can conclude that department heads who reported a greater number of teachers who were fully credentialed was related to a higher percentage of students at the school who passed the CAHSEE math.

Despite the fact that many ELA teachers in intervention programs were fully credentialed, post hoc tests found there was no significant relationship between teachers who were fully credentialed and students who passed the CAHSEE ELA. Department heads who reported “nearly all” of the teachers were fully credentialed were from schools with significantly more students who passed the CAHSEE ELA than those who reported “most.” However, those who reported “most” of the teachers were fully credentialed were from schools with significantly lower scores than those who reported “only a few” or “none.” No significant relationship was found between credentialing and teaching in intervention programs.

Table 7.56. Relationship of Teaching Credential to CAHSEE Performance of 2009 10th Grade Students

Indicator of Teacher Qualification	Statistical Findings	Significant Relationship	Reference Table
How many teachers in your department have a full ELA/Math credential?			
ELA	$f(5, 97)=5.69, p<.05$	Yes	7.35
Math	$f(5, 127)=5.20, p<.05$	Yes	7.36
How many of your intervention programs/courses are taught by fully credentialed ELA/Math teachers?			
ELA	$f(5, 96)=2.99, p<.05$	Yes	7.35
Math	$f(5, 123)=1.20, p>.05$	No	7.36

One-way ANOVAs were performed that examined the relationship between credentialed teachers and CAHSEE gain scores between 2008 and 2009 for 2009 11th graders who took the tests both years. As can be seen in Table 7.57, no significant relationships were found for ELA or math between fully credentialed teachers (for full department or intervention programs) and CAHSEE gain scores.

Table 7.57. Relationship of Teaching Credential to 2009 11th Grade CAHSEE Gain Scores

Indicator of Teacher Qualification	Statistical Findings	Significant Relationship	Reference Table
How many teachers in your department have a full ELA/Math credential?			
ELA	$f(5, 96)=1.55, p>.05$	No	7.35
Math	$f(5, 127)=1.35, p>.05$	No	7.36
How many of your intervention programs/courses are taught by fully credentialed ELA/Math teachers?			
ELA	$f(5, 95)=0.27, p>.05$	No	7.35
Math	$f(5, 123)=0.44, p>.05$	No	7.36

Additionally, one-way ANOVAs were performed to examine whether principal familiarity with content standards was related to student performance (See Table 7.58). First, the relationship between principal familiarity with content standards and the percentage of 10th grade students who passed the ELA and math CAHSEE at their schools was examined. No relationship was found between these two variables for either ELA or math. Refer back to Table 7.4 for a summary of principals' familiarity with content standards.

Table 7.58. Relationship of Principals' Familiarity With Content Standards to Performance of 2009 10th Grade Students

	Statistical Findings	Significant Relationship
Principal Familiarity with Content Standards:		
ELA	$f(2, 132)=2.87, p>.05$	No
Math	$f(3, 128)=2.24, p>.05$	No

Finally, a one-way ANOVA examined the relationship of principals' familiarity with ELA and math California content standards to the average gain in CAHSEE scores for 11th grade students in 2009 compared to their 2008 scores. No significant relationship was found between these two variables for ELA or math (See Table 7.59).

Table 7.59. Relationship of Principals' Familiarity With Content Standards to 2009 11th Grade CAHSEE Gain Scores

	Statistical Findings	Significant Relationship
Principal Familiarity with Content Standards:		
ELA	$f(2, 132)=0.04, p>.05$	No
Math	$f(3, 128)=1.35, p>.05$	No

Summary of Findings

Principals

Most of the principals who participated in this study claimed to be familiar or very familiar with the California ELA and math standards. Analyses found no relationship between principals' familiarity with the California content standards and the percentage of 10th grade students who passed the CAHSEE at their schools, or between familiarity with standards and 2009 11th grade gain in CAHSEE scores from the previous year. This may in part be attributable to the lack of variability in responses (only one principal reported having no familiarity with the standards).

Teachers

The instruction surveys acquired information about teacher experience within schools from teachers and department heads. Overall, findings indicate that teachers responding to this survey were experienced and qualified in their given areas. Responding teachers reported they had approximately 12 years of experience on average and 5 years teaching their current courses or instructional programs. One finding of potential concern was that math department heads reported a decrease in the percentage of teachers at their schools with over 5 years of experience compared to 2005. However, most department heads reported that the teachers in their departments were experienced in teaching the content standards to a great or very great extent. Approximately three-fourths of schools operated with nearly all credentialed teachers in 2009; however, about 12% of schools reported that more than 25% of their teachers lacked appropriate credentials.

A significant relationship was found between the percentage of teachers who had over 5 years of experience in ELA and student performance at the school level on the CAHSEE ELA. Having a greater percentage of teachers with more than 5 years of experience was related to an increase in the percentage of students who passed the CAHSEE. This was not true for math. However, for math a significant relationship was found between the percentage of teachers who had the appropriate math teaching credential and the percentage of students at the school who passed the CAHSEE math. These results suggest that for math, more credentialed teachers were related to higher CAHSEE passing rates. For ELA, although there was a significant relationship overall, further analyses found that the results were not very meaningful and no conclusion could be made regarding ELA teacher credentialing and student performance on the ELA CAHSEE. There was no relationship between gain in CAHSEE ELA or math scores from 2008 to 2009 for 2009 11th graders and teacher experience and credential variables.

Courses

Our sample of teachers represented a wide variety of courses classified as high school ELA and math. As expected, the primary courses and the remedial courses open to all students were mostly comprised of general education students. The majority of students in alternate courses had EL and SWD designations. Most classes, particularly primary courses, were offered during regular school hours and lasted a full school year. Remedial courses were more likely than primary courses to be held at nontraditional times and to last for a shorter period of time.

ELA and math teachers were asked about their use of various types of instructional activities in the classroom. ELA teachers reported using several activities to engage and teach the students. How often these teachers used these activities depended largely on the duration of the activity. For example, writing workshops are fairly intensive and could last days, so teachers reported they used them fairly infrequently. In contrast, vocabulary instruction and assessments can be done in a relatively short period of time, so teachers reported they used them more frequently, either weekly or daily. The math teachers reported using most frequently problems that emphasized relationships among math concepts and rarely used short problems to engage and teach the students.

Approximately two-thirds of ELA, math, and EL teachers reported they used a primary textbook. Slightly less than half of the responding SWD teachers reported they used a primary textbook. Of the teachers who used a primary textbook, EL teachers most often reported using most or all of the text; ELA teachers were least likely to do so.

Teachers were asked how frequently they used a variety of assessments. The ELA teachers reported using most frequently on-demand writing assessments and assessments they created themselves. The math teachers reported using most frequently the assessments they created themselves and assessments created by other teachers. The math teachers also tended to use released test items fairly frequently. The SWD and EL teachers reported using most frequently assessments they created themselves. The EL teachers also reported using on-demand writing fairly frequently while the SWD teachers used released test items fairly frequently.

Students

This chapter also characterized the students that responding teachers had in their courses. Many teachers were unsure how many of their students had achieved at least *Basic* on last year's STAR CST. More SWD and EL teachers reported they had no students or had only a few students who had achieved at the *Basic* level compared to ELA or math teachers.

The survey yielded additional information concerning EL students in EL-specific courses or programs. Half of the responding EL teachers had students in their courses or instructional programs who were rated at the beginning level of English proficiency

(CELDT level 1 or 2). More than half reported having students rated at a moderate level (CELDT level 3 or 4). Almost all of the EL teachers reported they taught nearly their entire course in English.

When teachers were asked what factors limited course effectiveness, they overwhelmingly reported student factors as the main limitation. This was true for all types of courses. As a group, the responding teachers indicated that low student motivation, a lack of prerequisite knowledge, poor attendance, and behavior problems were the leading limitations to course effectiveness.

Chapter 8: Impact of the CAHSEE on Instruction, Remediation, and Professional Development

Wade W. Buckland, Sheila R. Schultz, Rebecca L. Norman Dvorak, and Michele M. Hardoin

Introduction

Evidence of the impact of the CAHSEE requirement on school educational practices and classroom instructional strategies was gathered through surveys. Working with the school system, HumRRO identified a stratified representative sample of districts and high schools to receive surveys. The surveys provided a cost-effective means to gather data from a large, representative sample of schools.

This chapter examines principal, department head, and teacher survey responses related to the extent to which their schools have integrated CAHSEE related content, assessment, remediation, and intervention into the curriculum, and provided CAHSEE related professional development. It also examines current educator beliefs regarding the utility of the CAHSEE in enhancing teaching and learning in California classrooms and the extent to which educators believe students understand the importance of the CAHSEE and the options available to them if they do not pass it.

Organization of Chapter

Descriptions of the various respondent samples are presented in the preceding chapter, including how closely they represent the state as a whole. We do not repeat these descriptions here, but remind the reader that the survey response samples closely paralleled the state population.

This chapter provides a thematically driven discussion of the findings across survey participants. For example, information from surveys of both high school math department heads and math teachers is brought together in a discussion of content coverage. Information is organized in this manner to better triangulate findings.

In several instances throughout the chapter, comparisons are made to responses made by educators in HumRRO's 2005 CAHSEE Instruction Study. Readers interested in a comprehensive list of the 2009 survey responses, organized by respondent group, are referred to Appendix E. (Note that the parentheses after table titles refer the reader to the appropriate sections of the appendix, with the designation P1, for example, referring to Principals' responses, Question 1. DHELA refers to Department Head, English language arts, and so forth.) Readers interested in a comprehensive list of 2005 survey responses are referred to Appendix E of HumRRO's 2005 Independent Evaluation Report.

School and District-Wide CAHSEE Related Instruction and Assessment Practices

Integration of California Academic Content Standards Associated with the CAHSEE

In the 2008–09 school year, the vast majority of principals surveyed reported that integration of the California content standards contained in the CAHSEE blueprints for ELA (95.4%) and math (93.9%) was mostly complete or complete in their schools (See Table 8.1). In that same survey year, only about one-third (ELA, 33.6%; math, 36.2%) of responding principals reported integration of the California content standards contained in the ELA and math CAHSEE blueprints was mostly complete or complete before 2006. However, when principals responded to this question in 2005, nearly as many of them reported ELA (94%) and math (92%) integration was mostly complete or complete as of the 2004–05 school year.

While a steady increase in coverage of ELA and math content was indicated both by the respondents in 2005 and 2009, discrepancies appear when examining the reported content coverage across the two surveys over time. It appears that either the principals in 2004–05 overestimated their integration of the standards in the school year 2004–05 and those years immediately prior to it or the principals in 2009 underestimated their integration of the standards when reflecting back to the time period circa 2005. For example, 47% principals who responded to the 2005 survey reported that content coverage of ELA standards was 96-100% complete in 2004–05, whereas only 26.5% of principals in 2009 (of principals responding who were sure of their answer) reported that ELA content coverage was 96–100% complete in 2006–07.

Table 8.1. Percentage of Principals Reporting Completion of Their School’s Integration of the California Content Standards Contained in the Blueprints Adopted for CAHSEE by Year (P2, P4)

Survey	As reported by principals in 2005 (n=227)				As reported by principals in 2009 (n=135)			
	% Before 2002	% in 2002/03	% in 2003/04	% in 2004/05	% Before 2006	% in 2006/07	% in 2007/08	% in 2008/09
ELA								
Complete (96%-100%)	7	16	28	47	13.0	23.1	41.5	56.8
Mostly complete (61%-95%)	20	36	52	47	20.6	33.1	36.9	38.6
Partially complete (40%-60%)	31	33	15	6	25.2	24.6	13.1	2.3
Little (less than 40%)	18	7	1	0	16.8	6.2	0.8	0.8
Do not know	24	8	4	0	24.4	13.1	7.7	1.5
Math								
Complete (96%-100%)	7	15	26	49	13.1	26.2	38.5	53.4
Mostly complete (61%-95%)	24	39	53	43	23.1	30.8	38.5	40.5
Partially complete (40%-60%)	30	30	13	7	25.4	20.8	12.3	3.8
Little (less than 40%)	15	8	3	1	14.6	7.7	1.5	0.8
Do not know	24	8	5	0	23.8	14.6	9.2	1.5

Table Reads: In 2005, 7% of principals responded that integration of ELA California content standards contained in the blueprints adopted for CAHSEE was complete before 2002. In 2009, 13.0% of principals reported that integration of ELA California content standards contained in the blueprints adopted for CAHSEE was complete prior to 2006.

As in 2005, we analyzed this question separately for schools with high concentrations of at-risk students, as described in Chapter 7. In 2005, a slightly smaller proportion of principals in schools with high concentrations of at-risk students (than in schools with lower concentrations of such students) reported that the California content standards contained in the CAHSEE ELA and math blueprints were mostly (61–95%) or completely (96–100%) covered. The only exception was math coverage in schools with a high concentration of EL students (93.6%) compared to schools with a low or moderate concentration of EL students (90.6%). As can be seen in Table 8.2, there were again no substantial differences for ELA or math CAHSEE content coverage in 2009 between schools with high and not high concentrations of at-risk students. The vast majority of schools (over 90%) reported that integration of the California content standards contained in the blueprints adopted for CAHSEE were at least “mostly complete.”

Table 8.2. Degree of CAHSEE Content Coverage in Schools With High Concentrations of At-risk Students as Reported for the 2005 and 2009 School Years (P2, P4)

Student Demographic Subgroup	School Group	2005 Survey Response		2009 Survey Response	
		Number of Responding Schools in High/Not High Group	Percentage of Schools with Most/Complete (>60%) Content Coverage	Number of Responding Schools in High/Not High Group	Percentage of Schools with Most/Complete (>60%) Content Coverage
ELA					
EL Students	Not High	159	95.0	32	100.0
	High (> 27%)	47	91.5	32	90.6
SD Students	Not High	148	95.3	35	97.1
	High (>10%)	58	91.4	13	100.0
Economically Disadvantaged Students	Not High	157	95.5	25	100.0
	High (>60%)	49	89.8	49	91.8
Hispanic Students	Not High	151	94.7	22	95.4
	High (>60%)	55	92.7	44	90.9
African American Students	Not High	167	94.6	66	98.5
	High (>12%)	39	92.3	25	100.0
Math					
EL Students	Not High	159	90.6	32	100.0
	High (> 27%)	47	93.6	32	93.8
SD Students	Not High	148	92.6	35	94.2
	High (>10%)	58	87.9	33	100.0
Economically Disadvantaged Students	Not High	157	92.4	25	100.0
	High (>60%)	49	87.8	48	89.6
Hispanic Students	Not High	151	93.4	22	95.4
	High (>60%)	55	85.5	44	90.9
African American Students	Not High	167	91.6	66	98.5
	High (>12%)	39	89.7	24	100.0

Table Reads: In 2005, 95% ($n= 159$) of principals leading schools with a “Not High” concentration of EL students reported that integration of the California content standards contained in the blueprints adopted for CAHSEE was at least “mostly complete.”

CAHSEE Content Coverage Coordination

To ensure integration of the California content standards contained in the CAHSEE, coordination is likely needed between elementary, middle, and high schools. Likewise, coordination is likely needed between general education and departments that serve EL and SWD. One-third of principals reported that no system had been developed for coordination between elementary, middle, and high schools. Results were more positive when examining the coordination between middle and high schools. The majority of high school principals (83.1%) reported having at least partial development of this coordination. More than 90% of principals reported that systems were at least partially developed between English language development (ELD) and general education, and between special education and general education (See Table 8.3).

Table 8.3. Level of Development of Systems at Schools to Coordinate Coverage of California Academic Content Standards Associated With the CAHSEE Between Entities, According to Principals

Level of Development	Elementary/ Middle/High School	Middle/High School	Special/General Education	Language Dev/ General Education
	Percentage %			
Not applicable	16.3	4.6	0.8	0.0
Not developed	33.3	12.3	6.1	5.3
Partially developed	38.8	58.5	54.2	57.3
Fully developed	11.6	24.6	38.9	37.4

Table Reads: Approximately 16.3% of high school principals reported that coordination of coverage of the California academic content standards associated with the CAHSEE across elementary, middle, and high schools is not applicable in the context in which they operate.

In addition, the survey asked principals whether they held regular articulation meetings with their feeder middle school(s). As can be seen in Table 8.4, 29% responded, "yes, with all of them," 18.3% said, "yes, with some of them", and 42.7% responded "no." The remaining 9.9% reported that articulation meetings did not apply to their situation. The most common topics of articulation meetings with feeder middle schools reported were curriculum issues, what students should be learning in middle school courses (e.g., Algebra 1), course placement, and high school expectations.

Table 8.4. Regular Articulation Meetings With Feeder Middle Schools

	Frequency	Percent
Yes, with all of them (n = 38)	38	29.0
Yes, with some of them (n =24)	24	18.3
No (n = 56)	56	42.7
Does not apply to our situation (n = 13)	13	9.9
Total	131	100.0

The surveys asked high school teachers of SWD and EL students who teach alternative and remediation courses how frequently they collaborate with these students' core content teachers. As shown in Table 8.5, teachers of SWD said they collaborated with students' core content teachers more often than did teachers of EL. For example, while 25.5% of SWD teachers said they collaborated with their students' core content teachers more than once a week, only 7.4% of EL teachers said they did so more than once a week.

Table 8.5. Frequency of Collaboration Between Teachers of Alternative/ Intervention Courses (or Resource Teachers) and Students' Core Content Teachers (TEL6, TSD6)

Frequency of Collaboration	Percentage of Alt./Remediation Course Teachers	
	EL (n=27)	SD (n=79)
More than once a week	7.4	25.5
Once a week	11.1	19.2
Every 2-3 weeks	11.1	12.9
About once a month	14.8	7.9
Less than once a month	29.6	7.9
Students do not have GenEd core content teachers	14.8	26.8
Total	100.0%	100.0%

Note: Totals may not equal 100% due to rounding.

ELA and math teachers were asked to indicate the ways in which they collaborated with other teachers at their school (See Table 8.6). The vast majority (ELA teachers, 88.1%; math teachers, 83.1%) reported collaborating with other teachers by sharing ideas about teaching strategies. They also indicated they collaborated with other teachers by aligning instruction across courses (ELA teachers, 56.6%; math teachers, 62.4%) and assessing individual student needs (ELA teachers, 62.3%; math teachers, 51.1%). Nearly half (ELA, 49.7%; math, 48.3%) indicated they worked with other teachers in their school by planning coverage of CAHSEE standards.

Table 8.6. Ways in Which ELA and Mathematics Teachers Collaborated With Other Teachers (TELA19, TMath19)

Ways of Collaborating	Percentage of Teachers	
	ELA (n=159)	Math (n=178)
By aligning instruction across courses	56.6	62.4
By planning coverage of CAHSEE standards	49.7	48.3
By assessing individual student needs	62.3	51.1
By sharing ideas about teaching strategies	88.1	83.1
I collaborate with other teachers in another way.	13.2	11.2
I do not collaborate with other teachers.	3.1	6.7

Note: Frequencies do not total to 100% as teachers may collaborate in multiple ways.

The survey asked principals about the systems their schools used to monitor progress toward and report student proficiency levels on California’s academic content standards associated with the CAHSEE. As can be seen in Figure 8.1, the majority of responding principals indicated that district-based tracking systems were the type most frequently used for this purpose. This question also was asked in 2005. As in 2009, principals in 2005 reported district-based systems as the most frequently used monitoring system. Tracking, by individual teachers and by school-based systems, also was used frequently, according to both the 2005 and 2009 surveys.

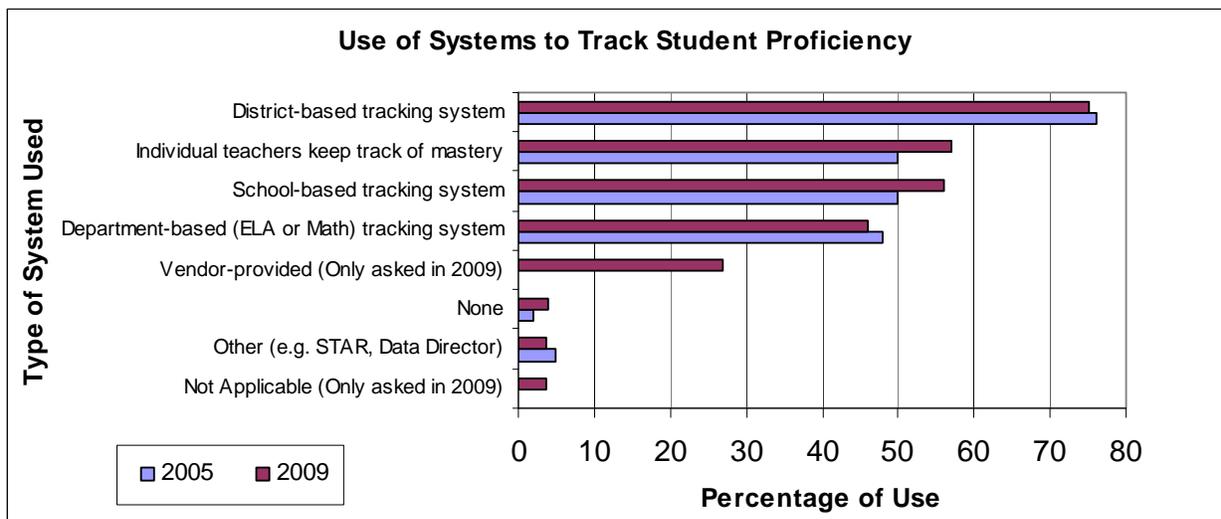


Figure 8.1. Systems used to monitor and report student proficiency levels on California academic content standards associated with CAHSEE, according to principals. (P5)

Table 8.7 shows the average percentage of course time ELA and math teachers reported spending on strands that are part of California’s content standards associated

with the CAHSEE. The standard deviations show there was variability in the percentage of time dedicated to any one strand, depending on the teacher. Given the larger standard deviations, this was especially true for math. On average, over 98% of course time was spent covering combinations of these strands.

Table 8.7. Percentage of Strands Covered in Course/Instructional Program as Part of California’s Content Standards Associated With the CAHSEE, According to Teachers (TELA22, TMath22)

TELA (n=154)	Mean Percent (SD)	TMath (n=169)	Mean Percent (SD)
Word analysis	13.0 (7.2)	Statistics, data analysis, and probability	13.7 (16.1)
Reading comprehension	23.4 (8.9)	Number sense	18.6 (14.7)
Literary response and analysis	19.0 (7.4)	Algebra and functions	18.8 (10.4)
Writing strategies	17.5 (6.8)	Measurement and geometry	15.7 (16.8)
Written and oral language conventions	12.8 (5.3)	Algebra I	28.0 (22.4)
Writing applications	15.9 (8.2)	Mathematical Reasoning	12.9 (13.1)
Total	98.9 (9.9)	Total	98.2 (13.3)

Table Reads: ELA teachers spent an average of 13.0% of course time covering the “word analysis” strand of the California content standards associated with the CAHSEE. The standard deviation of this average was 7.2%.

CAHSEE Instructional Funding

We asked principals about the extent to which they were informed about state resources to support the CAHSEE (e.g., money, intervention materials). Table 8.8 indicates that 91.4% of responding principals said they were informed to a moderate or higher extent about state resources to support the CAHSEE; 8.7% said they were informed to a slight extent or not at all.

Table 8.8. Extent to Which Principals Were Informed About State Resources to Support the CAHSEE (P20)

Response	Percent (n=127)
Not at all	0.8
Slight extent	7.9
Moderate extent	39.4
Great extent	37.0
Very great extent	15.0
Total	100.0

Table 8.9 shows that 40.8% of responding principals had applied for CAHSEE Intensive Instruction (CII) funding at some point for students who had not yet passed, while 59.2% of principals had not applied for these funds.

Table 8.9. Applied for CII Funding for Students Who Had Not Yet Passed

	Percent (n=125)
Yes	40.8
No	59.2
Total	100.0

Table 8.10 presents a summary of the number of hours of instruction per quarter for the schools that received CII funding. Most principals reported that students who had not passed the CAHSEE received at least 20 hours of instruction per quarter because of the CII funds.

Table 8.10. Average Instruction Hours Provided to Students of Schools Whose Principal Applied for CII Funds (P21)

Time Spent	Percent (n=50)
Less than 20 hours	10.0
20-49 hours	38.0
50-79 hours	32.0
80-100 hours	12.0
More than 100 hours	8.0

Table Reads: Approximately 10.0% of principals who received CII funds applied those funds to less than 20 hours of instruction per student per academic quarter.

CAHSEE Intervention and Remediation Courses

The CAHSEE instruction study included an open-ended question on the principal survey: “Describe how your school ensures delivery of a coherent CAHSEE intervention program.” Of the 141 principals who responded to the survey, 111 principals (79%) responded to this question. HumRRO identified nine main features that were frequently described by principals as part of their schools’ CAHSEE intervention programs. A list of these features and the number of principals that commented on each are shown in Table 8.11. Note that since these were undirected comments, the fact that a principal did not remark on a particular feature does not necessarily mean this feature was not part of the CAHSEE intervention program at that principal’s school.

Table 8.11. How Schools Ensure Delivery of Coherent CAHSEE Intervention Program, According to Responding Principals (P19)

Code	Feature of CAHSEE Intervention Program	Number of Principals
A	Preparation or remediation courses/sessions	80
A1	During school day (e.g., class, tutoring, computer lab)	63
A2	Before/after school or Saturdays	37
A3	Summer	3
B	Data-driven student placement into intervention program	51
B1	CAHSEE non-pass score	39
B2	CST scores	12
B3	Grade 9 mock CAHSEE scores	5
B4	Grade 10 screening test	2
C	Integration and/or alignment of CAHSEE content standards with 9 th and 10 th grade curriculum	34
D	Targeted individual student instruction	31
E	Student communication	20
F	CAHSEE-specific materials (e.g., practice tests, computer software, textbooks)	16
G	CAHSEE-specific support staff (e.g., at-risk counselor, CAHSEE counselor, administrator, intervention coordinator)	16
H	Professional development for teachers	16
I	Parent communication	13

Table Reads: Of 111 principals responding to the question “Describe how your school ensures delivery of a coherent CAHSEE intervention program”, 80 principals referred to preparation of remediation courses/sessions.

The most common CAHSEE intervention program feature reported by the responding principals (72%) was the availability of ELA and math CAHSEE preparation or remediation courses or sessions. Although most principals at schools with this feature reported these courses or sessions were offered during the school day, almost half of these principals reported such courses were available before or after school or on Saturdays; very few indicated summer courses were available. The principals described the nature of these courses as varying from regularly scheduled classes to

informal tutoring sessions to intensive sessions (“boot camp”) offered just prior to CAHSEE testing.

A second common feature reported by the responding principals (46%) was the schools’ use of test data to place students in appropriate CAHSEE interventions. While the CAHSEE itself was most often cited as the data source for the placement decisions, some principals indicated that STAR CST (8th or 9th grade) or other test scores were used. The schools reportedly used the test data to decide what type of CAHSEE intervention students were offered or mandated to complete (e.g., math or ELA CAHSEE remediation classes, one-on-one tutoring, Saturday sessions, test-taking skills, computer lab) and in some cases to determine core curriculum placement for English (e.g., Read 180).

Almost one-third of the principals described the integration or alignment of CAHSEE standards with their core curriculum as a feature of their coherent CAHSEE intervention program. One principal commented, “Teachers who are part of the core ELA and math program are very familiar with the content in the CAHSEE. Teachers therefore infuse CAHSEE standards in their instruction on a regular basis, particularly in the 9th and 10th grade.”

About one-third of the principals cited individualized instruction as an important part of their schools’ intervention programs. Some of the approaches used by schools to target instruction to students’ particular areas of weakness included using disaggregated test data, differentiated instruction, instruction by strand, Web-based tutorials, ability-grouping, and Individualized Education Plans customized to the student’s learning modality.

HumRRO also analyzed the principals’ responses in terms of combinations of features of their schools’ coherent CAHSEE intervention programs. A large majority of respondents (76%) commented on multiple features that worked together toward greater student success:

- 30 principals commented about four or more features.
- 25 principals commented about three features.
- 29 principals commented about two features.

Of the principals who reported a combination of features, 50 commented that their schools provided CAHSEE preparation or remediation classes or sessions and placed students in these interventions based on test data. A subset of 16 principals in this group also commented that their schools provided individualized student instruction. Another pair of features reported by many principals (26) was the alignment of core curriculum with CAHSEE content standards and the availability of CAHSEE preparation or remediation classes or sessions.

Table 8.12 shows that the majority (89.2%) of principals reported their schools offered CAHSEE intervention or remediation courses. In most of these cases, the

CAHSEE intervention or remediation courses were offered to juniors and seniors (86.9% of schools) and sometimes to sophomores (39.2% of schools).

Table 8.12. CAHSEE Intervention/Remediation Courses Offered, According to Principals (P13)

Offered and To Whom	Percentage % (n=130)
Yes, for sophomores, juniors, and seniors	39.2
Yes, for juniors and seniors	47.7
Yes, for seniors only	2.3
Not applicable, we do not have CAHSEE intervention courses	10.8
Total	100.0

Principals were asked how often they observe the CAHSEE ELA and math intervention or remediation courses offered to students at their schools. Table 8.13 presents the principals' responses to these questions. About one-third of the responding principals said they observed these courses once a month (ELA, 34.8%; math, 37.1%), while slightly more than one-quarter of them said they observed the CAHSEE intervention courses on a weekly (ELA, 27.0%; math, 27.6%) or quarterly basis (ELA, 25.2%; math, 25.0%).

Table 8.13. Frequency of Principals Observing CAHSEE Intervention/Remediation Courses at Their Schools (P13B, P13C)

Frequency	Type of Course	
	ELA	Math
	Percentage % (n=115)	Percentage % (n=116)
Weekly	27.0	27.6
Monthly	34.8	37.1
Quarterly	25.2	25.0
Annually	5.2	6.0
Never	3.5	3.4
Not applicable	4.3	0.9
Total	100	100.0

Approximately 80% of responding principals said their schools offered English language development classes to its English learners and about 72% said their schools offered regular academic classes with additional support or tutorials (See Table 8.14). Slightly more than two-thirds of the responding principals indicated their schools provided specially designed academic instruction in English (SDAIE) or sheltered content-area classes (69.9%) and after-school tutorials (67.6%) to EL students.

Table 8.14. Schools' Programs/Systems That Provide Additional Academic Support to EL Students, According to Principals (P16)

Delivery Modes	Percentage % (n=136)
English language development (ELD) class	80.1
SDAIE class/sheltered content-area class	69.9
Regular academic class with additional support/tutorial class	72.1
After-school tutorial	67.6
NA, no programs/sys to provide EL with additional support	1.5
Other	2.9

Surveys asked principals about their school's programs that provided additional academic support to SWD and EL students. Table 8.15 shows that almost three-quarters (73.5%) of responding principals indicated their schools provided an inclusion program with additional support or tutoring in the classroom. Slightly more than two-thirds (65.4%) of these respondents reported their schools offered an after-school tutorial program. More than half (57.4) of these respondents said their schools had self-contained pullout programs as well as an inclusion program designed to provide additional academic support to students with disabilities.

Table 8.15. Schools' Programs/Systems That Provide Additional Academic Support to SWD, According to Principals (P15)

Delivery Modes	Percentage % (n=136)
Self-contained pullout	57.4
Inclusion	56.6
Inclusion with additional support/tutorial class	73.5
After-school tutorial	65.4
Response to intervention (Rtl) model	33.8
Other	7.4

Table 8.16 shows teachers' and principals' responses regarding the extent to which their schools provided counseling about options for additional remediation or testing to its students. Almost three-quarters (74.3%) of responding teachers of SWD reported their schools provided such counseling. Slightly more than half (math, 55.7%) to about two-thirds (ELA, 64.0%) of the remaining types of teachers reported their schools talked to students about their options for remediation and testing. The majority (86.0%) of responding principals reported their schools counseled students about additional remediation and testing.

Table 8.16. Extent to Which Students Received Counseling About Options for Additional Remediation or Testing, According to Teachers and Principals (P18, TEL30, TELA26, TMath26, TSD26)

Extent of Counseling	Percentage of Respondent Type				
	TELA (n=159)	TMath (n=178)	TEL (n=95)	TSWD (n=126)	Principal (n=136)
Not at all	2.0	4.8	3.8	0.9	0.8
Slight extent	10.9	9.1	13.9	5.1	1.6
Moderate extent	23.1	30.3	21.5	19.7	11.6
Great extent	38.1	34.5	36.7	41.0	36.4
Very great extent	25.9	21.2	24.1	33.3	49.6

We asked principals about the methods their schools used to deliver CAHSEE core courses (i.e., Algebra 1 and Grade 9 English) and intervention and remediation courses. As can be seen in Table 8.17, the majority of principals reported their schools used traditional textbooks to deliver the CAHSEE core courses (85.3%) and, to a lesser extent, intervention and remediation courses (64.7%). Approximately one-third to slightly more than 40% of these respondents indicated their schools also used ability-based small groups, one-on-one tutorials, software programs, and textbooks with on-line supplements to deliver the CAHSEE core courses.

Table 8.17. Modes Used to Deliver CAHSEE Core Courses and CAHSEE Intervention Courses (P13A, 14)

Delivery Modes	Core Courses % (n=136)	Intervention Courses % (n=136)
Web-based in classroom setting	19.0	32.4
Distance learning	5.1	4.4
Traditional textbook	85.3	64.7
Software programs	37.5	44.9
Textbook with CD/online supplements	33.8	26.5
One-on-one tutorial	42.6	50.7
Ability-based small groups	43.4	46.3

Perceived Effects of the CAHSEE Requirement

Teachers were asked about the importance of CAHSEE preparation relative to the other instructional goals of the course they teach. Table 8.18 shows that most teachers (52.7–61.4%) indicated that the goal of preparing students for the CAHSEE was as important as the other goals of the course. For teachers of students with disabilities, almost one-fifth (19.2%) reported that preparing students for the CAHSEE was their most important course goal.

Table 8.18. Importance of CAHSEE Preparation Relative to Other Instructional Goals, According to Teachers (TEL22, TELA20, TMath20, TSD18)

Level of Importance	Teacher Type				Average %
	TELA % (n=151)	TMath % (n=167)	TEL % (n=83)	TSWD % (n=120)	
Little or no importance	8.6	12.0	4.8	7.5	8.2
Somewhat important	19.9	18.6	21.7	20.0	20.0
Important, along with other goals	58.9	52.7	61.4	53.3	56.6
Most important factor in my teaching	12.6	16.8	12.0	19.2	15.1
Total	100.0	100.0	100.0	100.0	100.0

CAHSEE Instruction

We asked principals, department heads, and teachers to indicate the extent (i.e., slight, moderate, great) to which CAHSEE results were used to make decisions about changes in their schools’ instruction and assessment as well as overall school improvement. As can be seen in Table 8.19, approximately 70% of the overall sample reported using the CAHSEE to make changes in the school’s instruction and assessment, and to make overall improvements to the school. In general, results indicate the CAHSEE was used slightly more to make overall improvements to the school than to the school’s instruction or assessment.

Table 8.19. Extent to Which CAHSEE Is Used to Change School’s Instruction (P8, DHELA12, DHMath12, TELA13, TMath13, TEL18, TSD14), Assessment (P9, DHELA13, DHMath13, TELA14, TMath14, TEL19, TSD15), and Overall Improvement (P10, DHELA14, DHMath14, TELA15, 2009TMath15, TEL20, TSD16)

	School’s Instruction							Total Average %
	Educator Type							
	Principal % (n=130)	DH ELA % (n=78)	DH Math % (n=135)	TELA % (n=153)	TMath % (n=169)	TEL % (n=82)	TSWD % (n=121)	
Not at all	3.8	15.4	24.4	13.1	21.9	17.1	13.2	15.6
Slight extent	35.4	25.6	38.5	34.6	34.3	35.4	30.6	33.5
Moderate extent	39.2	35.9	29.6	39.9	32.0	34.1	38.8	35.7
Great extent	21.5	23.1	7.4	12.4	11.8	13.4	17.4	15.3
	School’s Assessment							Total 868
	Educator Type							
	Principal (n=130)	DH ELA (n=79)	DH Math (n=135)	TELA (n=152)	TMath (n=169)	TEL (n=82)	TSWD (n=121)	
Not at all	3.1	12.7	23.7	15.8	20.7	19.5	14.9	15.8
Slight extent	33.8	29.1	40.0	33.6	36.7	32.9	28.9	33.6
Moderate extent	43.8	39.2	28.1	43.4	28.4	31.7	38.0	36.1
Great extent	19.2	19.0	8.1	7.2	14.2	15.9	18.2	14.5
	Overall School Improvement							Total Average
	Educator Type							
	Principal (n=130)	DH ELA (n=79)	DH Math (n=135)	TELA (n=153)	TMath (n=170)	TEL (n=83)	TSWD (n=122)	
Not at all	2.3	7.6	13.3	12.4	11.8	10.8	9.0	9.6
Slight extent	28.5	27.8	34.1	26.8	34.7	30.1	35.2	31.0
Moderate extent	43.8	40.5	32.6	43.1	40.6	44.6	36.1	40.2
Great extent	25.4	24.1	20.0	17.6	12.9	14.5	19.7	19.2

Surveys asked principals, department heads, and teachers about the extent to which they focused on various instructional strategies to prepare students for the CAHSEE. Table 8.20 provides responses about their focus on using CAHSEE-like tasks in regular instruction. Across all respondents, the majority of educators (from 61.9% for math department heads to 86.2% for principals) reported increasing their focus on using

CAHSEE-like tasks to at least a moderate extent to prepare their students for the CAHSEE. In addition, Table 8.20 shows the majority of respondents (from 61.2% for math department heads to 90% for principals) indicated they also increased their focus on matching the content of instruction with that of the CAHSEE to help prepare students. Finally, Table 8.20 presents responses about the educators' focus on increasing the coverage of test taking skills. Across these educators, two-thirds (math department heads, 66.4%) to slightly more than four-fifths (SWD teachers, 80.6%) reported increasing their focus in using this instructional strategy to prepare students for the CAHSEE. Overall, the principals generally rated their focus in increasing use of these various instructional strategies higher than did the other respondents.

Table 8.20. Extent Increased Focus of Using CAHSEE-like Tasks (P11, DHELA15, DHMath15, TELA21, TMath21, TSD19, TEL23), Matching Content of Instruction and Content of CAHSEE (P11, DHELA15, DHMath15, TELA21, TMath21, TSD19, TEL23), and Covering Test-Taking Skills to Prepare Students for CAHSEE (P11, DHELA15, DHMath15, TELA21, TMath21, TSD19, TEL23)

Extent Increased Focus of Using CAHSEE-like Tasks in Preparing Students for the CAHSEE								
Educator Type								
	Principal % (n=130)	DH ELA % (n=78)	DH Math % (n=135)	TELA % (n=153)	TMath % (n=169)	TEL % (n=82)	TSWD % (n=121)	Total %
Not at all	0.8	6.3	9.7	5.4	10.7	8.5	5.2	6.7
Slight extent	13.1	12.7	28.4	27.2	26.2	24.4	20.7	21.8
Moderate extent	47.7	45.6	41.0	38.1	36.9	41.5	43.1	42.0
Great extent	38.5	35.4	20.9	29.3	26.2	25.6	31.0	29.6
Extent Increased Focus on Match Between Content of Instruction and Content of the CAHSEE in Preparing Students for CAHSEE								
Educator Type								
	Principal % (n=130)	DH ELA % (n=78)	DH Math % (n=135)	TELA % (n=153)	TMath % (n=169)	TEL % (n=82)	TSWD % (n=121)	Total %
Not at all	0.8	3.8	8.2	5.4	11.4	12.0	6.9	6.9
Slight extent	9.2	19.0	30.6	20.8	24.6	20.5	14.7	19.9
Moderate extent	40.8	45.6	38.8	42.9	29.9	49.4	38.8	40.9
Great extent	49.2	31.6	22.4	30.9	34.1	18.1	39.6	32.3
Extent Increased Focus on Covering Test Taking Skills in Preparing Students for CAHSEE								
Educator Type								
	Principal % (n= 130)	DH ELA % (n= 78)	DH Math % (n=135)	TELA % (n=153)	TMath % (n=169)	TEL % (n=82)	TSWD % (n=121)	Total %
Not at all	1.5	2.5	6.0	1.4	4.2	4.8	2.5	3.3
Slight extent	20.0	22.8	27.6	20.9	21.7	21.7	16.8	21.6
Moderate extent	50.8	40.5	43.3	48.0	36.1	37.3	40.3	42.3
Great extent	27.7	34.2	23.1	29.7	38.0	36.1	40.3	32.7

Impact of the CAHSEE Requirement on Professional Development

Principals were asked about participation of their schools' administrators in the Principal Training Program (Assembly Bill [AB] 75) or the Administrator Training Program (AB 430). These training programs provide funding to school districts and other local educational agencies to train principals and vice principals in leadership, infrastructure, and support for full implementation of effective instructional programs to improve student achievement. As can be seen in Table 8.21, almost half (48.8%) of responding principals said most or nearly all of their schools' administrators participated in this type of professional development.

Table 8.21. Percentage of Schools' Administrators Who Participated in AB 75 or AB 430 Professional Development Institutes, According to Principals (P22)

Response	Percentage % (n=125)
Not sure	15.2
None	8.0
Only a few (less than 23%)	4.8
Some (23-50%)	8.0
More than half (51-74%)	15.2
Most (75-90%)	20.8
Nearly all (more than 90%)	28.0

Table 8.22 shows percentages of ELA and math teachers who participated in content-related professional development designed to help them teach the California content standards associated with the CAHSEE. Note that while this same question was asked of principals in 2005, the current study asked department heads to respond. In comparing responses, the most significant difference was in the percentage of department heads reporting they were unsure whether the teachers had participated in this type of professional development. While the ELA and math department heads separately reported a small percentage of the teachers did not participate, actual attendance during the 2008–09 school year or whether there was a change in attendance from 2005 to 2009 by teachers in this type of professional development cannot be unknown.

Table 8.22. Percentage of Schools' ELA and Math Teachers Who Participated in Content-Related Professional Development Designed to Help Teach California Content Standards Associated with CAHSEE (DHELA 8, DHMath 8)

Proportion of Teachers Participating	ELA		Math	
	Percentage of Principals 2005 (n=215)	Percentage of DHs 2009 (n=105)	Percentage of Principals 2005 (n=215)	Percentage of DHs 2009 (n=135)
Not sure	-	28	-	22
None	-	2	-	9
Not applicable	2	-	2	-
Only a few (less than 25%)	9	11	15	17
Some (25-74%)	28	21	26	26
Most (75-90%)	30	9	25	16
Nearly all (more than 90%)	31	29	32	10
Total	100	100	100	100

Table Reads: Approximately 28% of department heads in 2005 and 22% of principals in 2009 were not sure of the percentage of school's ELA and mathematics teachers who participated in content-related professional development designed to help teach California content standards associated with CAHSEE.

We asked teachers to report the types of professional development in which they participated. They were allowed to indicate multiple areas covered by courses, workshops, seminars, etc., that they attended. Table 8.23 shows that only a small percentage of responding teachers reported not receiving any professional development during the 2008–09 school year. For all types of teachers, the majority (ELA, 78.0%; math, 69.7%; EL, 70.5%; SWD, 81.0%; and all, 74.7%) reported receiving professional development in which they learned about new practices or instructional strategies. The next most frequently reported type of professional development was about California's content standards and interpreting assessment results and using these results to guide instruction.

Table 8.23. Areas in Which Teachers Received Professional Development (TELA32, TMath32, TEL37, TSD33)

Area of Professional Development	Teacher Type				
	TELA % (n=159)	TMath % (n=178)	TEL % (n=95)	TSWD % (n=126)	All Teachers % (n=558)
None	1.9	6.2	3.2	3.2	3.8
CAHSEE purpose	50.3	39.9	43.2	43.7	44.3
CAHSEE requirements	56.0	49.4	42.1	47.6	49.6
CAHSEE blueprints	40.9	34.3	27.4	24.6	32.8
California content standards	76.1	65.7	63.2	62.7	67.6
New practices or instructional strategies	78.0	69.7	70.5	81.0	74.7
Interpreting assessment results and using them to guide instruction	64.8	59.0	48.4	64.3	60.0
Other (collaborative learning styles, curriculum development)	15.1	10.7	11.6	11.9	12.4

We asked ELA and math department heads to indicate the proportion of teachers who participated in Senate Bill (SB) 472 professional development institutes (also known as AB 466). This type of professional development includes intensive programs in reading and math that are conducted by state-approved providers. According to Table 8.24, 43.3% of ELA department heads reported at least half of the teachers in their departments had participated in this type of professional development, while 34.4% of math department heads said at least half of the math teachers had participated in the SB 472 professional development institutes.

Table 8.24. Percentage of School's ELA/Math Teachers Who Participated in SB 472 (AB 466) ELA/Math Professional Development Institute, According to Department Heads (DHELA9, DHMath9)

Proportion of Teachers Participating	Percentage	
	DH ELA (n=60)	DH Math (n=77)
None	28.3	25.9
Only a few (less than 25%)	15.0	19.5
Some (25-50%)	13.3	18.2
More than half (51-74%)	5.0	12.3
Most (75-90%)	8.3	6.5
Nearly all (more than 90%)	30.0	15.6

The surveys asked principals whether their schools offered training for the teachers to administer the CAHSEE with accommodations and modifications. The majority (87.1%) of responding principals reported their schools offered such training (See Table 8.25).

Table 8.25. Training Offered At School for Teachers to Administer CAHSEE With Accommodations and Modifications, According to Principals (P23)

Response	Percentage % (n=124)
Yes	87.1
No	12.9

Opinions About Implementation and Effect of the CAHSEE Requirement

Consequences, Counseling, and Impact of Intervention and Remediation Courses

Teachers and principals were asked about the extent to which students in their schools understood the consequences of not passing the CAHSEE (See Table 8.26). Approximately three-quarters of all types of teachers (ELA, 81.0%; math, 72.5%; EL, 77.2%; and SWD, 78.6%) reported the students understood, to a great or very great extent, the consequences of not passing the CAHSEE. Almost 100% of the responding principals believed that students in their schools understood, at least to a great extent, the consequences of not passing the CAHSEE.

Table 8.26. Extent to Which Students in This Course/Instructional Program Understood Consequences of Not Passing CAHSEE, According to Teachers and Principals (P17, TELA25, TMath25, TEL29, TSD25)

Extent of Understanding	Percentage of Respondent Type				
	TELA (n=159)	TMath (n=178)	TEL (n=95)	TSWD (n=126)	Principal (n=136)
Not at all	0.0	1.2	0.0	0.0	0.0
Slight extent	4.1	4.9	6.3	9.4	0.0
Moderate extent	15.0	21.3	16.5	12.0	0.8
Great extent	34.7	34.1	30.4	35.0	20.2
Very great extent	46.3	38.4	46.8	43.6	79.1

Table Reads: Approximately 0.0% of ELA teachers believed that students did “not at all” understand the consequences of not passing the CAHSEE.

Principals were asked to indicate how effective they believed their districts were in improving scores for students at risk for not passing the CAHSEE. As can be seen in Table 8.27, approximately three-quarters (74.4%) of responding principals reported their districts were effective or better at helping at-risk students to improve their CAHSEE

scores. The remaining 25.6% of responding principals reported their districts were minimally effective at helping at-risk students to improve their CAHSEE scores.

Table 8.27. Effectiveness of District in Improving CAHSEE Scores for At-Risk Students (P12)

Level of Effectiveness	Percentage % (n=120)
Minimally effective	25.6
Effective	42.1
Very effective	20.7
Extremely effective	11.6
Total	100.0

Table 8.28 presents the principals’ responses about the extent to which CAHSEE intervention or remediation courses helped prevent their students from dropping out of school. More than two-thirds (70.4%) of the principals indicated the intervention or remediation courses provided at their schools had at least a moderate impact on preventing students from dropping out of school. Slightly less than one-quarter (23.5%) of these principals believed their schools’ CAHSEE intervention or remediation courses had a slight impact on preventing students from dropping out of school.

Table 8.28. Impact of CAHSEE Intervention and Remediation Courses on Preventing Students From Dropping Out of School, According to Principals (P13D)

Response	Percentage % (n=115)
Not at all	6.1
Slight extent	23.5
Moderate extent	37.4
Great extent	28.7
Very great extent	4.3
Total	100.0

EL and SWD Teacher Opinions

The CAHSEE instruction study included an open-ended question on the survey for teachers of SWD and EL students: “What would help you improve your students’ pass rates?” HumRRO received comments on this question from 107 of the 130 SWD teachers and from 70 of the 85 EL teachers who responded to the survey. HumRRO identified 14 common themes that teachers in both groups reported in similar proportions, as well as four themes that were either unique to one group or reported in different proportions. Table 8.29 presents the common themes that HumRRO found in both SWD and EL teachers’ comments about how to improve students’ CAHSEE pass

rates; it also reports the percentage of each type of teacher that commented on that theme.

Table 8.29. Common Themes in SWD and EL Teachers' Responses (TEL31, TSWD27)

Code	Theme for improving students' pass rates	TEL %	TSWD %
A	Additional materials (e.g., targeted to student's level, pacing guide, more practice tests)	24	28
B	Specific suggestions for content instruction	20	15
C	Improve student motivation	10	15
D	Earlier intervention or entry into high school with greater English fluency or math skills	11	11
E	Modify the test	6	8
F	Improve student attendance	6	5
G	More one-on-one support or individualized instruction	6	5
H	Improve teacher qualifications or provide professional development	6	3
I	More instructional time to teach test content	4	4
J	More time to teach test-taking strategies	4	3
K	Eliminate the CAHSEE requirement	4	3
L	Change the socio-economic environment	4	3
M	Some students will not pass	1	4
N	Additional funding	3	3

Table Reads: Of 70 EL teachers who responded to the question "What would help you improve your students' pass rates," 24% referred to additional materials.

The most common suggestion for increasing students' pass rates related to the improvement of instructional materials. Forty-seven comments received from the SWD and EL teachers (27% of all comments) were associated with the need for more up-to-date textbooks, more practice tests, and more computer-aided instruction options. Several EL teachers noted that their textbooks needed to be more aligned with the CAHSEE standards and more relevant to high school students. "Most of the textbooks on the market address the different skills, but they do not provide enough skill building practice. In other words, they 'cover' the skill, but only a superficial level." Several SWD teachers commented on the need for more interesting materials at students' reading level. "Special needs students are confused by the book. Handouts on the Internet that are spaced better and are bigger are not as intimidating to them." One SWD teacher requested a comprehensive set of materials: "I need a focused program that is developed to attend to the pacing of the individual students. It would need to include both directed teaching and individualized instruction, and a computer program component that the students can't manipulate and that assesses their progress, giving the teachers a report."

The second most common type of comment from both SWD and EL teachers (17% of all comments) was a description of specific instructional strategies or areas of content emphasis they believed were important to CAHSEE success. For example, one

EL teacher commented, “Continue to concentrate on grammar, practice daily writing assignments/journal writing, oral participation/reading aloud, discussion of reading comprehension questions, basic essay structure.” One SWD teacher wrote, “many students need remedial assistance [and] would benefit from a general skills review of multiplication facts, working with integers, and other foundational concepts. A more direct approach may help to improve skills.” Another mentioned using “short and simple warm-up style activities on the conventions of ELA questions.”

A smaller proportion (13%) of SWD and EL teachers suggested that students needed to be more motivated to do well on the test, with explanations about the lack of motivation ranging from the idea that SWD students don’t try hard enough on the test until their senior year, to the idea that some EL students do not take advantage of the after-school interventions offered. Less than 10% of SWD and EL teachers’ comments addressed other common themes for how to improve students’ pass rates, including requests that changes be made to the CAHSEE content or format, that schools provide more class time in general and more opportunities for one-on-one instruction in particular, and that the CAHSEE requirement for some students be eliminated.

HumRRO identified four other themes about how to improve students’ pass rates that were reported in different proportions by the EL teachers compared to SWD teachers (See Table 8.30). The first theme, that students should be allowed more time to gain English fluency before having to take the test, is relevant only to EL teachers (17%). A second theme, that changes should be made at the school or district level with respect to how EL students are taught, was commented on by more of the EL teachers than the SWD teachers. EL teachers’ suggestions included mandating rather than just offering CAHSEE remediation, not grouping different levels of EL students in the same classroom, and splitting non-pass and pass students into different classrooms. The SWD teachers primarily asked for reduced class size. The last two themes, the need to increase positive parent involvement or offer more CAHSEE prep courses, were reported more frequently by SWD teachers than by EL teachers.

Table 8.30. Other Themes in SWD and EL Teachers’ Responses (TEL31, TSD27)

Code	Theme for improving students’ pass rates	TEL %	TSWD %
O	More time to acquire English language skills before testing	17	0
P	Change at school or district level to better serve SD or EL students	13	5
Q	Positive parent involvement	1	11
R	More CAHSEE prep class offerings	0	7

Table Reads: Approximately 17% of EL teachers reported that more time to acquire English language skills would improve their EL students’ CAHSEE scores.

Teachers of students with disabilities and EL students were asked about their students’ preparedness to pass the CAHSEE (See Table 8.31). Only 19.7% of teachers of SWD and 17% of EL teachers felt their students were prepared to a great or very

great extent. Many of the teachers (SWD teachers, 41%; EL teachers, 42%) reported that students were moderately prepared. Over one-third of responding teachers reported their students were prepared to a slight extent or not at all.

Table 8.31. Extent to Which SWD and EL Students Are Prepared to Pass CAHSEE (TEL9, TSD11)

Extent	TEL % (n=88)	TSWD % (n=122)
Not at all	8.0	9.8
Slight extent	33.0	29.5
Moderate extent	42.0	41.0
Great extent	12.5	15.6
Very Great extent	4.5	4.1

Additional Comments from Principals

The surveys provided principals an opportunity to include additional comments. Of the 141 respondents, HumRRO received additional comments from 43 principals (30%). HumRRO consolidated these comments and identified recurrent themes (See Table 8.32). While there was little commonality among the comments, 16 respondents mentioned either that CAHSEE had a minimal impact on their general student population as evidenced by the school’s high pass rate, or that EL and SWD students were most impacted by CAHSEE. Most other comments expressed a viewpoint that was shared only by a small number (4–7) of principals. Themes addressed by those comments, with an example quoted in each case, include the following:

- Generally positive attitude toward CAHSEE (“It holds schools and students accountable for all students to demonstrate a minimum level of knowledge in order to receive a high school diploma.”).
- Generally negative attitude toward CAHSEE (“I believe that one of the main reason[s] our students drop out of high school at a community school is because students do no[t] think they can pass the CAHSEE.”).
- Preference for the value of California Standards Tests (CSTs) over CAHSEE (“The CAHSEE is based on middle school skills while the CSTs are at grade level. The CSTs then would become a more high stakes exam that students took more seriously.”).
- Concern about funding (“Additional funding is needed to be proactive with 9th and 10th grade students who are at risk of failing the CAHSEE.”).

Table 8.32. Summary of Principals' Additional Comments (P24)

Code	Theme of Comments	Number of Principals
A	Generally positive opinion about CAHSEE	7
A1	Increases student motivation	4
A2	Makes school and students accountable	3
B	Generally negative opinion about CAHSEE	3
B1	Leads to student dropouts	2
B2	Inappropriate measure of school performance	1
C	Description of CAHSEE impact on students	16
C1	EL students impacted	6
C2	Special education students impacted	4
C3	Regular or college prep not impacted	6
D	Description of needed or available school support for CAHSEE	5
E	Value of CAHSEE relative to other testing	5
E1	CST preferred over CAHSEE	4
E2	CAHSEE preferred over CST	1
F	Educational funding concerns	4
G	Clarification of other survey responses	6

Summary Findings

Most responding principals reported that their schools' integration of the California content standards contained in the CAHSEE blueprints for ELA and math were partially complete or less before 2006. However, by the 2008–09 school year, approximately 95% of them reported that integration was mostly complete or complete. There were no substantial differences for ELA or math CAHSEE content coverage in 2009 between schools with high and not high concentrations of at-risk students.

Approximately one-third of the principals reported their schools had no system developed to coordinate coverage of the California academic content standards associated with the CAHSEE among the elementary, middle, and high schools. However, about one-quarter reported their schools' systems were fully developed to coordinate between the middle and high schools. Slightly more than one-third of the principals reported their schools' systems were fully developed to coordinate between special education and general education and between English language development and general education. The majority of ELA and math teachers reported collaborating with other teachers by sharing ideas about teaching strategies, aligning instruction across courses, assessing individual student needs, and planning coverage of CAHSEE standards.

The vast majority of responding principals reported their schools used traditional textbooks to deliver CAHSEE core courses (i.e., Algebra 1 and Grade 9 English). Approximately one-third to slightly more than 40% indicated their schools also used ability-based small groups, one-on-one tutorials, software programs, and textbooks with on-line supplements to deliver the CAHSEE core courses.

In terms of monitoring progress and student proficiency, the majority of principals indicated their schools most frequently used a district-based tracking system. Principals reporting in 2005 also indicated district-based tracking was the most frequently used system to monitor and track student progress.

Almost all responding principals reported being informed about state resources to support the CAHSEE. Slightly less than half of these principals indicated they had at some point applied for CII funding for students who had not yet passed the CAHSEE. Principals who received CII funds reported their schools provided at least 20 hours of instruction per student per quarter as a result of these funds.

Teachers and principals were asked about the extent to which students in their schools understood the consequences of not passing the CAHSEE. Approximately three-quarters of all types of teachers reported their students understood at least to a great extent the consequences of not passing the CAHSEE. Almost all of the responding principals believed that students in their schools understood at least to a great extent the consequences of not passing the CAHSEE. Almost three-quarters of responding SWD teachers reported their schools provided counseling about options for additional remediation or testing to students who did not pass CAHSEE. Slightly more than half to about two-thirds of the remaining types of teachers reported their schools talked to students about their options for remediation and testing. The majority of responding principals reported their schools counseled students about additional remediation and testing.

The majority of principals reported their school offered CAHSEE intervention or remediation courses. In most of these cases, the CAHSEE intervention or remediation courses were offered to juniors and seniors and sometimes to sophomores. Approximately three-quarters of responding principals reported their districts were effective or better at helping at risk students to improve their CAHSEE scores. About two-thirds of the principals indicated the intervention or remediation courses provided at their schools had at least a moderate impact on preventing students from dropping out. Slightly less than one-quarter of the principals believed their schools' CAHSEE intervention or remediation courses had a slight impact on preventing students from dropping out of school.

Principals were asked to describe how their schools ensured delivery of a coherent CAHSEE intervention program. The most common feature cited was the availability of ELA and math CAHSEE preparation or remediation courses. Another common feature was the use of test data to place students in appropriate CAHSEE interventions. About one-third of the principals reported separately that the integration of

CAHSEE standards with their core curriculum and individualized instruction were important features of their intervention programs.

Principals, department heads, and teachers were asked about the extent to which CAHSEE results were used to make decisions about changes in their schools' instruction and assessment as well as overall school improvement. More than two-thirds of the responding sample reported using the CAHSEE to make changes in the schools' instruction and assessment, and to make overall improvements to the school. In general, results indicate the CAHSEE was used slightly more to make overall improvements to the school than to the school's instruction or assessments.

Surveys asked principals, department heads, and teachers about the extent to which they focused on various instructional strategies to prepare students for the CAHSEE. Across these respondents, the majority reported increasing their focus on using CAHSEE-like tasks and matching the content of instruction with that of the CAHSEE at least to a moderate extent to prepare their students. Most teachers indicated that the goal of preparing students for the CAHSEE was as important as their other course goals. A higher percentage of SWD teachers indicated that preparing their students for the CAHSEE was their most important course goal.

Additional information was collected from teachers of SWD and EL students to better describe the needs of these students. These teachers indicated that most EL students were selected for inclusion in their courses based on their EL status while most SWD students were selected based on individualized education program decisions. The most common suggestion provided by teachers of SWD and EL students for improving students' pass rates was to have more instructional materials available. Several EL teachers noted their textbooks needed to be more aligned with the CAHSEE standards and more relevant to high school EL students. Some SWD teachers commented on the need for more interesting materials at students' reading level.

Principals were asked about participation of their schools' administrators in AB 75 or AB 430 professional development institutes. Almost half of responding principals said at least most of their schools' administrators participated in this type of professional development. Approximately one-quarter of ELA department heads reported at least half of their teachers had participated in SB 472 professional development institutes. About one-fifth of mathematics department heads said at least half of the mathematics teachers had participated in this type of professional development.

As for teacher participation in content-related professional development designed to help them teach the California content standards associated with the CAHSEE, ELA and math department heads separately reported a small percentage of teachers in their departments did not participate. According to teachers' self-reports, only a small percentage reported not receiving any professional development during the 2008–09 school year.

Chapter 9: Trends in Educational Achievement and Persistence During the CAHSEE Era

D. E. (Sunny) Becker

Introduction

The CAHSEE examination is used to satisfy both Elementary and Secondary Education Act (ESEA) 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. While we cannot attribute any of the trends cited to CAHSEE alone, the trends reflect the presence of the CAHSEE as a significant determinant of educational policies and practices. 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.

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. Dropout tracking has improved markedly over the past 2 years, but because these systems are new we continue to look at the dropout phenomenon from multiple perspectives. At the same time, supports for repeat 12th graders have increased. 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 9 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 ninth 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 identify more accurately 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 from 2006–07 onward are not comparable with dropout rates in previous years.

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. As reported in our previous annual report (Becker and Watters, 2007), single-year dropout rates hovered between 3.9% and 3.2% per year from 2002–03 through 2004–05. The rate was 3.4% 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 5.5%, declining only slightly to 5.3% in the 2007–08 school year.

Table 9.1. CDE Single-Year Dropout Rates by Demographic Group

Demographic Group	Adjusted Grade 9–12 One-year Dropout Rate		Reduction in Dropout Rate
	Class of 2007	Class of 2008	
Race/Ethnicity			
African American (not Hispanic)	9.8%	9.0%	0.8
American Indian/Alaska Native	7.6%	6.6%	1.0
Multiple/No Response	7.2%	6.1%	1.1
Hispanic or Latino	6.7%	6.0%	0.7
Pacific Islander	6.7%	5.6%	1.1
White	3.5%	3.1%	0.4
Filipino	2.7%	2.2%	0.5
Asian	2.3%	2.0%	0.3
Other Demographic Groups			
Economically Disadvantaged	N/A	6.4%	N/A
LEP for NCLB*	N/A	6.0%	N/A
Special Education	N/A	6.9%	N/A
State Total	5.5%	5.3%	0.2

Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>). August 24, 2009.

* Limited English Proficient for No Child Left Behind includes English learners and fluent-English proficient students that have not yet tested at the proficient or above level for 3 years on the California Standards Test (CST) English Language Arts (ELA) test.

Table 9.1 disaggregates the single-year dropout rate by race/ethnicity and for economically disadvantaged students, EL students, and students with disabilities. The racial/ethnic groups are listed in descending order by dropout rate for the Class of 2008. The rightmost column indicates the reduction in dropout rate for the 2-year period and reveals that the dropout rate for each racial/ethnic group is lower in the Class of 2008

than in the Class of 2007. The overall dropout rate declined by 0.2 percentage points, from 5.5% to 5.3%. Table 9.1 indicates that the most recent dropout rate for African American students is 9.0 percent—substantially higher than for all other groups, including students struggling with language challenges or disabilities. Rates for American Indian/Alaskan Native, Hispanic, and Pacific Islander students, as well as economically disadvantaged, English learner, and students with disabilities also exceed the rate for the state as a whole.

A careful reader might notice that the reduction in the state total dropout rate in Table 9.1 (0.2 percentage point) is smaller than the reduction for any of the subgroups (ranging from 0.3 to 1.1 percentage points). This is an example of Simpson’s Paradox, in which the successes of individual groups are not reflected directly when combined. In this case, the growth of membership in groups with higher dropout rates (e.g., Hispanic) affect the state totals disproportionately, and the effect increases over time. The end result is that the combined state totals are constrained and the overall changes are dampened by population shifts.

The single-year dropout rate described in Table 9.1 does not distinguish the point within the high school years at which dropouts were increasing. Our 2007 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 when it rose to 18,611, peaking at 34,097 for the Class of 2006.

The change in dropout calculations starting in 2006–07 (described earlier in this chapter) constitutes a break in trend so we report only rates for the classes of 2007 and 2008 here. Table 9.2 shows the number of students dropping out at each level for the classes of 2007 and 2008. As seen in previous years, the number of students dropping out during the 12th grade far exceeded the dropouts in earlier grades. Flagged cells were calculated under the new rules. Because the 12th grade dropouts for the Class of 2007 were calculated under the new rules, it is impossible to distinguish how much of the increase was due to the rule change. A similar spike in dropouts was seen in the same 2006–07 school year for 11th grade students in the Class of 2008.

Table 9.2. CDE Single-Year Dropout Counts by Grade Level for Classes of 2007 & 2008

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*
2008	549,486	10,447	10,177	22,045*	52,205*

Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>). July 21, 2009.

Note. * Indicates dropout rate was calculated under new 2006–07 rule.

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 and some policy analysts perceive 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 2007 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 ninth grade entering school population. The 2007 report indicated that the level plateaued from 2003 through 2005 between 12.6% and 13%, then increased to 14.8% in 2006—the year the CAHSEE requirement took effect.

Table 9.3 shows the CDE 4-year dropout rates by race/ethnicity for the classes of 2007 and 2008, ordered by descending rates for the Class of 2008. As described earlier, the identification of dropouts changed in the 2006–07 school year, so it is not comparable with previous years. The table indicates that more than a fifth of students in the Class of 2007 (21.1%) dropped out over the four years. The rate was reduced by 2.2% for the Class of 2008. The rightmost column indicates the reduction in dropout rate and reveals that the dropout rate for each group is lower in the Class of 2008 than in the Class of 2007. The overall dropout rate dropped from 21.1% to 18.9%. Table 9.1 indicates that the 4-year dropout rate for African American students in the Class of 2008 is 32.9%—substantially higher than for other groups. Rates for Hispanic, American Indian/Alaskan Native, and Pacific Islander students also exceed the rate for the state as a whole, tripling those of Asians and Filipinos and nearly triple those of white students.

Table 9.3. CDE 4-Year Dropout Rates by Demographic Group

Demographic Group	4-Year Dropout Percentage		Reduction in Dropout Rate
	Class of 2007	Class of 2008	
Race/Ethnicity			
African American	35.8%	32.9%	2.9
American Indian	28.1%	24.1%	4.0
Hispanic	26.7%	23.8%	2.9
Multiple/No Response	26.8%	23.3%	3.5
Pacific Islander	24.8%	21.3%	3.5
White	13.3%	11.7%	1.4
Filipino	10.6%	8.6%	3.0
Asian American	9.0%	7.9%	1.1
Other Demographic Groups			
Economically Disadvantaged	N/A	25.2%	N/A
LEP for NCLB*	N/A	23.8%	N/A
Special Education	N/A	25.3%	N/A
State Totals	21.1%	18.9%	2.2

Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>). August 24, 2009.

* Limited English Proficient for No Child Left Behind includes English learners and fluent-English proficient students that have not yet tested at the proficient or above level for 3 years on the California Standards Test (CST) English Language Arts (ELA) test.

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 9.4 and Figure 9.1 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. The Classes of 2004 and 2005 are highlighted as classes subject to "partial implementation" of the CAHSEE (because the requirement was delayed before any diplomas were withheld) and classes from 2006, on, are highlighted as classes for which the CAHSEE requirement was "fully in effect." 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 classified as 9th graders for more than a year. In the 2004–05 school year, the drop-off rate declined somewhat to 5.6%. This was followed by a substantial increase to 6.1% in 2005–06, an even more substantial decrease to 5.3% in 2006–07, then increases to 5.7% and 6.0% in subsequent years.

Table 9.4. 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
2008-09	2011	509,028	541,650	32,622	6.0%
2007-08	2010	*513,707	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>). July 21, 2009.

The * before a number represents an adjustment in data from the 2008 evaluation report due to an updating of the figures used. The light green horizontal line indicates the demarcation between classes prior to and initially subject to the CAHSEE graduation requirement; the heavy green line indicates the transition to the CAHSEE requirement being fully in effect.

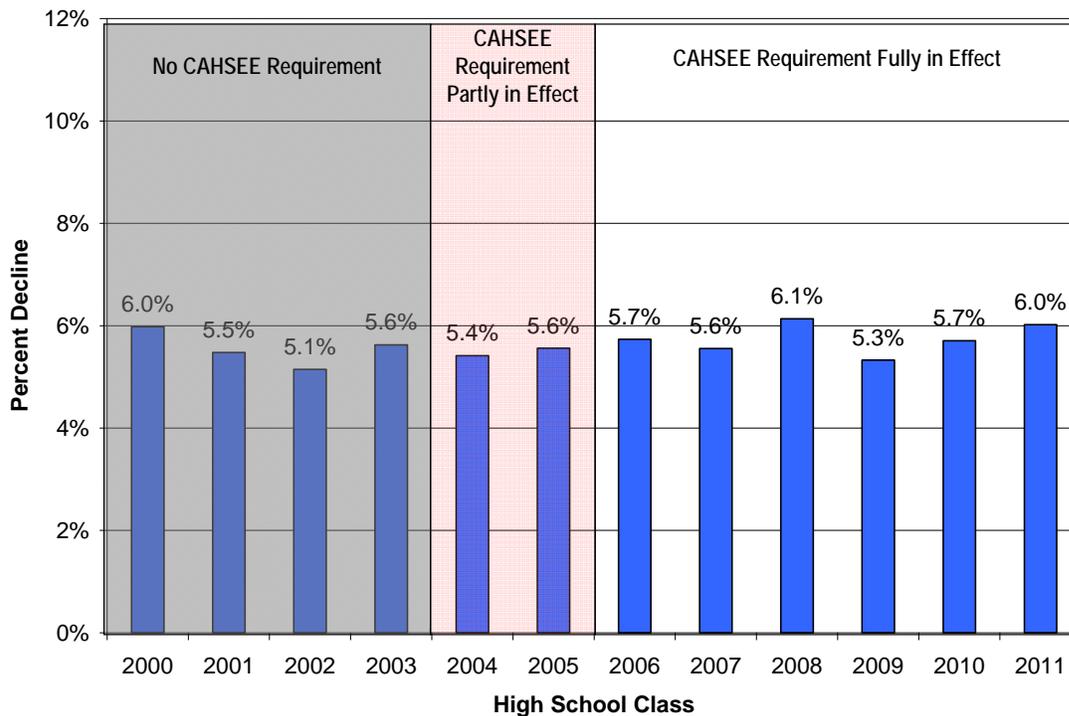


Figure 9.1. Enrollment declines from 9th to 10th grade by high school class.

Table 9.5 and Figure 9.2 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 from 5.7% to 4.8% in 2008–09.

Table 9.5. 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
2008–09	2010	489,032	513,707	24,675	4.8%
2007–08	2009	*488,227	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>). July 21, 2009.

The * before a number represents an adjustment in data from the 2008 evaluation report due to an updating of the figures used. The light green horizontal line indicates the demarcation between classes prior to and initially subject to the CAHSEE graduation requirement; the heavy green line indicates the transition to the CAHSEE requirement being fully in effect.

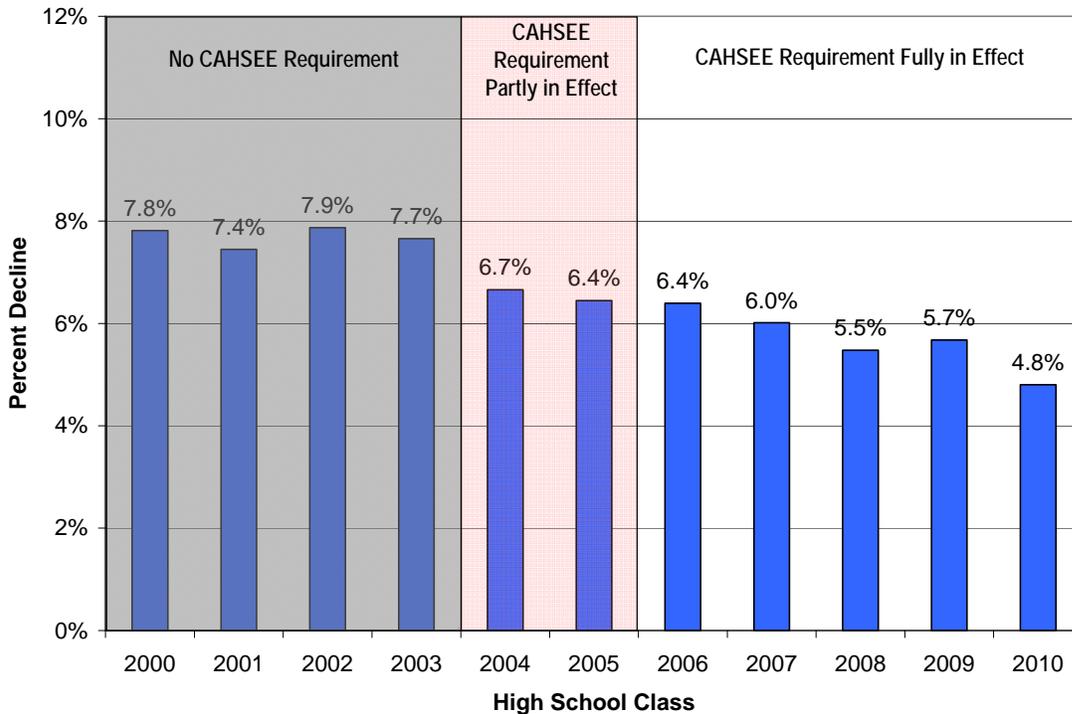


Figure 9.2. Enrollment declines from 10th to 11th grade by high school class.

Table 9.6 and Figure 9.3 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 2009 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 9.6. 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
2008-09	2009	476,232	488,227	11,995	2.5%
2007-08	2008	*468,281	487,493	*19,212	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>). July 21, 2009.

The * before a number represents an adjustment in data from the 2008 evaluation report due to an updating of the figures used. The light green horizontal line indicates the demarcation between classes prior to and initially subject to the CAHSEE graduation requirement; the heavy green line indicates the transition to the CAHSEE requirement being fully in effect.

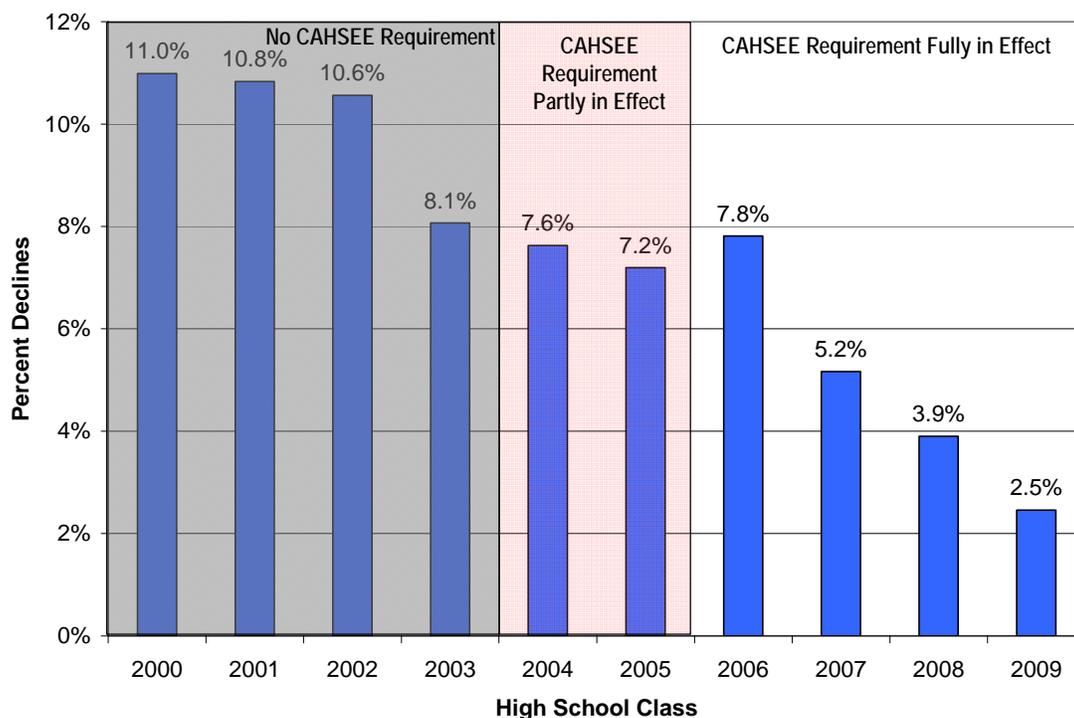


Figure 9.3. Enrollment declines from 11th to 12th grade by high school class.

Students Who Leave High School Prematurely: Summary

We examined single-year and 4-year dropout rates among high school students in the classes of 2007 and 2008. We found that the dropout rates, while substantial, declined overall and for every demographic group. However, we found that both the 1-year and 4-year dropout rates among African American students far exceeded those of every other racial/ethnic group, as well as disadvantaged groups such as economically disadvantaged, LEP, and special education students. As reported in previous annual evaluation reports, we found that the bulk of dropouts occur in Grade 12.

We analyzed enrollment trends by graduation class cohort from the Class of 2000 through the Fall 2009 enrollment counts. The fall enrollment numbers for the 2008–09 school year reflect lower grade-by-grade reduction than the previous year with the exception of Grade 10 enrollment.

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. The following descriptions are taken directly from the CDE website.

- a) ***Ninth Grade to Graduate Rate:*** “This rate is calculated using two different types of data, single point-in-time data (enrollment) and year-end cumulative data (graduates). When used at the state level, this calculation provides a reasonable statewide graduation rate estimate. However, application of this calculation at the school-level creates invalid rates for schools with increasing or declining enrollment, or moderate student mobility. Therefore this rate is only calculated at the state level.” This rate is calculated as the number of graduates divided by 9th grade enrollment from 4 years prior.

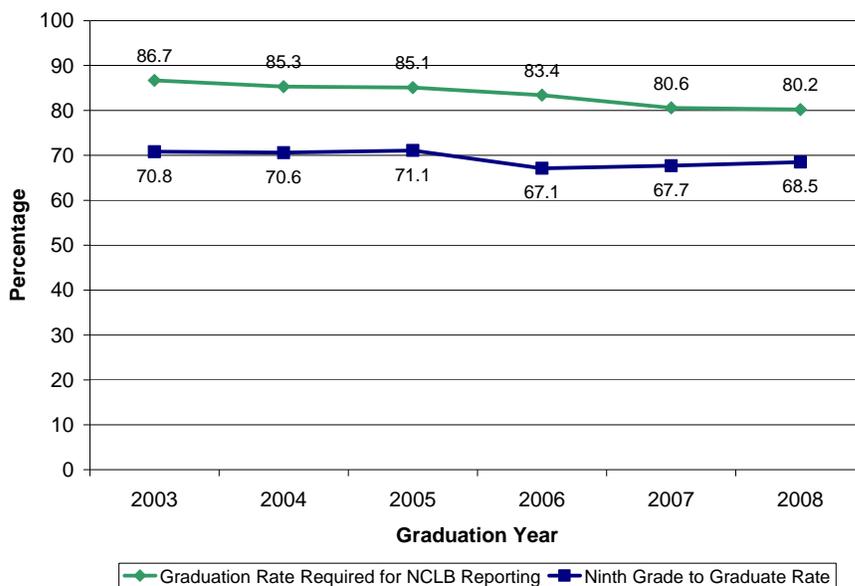
- b) ***Graduation Rate required for ESEA Reporting:*** “The usage of this rate is the result of [states’] negotiations with the U.S. Department of Education and is required for ESEA reporting. Since this rate is calculated using comparable data (both school-level dropout and graduate counts are cumulative year-end summary data), the rate will never exceed 100% even in schools with increasing or declining enrollments. Therefore this rate may be used at the school-level. *This calculation overstates the graduation rate since the difference between 9th grade enrollment and graduates and dropouts is not accounted for.*” [Emphasis added.] This rate is calculated by dividing the number of graduates for a given year by the sum of the same number of graduates and dropouts from grades 9 through 12.

As noted in the italicized statement above, the second calculation overstates the graduation rate. We emphasize here the ninth grade to graduation rate, which is perhaps the rate that most closely reflects what the public perceives as a graduation

rate. It answers the question: Given an incoming population of 9th graders, how many will graduate on time four years later?

The reader is cautioned that there are a number of types of high school completion that are categorized neither as graduating or dropping out, including completing the GED or California High School Proficiency Exam (CHSPE), and enrolling in college or an adult education program.

Overall Graduation Rates. Inspection of Figure 9.4 reveals that both graduation rates dropped in 2006, the first year CAHSEE took effect. 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. This rate recovered somewhat in subsequent years: by 0.6 points in 2007 and another 0.8 points to a rate of 68.5% in 2008. The graduation rate used for ESEA reporting, however, declined every year since 2003. After a drop of 1.7 points in 2006 and 2.8 percentage points in 2007 the rate declined at a slower rate of 0.5 percentage points in 2008. Between 2003 and 2008, this graduation rate dropped by 6.5 percentage points.



Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>). Data retrieved on 08/24/09.

Figure 9.4. Trends in two graduation rates.

A careful reader may notice that the graduation rate from Grade 9 for a given class (depicted in Figure 9.4) and the 4-year dropout rate (reported in Table 9.3) do not total to 100 percent. The Class of 2007 had a 67.7% graduation rate and a 21.1% 4-year dropout rate; the Class of 2008 had a 68.5% graduation rate and an 18.9% 4-year dropout rate. These figures represent gaps of approximately 12% and 13%. Some of the unaccounted for students may have completed high school without graduating or may have continued on for a second year of 12th grade.

Graduation Rates for Demographic Groups. We next examined graduation rates separately for various demographic groups. We note that the CDE website

provides many convenient reports, but disaggregated graduation rates require some digging. To calculate graduation rates for each demographic group, we gathered the relevant enrollment counts and graduation counts and calculated percentages. As a quality control check, we verified that the overall rates match the rates reported by CDE.

Table 9.7 shows the 9th Grade to Graduation rates by racial/ethnic group. These are presented in order of declining graduation rate for the Class of 2008. Two patterns are notable here. First, the overall graduation rate and the rate for each individual group increased from 2007 to 2008, with the exception of African American students. Second, the graduation rates for three groups of students—African American, Hispanic or Latino, and American Indian/Alaska Native students—are substantially lower than the overall graduation rates that are more readily available on the CDE website. The decline in the graduation rate of the lowest group, African Americans, means that the gap between African Americans and every other racial/ethnic group has widened.

Table 9.7. Ninth Grade to Graduation Rates by Race/Ethnicity

Ninth Grade to Graduate Rate	2007	2008	Change in Graduation Rate
Asian	90.0%	92.0%	2.0
Filipino	85.4%	89.0%	3.6
White	77.8%	79.1%	1.3
Pacific Islander	68.2%	71.4%	3.2
American Indian/Alaska Native	58.3%	62.3%	4.0
Hispanic or Latino	55.7%	58.0%	2.3
African American (not Hispanic)	55.3%	54.6%	-0.7
TOTAL	67.7%	68.5%	0.8

We noted earlier that the sum of graduation rates and dropout rates do not account for all students. Table 9.8 combines the graduation rates in Table 9.7 with 4-year dropout rates in Table 9.3. The final column, “Rate Not Graduating or Dropping Out,” indicates the percentage of students in each racial/ethnic group not included in the graduation or dropout rates. This percentage varies widely by demographic group, from a low of 0.1% of Asian students to 18.2% of Hispanic students. See Chapter 4 for a discussion of exit codes.

Table 9.8. Combined Dropout and Graduation Rates by Race/Ethnicity

Demographic Group	2008 Ninth Grade to Graduation Rate	2008 4-Year Dropout Rate	Sum of Graduates and Dropouts	Rate Not Graduating or Dropping Out
Asian	92.0%	7.9%	99.9%	0.1%
Filipino	89.0%	8.6%	97.6%	2.4%
White	79.1%	11.7%	90.8%	9.2%
Pacific Islander	71.4%	21.3%	92.7%	7.3%
American Indian/Alaska Native	62.3%	24.1%	86.4%	13.6%
Hispanic or Latino	58.0%	23.8%	81.8%	18.2%
African American (not Hispanic)	54.6%	32.9%	87.5%	12.5%
TOTAL	68.5%	18.9%	87.4%	12.6%

Graduation Rates: Summary

We examined two kinds of graduation rates: the graduation rate based on 9th grade enrollment, and the graduation rate required by ESEA, which is based upon the number of graduates in a given year and the number of dropouts associated with that Class from grades 9 through 12. We found that the graduation rate as a percentage of 9th graders increased slightly in 2007 and 2008 while the ESEA rate slowed its decline. Just over two-thirds (68.5%) of students who entered ninth grade in the fall of 2004 graduated four years later.

Review of disaggregated 9th-grade-to-graduation rates revealed that only the African American graduation rate declined in 2008 from its 2007 level, widening the gap with other racial/ethnic groups. Graduation rates vary widely, from 54.6% among African American students to 92% for Asian students.

College Preparation

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 Preparation Course-Taking

One indicator of educational quality is the caliber of coursework completed. Two of California's statewide university systems, the University of California and the California State University, have developed a list of courses known as "A–G courses" that are required for incoming freshmen. This list includes 16 units of high school courses, of which at least 7 must be taken in the last two years of high school. In this system, a unit represents a full year (two semesters) of study.

Table 9.9 indicates the percentage of public high school graduates who completed A–G courses over several years. Note that this calculation excludes students who did not graduate; if this were based, say, on grade 9 enrollment the rates would be considerably lower. Demographic groups are listed in order of percentage in 2007–08. Among graduates, the rate of completing A–G courses varies widely, from 22.2% among Hispanic students to 59% among Asian students. The rate of completion overall, and for every group except American Indian/Alaska Native, declined from 2006–07 to 2007–08. One-third of the Class of 2008 completed the course requirements to enter a UC or CSU school.

Table 9.9. Trends in Percentages of Graduates Completing Minimum Coursework (A–G courses) for Entry into UC or CSU systems

Ethnic Category	School Year				
	2003-04	2004-05	2005-06	2006-07	2007-08
Hispanic or Latino	21.9%	24.1%	25.5%	25.2%	22.2%
African American (not Hispanic)	25.2%	25.2%	25.6%	26.5%	22.6%
American Indian/Alaska Native	22.3%	23.0%	23.6%	23.6%	24.3%
Pacific Islander	27.2%	27.7%	28.9%	28.1%	26.3%
Multiple/No Response	26.9%	31.0%	32.7%	35.4%	30.8%
White	39.6%	40.9%	40.5%	39.5%	38.7%
Filipino	44.9%	46.6%	45.4%	45.7%	44.5%
Asian	56.2%	58.7%	60.2%	59.8%	59.0%
State Total	33.8%	35.2%	36.1%	36.5%	33.3%

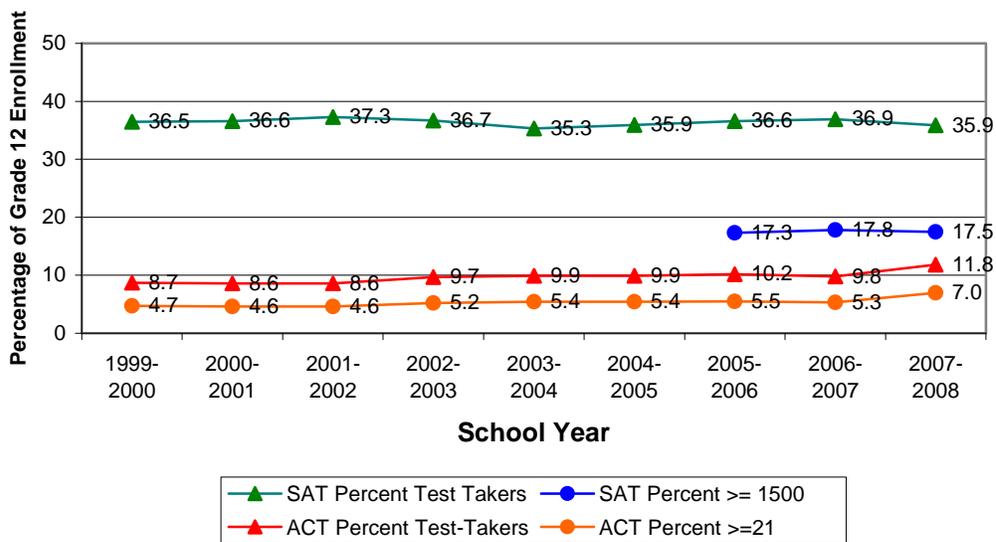
College Entrance Examination Participation and Performance

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 most prevalent in the United States: the SAT and the ACT. Figure 9.5 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 that took either the SAT or ACT. Approximately 36 percent of the Class of 2008 took the SAT and almost 12 percent took the ACT. This was a decrease in SAT participation and an increase in ACT participation relative to the previous year, reversing both trends from the previous year.

Figure 9.5 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. The lines with asterisk pointers reflect the percentage of students *in the class* achieving a minimum combined score of 1500 on the SAT or 21 on the ACT, respectively.⁶ The percentage of students attaining the designated score on the SAT remained fairly stable at approximately 17.5% each year. The ACT performance increased in 2007–08 to 7.0 percent of students reaching an ACT score of at least 21.

⁶ The average national scores for Reading, Math, and Writing at the 50th percentile level are approximately 500 each. The national rank for an ACT Composite score of 21 is the 57th percentile.

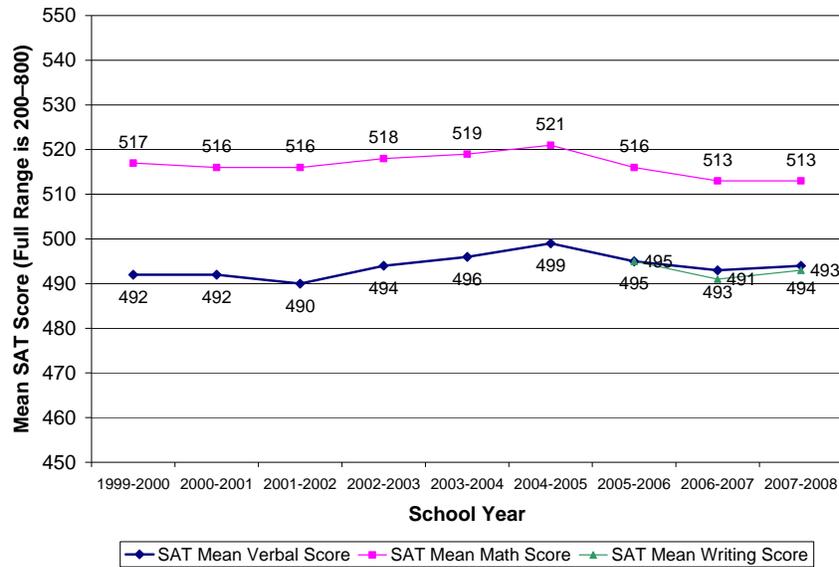


Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

Note. Prior to 2005–06 CDE reported the percentage of students achieving a combined SAT Verbal and Math score of 1,000. SAT Writing was introduced in 2006; in 2005–06 CDE changed its reporting to a combined Verbal, Math, and Writing score. The latter metric is reported here.

Figure 9.5. SAT and ACT participation rates and success rates over time.

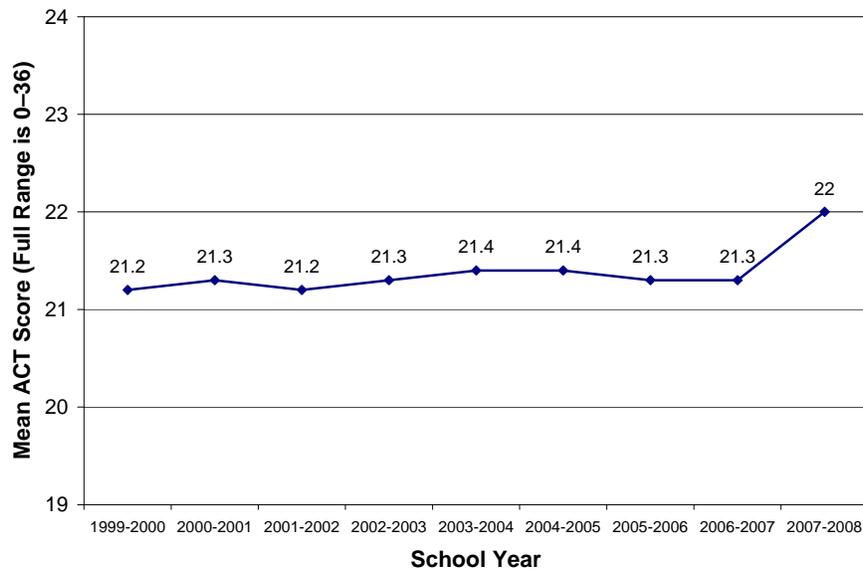
Another metric to assess success on tests such as the SAT and ACT is to look at mean scores. SAT math, verbal, and writing exams are each scored on a range of 200–800. Figure 9.6 indicates that mean SAT math and verbal scores generally increased each year between 2001 and 2005, but both verbal and mathematics 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 9.6. SAT mean math, verbal, and writing scores over time.

Figure 9.7 shows mean scores on the ACT exam over the same period. Scores were highly consistent until 2007–08, when they increased from 21.3 to 22.0. ACT exams are scored on a range of 1–36.



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

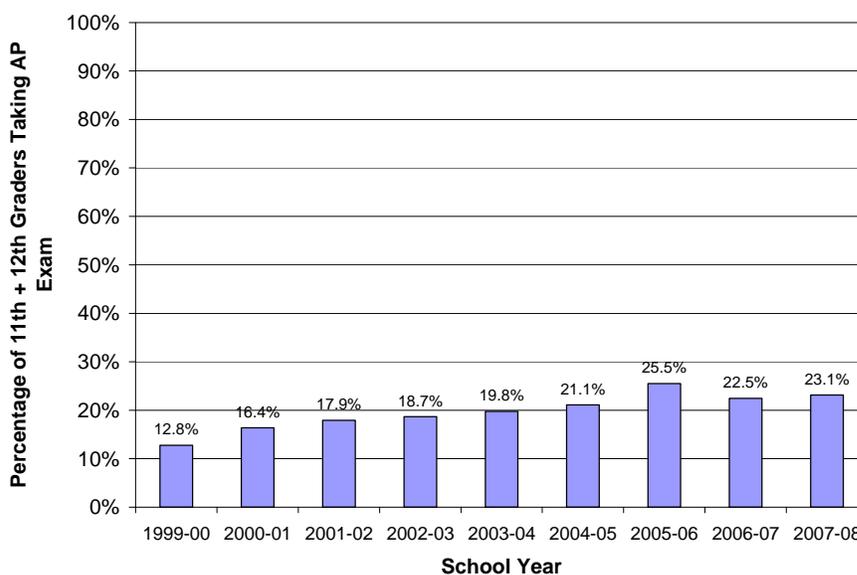
Figure 9.7. ACT mean scores over time.

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 more than 30 AP courses and exams, but not all courses are offered at all high schools.

Figure 9.8 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 for every school year between 1999–2000 and 2005–06, then declined in 2006–07; the rate increased in 2007–08 from 22.5% to 23.1%.

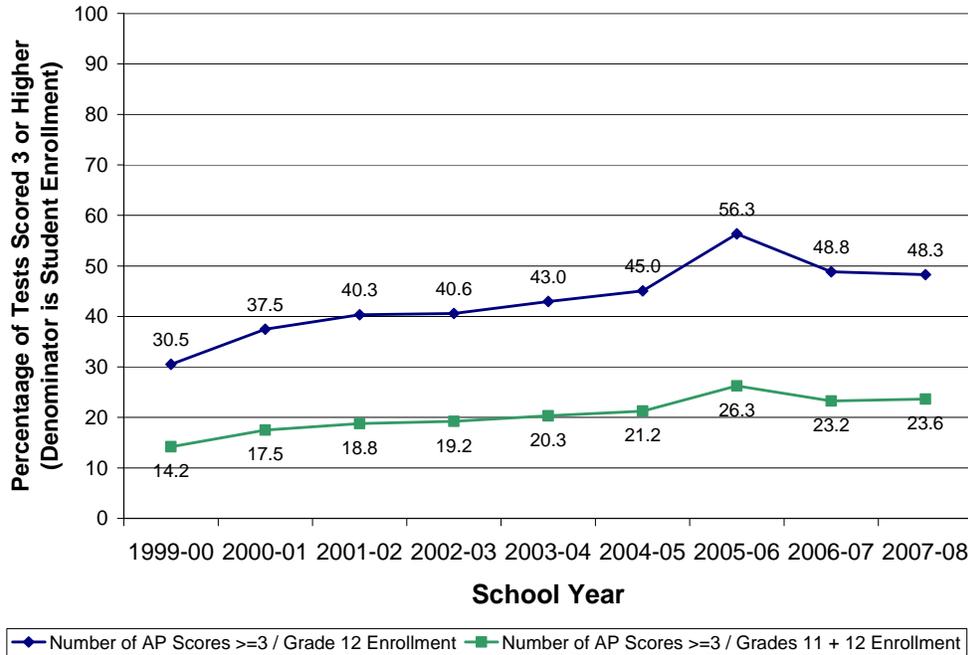


Source: California DataQuest System (<http://data1.cde.ca.gov/dataquest>)

Figure 9.8. AP participation rates over time.

The CDE Web site also reports AP pass rates over time. These data are summarized in Figure 9.9 but require some explanation. The numerator in each calculation is the number of AP tests on which a score of 3 or greater⁷ was earned. The denominator for one line (with diamonds) is Grade 12 enrollments; the denominator on the other line (with squares) 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 48.3% pass rate among 12th graders in 2007–08 does not indicate that 48.3% of high school seniors earned AP credit; in fact, Figure 9.8 indicates that only 23.1% 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 9.9 reveals that AP pass rates have generally increased over time, with an anomalous peak in the 2005–06 school year.

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

College Preparation: Summary

Among graduates, the rate of completing A–G courses varies widely, from 22.2% among Hispanic students to 59% among Asian students. The rate of completion overall, and for every group except American Indian/Alaska Native, declined from 2006–07 to 2007–08. One-third of the Class of 2008 completed the course requirements to enter a UC or CSU school.

The percentage of high schools seniors taking the SAT exam decreased in the 2007–08 school year, from 36.9 percent to 35.9 percent. At the same time the mean score on the SAT stayed stable on the verbal portion (at 513) and increased on the math portion (from 493 to 494) and on the writing portion (from 491 to 493). This relationship of decreased participation associated with increased mean score is consistent with research on other testing programs in which a more selective group of high-performing students raise the mean score. We note that the percentage of students earning a combined SAT score of 1500 or better declined from 17.8% to 17.5%. On the other hand, the percentage of students participating in the ACT increased from 9.8% to 11.8% over the past two years, while the percentage of students achieving a score of 21 or higher also increased from 5.3 percent to 7.0 percent. This pattern of greater inclusion and increased mean score may be an indicator of real progress.

A given student may take the SAT, the ACT, or both. We cannot determine the overlap between the SAT and ACT examinee groups, but do note that summing the percentages of students taking the two exams increased from a total of 45.8% in 2004–05, to 46.8% in 2005–06, to 47.7% in 2008–09. This may indicate more students are taking both exams, or possibly the inclusion of a wider range of students in this important step toward college participation.

Another indicator of the rigor of high school coursework is participation in, and success on, Advanced Placement examinations. The 2007–08 school year brought increased participation on these exams. While the percentage of students earning a score of 3 or higher was relatively flat, it increased by 0.4 percentage points as a percentage of combined Grade 11 and 12 enrollment and declined by 0.5 percentage points as a percentage of Grade 12 enrollment.

A Note on Data Revisions

A careful reader might note that some historical values in this report differ from values in our 2008 evaluation report. This report presents data from CDE websites as of August 2009, while the 2008 report contained data as of Summer 2008. The values presented on the Web sites are updated as data are routinely updated and corrected. Table 9.10 presents a substantial set of revisions to dropout rates and are provided here as an example. The new values are presented in this report’s Tables 9.1 and 9.3; the shaded values were presented in our 2008 evaluation report with the warning, “At the time of this report, the local education agencies (LEAs) were still correcting the initially reported dropout rates.”

Table 9.10. Changes in Dropout Rates Resulting from Data Corrections

Race/Ethnicity	Adjusted Grade 9–12 One-year Dropout Rate		4-Year Dropout Percentage	
	Class of 2007 (as of summer 2008)	Class of 2007 (from Table 9.1)	Class of 2007 (as of Summer 2008)	Class of 2007 (from Table 9.3)
African American	11.9%	9.8%	41.6%	35.8%
American Indian	8.6%	7.6%	31.3%	28.1%
Asian American	2.6%	2.3%	10.2%	9.0%
Filipino	3.0%	2.7%	N/A	N/A
Hispanic	7.9%	6.7%	30.3%	26.7%
Pacific Islander	7.6%	6.7%	27.9%	24.8%
White	4.0%	3.5%	15.2%	13.3%
Multiple/No Response	8.4%	7.2%	N/A	N/A
State Totals	6.4%	5.5%	24.2%	21.1%

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 through 2008 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. Answering this seemingly straightforward question demands a multifaceted answer. California made important improvements in its student-level data systems, facilitating more accurate dropout tallies in 2007. Therefore we report here trends from 2007 to 2008; the reader is referred to previous reports in this evaluation series for earlier trends.

First, we note that 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. We found that official dropout rate calculations indicate that both single-year and 4-year dropout rates decreased between 2007 and 2008, overall and for all ethnic categories. However, both dropout metrics revealed that African American students drop out at a substantially higher rate than every other group, including disadvantaged groups such as Limited English Proficient (LEP) and special education students. In addition, American Indian, Hispanic, Pacific Islander, economically disadvantaged, LEP, and special education students show notably higher dropout rates than White, Filipino, and Asian students. As reported previously, we found that the bulk of dropouts occur in Grade 12.

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 interpreted as an indirect indicator of dropout rates. Enrollment patterns indicate that the drop-off rates of sophomores increased in Fall 2009 while the drop-off rate of juniors and 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. We examined two measures: the graduation rate as a percentage of Grade 9 enrollment 4 years earlier, and the graduation rate required by ESEA, which is based upon the number of graduates in a given year and the number of dropouts in the relevant Grade 9 through Grade 12 years. We found that the graduation rate as a percentage of 9th graders increased slightly in 2007 and 2008 while the ESEA rate merely slowed its decline. Just over two-thirds (68.5%) of students who entered ninth grade in the fall of 2004 graduated 4 years later.

Review of disaggregated 9th-grade-to-graduation rates revealed that only the African American graduation rate declined in 2008 from its 2007 level, widening the gap with other racial/ethnic groups. Graduation rates vary widely, from 54.6% among African

American students to 92% for Asian students. We also note that disaggregated graduation rates are not as readily available on the CDE website as other important educational indicators.

We also looked at the percentage of students by demographic group who are not accounted for in either the 9th-grade-to-graduation or the 4-year dropout rates. We found large differences across racial/ethnic groups, from a low of 0.1% for Asian students to a high of 18.2% for Hispanic students.

Participation in the SAT college entrance examination decreased slightly in the 2007–08 school year, while the mean scores increased and the percentage of students earning a combined score of 1500 or better declined slightly. Participation and success on the ACT—which received only about a fifth of the participation among California students that the SAT program did — both increased.

In short, we found that graduation rate trends varied depending on the metric used, either rising slightly or declining less quickly in 2008 relative to 2007. While rates overall are worrisome—just over two-thirds of 9th grade students graduated on time in 2008—rates for specific demographic groups are substantially lower. And while dropout rates decreased for the Class of 2008 over the Class of 2007, the rates for African American students are nearly three times the rates for White students, and rates for Hispanic, English learners, and students with disabilities are more than twice the rate for White students, for example. The accuracy of documenting dropout rates has improved due to the new student identification system. While we applaud this increased accuracy, in the short term it limits comparability over time.

One-third of Class of 2008 graduates completed the A–G courses required by the University of California and California State University systems. Rates varied widely among racial/ethnic groups. Participation in Advanced Placement exams increased in 2008, but measures of success on the AP yielded mixed trends. Participation in the most common college entrance exam, the SAT, decreased while mean scores rose slightly; ACT participation and scores both rose.

Chapter 10: Findings and Recommendations

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

Background

As described in Chapter 1, an independent evaluation of the CAHSEE was launched in January 2000 and has continued every year since. The evaluation is required to assess both the impact of the CAHSEE requirement and the quality of the CAHSEE tests. Key 2008–09 evaluation activities included:

- review of the quality of the assessment (Chapter 2),
- analyses of 2008–09 passing rates (Chapter 3),
- additional analyses of students who did not pass (Chapter 4),
- additional analyses of results for students with disabilities (Chapter 5),
- analyses of student questionnaire responses (Chapter 6),
- a new survey of instruction (Chapters 7 and 8), and
- examination of other indicators of student achievement and success (Chapter 9).

In this final chapter, we summarize key findings from each of these activities and the conclusions we derived from these findings about the CAHSEE and its impact. We also offer several recommendations for improving the quality and effectiveness of the CAHSEE.

Key Findings

Test Quality (Chapter 2)

HumRRO conducted another study of the alignment of the CAHSEE ELA test to the ELA content specifications. Both the study design and the study results were very similar to the study conducted in 2008. 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. As noted last year, there was some disagreement between the test developers and our independent reviewers about the specific objectives assessed by each test question. ETS procedures for item development continue to evolve, but it will be several years before items developed under updated procedures are ready to use operationally on CAHSEE test forms.

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 looked at form-to-form variation in the scoring tables as an indicator of psychometric comparability across forms and found good consistency.

We observed one administration of the CAHSEE during the May administration. No significant problems were encountered. We offer a few suggestions for improving test administrator training in Chapter 2.

Test Results (Chapter 3)

We analyzed CAHSEE passing rates for this year's 10th, 11th, and 12th graders and also for students from prior high school classes (Class of 2006 through Class of 2008) who were still trying to pass the CAHSEE. Key findings from these analyses were:

Cumulative passing rates for seniors were largely unchanged. Cumulative passing rates for seniors in the Class of 2009 were only slightly higher (90.6%) than the corresponding rates for the Class of 2008 (90.4%) passing both parts as shown in Table 3.7). Cumulative passing rates for students in special education programs increased much more significantly, more than 2 percentage points, from 54.5% to 56.6%.

Cumulative passing rates for juniors increased significantly. Cumulative passing rates for 11th graders in the Class of 2010 increased just over a percentage point compared to 11th grade passing rates for the Class of 2009 at the end of 11th grade (from 81.7% to 82.9% as shown in Table 3.15). This was a significant increase and should lead to a continued reduction in the number of seniors who are denied diplomas due to the CAHSEE requirement next year.

Passing rates for 10th graders also increased somewhat. About 69.9% of 10th graders completed the CAHSEE requirement this year compared to 69.2% in 2008, reflecting a continued improvement over earlier years (Table 3.16). Tenth grade passing rates increased for all demographic groups except for Native Americans and Pacific Islanders.

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 57% of special education students in the Class of 2009 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.

The gap in mathematics courses taken widened. More 10th grade students had taken (or were taking) geometry or even more advanced mathematics courses. At the same time, the percentage of 10th graders who reported not yet taking Algebra I increased significantly, by about 10%. Students who were taking more advanced mathematics courses had very little trouble with the CAHSEE requirement, while students who had taken fewer courses had significantly lower passing rates on the CAHSEE mathematics test.

Many Students from the classes of 2006, 2007, and 2008 who had not passed the CAHSEE continued to test. About 2,000 students from the Class of 2006 continued to try to pass the CAHSEE, more than 2 years 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 but were not still trying to pass (Table 3.22). Similarly, roughly 4,000 students in the Class of 2007 were still trying to pass the CAHSEE in the

second year after their original graduation date. A significant finding was that more than 40% of students in the Class of 2008 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. *Four-year graduation rate estimates provide an incomplete picture of eventual outcomes for these students.*

Further Analyses of Class of 2008 Students Who Did Not Pass (Chapter 4)

As part of the California Longitudinal Pupil Achievement Data System (CALPADS), districts are now coding reasons why each student leaves their schools. These reasons range from graduation to transfer, to alternate routes such as GED or CHSPE, to varying categories of dropouts. One code, in particular, identifies students who leave without a diploma after meeting all graduation requirements except for the CAHSEE. We looked at the exit codes assigned to students in the Class of 2008 to see whether students with various codes had passed the CAHSEE and, for those who had not, whether they were continuing to try to pass the CAHSEE in 2009, the year after their original senior year. Key findings from these analyses were:

CAHSEE and CALPADS exit code information is largely, but not entirely, consistent. Exit codes were found for 80% of Class of 2008 students with CAHSEE test records. The remaining 20% may have been students who left during or at the end of the 2006 school year (before exit code information was being collected) or who remained in school after their senior year (and hence did not exit). CAHSEE passing records were found for over 98% of students coded as receiving a regular diploma. However, 14% of the students with exit codes indicating they did not meet the CAHSEE requirements were matched to CAHSEE records indicating that they had passed. It is possible that they did leave and then come back to pass the CAHSEE, but there were not subsequent exit code records indicating that they had graduated. We fully expect these inconsistencies will be greatly reduced as schools and districts have further experience with the exit coding requirement.

Relatively few students were denied diplomas because of the CAHSEE requirement alone. Only 1% of the Class of 2008 was coded as meeting all of the graduation requirements except the CAHSEE. This estimate is considerably less than the 4% decrease in graduation rates noted for the Class of 2006, a decline which has generally been considered to be related, at least in part, to the implementation of the CAHSEE requirement. The percentage of EL students and students with disabilities meeting all requirements except the CAHSEE was higher (3% and 4% respectively). There were only very small differences among racial/ethnic groups in the percentages of students with this exit code (from 0.5% to 1.7%).

Nearly half of the Class of 2008 students who met all graduation requirements except the CAHSEE continued to try to pass the CAHSEE in 2009. The percentage was somewhat lower for white students (36%) and for students with disabilities (38%).

The percentage of students coded as receiving a regular high school diploma varied across different demographic groups. Overall, records for the Class of 2008 indicated that 64% of students graduated with a regular high school diploma. Graduation rates were only 50% for African-American students and 56% for Hispanic students compared to 74% for white and 80% for Asian students. Only 55% of economically disadvantaged students and 43% of English learners were coded as receiving a regular high school diploma at the end of their senior year. Only 38% of students with disabilities were coded as regular graduates, although another 3% were coded as graduating with a CAHSEE waiver.

Over half of the students in the Class of 2008 who dropped out, left California public education, or failed to graduate for other reasons had already met the CAHSEE requirement. The CAHSEE requirement may have discouraged some students who dropped out, but the majority clearly dropped out for other reasons.

We also examined the relationship between seventh grade STAR ELA and mathematics scores to CAHSEE success for Class of 2008 students. Key findings from these analyses were:

Students who may need additional help to pass the CAHSEE were clearly identified in seventh grade assessment results. Nearly all Class of 2008 students (more than 95%) scoring near or above the median (325) on seventh grade ELA and mathematics tests met the CAHSEE requirement by the end of their senior year. In comparison, more than a third of the students scoring somewhat below the median (255-290) and over 70% of the students scoring well below the median (less than 255) in the seventh grade had not met the CAHSEE requirement by the end of their senior year. This finding is particularly significant because most CAHSEE remediation efforts have been targeted to students during or after the 12th grade, although these students can be identified with reasonable accuracy much earlier.

There were considerable differences across demographic groups in the distribution of seventh grade STAR scores, particularly in the percentage of students scoring at the lowest score level in our analyses. Nearly 12% of African-American students and over 9% of Hispanic students in the Class of 2008 had seventh grade STAR scores below 255 (well below the median of 325) compared to 2–3% of white and Asian students. Nearly 20% of English learners and 28% of students with disabilities had scores in this lowest category.

The relationship between STAR score levels and CAHSEE passing rates was very similar for students in different demographic groups. The one exception was that students with disabilities at each STAR score level had lower CAHSEE passing rates compared to other students. For students just below the median (290–325) only 75% of students with disabilities met the CAHSEE requirement compared to 91% of all students at this STAR score level. At the lowest STAR score level, only 17% of students with disability subsequently met the CAHSEE requirement compared to 30% of all students at this score level.

Further Analyses of Results for Students with Disabilities (Chapter 5)

In our 2009 analyses, we took another closer look at students with disabilities, a group that has had particular difficulty meeting the CAHSEE requirement. We examined additional information on the characteristics of students in each of these populations and on the nature of the services they received. Trends in the characteristics of students, testing accommodations, and CAHSEE passing rates from 2006 to 2009 were explored.

About one-quarter of the students receiving special education services require more intensive assistance. These students participate in regular instruction less than 20% of the time and only about 10% of them pass the CAHSEE during the 10th grade. Those who retest in the 11th grade show only small gains in CAHSEE scores compared to other students. The services received by these students are specified by individualized educational plan (IEP) teams, who have statutory authority for making such judgments. There is no basis for second-guessing the services being provided to these students, although it is important to ask IEP teams to be sure student classifications are appropriate. It is less reasonable to hold students responsible for mastering the skills assessed by the CAHSEE when they are not receiving instruction related to the skills tested by the CAHSEE. The school system needs to provide alternate goals and some way of recognizing achievement of these alternate goals for students in this second group.

Another quarter of the students whose data we analyzed receive other combinations of services and show mixed results on the CAHSEE. More detailed information on the needs of these students and the specific services provided is needed to determine which students have a reasonable chance of meeting the CAHSEE requirements.

The rate at which students with disabilities received testing accommodations and modifications increased slightly for 10th graders from 2006 to 2009 and increased much more dramatically for 12th graders. The percentage of students receiving oral presentation of the ELA test was about 3% for tenth graders in both years, but rose from 7% for 12th graders in 2006 to 28% in 2009. Similarly, the percentage of students using a calculator on the mathematics test rose from 8% to 10% while the percentage of 12th graders receiving this modification rose from 18% to 43%. One reason for the increases from 2006 was that waivers for students who achieve a passing score with a modification became much more automatic by 2009. With respect to the differences between 10th and 12th grade test modification rates, it should be noted that 10th grade CAHSEE results are also used for school accountability under the federal No Child Left Behind Act provisions and, with the exception of students taking the test with a calculator, students taking the tests with a modification are not counted towards the 95% participation requirement.

There was also a significant difference between 2006 and 2009 test results for 11th and 12th grade students. Score gains from both 10th grade to 11th and 11th to 12th

grade were much higher in 2009, signaling a significant improvement in the effectiveness of remedial programs.

Student Questionnaire Responses (Chapter 6)

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 trends.

There were several changes in responses of 10th graders over the past 5 years in test preparation, perception of test importance and coverage of CAHSEE topics in class, and future plans. Specifically, in 2009 an increased percentage of students reported that:

A teacher or counselor told them about the purpose and importance of the test.
Time was spent in class to prepare for the test.
They took a special class to prepare for the CAHSEE.
They perceived the tests to be "very important."
Test topics and questions were similar to those they had been exposed to in their regular courses.
If they did not pass the CAHSEE during this administration they would stay in school and try again to pass.

There were also differences among the responses of 10th grade students who (a) passed both parts of the CAHSEE, (b) passed either math or ELA but not both, and (c) students who did not pass either part. Please note that these questions were asked before students received their test scores but we were able to reflect back to compare responses in light of actual test performance. Overall, students who passed both tests reported the most positive perceptions about the CAHSEE and those who passed neither test reported the most negative perceptions. A higher percentage of students who passed both tests reported that:

They used released (sample) items to prepare for the test.
They believed they would earn their diploma with the rest of their class or earlier.
They planned to attend a 4-year college or university.
They did as well as they could on the CAHSEE.
All of the topics on the CAHSEE were covered in class and most of the questions were similar to those used in course homework and assessments.
If they did not pass the CAHSEE during this administration they would stay in school and attempt to pass again.

Students who passed only one test (either ELA or math) had a higher percentage who reported that:

The CAHSEE was "very important."
If they did not graduate it would be because they might not pass all of the required classes.

They had plans to attend a community college (those who passed ELA only).

Higher percentages of students who passed neither test reported that:

The CAHSEE was "not important."

They would likely earn their high school diploma later than the rest of their class.

The CAHSEE might prevent them from graduating.

They had plans to work full time or to join the military.

They had confidence in their post-high-school plans.

They were too nervous to do as well as they could on the CAHSEE.

Many topics on the CAHSEE were not covered in their courses and the test questions were more difficult than those they had seen on course homework and assessments.

They might have to take additional courses or stay in school an extra year to learn the material required to pass the CAHSEE.

Some differences in questionnaire responses were observed for different demographic groups. Females were more likely than males to report that the CAHSEE was very important and that to prepare they did work in addition to coursework, they used sample (released) items, and they used the Student Guides to prepare for the CAHSEE. A higher percentage of females than males expressed confidence in earning a high school diploma and planned to go to a 4-year college, university, or community college upon finishing. Females also were more likely than males to report that test items were similar and of the same difficulty or easier than those seen in class.

African American and Hispanic 10th graders were most likely to report that the CAHSEE was very important. However, these students, along with American Indian/Alaskan Natives, were the least likely to believe that they would graduate on time and were the most likely to report they would probably not receive a high school diploma.

English learners were most likely to report that CAHSEE was very important. Students with disabilities and English learners were more likely to take special classes to prepare for the tests than were non-English learners. However, English learners and students with disabilities were less likely than non-English learners to expect to graduate with the rest of their class and they were more likely to report they would probably not receive a high school diploma. Students with disabilities and English learners were less likely to report that test items and the difficulty of items were similar to what they experienced in their courses. In addition, the students with disabilities and English learners who reported that the CAHSEE was "not important," also were the most likely to report they would not earn a high school diploma.

Like students with disabilities and EL students, those who were economically disadvantaged were less likely than those who were not to expect to earn a diploma with the rest of their class. They also were more likely to state that CAHSEE topics were not covered in class and that the items were unfamiliar and more difficult than those they

had seen in their course or other tests. Students who were not economically disadvantaged were most likely to expect to attend a 4-year college or university.

Overall, the results of the 2009 student questionnaire were positive. Most students realized that the CAHSEE is important and reported they were learning the appropriate topics in their courses. However, this questionnaire also drew attention to particular groups who may need more attention, particularly students with disabilities, English learners, students who are economically disadvantaged, African Americans, Hispanics, and American Indian/Alaskan Natives. These student groups were less likely to believe they would earn a high school diploma and more likely to report that test items were more difficult and not covered in class.

Results from the Instruction Survey (Chapters 7 and 8)

HumRRO conducted another study of instruction relative to the content standards assessed by the CAHSEE, similar to studies conducted in 2003 and 2005 when the decision to defer the CAHSEE was made. The purposes of this new study included assessing continuing changes in curriculum and instruction associated with the CAHSEE requirement and also to identify programs and practices associated with greater student success in meeting CAHSEE requirements.

This year's survey was wide ranging, collecting information from and about principals, English and mathematics department heads, general curriculum teachers, and teachers helping English learners and students with disabilities. We also collected information on the different courses taught by these teachers and the students participating in these courses. Some of the more salient findings were:

Principals: Most of the principals in this study reported being familiar or very familiar with the California ELA and math standards, although differences in responses to this question were not significantly related to differences in student success on the CAHSEE. Most responding principals reported that their schools' integration of the California content standards contained in the CAHSEE blueprints for ELA and math were partially complete or less before 2006. However, by the 2008–09 school year, approximately 95 percent of them reported that integration was mostly complete or complete. There were no substantial differences in ELA or math CAHSEE content coverage in 2009 between schools with higher and lower concentrations of at-risk students, according to principals.

Principals were asked about participation of their school's administrators in AB 75 or AB 430 professional development institutes. Almost half of responding principals said at least most of their schools' administrators participated in this type of professional development. Approximately one-quarter of ELA department heads reported at least half of the teachers in their departments had participated in SB 472 professional development institutes. About one-fifth of mathematics department heads said at least half of the mathematics teachers had participated in this type of professional development.

Teachers: The instruction surveys acquired information about teacher experience from both teachers and department heads. Overall, findings indicate that teachers were experienced and qualified in their given areas. Department heads reported that 80% of their schools' ELA teachers and over 70% of their math teachers had at least a great extent of experience teaching their respective content standards. Teachers reported that they had approximately 12 years of experience on average and 5 years teaching their current course or instructional program. One finding of potential concern was that math department heads reported a decrease in the percentage of teachers at their schools with over 5 years of experience compared to 2005.

We compared department heads' estimates of teacher familiarity and experience with the California ELA and math content standards in schools with high and moderate-to-low concentrations of at-risk students. Department heads at schools with **lower** concentrations of at-risk students were **more** likely to report that teachers were familiar with the content standards to a very great extent (see Table 7.12). There also was an overall decrease in the percentage of math teachers reported to have great or very great experience teaching the standards for both schools with higher and lower concentrations of different types of at-risk students,

High school department heads also estimated the experience levels of teachers responsible for primary or supplemental courses and intervention programs. Between 2005 and 2009, the percentage of schools with few experienced teachers who taught primary or supplemental math courses increased slightly. Also, over 10% of schools in 2009 reported they had more teachers with less experience teaching math intervention programs.

Approximately three-fourths of schools operated with all or nearly all credentialed teachers in 2009, an increase from 2005. About 12% of the schools, however, reported that more than 25% of their teachers lacked appropriate credentials. We found a significant correlation between the percentage of teachers with over 5 years of experience in ELA and student performance at the school level on the ELA CAHSEE. Having a greater percentage of teachers with more than 5 years of experience was related to an increase in the percentage of students passing. For math we found a correlation between the percentage of teachers having the appropriate teaching credential in a particular math department and the percentage of students at the school passing the CAHSEE math test. It is important to note that these correlations do not establish an unambiguous causal link. It is possible that other factors, such as district affluence, lead to both greater teacher qualifications and higher CAHSEE passing rates.

ELA and math department heads separately reported that only a small percentage of teachers in their departments did not participate in content-related professional development designed to help them teach the California content standards. According to teachers' self-reports, only a small percentage did not receive any professional development during the 2008-09 school year.

Courses: Our sample of teachers represented a wide variety of courses classified as high school ELA and math. As expected, the primary courses and the remedial

courses open to all students were mostly comprised of general education students. The majority of students in alternate courses have EL and SWD designations. Most classes, particularly primary courses, were offered during regular school hours and lasted a full school year. Remedial courses were more likely than primary courses to be held at nontraditional times and last for a shorter period of time.

When teachers were asked what factors limited course effectiveness, they overwhelmingly reported student factors as the main limitation. This was true for all types of courses. As a group, the responding teachers indicated that low student motivation, a lack of prerequisite knowledge, poor attendance, and behavior problems were the leading limitations to course effectiveness.

Courses for special populations: The majority of principals reported their schools offered CAHSEE intervention or remediation courses. In most of these cases, the CAHSEE intervention or remediation courses were offered to juniors and seniors and sometimes to sophomores. Approximately three-quarters of responding principals reported their district was effective or better at helping at risk students to improve their CAHSEE scores. About two-thirds of the principals indicated the intervention or remediation courses provided at their schools had at least a moderate impact on preventing students from dropping out of school. Slightly less than one-quarter of the principals believed their schools' CAHSEE intervention or remediation courses had a slight impact on preventing students from dropping out of school.

Teachers reported that EL students were selected for inclusion in their courses based on their EL status while most SWD students were selected based on individualized education program decisions. Half of the responding EL teachers had students in their courses or instructional programs who were rated at the beginning level of English proficiency (CELDT level 1 or 2). More than half reported having students rated at a moderate level (CELDT level 3 or 4). Almost all of the EL teachers reported that they taught nearly their entire course in English.

The most common suggestion provided by teachers of SWD and EL students for improving students' pass rates was to have more instructional materials available. Several EL teachers noted their textbooks needed to be more aligned with the CAHSEE standards and more relevant to high school EL students. Some SWD teachers commented on the need for more interesting materials at students' reading level.

Instructional activities: ELA and math teachers were asked about their use of various types of instructional activities in the classroom. ELA teachers reported using several activities to engage and teach the students. How often these teachers used these activities depended largely on the duration of the activity. For example, writing workshops are fairly intensive and could last days, so teachers reported using them fairly infrequently. In contrast, vocabulary instruction and assessments can be done in a relatively short period of time, so teachers reported using them more frequently, either on a weekly or daily basis. Math teachers reported most frequently using problems that emphasized relationships among math concepts and rarely using short problems to engage and teach the students.

Approximately two-thirds of ELA, math, and EL teachers reported using a primary textbook. Slightly less than half of the responding teachers of SWD reported using a primary textbook. Of the teachers who used a primary textbook, teachers of English learners most often reported using most or all of the text; ELA teachers were least likely to do so.

Approximately one-third to slightly more than 40% of the principals indicated their schools also used ability-based small groups, one-on-one tutorials, software programs, and textbooks with on-line supplements to deliver the CAHSEE core courses.

Assessments: Teachers were asked how frequently they used a variety of assessments. ELA teachers reported using most frequently on-demand writing assessments and assessments they created themselves. Math teachers reported using most frequently the assessments they created themselves and assessments created by other teachers. Math teachers also tended to use released test items fairly frequently. Teachers of EL and SWD reported using most frequently assessments they created themselves. The teachers of EL students also reported using on-demand writing fairly frequently while the teachers of SWD used released test items fairly frequently. Many teachers were unsure how many of their students had achieved at least *basic* on last year's STAR CST. More teachers of SWD and EL students reported that they had no students or only a few students who had achieved at the basic level compared to ELA or math teachers.

The majority of principals indicated their schools used a district-based tracking system. This also was reported in 2005 by principals as the most frequently used system to monitor and track student progress.

Curricular coordination: Principals were asked to describe how their school ensures delivery of a coherent CAHSEE intervention program. The most common feature of a CAHSEE intervention program was the availability of ELA and math CAHSEE preparation or remediation courses. Another common feature was the schools' use of test data to place students in appropriate CAHSEE interventions. About one-third of the principals reported separately that the integration of CAHSEE standards with their core curriculum and individualized instruction were important features of their intervention programs.

Approximately one-third of the principals reported their schools had no system developed to coordinate coverage of the California academic content standards associated with the CAHSEE among the elementary, middle, and high schools. However, about one-quarter reported their schools' systems were fully developed to coordinate between the middle and high schools. Slightly more than one-third of the principals reported their schools' systems were fully developed to coordinate between special education and general education and between English language development and general education. The majority of ELA and math teachers reported collaborating with other teachers by sharing ideas about teaching strategies, aligning instruction

across courses, assessing individual student needs, and planning coverage of CAHSEE standards.

CAHSEE Preparation: Surveys asked principals, department heads, and teachers about the extent to which they focused on various instructional strategies in preparing students for the CAHSEE. Across these respondents, the majority reported increasing their focus on using CAHSEE-like tasks and matching the content of instruction with that of the CAHSEE, at least to a moderate extent, to prepare their students for the CAHSEE. Most teachers indicated that the goal of preparing students for the CAHSEE was as important as their other course goals. A higher percentage of SWD teachers indicated that preparing their students for the CAHSEE was their most important course goal.

Teachers and principals were asked about the extent to which students in their schools understood the consequences of not passing the CAHSEE. Approximately three-quarters of all types of teachers reported the students understood to a great or very great extent the consequences of not passing the CAHSEE. Almost all of the responding principals believed that students in their schools understood at least to a great extent the consequences of not passing the CAHSEE. Almost three-quarters of responding SWD teachers reported their schools provided counseling about options for additional remediation or testing to students who do not pass CAHSEE. Slightly more than half to about two-thirds of the remaining types of teachers reported their schools talked to students about their options for remediation and testing. The majority of responding principals reported their schools counseled students about additional remediation and testing.

Instructional improvement: Principals, department heads, and teachers were asked about the extent to which CAHSEE results were used to make decisions about changes in their schools' instruction and assessment as well as overall school improvement. More than two-thirds of the responding sample reported using the CAHSEE to make changes in the schools' instruction and assessment, and to make overall improvements to the school. In general, results indicate the CAHSEE was used slightly more to make overall improvements to the schools than to the schools' instruction or assessments.

Trends in Other Outcomes (Chapter 9)

Data sources outside the CAHSEE program provide indications of the state of education in California. The Class of 2006 was the first one required to pass both parts of the CAHSEE to receive a high school diploma. Trends beginning with the Class of 2006 are of particular importance as they cover the time since imposition of the CAHSEE requirement.

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. Answering this seemingly straightforward question demands a multifaceted answer. California made important improvements in its student-level data systems, facilitating

more accurate dropout tallies in 2007. Therefore we report here trends from 2007 to 2008; the reader is referred to previous reports in this evaluation series for earlier trends.

First, we note that 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. We found that official dropout rate calculations indicate that both single-year and 4-year dropout rates decreased between 2007 and 2008, overall and for all ethnic categories. However, both dropout metrics revealed that African American students dropped out at a substantially higher rate than every other group, including disadvantaged groups such as LEP and special education students. In addition, American Indian, Hispanic, Pacific Islander, economically disadvantaged, LEP, and special education students showed notably higher dropout rates than White, Filipino, and Asian students. As reported previously, we found that the bulk of dropouts occurred in Grade 12.

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 interpreted as an indirect indicator of dropout rates. Enrollment patterns indicate that the drop-off rates of sophomores increased in Fall 2009 while the drop-off rate of juniors and 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. We examined two measures: the graduation rate as a percentage of Grade 9 enrollment 4 years earlier, and the graduation rate as measured by ESEA requirements, which is based upon the number of graduates in a given year and the number of dropouts in the relevant Grade 9 through Grade 12 years. We found that the graduation rate as a percentage of ninth graders increased slightly in 2007 and 2008 while the ESEA rate merely slowed its decline. Just over two-thirds (68.5%) of students who entered ninth grade in the fall of 2004 graduated 4 years later.

Review of disaggregated ninth-grade-to-graduation rates revealed that only the African American graduation rate declined in 2008 from its 2007 level, widening the gap with other racial/ethnic groups. Graduation rates varied widely, from 54.6% among African American students to 92% for Asian students. We also note that disaggregated graduation rates are not as readily available on the CDE website as other important educational indicators.

We also looked at the percentage of students, by demographic group, who are not accounted for in either the ninth-grade-to-graduation or the 4-year dropout rates. We found large differences across racial/ethnic groups, from a low of 0.1% for Asian students to a high of 18.2% for Hispanic students.

Participation in the SAT college entrance examination decreased slightly in the 2007–08 school year, while the mean scores increased and the percentage of students

earning a combined score of 1500 or better declined slightly. Participation and success on the ACT—which had only about a fifth of the participation among California students that the SAT program did — both increased.

In short, we found that graduation rate trends varied depending on the metric used, either rising slightly or declining less quickly in 2008 relative to 2007. While rates overall are worrisome—just over two-thirds of ninth grade students graduated on time in 2008—graduation rates for specific demographic groups are substantially lower. And while dropout rates decreased for the Class of 2008 compared with the Class of 2007, the rate for African American students was nearly three times the rate for White students, and rates for Hispanic, EL, and SD students were more than twice the rate for White students, for example. The accuracy of documenting dropout rates has improved due to the new student identification system. While we applaud this increased accuracy, in the short term it limits comparability over time.

One-third of Class of 2008 graduates completed the A–G courses required by the UC and CSU university systems. Rates varied widely among racial/ethnic groups. Participation in Advanced Placement exams increased in 2008, but measures of success on the AP yielded mixed trends. Participation in the most common college entrance exam, the SAT, decreased, while mean scores rose slightly; ACT participation and scores both rose.

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. The paths of students who do continue 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 after 4 years of high school. Many students continue to take the CAHSEE in their 5th and even 6th year of high school and do eventually pass. Little is known from available data about factors that influence student decisions to continue and about programs that are successful in helping these students reach passing levels on the CAHSEE tests. We also recognize that there are cost consequences of additional schooling which will need to be evaluated to ensure adequate funding for new or increased initiatives.

Another key finding from this year's analyses is that a high proportion of the students who score low on seventh grade assessments will need additional help to meet the CAHSEE requirement. This leads to our second recommendation:

Recommendation 2: New interventions should be targeted at earlier grades, using test scores to identify students who have fallen behind their classmates and are at risk of failing to meet the CAHSEE requirement.

State policy has focused on interventions for students who do not initially pass the CAHSEE, including funding for remedial 12th grade program and provisions for students to continue for a fifth or even sixth year of high school. Analyses of longitudinal data indicate that seventh grade assessment results can be used to identify students who may need additional help to pass the CAHSEE. It would be useful to study initially low-achieving students who are able to catch up and pass the CAHSEE by the time they reach the 10th grade. We should study the people, psychological and learning climates, and programs that helped them to do so. It might then be possible to extend this help to more of the students who have fallen behind and need to catch up.

California's current fiscal crisis raises concerns about continued funding for CAHSEE remediation efforts at any level. Increased flexibility in the use of funds previously targeted for remediation may reduce focus on helping students master the skills required to pass the CAHSEE. It may be useful for the Department to monitor district remediation efforts to ensure that overall efforts are not diminished as well as to identify uses of remediation funds that are particularly effective in helping students pass the CAHSEE, particularly those students who fall behind their classmates at earlier grades.

An important finding from our instruction study was the significant relationship of teacher quality to student outcomes for both ELA and mathematics. We found that years of teacher experience was related to student performance on the CAHSEE ELA and math teaching credentials were related to higher CAHSEE math passing rates. This leads to our third recommendation:

Recommendation 3: In these tight financial times, districts may need particular help and direction to attract and retain teachers who are experienced and well qualified in the subjects that they teach. District and school efforts to increase coordination across grade levels and between general and special instructional programs should be encouraged and supported.

Students with disabilities continue to have greater difficulties meeting the CAHSEE requirement than their classmates. Our fourth recommendation is:

Recommendation 4: 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.

Findings from our analyses continue to show a close relationship between participation in the general curriculum and success in meeting the CAHSEE requirement. State efforts are currently focused on finding different ways for students with disabilities to demonstrate what they know and can do, but it is also very important to continue efforts to improve the effectiveness of programs to help them develop these skills in the first place. The current suspension of the CAHSEE requirement for students with disabilities could lead to reduced efforts to help and encourage students with disabilities to master these critical skills.

It is also important to recognize the diversity of needs of students in special education programs. It is extremely unlikely that one solution will be effective for all students. It is important to evaluate the progress of all students, even those not yet able to pass the CAHSEE. The CAPA provides measures of progress for students not able to take the regular assessments; CAPA results should be used to evaluate the effectiveness of programs to help these students as well.

English learners also have more difficulty meeting the CAHSEE requirement than their classmates. Our fifth recommendation is:

Recommendation 5: 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.

The population of English learners is also quite diverse, with different ethnic and cultural backgrounds and different instructional needs. Many students who do not begin to learn English until high school simply need an additional year or two to master English as well as the skills assessed by the CAHSEE. Other English learners, however, have been in U.S. schools for a longer period and have still not achieved English proficiency. Additional study is needed to identify effective strategies for helping this latter group of English learners.

Some recent research suggests the importance of psychological as well as academic preparation for the CAHSEE. Students must believe that, with appropriate effort, they can master the required skills and pass the CAHSEE. It is important to eliminate any possible factors such as “stereotype threat,” identified by some researchers as detrimentally affecting student success. In addition to ensuring “Yes, we can” beliefs, schools need to help some students overcome test anxieties and to cope with initial failures to pass the requirement. This leads to our sixth recommendation:

Recommendation 6: The state and districts need to support additional study of non-academic factors that may limit some student’s ability to meet

the CAHSEE requirement. Procedures that are effective in overcoming psychological barriers should be identified and disseminated.

Low-income and minority students also have greater difficulty than their classmates in passing the CAHSEE. In addition, dropout rates are higher for these categories of students, leading to a greater proportion not receiving a high school diploma. Failure to receive a diploma has significant societal costs as well as costs to the individual students. Our seventh recommendation is:

Recommendation 7: California schools and districts need to find ways to increase graduation rates for low-income and minority students.

Reducing the achievement gap has been a high priority for the Department under Superintendent O'Connell. It will take time, however, before efforts at earlier grades lead to reduced gaps for students entering high school. Again, with the fiscal crisis there is a concern that efforts to reduce achievement gaps and attain equity in graduation rates may be diluted.

Finally, it has been 10 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. Five 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 both the ELA and mathematics portions of the CAHSEE indicates preparation for life after high school. More generally, our final recommendation for this year is:

Recommendation 8: The State Board of Education should initiate a new review of the CAHSEE content requirements. The Board should 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.

The availability of longitudinal data, including data on students moving from high school to community or other colleges, will enable us to study the relationship between skills measured by the CAHSEE and subsequent indicators of success. Preparation to take credit-bearing college courses or succeed in rigorous technical training is essential, both for individual student success and also for maintaining the global competitiveness of our workforce.

Many states also require students to pass end-of-course tests in other subjects. Providing options for students to take and pass different course requirements

recognizes the increasing individualization of instructional goals at the high school level and also discourages an inappropriate narrowing of the curriculum.

The exit exam cannot be changed overnight. A High School Exit Exam committee met for over a year to develop initial recommendations for CAHSEE content. If changes in graduation requirements are identified, it is important to provide sufficient lead time in implementing these changes to allow adjustment of both the high school and earlier curriculum to make sure students are prepared to meet any new requirements. Sufficient lead time is also needed for revisions to the CAHSEE assessments to be sure that test quality is not compromised.

References

- Alliance for Excellence (2007). *The High Cost of High School Dropouts: What the Nation Pays for Inadequate High Schools*. Retrieved from <http://www.all4ed.org/files/archive/publications/HighCost.pdf>.
- Becker, D.E., & Watters, C. (Eds.) (2007) *Independent evaluation of the California High School Exit Exam (CAHSEE) 2007 evaluation report (FR-07-69)*. Alexandria, VA: Human Resources Research Organization. [Online]. Available: <http://www.cde.ca.gov/ta/tg/hs/documents/evalrpt07.pdf>.
- Becker, D.E., & Waters, C. (Eds.) (2008). *Independent evaluation of the California High School Exit Examination (CAHSEE) fourth biennial report (FR-08-12)*. Alexandria, VA: Human Resources Research Organization. [Online]. Available: <http://www.cde.ca.gov/ta/tg/hs/documents/fourthbiennialrpt.pdf>.
- Becker, D.E., Wise, L.L., & Watters, C. (Eds.) (2008) *Independent evaluation of the California High School Exit Exam (CAHSEE) 2008 evaluation report (FR-08-100)*. Alexandria, VA: Human Resources Research Organization. [Online]. Available: <http://www.cde.ca.gov/ta/tg/hs/documents/cahsee08evalrpt.pdf>.
- California Department of Education. (2003). *CAHSEE Language Arts Blueprint*. Retrieved from <http://www.cde.ca.gov/ta/tg/hs/admin.asp>.
- California Department of Education. (2003). *CAHSEE Mathematics Blueprint*. Retrieved from <http://www.cde.ca.gov/ta/tg/hs/admin.asp>.
- Dalia Zabala, Dr. Angela Minnici, Jennifer McMurrer, Liza Briggs. (2008). *State High School Exit Exams: Moving Toward End-of-Course Exams*. Washington, DC: Center on Education Policy.
- Heckman, J. J., & Krueger, A.B. (2005). *Inequality in America: What role for human capital policies?* MA: MIT Press.
- Johnson, D. R., Thurlow, M. L., & Stout, K. E. (2007). *Revisiting graduation requirements and diploma options for youth with disabilities: A national study (Technical Report 49)*. Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.
- Johnstone, C. J., Altman, J., & Thurlow, M. (2006). *A state guide to the development of universally designed assessments*. Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.
- Johnstone, C.J., Thompson, S.J., Miller, N.A., & Thurlow, M.L. (2008). Universal design and multi-method approaches to item review. *Educational Measurement: Issues and Practice*, 27 (1), 25-36.

Kruger, Louis J. (2009). *Children left behind*. A documentary produced by Northeastern University and the Massachusetts School Psychologists Association. See <http://www.childrenleftbehind.com/>

No Child Left Behind Act of 2001. Public Law 107-110.

Reardon, S. F., Attebery, A., Arshan, N. and Kurleander, M. (2009). *Effects of the California High School Exit Exam on student persistence, achievement, and graduation*. Stanford University: Institute for Research on Education Policy and Practice.

Thompson, S.J., Johnstone, C.J., Anderson, M. E., & Miller, N. A. (2005). *Considerations for the development and review of universally designed assessments* (Technical Report 42). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

Thompson, S.J., Johnstone, C.J., & Thurlow, M.L. (2002). *Universal Design principles applied to large-scale assessments* (Synthesis Report 44). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

Webb, N. L. (1997). *Criteria for alignment of expectations and assessments in mathematics and science education* (Research Monograph No. 6). Washington, D.C.: Council of Chief State Schools Officers.

Webb, N. L. (1999). *Alignment of science and mathematics standards and assessments in four states*. (Research Monograph 18). Madison, WI: National Institute for Science Education and Council of Chief State School Officers. (ERIC Document Reproduction Service No. ED440852)

Webb, N. L. (2005). *Web alignment tool: Training manual*. Madison, WI: Wisconsin Center for Education Research.

Wise, L.L., Becker, D.E., Butler, F. L., Schantz, L. B., Bao, H., Sun, S., Campbell, H. L. (2006, October 31). Independent evaluation of the *California high school exit examination (CAHSEE): 2006 evaluation report*. (HumRRO Final Report FR-06-91). Alexandria, VA: Human Resources Research Organization. [Online]. Available: <http://www.cde.ca.gov/ta/tg/hs/year7.asp>.

Wise, L.L., Becker, D.E., Harris, C.D., Sun, S., Wang, X., & Brown, D.G. (2004b, September 30). Independent evaluation of the *California high school exit examination (CAHSEE): Year 5 evaluation report*. (HumRRO Final Report FR-04-53). Alexandria, VA: Human Resources Research Organization. [Online]. Available: <http://www.cde.ca.gov/ta/tg/hs/year5.asp>

- Wise, L.L., Becker, D.E., Harris, C.D., Taylor, L.R., Johnstone, C.J., Miller, N.A., Thompson, S.A., Sun, S., Shen, X., Butler, F.L., Wang, X., Koger, L.E., Moody, R., Deatz, R.C., Koger, M.E., Dickinson, E.R., Gensberg, S., Hilton, R.A., Kelley, N.L., & Stevens, C. (2005). Independent evaluation of the *California high school exit examination (CAHSEE): 2005 evaluation report – Volumes 1-3*. (HumRRO Final Report FR–05–43). Alexandria, VA: Human Resources Research Organization. [Online]. Available: <http://www.cde.ca.gov/ta/tg/hs/year6indepeval.asp>.
- Wise, L. L., Hoffman, R. G., & Harris, C. D. (2000). *The California high school exit examination (HSEE): Evaluation plan*. Alexandria, VA: Human Resources Research Organization.
- Wise, L.L., Harris, C.D., Sipes, D.E., Hoffman, R.G., & Ford, J.P. (2000a, June 30). *High school exit examination (HSEE): Year 1 evaluation report* (HumRRO Preliminary Report IR–00–27r). Alexandria, VA: Human Resources Research Organization.
- Wise, L.L., Harris, C.D., Brown, D.G., Becker, D.E., Sun, S., & Coumbe, K.L. (2003b, September 30). *California high school exit examination (CAHSEE): Year 4 evaluation report* (FR-03-64r). Alexandria, VA: Human Resources Research Organization.
- Wise, L.L., Harris, C.D., Koger, L.E., Bacci, E.D., Ford, J.P., Sipes, D.E., Sun, S., Koger, M.E., & Deatz, R.C. (2003a, May 1). *Independent evaluation of the California high school exit examination (CAHSEE): AB 1609 study report— Volumes 1 & 2*. (HumRRO Final Report FR–03–21). Alexandria, VA: Human Resources Research Organization.
- Wise, L.L., Harris, C.D., Koger, L.E., Bacci, E.D., Ford, J.P., Brown, D.G., Becker, D.E., Sun, S., Koger, M.E., Deatz, R.C., & Coumbe, K.L. (2004a, February 1). *Independent evaluation of the California high school exit examination (CAHSEE): Second biennial report* (FR-04-01). Alexandria, VA: Human Resources Research Organization.
- Wise, L.L., Sipes, D.E., George, C. E., Ford, J.P., & Harris, C.D. (2001, June 29). *California high school exit examination (CAHSEE): Year 2 evaluation report* (HumRRO Interim Evaluation Report IR–01–29r). Alexandria, VA: Human Resources Research Organization.
- Wise, L.L., Sipes, D.E., Harris, C.D., Collins, M.M., Hoffman, R.G., & Ford, J.P. (2000b, August 25). *High school exit examination (HSEE): Supplemental year 1 evaluation report* (HumRRO Supplemental Report IR–00–37). Alexandria, VA: Human Resources Research Organization.

Wise, L.L., Sipes, D.E., Harris, C.D., Ford, J.P., Sun, S., Dunn, J., & Goldberg, G. L. (2002b, June 28). *California high school exit examination (CAHSEE): Year 3 evaluation report*. (HumRRO Interim Report IR-02-28). Alexandria, VA: Human Resources Research Organization.

Wise, L.L., Sipes, D.E., Harris, C.D., George, C. E., Ford, J.P., & Sun, S. (2002a, January 29). *Independent evaluation of the California high school exit examination (CAHSEE): Analysis of the 2001 administration*. (HumRRO Evaluation Report FR-02-02). Alexandria, VA: Human Resources Research Organization.

Zau, Andrew C. and Betts, Julian R. (2008). *Predicting success, preventing failure: An investigation of the California High School Exit Exam*. San Francisco, CA: Public Policy Institute of California.