FR-12-54

Independent Evaluation of the California High School Exit Examination: 2012 Evaluation Report

Prepared for: California Department of Education
Assessment Development & Administration Division
1430 N Street, Suite 4409
Sacramento, CA 95814

Prepared under: Contract Number CN100235

Editors: D. E. (Sunny) Becker
Lauress L. Wise
Michele M. Hardoin
Christa Watters

Date: November 20, 2012

Human Resources Research Organization (HumRRO)
66 Canal Center Plaza, Suite 700, Alexandria, Virginia 22314-1591
Phone: 703.549.3611 | Fax: 703.549.9661 | www.humrro.org

HumRRO
Human Resources Research Organization

FR-12-54

Independent Evaluation of the California High School Exit Examination: 2012 Evaluation Report

Prepared for: California Department of Education
Assessment Development & Administration Division
1430 N Street, Suite 4409
Sacramento, CA 95814

Prepared under: Contract Number CN100235

Editors: D. E. (Sunny) Becker
Lauress L. Wise
Michele M. Hardoin
Christa Watters

Date: November 20, 2012

INDEPENDENT EVALUATION OF THE CAHSEE: 2012 ANNUAL 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 [EC]* as sections 60850–60859). In July 2003, after the completion of the 2002–03 California High School Exit Examination (CAHSEE) testing, the State Board of Education (SBE) 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 12 years, HumRRO has gathered, analyzed, and reported a wide range of information 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 from July 2011 through June 2012. Evaluation activities, findings from these activities, and recommendations based on these findings are summarized here. As in previous years, the evaluation includes analysis of test quality, test results, student perspectives, and an investigation of indicators of student achievement and success outside the CAHSEE program. Additionally, HumRRO completed a special Post High School Outcomes Study this year. The study investigated how students who graduated with differing levels of success on the CAHSEE are doing after high school. More detailed information on each activity is provided in the full report under the following topics:

- Review of test administration and scoring (Chapter 2),
- Analyses of 2011–12 test results (Chapter 2),
- Analyses of student questionnaire responses (Chapter 3),
- Collaboration with volunteer Local Education Agencies (LEAs) to conduct a small scale research study to investigate the possible relationships between post high school outcomes (PHO) and CAHSEE performance (Chapter 4), and
- Examination of other indicators of student achievement and success (Chapter 5).

The final chapter (Chapter 6) 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. Following are the major findings as of June 2012, after twelve and a half years of evaluation.

Positive Trends Continue in Initial CAHSEE Passing Rates and Participation in Higher Mathematics Courses

Among many arguments for instituting the CAHSEE was the belief that this requirement would lead schools to improve the effectiveness of instruction in the content judged important for success after high school and lead students to work harder to master this content. CAHSEE test results show significant increases in students' competency in targeted skills since the implementation of the CAHSEE requirement. As illustrated in Figure ES.1 (Table 2.31), initial passing rates of grade ten students on both the mathematics and ELA tests have increased for all demographic groups, with the rate for all students increasing from 64.3 percent (Class of 2006) to 74.8 percent (Class of 2014). That said, it should also be noted that passing rates for students with disabilities (SWD) are still unacceptably low and that passing rates for English learners are also low and have increased only modestly since the CAHSEE requirement went into effect. Initial passing rates for economically disadvantaged (ED), Hispanic, and African American students also continue to be significantly lower than passing rates for white and Asian students.

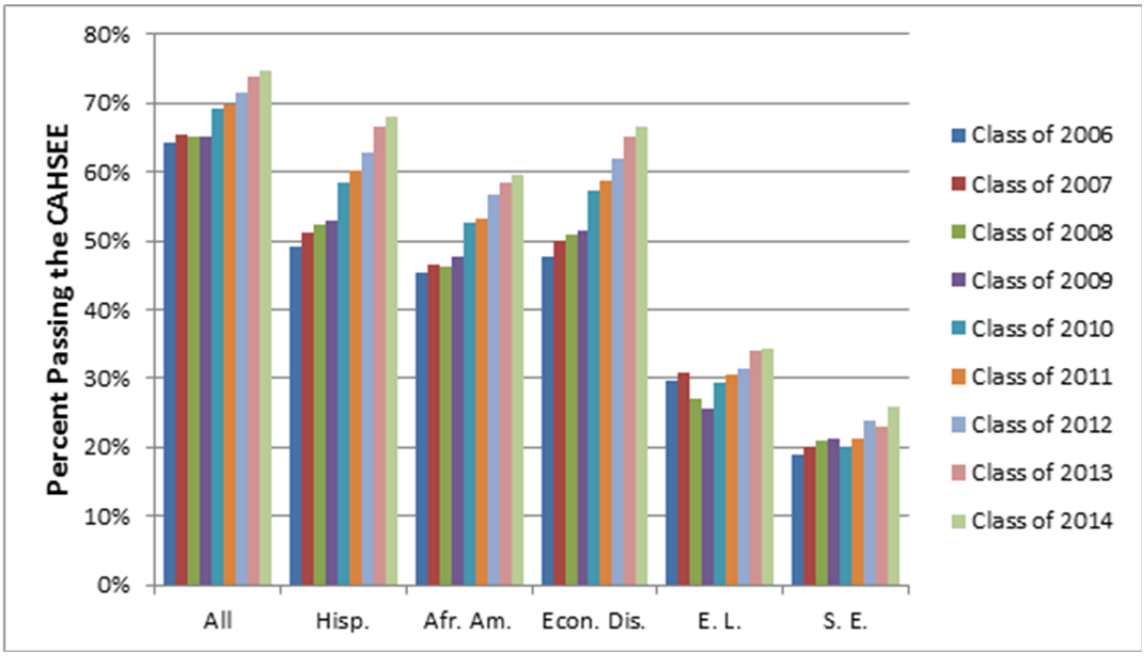


Figure ES.1. Trends in overall grade ten passing rates for selected groups. (Reproduction of Figure 2.4)

Note: Hisp = Hispanic or Latino, Afr. Amer = African American or Black, Econ Dis = economically disadvantaged, EL = English Learner, SE = students in special education.

The percentage of grade ten students who have taken Algebra I and are taking even higher level mathematics courses has increased steadily and dramatically since implementation of the statewide requirement in 2003–04 that students take an Algebra I course for a diploma and since the CAHSEE requirement became fully effective for the Class of 2006 (Table 2.33). For the Class of 2007, 60 percent of grade ten students had

taken a math course beyond Algebra I; this has increased to 74 percent for the Class of 2014. All demographic groups showed significant increases in the percentage of students taking more advanced math courses over this period, including very significant gains—from 24 percent to 44 percent—for students in special education. However, gaps exist between different subgroups, with a greater percentage of white and Asian grade ten students taking advanced mathematics courses than English learners, economically disadvantaged students, and Native American, African American, or Hispanic students.

Acknowledging that CAHSEE success rates for grade ten students reflect the cumulative impact of instruction at all prior grades, HumRRO merged 2009 STAR ELA and mathematics data for grade seven students with 2012 CAHSEE data for grade ten students to analyze the relationship between learning at prior grades and success on the CAHSEE. The correlations between grade seven scores and grade ten scores are quite high (Table 2.35). Nearly all students scoring at the top three achievement levels on the grade seven ELA and mathematics tests and virtually all the students taking the Algebra I test in grade seven passed the corresponding CAHSEE test on their first try in grade 10 (Table 2.36). In contrast, students scoring at the bottom two achievement levels in grade seven struggled with passing the CAHSEE on their first attempt.

CAHSEE Passing Rates Increase Through and Beyond Senior Year

Recognizing some difficulty in tracking students across grade levels, HumRRO estimates that cumulative passing rates for grade twelve general education students have increased steadily from 91 percent for the Class of 2006 to 95 percent for this year's Class of 2012 (Table 2.18). The calculation of cumulative pass rates beyond grade ten is a difficult process given assumptions that must be made with an incomplete set of data. For example, when a student does not pass the CAHSEE in grade ten and does not retest in grade eleven or twelve, he or she may have dropped out or may have moved out of the state and continued high school elsewhere. Similarly, the test data available to HumRRO cannot identify when a student passes the CAHSEE in grade ten and then moves out of state. While the assumptions are subject to debate, HumRRO has retained consistent assumptions over time to facilitate interpretation of trends.

An encouraging finding is the large number of students who continue to try to pass the CAHSEE after their originally scheduled graduation date. Of the approximately 26,000 general education students who were first time seniors in the Class of 2011 and who did not complete the CAHSEE requirement by the end of grade twelve, more than 10,000 took the CAHSEE one or more times last year. More than a third of these students completed the CAHSEE requirement (Table 2.44). Thousands of general education students from prior classes who had not yet passed the CAHSEE also continued to try to pass it last year. A year or two after their original graduation year, more than 1,000 students from the Class of 2010 (Table 2.41) and more than 500 students from the Class of 2009 (Table 2.38) completed the CAHSEE requirement.

Gaps Persist in CAHSEE Passing Rates

While performance on the CAHSEE has increased for key demographic groups, significant gaps in CAHSEE passing rates persist. As shown in Figure ES.1 above, there has been a modest reduction in the gaps in initial passing rates for Hispanic or Latino, African American or Black, and economically disadvantaged students. Notwithstanding this modest reduction, their passing rates are still 7–15 percentage points below overall passing rates (Table 2.31). Initial passing rates for English learners have increased only modestly, with about a third of these students meeting the CAHSEE requirement in grade ten. Almost by definition, these students will have great difficulty passing at least the ELA portion of the CAHSEE until they achieve proficiency in English and are no longer classified as ELs. Trends for ELs are better captured by trends in scores on the California English Language Development Test (CELDT), reported elsewhere (see http://celdt.cde.ca.gov/). Finally, while there has been some improvement for students in special education, only one quarter of these students met the CAHSEE requirement in grade ten this year.

Students Report Varying Perspectives on the CAHSEE

As part of the independent evaluation, students complete a brief questionnaire after each part of the CAHSEE. The questions are designed to identify different ways that students are affected by the CAHSEE requirement. One particularly significant finding is that most grade ten students report that the topics on the CAHSEE were covered in their courses and that the questions on the test were not more difficult than questions they encountered in class. The percentage reporting that most or all of the topics on the test for mathematics were covered in their classes rose from 92 percent in 2005 to 95 percent in 2012 for ELA and from 89 percent in 2005 to 92 percent in 2012. Over that same period, the percentage reporting that the questions on the test were more difficult than questions in their courses dropped from 17 percent to 12 percent for ELA and from 22 percent to 17 percent for mathematics. Note, however, that in 2012 one fourth of the SWD and EL students and a third of the students who were classified as both SWD and EL reported that the questions on the test were generally more difficult than questions they saw in their courses.

One other particularly significant finding was that the percentage of grade ten students who reported working harder in their courses because of the CAHSEE requirement rose from 33 percent in 2006 to 40 percent in 2012 for ELA, as shown in Table 3.24. The percentage of grade ten students who reported not having to work harder also has increased over that time period, from 35 percent to 50 percent. The impact of the CAHSEE on student effort was greater for students struggling to pass. As shown in Table 3.25, of the grade ten students who in 2012 passed one but not both of the CAHSEE tests, over 50 percent reported working harder in their classes. For grade ten students who did not pass either test, 12 percent reported taking additional courses and 14 percent reported getting help outside the classroom.

Some Post High School Outcomes Correlate Highly to CAHSEE Test Scores

As a collaborative effort between HumRRO and volunteer Local Educational Agencies (LEAs), the Post High School Outcomes (PHO) Study addressed what post high school outcomes might be linked to CAHSEE performance, and how well and in what ways CAHSEE might predict post high school performance. The study provided promising analytic findings as well as lessons for improving processes for future studies of this type. Because the PHO study was conducted on a small scale and the study's student population is not representative of the state as a whole, the findings should be interpreted with caution.

Our analyses of CAHSEE scores relative to student-level responses from six LEAs to senior survey items about their intentions after graduation revealed a strong positive relationship between academic achievement as measured by the CAHSEE and plans for higher education, including graduate degrees. We compared senior survey responses to Student Tracker (ST) data to ascertain how accurately high school seniors predicted their PHO. These intentions show some promise for accurately predicting behavior.

Using ST data to provide actual postsecondary academic information for a sample of students from all participating LEAs, we found evidence that CAHSEE performance predicts near-term postsecondary academic pursuits with reasonable accuracy. We found a robust relationship between the 10 levels of CAHSEE achievement constructed for this study and postsecondary enrollment (Figure ES.2). Although limited college graduation data were available, students receiving Advanced on the CAHSEE had much higher college graduation rates than their peers.

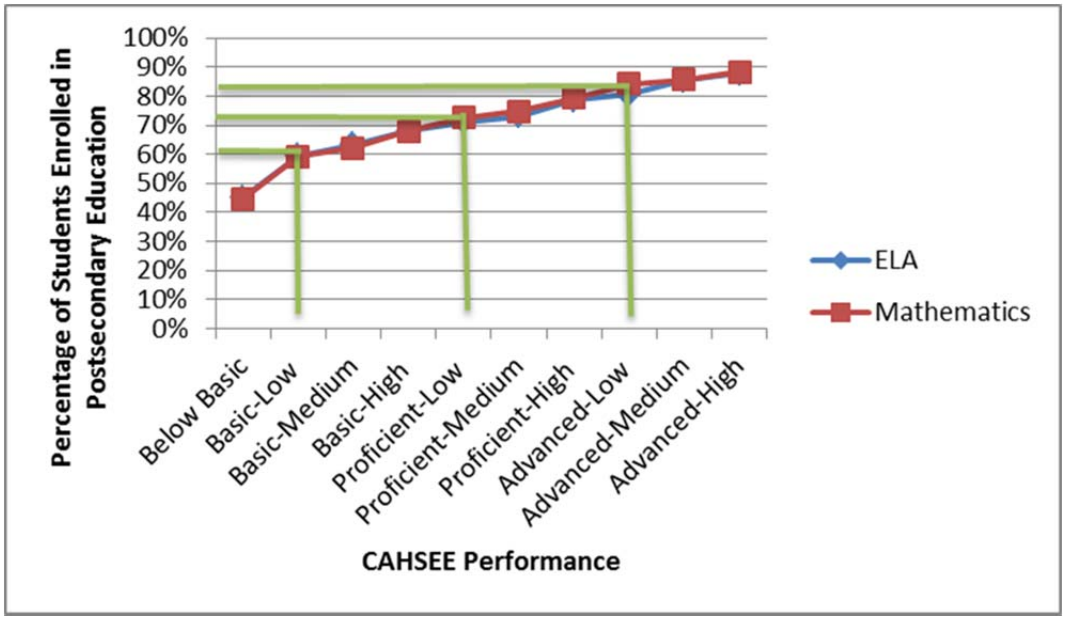


Figure ES.2. CAHSEE ELA and Mathematics performance are closely related to postsecondary enrollment rates.
(Reproduction of Figure 4.1)

Another promising finding is that a collaborative effort between willing LEAs and a research firm is a very feasible approach to analyzing the types of research questions posed in the PHO study.

It may be worthwhile to compare the data on postsecondary intentions of graduates from the PHO study to one other finding from HumRRO's analysis of CAHSEE student questionnaire responses: the percentage of students who plan to go to college. The rate of grade ten students planning to attend a four-year college has increased from roughly 56 percent in 2005 to over 63 percent in 2012. When community college is included, the total percentage expecting to go to college has increased from about 73 percent to about 82 percent. For students still taking the CAHSEE in grade twelve in 2012, over 70 percent of those who passed either ELA or math, and more than 60 percent of those who did not pass either examination, still expect to go to college.

Graduation Rates Increased and Dropout Rates Decreased, but Gaps Persist

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 5 and summarized here.

Graduation rates dropped when the CAHSEE took effect as a graduation requirement in 2006, but the pattern has been more complicated since then (Figure 5.5). The percentage of graduates based on grade nine fall enrollment dropped by 4.0 percentage points in 2006, then increased in subsequent years to a peak of 74.3 percent in 2010, exceeding its pre-CAHSEE era rate of about 71 percent (data not available yet for 2011). However, the graduation rate used for Elementary and Secondary Education Act (ESEA) reporting declined every year from 2003 (86.7 percent) to 2009 (78.6 percent), then rose slightly in 2010 (80.5 percent). CDE began using the four-year adjusted cohort graduation rate in 2010 to comply with the U.S. Department of Education's 2008 guidance; the calculation of this rate accounts for a cohort of first-time grade nine students who transfer in and out of California schools, emigrate, or die – from grades nine through twelve. The four-year cohort graduation rate continues the upward trend recently seen in the ninth grade to graduation rate, with a 1.5 percent single year increase from 74.8 percent for the Class of 2010 to 76.3 percent for the Class of 2011. Variations in the four-year adjusted cohort graduation rates are large, with rates for the Class of 2011 ranging from about 63 percent for African American students to almost 90 percent for Asian students.

The increase in graduation rates for the Class of 2011 was accompanied by a decline in dropout rates. CDE began using the four-year adjusted cohort dropout rate in 2010. The overall four-year adjusted cohort dropout rate decreased from 16 percent for the Class of 2010 to 14 percent for the Class of 2011 (Table 5.2). Disaggregated graduation rates for graduating cohorts reveal large differences in dropout rates for the Class of 2011, from a low of 6 percent for Asian students to a high of 25 percent for African American students.

Students are Participating in More College Preparation

One initial concern with the CAHSEE requirement was that it might lead to a focus on more basic courses at the expense of advanced coursework. About two-fifths (40.3 percent) of the Class of 2011 graduates completed the course requirements to enter a University of California (UC) or California State University (CSU) school (Table 5.14).The rate of completion overall and for every demographic group increased from 2004–05 to 2010–11, with the most substantial positive one-year change occurring from 2010 to 2011. Participation in Advanced Placement (AP) examinations increased in 2011, as did measures of success on the AP. More than a third of the 2011 graduating class took at least one AP examination (Table 5. 14) and nearly one-quarter achieved a score of 3 or better on at least one AP examination (Table 5.15).

Data for the ACT and SAT college entrance examinations are not yet available from the CDE for the Class of 2011. The 2009–10 school year saw the continuation of a three-year decline in participation in the SAT college entrance examination as well as in the percentage of students reaching a score of 1500 or higher, while participation and performance on the ACT increased for the fifth year in a row.

Recommendations

As in past years, we offer a number of recommendations for improving the CAHSEE and its use. The state legislature, the State Board of Education, and the California Department of Education have introduced changes to the CAHSEE and its use based, in part, on prior recommendations from this evaluation. This year, we offer three recommendations for consideration by California policy makers. The first of these recommendations involves contemplation of options for a major revision of the current high school graduation requirement, passing the test called the CAHSEE. We draw upon our experience as the independent evaluator of the initial decade of the CAHSEE to identify critical steps in developing or revising requirements for a diploma. Our multi-part recommendation is intended to guide policy makers in addressing the potential challenges and obstacles systematically and proactively, applying lessons learned from the early and continuing CAHSEE years. We do not have further recommendations for fine-tuning the existing system at this time.

Systematic Review

> ***General Recommendation 1:*** *The State Board of Education and the California Department of Education should systematically review the graduation requirement and propose alternatives for consideration by the Legislature and the Governor.*

California adopted the Common Core State Standards (CCSS) in August of 2010 and is participating as a governing state in the Smarter/Balanced Assessment Consortium (SBAC). The CCSS were developed to build student knowledge and skill toward a rigorous conception of college and career readiness by the end of high school. By the 2014–15 school year, a new set of assessments measuring school effectiveness

in helping students achieve competency in the CCSS will be in place. These will be grade level or end-of-course assessments and will not be specifically linked to high school graduation requirements. In a parallel effort, in accordance with *California Education Code Section 60604.5*, the State Superintendent of Public Instruction is developing recommendations for the reauthorization of the statewide pupil assessment system. These recommendations will refine the entire assessment system, including the role of the exit examination. It is reasonable to ask whether the new content standards call for a new assessment that high school students must pass in order to earn a high school diploma – perhaps one that aligns to the CCSS – and whether alternative pathways to graduation need to be defined for students, such as using portfolios of coursework or end-of-course projects, using scores from other assessments such as the AP, ACT, or SAT, or some combination of these.

1a: Policy makers should decide on the intended relationship of a California high school diploma to current emerging definitions of readiness for college and careers.

What is needed first in this systematic review is a clear statement of what California wants its diploma policy to mean with regard to readiness for post high school endeavors. According to a recent survey of state departments of education conducted by the Center for Educational Policy, almost half of the respondents with state exit exam policies indicated that the reason their state requires or will require students to *pass* (as opposed to just *take*) an exit exam is "to ensure students who receive a diploma are ready for college and/or career."[1] The CCSS offer one definition of readiness. The National Assessment Governing Board is conducting a multi-year investigation of levels of mathematics and reading skills that prepare students to take credit-bearing college courses and possibly prepare them to participate in training for a range of occupations that do not require a college degree. Can the CAHSEE be considered a measure of college or career readiness? As part of our evaluation activities for the past year, HumRRO worked with several districts to show a clear relationship between CAHSEE score levels and subsequent college attendance. However, the content standards measured by the CAHSEE have not been evaluated for alignment to current college and career readiness definitions. While not all students will go on to college, many policy makers believe that all students should be prepared to do so if they so choose. The policy decision about whether a diploma should be tied to current definitions of college and career readiness is critical to evaluating the role the current or any proposed exit examination should have in the future.

1b: Policy makers should consider alternatives for determining how the diploma requirement relates to grade level content standards for instruction.

According to the CDE Web site, "In proposing the CAHSEE, the Legislature's primary goal was to '...significantly improve pupil achievement in high school and to ensure that pupils who graduate from high school can demonstrate grade level

[1] *State High School Exit Exams: A Policy in Transition,* Center on Educational Policy, September 2012, p. 25.

competency in reading, writing, and mathematics...'"[2] Establishing the high school diploma requirement addressed the fact that, at the time the CAHSEE was conceived, local proficiency standards did not always align with the state's content standards nor were they comparable from district to district. Some local proficiency standards were below the high school level. For example, policy makers determined that CAHSEE should include basic Algebra I content, but at the time CAHSEE was introduced some school districts did not require their students to enroll in Algebra I at all. Secondarily, the CAHSEE was designed to help identify students who were not developing skills that are essential for life after high school.

Currently, the CAHSEE covers content targeted for instruction in grades eight to ten for ELA and six to eight (some Algebra I) for mathematics. It has been twelve years since the content requirements for the CAHSEE were first adopted by the SBE. Over this time only one minor change in coverage of content standards was introduced, reducing slightly the scope of the mathematics test. Since then, instruction relative to the adopted content standards has improved, initial passing rates for grade ten students have increased, and the proportion of students passing by the end of grade twelve has increased steadily. It is reasonable to ask whether expectations for high school graduates should now be increased, and if so, what the basis for change should be.

As instruction is redirected toward the CCSS, a similar situation will exist as was present when CAHSEE first came to be. Policy makers will need to consider the need to ensure alignment of any type of exit examination or graduation requirement with the new standards for instruction. We emphasize that if an exit examination is part of the new policy, alignment provides the key evidence for the validity of the interpretation of the test scores as an indicator of competency in the required content.

Many states now include end-of-course exams among their graduation requirements (Zabala, Minnici, McMurrer & Briggs, 2008), tests that are closely aligned with the material taught in the course. In addition to demonstrating competency in core ELA and mathematics courses, students are often given options for demonstrating competencies in additional areas of study, such as science, social studies, foreign language, or even the arts. It is reasonable to ask whether competencies in subjects beyond ELA and mathematics should be required and whether students should be allowed to demonstrate these competencies whenever they complete the related course. The Smarter Balanced Assessment Consortium (Smarter Balanced) is developing software that will allow high school end-of-course assessments to be constructed by states, and such tests could also be considered as part or all of any revised graduation requirement. If an EOC test is used as a graduation requirement, policy makers will need to develop retesting and other alternatives for students who do not pass the EOC exam on their first try.

An alternative to EOC tests would be something like the current CAHSEE, an exit examination that is summative and includes content standards drawn from several different courses within a subject area. This approach would allow for demonstration of mastery of a broader range of knowledge and skills than any single EOC test. Also, students would be

[2] http://www.cde.ca.gov/ta/tg/hs/overview.asp

able to take, and retake, the exam as needed instead of being locked into end of course timing. The cost and effort required to develop and maintain such a comprehensive test may make this option less desirable.

In addition, policy makers might consider whether an exit examination needs to be included in the diploma requirement at all. If evidence from an instruction study were to indicate that the implementation of the CCSS at the local level was consistent and healthy across the state, perhaps passing required courses would provide sufficient evidence of mastery of essential skills.

1c: If the new graduation requirement includes a new exit examination, students should not be required to pass the examination until there is evidence that instruction has been fully realigned to cover the content standards measured by the assessment.

A lesson learned from initial implementation of the CAHSEE requirement was that time is needed before students can be held accountable for mastering new content standards. The CAHSEE requirement was deferred for two years to give students more time to benefit from improved instruction. Experience with the CAHSEE showed it is not sufficient merely to wait until changes to the high school curriculum are implemented. Students may need to experience revisions to the middle school curriculum to be ready to benefit from revisions to the high school curriculum. For example, it was not sufficient to simply require students to take Algebra I. Rather, the curriculum needs to be articulated across grades to ensure that students, particularly students in special education, enrolled in middle school courses aimed at preparing them to do well in an Algebra I course. Thus, we recommend that any new exit examination should not be fully implemented until the new content requirements have been in place for perhaps three or four years. This would allow students just entering grade seven when the new standards were adopted adequate time to prepare (by taking prerequisite courses) to meet the new high school requirement.

1d: The CDE should propose alternatives for helping students meet any increase in the scope and rigor of the graduation requirement.

In prior years, we estimated an increase of one to four percent in the number of grade twelve students who do not graduate on time due solely to the CAHSEE requirement. As many as half of these students do eventually pass the CAHSEE and (presumably) receive a diploma through additional years of schooling in regular or adult education programs. If the rigor of the graduation requirement is increased, more students will be denied diplomas unless additional help is given. Some options might include increased support (moral as well as financial) for a fifth year of high school for students who need it, or improvements in targeting and helping struggling students during middle school. (See Recommendation No. 3.)

1e: The existing requirement, passing the CAHSEE, should be left in place until a revised graduation requirement can be implemented.

Available evidence suggests that students have worked hard to meet the current CAHSEE requirement and that teachers have worked hard to help them do so. If the CAHSEE requirement were suspended for one or more years until a new requirement could be implemented, it is likely that students now struggling to meet the CAHSEE requirement would not work as hard to learn the essential skills covered by the CAHSEE and that teachers would not focus as intently on helping these struggling students. Evidence suggests that this may be the case for students with disabilities (SWD) when the exemption was reinstated.

Consistency for Students with Disabilities

The appropriateness of the CAHSEE requirement for SWD has been a continuing question over the past decade. Plans for revising the graduation requirement must take into account the needs and unique characteristics of SWD. The second general recommendation concerns the clarity of expectations for SWD. The need to develop and communicate a clear and consistent set of expectations for SWD is urgent and should be addressed now with the current CAHSEE.

General Recommendation 2: *California should set and maintain consistent requirements for students with disabilities with respect to graduation requirements.*

As we noted in last year's report, the CAHSEE requirement was appropriately deferred for two years for all students, from 2004 to 2006, to allow time for instruction at earlier grades to prepare students to meet high school ELA and mathematics expectations. The requirement was deferred two additional years for SWD, from 2006 to 2008, while a law suit on behalf of these students was resolved. This extension of the second deferral provided additional time to adjust individual education programs (IEPs) at earlier grades to prepare students for the high school requirements. For the high school classes of 2008 and 2009, SWD had to meet the CAHSEE requirement to receive a diploma, although waivers were required (and granted) if students needed a testing modification to receive a passing score. During the period from 2004 through 2009, initial passing rates for SWD increased, reflecting more rigorous and effective instruction for SWD.

Under current law, the CAHSEE requirement has once again been deferred for SWD until 2015. Although teachers, parents, and students currently in grades ten through twelve know that eligible SWD do not need to pass the CAHSEE, they remain uncertain as to what is truly expected of them in high school. Issues leading to the current exemption should be resolved during development of the new graduation policy so that efforts to improve instruction for SWD will resume in full. Resolution of these issues will require agreement on appropriate alternative ways that SWD can

demonstrate required knowledge and skills, and might include identifying appropriate goals for students who are not able to participate in regular academic instruction.

Middle School Intervention for At Risk Students

Our final recommendation is based on findings that students scoring below the basic level on grade seven ELA and mathematics tests are at significant risk of not passing the CAHSEE when they reach grade ten.

> ***General Recommendation 3:*** *Guidance and resources should be provided to middle schools to support intervention with students who have fallen behind in the development of basic ELA and mathematics skills required to pass the CAHSEE.*

As indicated in the findings from analyses described in Chapter 2 of this report, students who have fallen behind in ELA or mathematics by grade seven have a significant chance of not being able to pass the CAHSEE in grade ten. Although these students may not be facing an exit examination in their high school years, pending policy decisions and possible new legislation on graduation requirements, they are clearly at risk of struggling with ELA and mathematics curriculum in high school. In the coming year, HumRRO will begin a study of middle school practices, programs, and interventions that appear to be particularly effective at turning around low-performing grade seven students. We anticipate, however, that many programs we find to be effective may not be sustainable long term due to funding constraints. At the same time, some programs used by more effective schools may be no more costly, or even less costly, than programs still in place at less effective schools. A combination of identification and dissemination of effective programs with resources to implement these programs will be needed.

INDEPENDENT EVALUATION OF THE CAHSEE: 2012 EVALUATION REPORT

Table of Contents

Page

Executive Summary i
Positive Trends Continue in Initial CAHSEE Passing Rates and Participation in Higher Mathematics Courses ii
CAHSEE Passing Rates Increase Through and Beyond Senior Year iii
Gaps Persist in CAHSEE Passing Rates iv
Students Report Varying Perspectives on the CAHSEE iv
Some Post High School Outcomes Correlate Highly to CAHSEE Test Scores v
Graduation Rates Increased and Dropout Rates Decreased, but Gaps Persist vi
Students are Participating in More College Preparation vii
Recommendations vii

Independent Evaluation of the CAHSEE: 2012 Evaluation Report i

Chapter 1: Introduction 1
History of California High School Exit Examination 1
Independent Evaluation of the CAHSEE 2
Summary of 2011 Evaluation Activities 2
Research Questions 5
Organization and Contents of 2012 Annual CAHSEE Evaluation Report 7

Chapter 2: Analyses of CAHSEE 2011–12 Test Results 9
Introduction and Brief History of CAHSEE Testing 9
Chapter Scope and Organization 10
Test Administration and Scoring 10
Observation of CAHSEE Test Administrations 10
Evaluation of Test Administration 13
Observation of Range-Finding Session for Essay Scoring 14
Consistency in Scoring the Essays 16
Assembling Comparable Forms 20
Test Result Data 23
Computing Passing Rates 27
Test Results 28
Key Analysis Questions 28
Class of 2012 — Once Again Seniors Struggled to Meet Graduation Deadline 29
Analysis of Students Who Do Not Continue to Try to Pass the CAHSEE 37
Class of 2013 — Improvement for Students Who Retested in Grade Eleven 39
Initial Results for the Class of 2014 47

Analysis of Results by Mathematics Courses Taken 52
Predicting Initial Success on the CAHSEE 54
Results for Students from Prior High School Classes 56
Additional Analyses of Results for Students with Disabilities 66
Supplemental Data on Students Receiving Special Education Services 68
Summary of Test Results 71

Chapter 3: Student Questionnaire Responses 73
Grade Ten Student Questionnaire Respondents 73
Comparisons on Student Perspective 74
Findings from 2012 Grade Ten Student Responses 75
Test Preparation 75
Graduation Expectations and Post-High School Plans 81
Test Performance and Influencing Factors 91
Content and Instruction Coverage 94
Effort Put into the CAHSEE 103
Summary of Grade Ten Findings 120
Findings from 2012 Grade Twelve Students 122
Graduation Expectations and Post-High School Plans 123
Content and Instruction Coverage 125
Efforts Put Into the CAHSEE 127
Summary of Grade Twelve Findings 128

Chapter 4: Post High School Outcomes Study 129
Background 129
Study Design 130
Findings 132
Data Included in This Study 132
Findings from Early Assessment Program (EAP) 137
Findings from Senior Surveys 138
Relationship of CAHSEE Performance to Senior Survey Responses 146
Findings from Student Tracker 156
Relationship of CAHSEE Performance to Student Tracker Outcomes 160
Potential Value of Senior Surveys 173
Additional LEA Information 178
Conclusions and Recommendations 179
Lessons Learned 179
Promising Analytic Findings 180
Answers to Research Questions 182

Chapter 5: Trends in Educational Achievement and Persistence During the CAHSEE Era 183
Introduction 183
Students Who Leave High School Prematurely 184

Dropout Statistics 184
Enrollment Trends 193
Students Who Leave High School Prematurely: Summary 197
Graduation Rates 197
Graduation Rates: Summary 201
Performance on Other Assessments 202
College Preparation 204
Percentage of Students Taking College Preparation Courses 204
College Entrance Examination Participation and Performance 207
AP Test Achievement 212
College Preparation: Summary 214
College Enrollment 215
Class of 2007 Enrollment in California Public Postsecondary Schools 215
Class of 2009 Enrollment in Postsecondary Schools Nationwide 216
Summary Findings 218

Chapter 6: Findings and Recommendations 221
Background 221
Key Findings 221
Test Administration, Scoring, and Results (Chapter 2) 221
Student Questionnaire Responses (Chapter 3) 223
Post High School Outcomes Study (Chapter 4) 224
Trends in Educational Achievement and Persistence (Chapter 5) 226
Recommendations 228

References 235

Glossary of Acronyms 241

Appendix A: Senior Survey Questions A-1

Appendix B: Relationships Between CAHSEE Math and Senior Survey Intentions B-1

List of Equations

Page

Equation 5.1 185
Equation 5.2 186
Equation 5.3 188
Equation 5.4 198
Equation 5.5 198
Equation 5.6 199

List of Tables

Table 2.1. 2010–11 Scoring Consistency for Student Essays by Administration and Grade 17
Table 2.2. Comparison of Scoring Agreement Rates from 2004–05 Through 2011–12 18
Table 2.3. Percentage of Grade Ten Essays Assigned Each Score Level by Each Reader in the February Through May 2010 Administrations 19
Table 2.4. Percentage of Grade Ten Essays Assigned Each Score Level by Each Reader in the February Through May 2011 Administrations 19
Table 2.5. Percentage of Grade Ten Essays Assigned Each Score Level by Each Reader in the February Through May 2012 Administrations 19
Table 2.6. Raw-to-Scale Score Conversions for the 2011–12 ELA Tests 21
Table 2.7. Raw-to-Scale Score Conversions for the 2011–12 Mathematics Tests 22
Table 2.8. Number Answer Documents from Each 2011–12 CAHSEE Administration and Number with Passing Scores 24
Table 2.9. Counts of Unique Students and Passing Rates by Grade Level in the 2011–12 CAHSEE Administrations 25
Table 2.10. Number of 2011–12 Examinees (Excluding Blank Answer Documents) Matched to Prior-Year Records by Current and Prior High School Class 26
Table 2.11. Grade Ten Enrollment Estimates from California Basic Education Data System (CBEDS), STAR, and CAHSEE 27
Table 2.12. Estimated Number and Percentage of Students in the Class of 2012 Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities 30
Table 2.13. Estimated Number and Percentage of Students in the Class of 2012 Passing Both CAHSEE Tests Through May 2012, Including Students with Disabilities 31

List of Tables (Continued)

Page

Table 2.14. Estimated Number and Percentage of Students in the Class of 2012 Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities 32

Table 2.15. Estimated Number and Percentage of Students in the Class of 2012 Passing the CAHSEE ELA Test Through May 2012, Including Students with Disabilities 33

Table 2.16. Estimated Number and Percentage of Students in the Class of 2012 Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities 34

Table 2.17. Estimated Number and Percentage of Students in the Class of 2012 Passing the CAHSEE Mathematics Test Through May 2012, Including Students with Disabilities 35

Table 2.18. Comparison of Estimated Percentage of Students Meeting the CAHSEE Requirement for the Classes of 2006 Through 2012 through May of Their Senior Year, Excluding Students with Disabilities 36

Table 2.19. Comparison of Test Results for Grade Twelve Students Not Passing by May 2011 Who Did and Did Not Continue to Take the CAHSEE in 2011–12, Excluding Students with Disabilities 38

Table 2.20. Comparison of Test Results for Grade Eleven Students Not Passing by May 2011 Who Did and Did Not Continue to Take the CAHSEE in 2011–12, Excluding Students with Disabilities 39

Table 2.21. Estimated Number and Percentage of Students in the Class of 2013 Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities..... 40

Table 2.22. Estimated Number and Percentage of Students in the Class of 2013 Passing Both CAHSEE Tests Through May 2012, Including Students with Disabilities..... 41

Table 2.23. Estimated Number and Percentage of Students in the Class of 2013 Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities 42

Table 2.24. Estimated Number and Percentage of Students in the Class of 2013 Passing the CAHSEE ELA Test Through May 2012, Including Students with Disabilities 43

Table 2.25. Estimated Number and Percentage of Students in the Class of 2013 Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities 44

Table 2.26. Estimated Number and Percentage of Students in the Class of 2013 Passing the CAHSEE Mathematics Test Through May 2012, Including Students with Disabilities 45

List of Tables (Continued)

Page

Table 2.27. Comparison of Estimated Passing Rates for the Classes of 2011 through 2013 Through May of their Grade Eleven Year, Including Students with Disabilities 46

Table 2.28. Estimated Number and Percentage of Students in the Class of 2014 Passing Both CAHSEE Tests Through May 2012, Including Students with Disabilities..... 48

Table 2.29. Estimated Number and Percentage of Students in the Class of 2014 Passing the CAHSEE ELA Test Through May 2012, Including Students with Disabilities 49

Table 2.30. Estimated Number and Percentage of Students in the Class of 2014 Passing the CAHSEE Mathematics Tests Through May 2012, Including Students with Disabilities..... 50

Table 2.31. Comparison of Estimated Percentage of Students Meeting the CAHSEE Requirement for the Classes of 2006 –14 Through May of Their Grade Ten Year, Including Students with Disabilities 51

Table 2.32. Distribution of Grade Ten Students by Highest Mathematics Course Taken 53

Table 2.33. Trends in Mathematics Courses Taken by Demographic Group 53

Table 2.34. Grade Ten Mathematics Passing Rates by Class and Highest Mathematics Course Taken..... 54

Table 2.35. Means, Standard Deviations, and Correlations for Grade 7 CST and Grade 10 CAHSEE Scores..... 55

Table 2.36 CAHSEE Results for Students at Differing Grade Seven STAR Achievement Levels..... 56

Table 2.37. CAHSEE Passing Rates by Grade Seven Achievement Levels and Race/Ethnicity 57

Table 2.38. Estimated Number and Percentage of Students in the Class of 2009 Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities..... 58

Table 2.39. Estimated Number and Percentage of Students in the Class of 2009 Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities 59

Table 2.40. Estimated Number and Percentage of Students in the Class of 2009 Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities 60

Table 2.41. Estimated Number and Percentage of Students in the Class of 2010 Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities..... 61

List of Tables (Continued)

Page

Table 2.42. Estimated Number and Percentage of Students in the Class of 2010 Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities 62

Table 2.43. Estimated Number and Percentage of Students in the Class of 2010 Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities 63

Table 2.44. Estimated Number and Percentage of Students in the Class of 2011 Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities..... 64

Table 2.45. Estimated Number and Percentage of Students in the Class of 2011 Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities 65

Table 2.46. Estimated Number and Percentage of Students in the Class of 2011 Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities 66

Table 2.47. Primary Disability Codes for Grade Ten Students Receiving Special Education Services with CAHSEE Success Information 69

Table 2.48. Percentage of Students with Disabilities Receiving Specific ELA Accommodations and Modifications in 2009, 2011, and 2012 by Grade 70

Table 2.49. Percentage of Students with Disabilities Receiving Specific Mathematics Accommodations and Modifications in 2009, 2011, and 2012 by Grade 71

Table 3.1. Demographic Characteristics by Percentage of 2012 Grade Ten Student Questionnaire Respondents 74

Table 3.2. Frequencies of 2012 Grade Ten Students by Tests Passed..... 74

Table 3.3. Question 1: How Did You Prepare for This Test? (Mark All That Apply) (Grade Ten Students' Responses 2005–12)..... 76

Table 3.4. Question 1: How Did You Prepare for This Test? (Mark All That Apply) (Percentages of 2012 Grade Ten Student Responses by Tests Passed)..... 78

Table 3.5. Question 2: What Materials Did You Use to Prepare for This Test? (MarkAll That Apply) (Grade Ten Student Responses, 2009–12) 79

Table 3.6. Question 2: What Materials Did You Use to Prepare for This Test? (Mark All That Apply) (Percentages of Grade Ten Student Responses in 2012 by Tests Passed)..... 80

Table 3.7. Question 3: Do You Think You Will Receive a High School Diploma? (Grade Ten Student Responses, 2009–12) 82

List of Tables (Continued)

Page

Table 3.8. Question 3: Do You Think You Will Receive a High School Diploma? (Percentages of Grade Ten Students' Responses in 2012 by Pass or Not Pass) 84

Table 3.9. Question 4: What Might Prevent You From Receiving a High School Diploma? (Mark All That Apply) (Grade Ten Responses, 2005–12)* 85

Table 3.10. Question 4: What Might Prevent You From Receiving a High School Diploma? (Mark All That Apply) (Percentages of Grade Ten Students' Responses by Tests Passed) 86

Table 3.11. Question 4: What Might Prevent You From Receiving a High School Diploma? (Mark All That Apply) (Percentages of Grade Ten Students' Responses in 2012 by Response to Option B - 'I may not pass the CAHSEE exam') 88

Table 3.12. Question 5: What Do You Think You Will Do After High School? (Responses from Grade Ten Students, 2005–12) 89

Table 3.13. Question 5: What Do You Think You Will Do After High School? (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed) 90

Table 3.14. Question 6: How Well Did You Do on This Test? (Mark All That Apply) (Grade Ten Students' Responses, 2009–12) 92

Table 3.15. Question 6: How Well Did You Do on This Test? (Mark All That Apply) (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed) 93

Table 3.16. Question 7: Were the Topics on the Test Covered in Courses You Have Taken? (Grade Ten Students' Responses, 2005–12) 94

Table 3.17. Question 7: Were the Topics on the Test Covered in Courses You Have Taken? (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed) 95

Table 3.18. Question 8: 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? (Grade Ten Students' Responses, 2005–12) 97

Table 3.19. Question 8: 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? (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed) 98

Table 3.20. Question 9: Were the Questions on This Test More Difficult Than Questions You Were Given in Classroom Tests or Homework Assignments? (Grade Ten Students' Responses, 2005–12) 99

List of Tables (Continued)

Page

Table 3.21. Question 9: Were the Questions on This Test More Difficult Than Questions You Were Given in Classroom Tests or Homework Assignments? (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed) 100

Table 3.22. Question 10: If Some Topics on the Test Were Difficult for You, Was It Because: (Grade Ten Students' Responses, 2005–12) 101

Table 3.23. Question 10: If Some Topics on the Test Were Difficult for You, Was It Because: (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed) 102

Table 3.24. Question 11: 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) (Grade Ten Students' Responses, 2005–12) 104

Table 3.25. Question 11: 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 Grade Ten Students' Responses in 2012 by Tests Passed) 106

Table 3.26. Question 12: If You Do Not Pass the CAHSEE in This Administration, What Are You Most Likely to Do? (Mark the Most Likely Option) (Grade Ten Students' Responses, 2005–12) 107

Table 3.27. Question 12: If You Do Not Pass the CAHSEE in This Administration, What Are You Most Likely to Do? (Mark the Most Likely Option) (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed) 109

Table 3.28. Distribution of Grade Ten Students' Responses to Questionnaire After Taking CAHSEE ELA Examination in 2012, by Gender, Ethnicity, Disability, English Learner Status, and Economic Disadvantage 112

Table 3.29. Distribution of Grade Ten Students' Responses, in Percentages, After Taking CAHSEE Mathematics Examination in 2012, by Gender, Ethnicity, Disability, English Learner Status, and Economic Disadvantage 116

Table 3.30. Frequency of 2012 Grade Twelve Students Who Took the CAHSEE in 2010 and 2012 By Who Passed and Who did Not Pass the Tests in 2012 122

Table 3.31. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to What Might Prevent Them from Receiving a Diploma, by Those Who Passed in 2012 and Those Who Did Not (in Percentages) 123

List of Tables (Continued)

Page

Table 3.32. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to What Might Prevent Them from Receiving a Diploma, by Those Who Passed in 2012 and Those Who Did Not (in Percentages), by those who selected option 'B' and those who did not. 124

Table 3.33. Grade Twelve Students' Responses in 2010 and 2012 After ELA and Mathematics Tests as to What They Would Do After High School, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)..... 125

Table 3.34. Responses of Grade Twelve Students' in 2010 and 2012 After CAHSEE Tests as to Whether the Tested Topics Had Been Covered in Courses Taken, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)..... 125

Table 3.35. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to Whether Test Questions Differed From Those Encountered in Homework or Classroom Tests, by Those Who Passed in 2012 and Those Who Did Not (in Percentages) 126

Table 3.36. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests Regarding the Comparative Difficulty of the Test Questions, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)..... 126

Table 3.37. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to Why Some Topics Were Difficult for Them, by Those Who Passed in 2012 and Those Who Did Not (in Percentages) 127

Table 3.38. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to What They Are Most Likely To Do If They Do Not Pass, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)..... 128

Table 4.1. Characteristics of Participating LEAs 132

Table 4.2. Number of Students Analyzed in this Study by LEA and Graduating Class (2007, 2009, and 2011 Only)..... 133

Table 4.3. PHO Student Demographics..... 134

Table 4.4. Number and Percentage of Students at Each CAHSEE Achievement Level* 135

Table 4.5. Number and Percentage of Students by CAHSEE ELA Performance: 10 Levels..... 135

Table 4.6. Number and Percentage of Students by CAHSEE Mathematics Performance: 10 Levels..... 136

Table 4.7. Number and Percentage of Students by Combined CAHSEE Achievement Levels (ELA and Mathematics)..... 136

Table 4.8. Comparison of CAHSEE ELA Achievement Level and EAP ELA Status 137

List of Tables (Continued)

Page

Table 4.9. Comparison of CAHSEE Mathematics Achievement Level and EAP Mathematics Status 138
Table 4.10. Senior Survey: What Do You Plan to Do After High School?* 139
Table 4.11. Senior Survey: What Is the Highest Level of Education You Plan To Complete?* 139
Table 4.12. Senior Survey: Fall College or School Plans* 140
Table 4.13. Senior Survey: Type of College or School You Will Attend* 140
Table 4.14. Senior Survey: Have You Been Accepted by This College or School?* 141
Table 4.15. Senior Survey: What Best Describes Your Intended Area of College Study?* 142
Table 4.16. Senior Survey: Fall Work Plans* 142
Table 4.17. Senior Survey: Expected Fall Job and Long-Term Career Goal* 144
Table 4.18. Senior Survey: What Best Describes Your Long-Term Employment Area?* 145
Table 4.19. Post High School Plans by CAHSEE ELA Achievement Level* 146
Table 4.20. Highest Planned Education Level by CAHSEE ELA Achievement Level* 147
Table 4.21. Fall School Plans by CAHSEE ELA Achievement Level* 148
Table 4.22. Type of School by CAHSEE ELA Achievement Level* 148
Table 4.23. Whether Accepted by CAHSEE ELA Achievement Level* 149
Table 4.24. Intended Area of College Study by CAHSEE ELA Achievement Level* 150
Table 4.25. Fall Work Plans by CAHSEE ELA Achievement Level* 151
Table 4.26. Expected Fall Job by CAHSEE ELA Achievement Level* 152
Table 4.27. Fall Job as Career Goal by CAHSEE ELA Achievement Level* 152
Table 4.28. Long-term Employment Area by CAHSEE ELA Achievement Level* 153
Table 4.29. Long-term Employment Area by CAHSEE Combined Achievement Level* 155
Table 4.30. Post High School Plans by Economic Status* 156
Table 4.31. Number of Student Tracker Students by LEA and Graduating Class 157
Table 4.32. First Enrollment Date by Graduating Class 158
Table 4.33. Enrollment Timing by High School Graduating Class 158
Table 4.34. Last Enrollment Date by Graduating Class 159
Table 4.35. Last Graduation Date Among Students Enrolled At Least Once, by Graduating Class 159
Table 4.36. Enrollment Rates by Demographic Group 160

List of Tables (Continued)

Page

Table 4.37. Postsecondary Enrollment by CAHSEE ELA and Mathematics Achievement Levels ... 161
Table 4.38. Postsecondary Enrollment by 10 CAHSEE ELA and Mathematics Performance Levels ... 162
Table 4.39. Postsecondary Enrollment by CAHSEE Combined Achievement Level ... 164
Table 4.40. First and Last Enrollment by High School Graduating Class ... 165
Table 4.41. Postsecondary Degree by Class of 2007 ... 166
Table 4.42. Postsecondary Degree by CAHSEE ELA and Mathematics Achievement Levels ... 167
Table 4.43. Postsecondary Degree by CAHSEE Combined Achievement Levels ... 168
Table 4.44. Degree Major by High School Graduating Class ... 169
Table 4.45. Degree Major by CAHSEE ELA Achievement Level ... 170
Table 4.46. Degree Major by CAHSEE Mathematics Achievement Level ... 171
Table 4.47. Postsecondary Degree Major by Combined CAHSEE Achievement Level ... 172
Table 4.48. Post High School Plans Versus Actual Enrollment ... 174
Table 4.49. Fall College Plans Versus Actual Enrollment ... 175
Table 4.50. Type of School Planned Versus Actual Enrollment ... 176
Table 4.51. Planned Versus Actual First College Type (2- or 4-year) ... 177
Table 4.52. Planned Versus Actual Private or Public Institution ... 178

Table 5.1. CDE Adjusted Four-Year Derived Dropout Rates by Demographic Group ... 186
Table 5.2. CDE Four-Year Adjusted Cohort Dropout Rates by Demographic Group ... 187
Table 5.3. CDE Single-Year Dropout Rates by Demographic Group ... 189
Table 5.4. CDE Dropout Counts by Grade Level for Classes of 2007 Through 2010 ... 189
Table 5.5. CDE 2010–11 School Year Adjusted Dropouts as Percentage of Grade 9–12 Enrollment, by Grade and Demographic Group ... 191
Table 5.6. CDE 2010–11 Adjusted Dropouts by Grade and Demographic Group, as Percentage of State Adjusted Dropouts by Grade ... 192
Table 5.7. Enrollment Declines Between Grades Nine and Ten by High School Class ... 194
Table 5.8. Enrollment Declines from Grade Ten to Grade Eleven ... 195
Table 5.9. Enrollment Declines Between Grades Eleven and Twelve ... 196
Table 5.10. Four-Year Adjusted Cohort Graduation Rates by Demographic Group ... 200

List of Tables (Continued)

Page

Table 5.11. Combined Four-Year Cohort Dropout and Graduation Rates by Race/Ethnicity 201
Table 5.12. Trends on NAEP Reading Assessment by Demographic Group 205
Table 5.13. Trends on NAEP Mathematics Assessment by Demographic Group 206
Table 5.14. Trends in Percentages of Graduates Completing Minimum Coursework (A–G courses) for Entry into UC or CSU systems 207
Table 5.15. Numbers and Percentages of Class of 2007 Graduates Enrolling and Completing Credit in California Public Postsecondary Institutions 216
Table 5.16. CDE Numbers and Percentages of Class of 2009 Graduates Enrolling in Postsecondary Institutions Nationwide 217
Table 5.17. High School Graduates from Classes of 2009 and 2010 Who Took PSAT, SAT, or AP Tests and Enrolled in Postsecondary Institutions 217

Table A.1. Senior Survey Questions A-1

Table B.1. Post High School Plans by CAHSEE Mathematics Achievement Level* B-1
Table B.2. Highest Planned Education Level by CAHSEE Mathematics Achievement Level* B-2
Table B.3. Fall School Plans by CAHSEE Mathematics Achievement Level* B-2
Table B.4. Type of School by CAHSEE Mathematics Achievement Level* B-3
Table B.5. Whether Accepted by CAHSEE Mathematics Achievement Level* B-4
Table B.6. Intended Area of College Study by CAHSEE Mathematics Achievement Level* B-5
Table B.7. Fall Work Plans by CAHSEE Mathematics Achievement Level* B-6
Table B.8. Expected Fall Job by CAHSEE Mathematics Achievement Level* B-6
Table B.9. Fall Job as Career Goal by CAHSEE Mathematics Achievement Level* B-7
Table B.10. Long-term Employment Area by CAHSEE Mathematics Achievement Level* B-7

List of Figures

Page

Figure 2.1. Trends in cumulative grade twelve passing rates for selected groups. 37
Figure 2.2. Trends in cumulative grade eleven ELA passing rates for selected groups. 47
Figure 2.3. Trends in cumulative grade eleven mathematics passing rates for selected groups. 47
Figure 2.4. Trends in overall grade ten passing rates for selected groups. 52

Figure 3.1. Test preparation by grade ten students over the years as reported after CAHSEE ELA and mathematics tests, in percentages. 77
Figure 3.2. Test preparation of students as reported after taking CAHSEE ELA and mathematics tests, by tests passed in 2012, in percentages. 78
Figure 3.5. Students' report of materials used to prepare for CAHSEE ELA and mathematics tests, 2009–12, in percentages. 80
Figure 3.4. Materials used by grade ten students, by percentage, as reported after taking ELA and mathematics tests in 2012. 81
Figure 3.3. Comparison of grade ten students' expectations of receiving a high school diploma, by percentage, after taking ELA and mathematics tests, 2009–12. 83
Figure 3.6. Comparison of grade ten students' expectations of receiving a diploma, by tests passed in 2012, in percentages. 84
Figure 3.7. Grade ten respondents' reasons why they might not graduate with their class, as reported from 2005 through 2012, in percentages. 86
Figure 3.8. Reasons reported by grade ten students for possibly not receiving a diploma on time, by tests passed in 2012, in percentages. 87
Figure 3.9. Grade ten students' estimate of what they will do after high school, by percentage, 2005–12, after taking ELA and mathematics tests. 90
Figure 3.10. Grade ten students' estimate of what they will do after high school by tests passed in 2012, in percentages. 91
Figure 3.11. Reasons given by grade ten students for why they did or did not do as well as they could on ELA and mathematics tests in 2009–12, in percentages. 92
Figure 3.12. Reasons given by grade ten students for not doing as well as they could on the CAHSEE, by tests passed in 2012, in percentages. 93
Figure 3.13. Opinions reported by grade ten students, 2005–12, of whether all materials tested were covered in the courses they took, in percentages. 95
Figure 3.14. Responses of grade ten students as to whether topics tested on CAHSEE ELA and mathematics tests were covered in the courses they took, by tests passed in 2012, in percentages. 96

List of Figures

Page

Figure 3.15. Percentage of grade ten students, 2005–12, who said questions were the same or different from those encountered in class tests, in percentages. 97

Figure 3.16. Grade ten students' responses regarding difference or similarity of CAHSEE tests to classroom tests, by CAHSEE tests passed in 2012, in percentages. 98

Figure 3.17. Percentage of grade ten students taking the CAHSEE, 2005–12, who found the CAHSEE test questions more difficult, the same as, or less difficult than those encountered in course work (B and C combined in chart). 99

Figure 3.18. Percentages of grade ten students who thought the CAHSEE test questions were more difficult, the same, or less difficult than those encountered in the classroom or homework assignments, by tests passed in 2012. 100

Figure 3.19. Reasons given by grade ten students, 2005–12, as to whether and why they found the CAHSEE test questions difficult, in percentages. 102

Figure 3.20. Reasons given by grade ten students, 2005–12, for whether and why they found test questions difficult, in percentages, by tests passed in 2012. 103

Figure 3.21. Percentage of grade ten students, 2005–12, who said they have worked or will work harder, and in what ways, to meet the CAHSEE requirement. 105

Figure 3.22. Percentage of grade ten students, by tests passed in 2012, who said they had or had not worked harder or will work harder in the future to pass the CAHSEE skills test(s). 106

Figure 3.23. Most likely planned courses of action for grade ten students if they do not pass the CAHSEE by the time they complete high school, by year, in percentages. 108

Figure 3.24. Most likely planned courses of action for grade ten students if they do not pass the CAHSEE by the time they complete high school, by tests passed in 2012, in percentages. 109

Figure 4.1. CAHSEE ELA and Mathematics performance are closely related to postsecondary enrollment rates. 163

Figure 5.1. Dropout rates by grade level for classes of 2007 through 2010, based on percentage of grade nine enrollment. 190

Figure 5.2. Enrollment declines between grades nine and ten by high school class. 194

List of Figures

Page

Figure 5.3. Enrollment declines from grade ten to grade eleven by high school class. 195
Figure 5.4. Enrollment declines from grade eleven to grade twelve by high school class. 196
Figure 5.5. Trends in three graduation rates. 199
Figure 5.6. NAEP state and national trends for grade eight students: Mean scale scores. 203
Figure 5.7. NAEP state and national trends for grade eight students: Percentage at or above Basic. 203
Figure 5.8. SAT and ACT participation rates and success rates over time. 208
Figure 5.9. SAT mean math, verbal, and writing scores over time. 209
Figure 5.10. SAT mean critical reading scores over time, by grade taken. 210
Figure 5.11. SAT mean math scores over time, by grade taken. 210
Figure 5.12. Percent of SAT test takers over time, by grade taken. 211
Figure 5.13. California students' mean ACT scores over time. 212
Figure 5.14. AP participation rates over time, by race/ethnicity and overall. 213
Figure 5.15. Percentage of seniors leaving high school after scoring 3 or higher on at least one AP examination by race/ethnicity and overall. 214

Chapter 1: Introduction

D. E. (Sunny) Becker, Lauress L. Wise, and Michele Mandeville Hardoin

Eighteen states had exit examinations in place in 2002, and another six states, including California, were phasing in exit examinations but not yet withholding diplomas (CEP, 2002). By 2011, 25 states currently or planned to withhold diplomas from students based on their exit examination performance (CEP, 2011).

History of California High School Exit Examination

In 1999, the California state legislature enacted the requirement that, beginning with the Class of 2004, students pass a graduation examination in English-language arts (ELA) and mathematics (Senate Bill (SB)-2X, written into the California *Education Code (EC)* 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 (SBE) 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 SBE voted to defer the CAHSEE requirement to the Class of 2006. It has been in effect ever since.

The requirement for students with disabilities (SWD), however, has varied over time. In 2002, a lawsuit (Kidd et al. vs. O'Connell et al., formerly referred to as the Chapman case) was filed on behalf of SWD. While the suit was pending, the parties agreed that SWD 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 local and state requirements. Many of these students continued to take the CAHSEE despite the dispensation. A final settlement was reached in March 2008 reinstating the requirement that SWD pass the CAHSEE and requiring the California Department of Education (CDE) to conduct a study of SWD who are unable to pass. On September 30, 2008 the legislature enacted AB 2040, establishing *EC* sections 60852.1 and 60852.2, which require an advisory panel be established to develop findings and recommendations for alternative means (from the CAHSEE) for eligible SWD to graduate. In 2009 the AB 2040 Panel, an advisory panel of educators and others with experience in assessment or in working with SWD, developed recommendations that addressed the components of the AB 2040 statute requirements, including the definition of eligible students, specific options, scoring, uniformity, cost, and level of administration. In 2011 CDE contracted with ETS to conduct a pilot study of the proposed alternative means to the CAHSEE. In 2012 the SBE determined that implementation of the alternative means was not yet feasible, and the permanent CAHSEE regulations were approved to extend the exemption through December 31, 2012 for eligible students with disabilities who have an individualized education program (IEP) or a Section 504 plan. Assembly Bill 1705 was approved, and the exemption will be extended through June 30, 2015.

Independent Evaluation of the CAHSEE

The original legislation mandating the requirements for the graduation examination specified an independent evaluation of the CAHSEE. The 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, a third contract continued the evaluation through 2010; and a fourth contract continues the evaluation through October 2014.

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, although no direct causal relationship between the CAHSEE and these various outcomes is assumed. 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 SBE, and the CDE in February of even-numbered years.

In addition to the legislatively mandated biennial 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 2011–12 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; Becker, Wise, & Watters, 2009, Volumes 1 and 2; Becker, Wise, & Watters, 2010a; Becker, Wise, and Watters, 2010b; Becker, Wise, Hardoin, and Watters, 2011; Becker, Wise, Hardoin, and Watters, 2012). All of these reports are available on the CDE Web site at http://www.cde.ca.gov/ta/tg/hs/evaluations.asp.

Summary of 2011 Evaluation Activities

To provide a context for the current study, in this section we summarize the findings and recommendations from our most recent (November 2011) annual report. We reported several major findings, each supported by a discussion of detailed findings throughout the report:

- **CAHSEE test quality continues to be good.** HumRRO reviewed the alignment of CAHSEE test forms to the blueprints specifying the content standards to be assessed. Good alignment provides the key evidence for the validity of the interpretation of the CAHSEE test scores as an indicator of competency in the required content. Results indicate that CAHSEE test forms assess the target content standards fairly and fully and, with minor exceptions, measure the depth

of knowledge specified in the content standards. We also found that the test forms used in different administrations were of comparable difficulty as indicated by consistency in the raw-to-scale score tables resulting from test form equating. Further, we conducted a detailed replication of item analysis and equating for the March 2011 form that fully confirmed the operational results.

- **Test scores have been improving.** Among many arguments for instituting the CAHSEE is the belief that this requirement would lead schools to improve the effectiveness of instruction in the content judged important for success after high school and lead students to work harder to master this content. We found evidence that the percentage of students passing both parts on the first try increased steadily. The percentage of grade ten students who have already taken Algebra I and are taking even higher level mathematics courses has increased steadily and dramatically and this has led to increases in the grade ten passing rates indicate improved effectiveness of instruction prior to the point at which students take the CAHSEE for the first time. There is also evidence for improved remediation for students who do not initially pass the CAHSEE. One final indication of the impact of the CAHSEE requirement on student achievement was the significant number of students not passing the CAHSEE by the end of grade twelve who continue to work to pass in a fifth or subsequent year of high school.

- **Significant gaps in passing rates persist.** While performance on the CAHSEE has increased for key demographic groups, significant gaps in CAHSEE passing rates persist for minority and low income groups, English learners (EL), and students in special education.

- **Students report varying perspectives on the CAHSEE.** As part of the independent evaluation, students complete a brief questionnaire after each part of the CAHSEE. The questions are designed to identify different ways that students are affected by the CAHSEE requirement. Responses to several questions suggested that increases in student CAHSEE scores result from a combination of increased help and increased effort. Responses also indicated that teachers have increasingly focused coursework on the skills tested by the CAHSEE. Responses to some of the questions suggested that students are working harder to learn required material because of the CAHSEE.

- **Graduation rates increased and dropout rates decreased, but gaps persist.** 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. This analysis is complicated by the use of two graduation rate calculations. Both graduation rates dropped when the CAHSEE took effect as a graduation requirement in 2006 but the pattern has been more complicated since. By all measures the graduation rate increased in 2010.

- **Students are participating in more college preparation.** One concern with the CAHSEE requirement was that it might lead to a focus on more basic courses at

the expense of advanced coursework. Among other indicators we have tracked, the percentage of students taking and passing Advanced Placement (AP) tests has been an important check of this concern. In fact, participation in AP courses has increased both before and after the CAHSEE requirement took effect.

- **The CDE is making meaningful improvements in data and reporting.** The CDE recently implemented a new data collection system, the California Longitudinal Pupil Achievement Data System (CALPADS), with the potential to expand and improve available data. The CALPADS system aggregates data from a student-level database. In addition, the CDE online system, the California Basic Educational Data System (CBEDS), has been enhanced with select new reports. Four-year adjusted cohort graduation and dropout rates provide outcomes for a cohort of students (i.e., a graduating class) over time. We also noted that CDE added disaggregated graduation rates for graduating cohorts in 2010 for the first time, making this important educational indicator more transparent.

The interested reader is referred to the 2011 annual report (Becker, Wise, Hardoin, & Watters) for further explication of these findings.

Our annual and biennial reports include recommendations for ongoing improvement to the CAHSEE and relevant California infrastructure, legislation, and so on. Our most recent biennial report includes an extensive history of all recommendations made since the beginning of the HumRRO evaluation (Becker, Wise, Hardoin, & Watters, 2012). We summarize here the recommendations included in the 2011 evaluation report:

- *General Recommendation 1:* The State Board of Education and the California Department of Education should review the content and rigor of the CAHSEE requirement and propose alternatives for consideration by the Legislature and the Governor.

It has been more than ten years since the CAHSEE blueprints were first adopted by the SBE. It is an appropriate time for CDE and the SBE to review: (a) the pending change to the Common Core State Standards, including college and career readiness standards for high school youth, (b) experience with the current CAHSEE and with high school graduation tests in other states, and (c) initial data from our post-high school outcomes study that will be available in the coming year. Based on the outcome of such a review, the CDE and the SBE should recommend any changes in the content and rigor of the CAHSEE requirement that seem necessary and appropriate to ensure that a high school diploma signals readiness for college and careers.

- *General Recommendation 2:* California should set and maintain consistent requirements for students with disabilities with respect to the CAHSEE.

The CAHSEE requirement was appropriately deferred for two years for all students from 2004 to 2006 to allow time for instruction at earlier grades to prepare students to take and pass Algebra I and also to prepare students to meet high school ELA expectations. The requirement was deferred two additional years for SWD, from 2006 to 2008, while a law suit on behalf of these students was resolved. This second delay provided additional time to adjust individual education programs (IEPs) at earlier grades to prepare students for the high school requirements. For the high school classes of 2008 and 2009, SWD had to meet the CAHSEE requirement to receive a diploma, although waivers were available if students needed a testing modification to receive a passing score. Under current law, SWD in the high school classes of 2010, 2011, and 2012 have once again been exempted from the CAHSEE requirement, leaving teachers, parents, and the students themselves uncertain as to what is expected beyond spring 2012. Issues leading to the current exemption need to be resolved so that efforts to improve instruction for SWD will resume in full. Resolution of these issues will require agreement on appropriate alternatives for ways that SWD can demonstrate required knowledge and skills and might include identification of appropriate goals for students who are not able to participate in regular academic instruction.

In addition to these two general recommendations, HumRRO offered several specific recommendations for improving CAHSEE development, administration, and scoring procedures.

- *Specific Recommendation 1:* California should ensure that local educational agencies (LEAs) and school site test administration personnel are trained to deliver appropriate accommodations and modifications to students with disabilities.

- *Specific Recommendation 2:* California should ensure that statewide student data systems are as accurate and up-to-date as possible.

- *Specific Recommendation 3:* California should work with its test administration vendor to achieve improved content alignment of items assessing the content standards in the strands of Mathematical Reasoning and Reading Comprehension.

- *Specific Recommendation 4:* California should examine the visual presentation of the CAHSEE to achieve closer alignment with the principles of universal design for assessment.

Research Questions

The current evaluation is guided by research questions drawn from three sources. The first is the legislation requiring the evaluation. Three questions are specified in *EC* Section 60855(a):

1. **How have students performed on the examination?** "Analysis of pupil performance, broken down by grade level, gender, race or ethnicity, and subject matter of the examination, including any trends that become apparent over time (Section 60855 (a)(1))."

2. **What effect has the CAHSEE requirement had on high school completion and college attendance?** "Analysis of the exit examination's effects, if any, on college attendance, pupil retention, graduation, and dropout rates, including analysis of these effects on the population subgroups (Section 60855(a)(2))."

3. **Does the CAHSEE requirement have differential effects on different demographic groups?** "Analysis of whether the exit examination is likely to have, or has, differential effects, whether beneficial or detrimental, on population subgroups (Section 60855(a)(3))."

The second source for identifying specific research questions is the information requested by CDE in the Request for Proposals (RFP) for this evaluation. While the RFP does not include a clearly defined list of research questions for the evaluation, the requirements for the biennial reports suggest the following three general questions in addition to those specified in the *EC*:

4. **Is the examination a valid, fair, and efficient assessment of competency in the knowledge and skills specified in the test blueprints?** This question underlies all of the activities specified under RFP Section 3.3 (pp. 13-14) involving review of test development, administration, scoring, and equating.

5. **What programs or strategies are schools using to help students prepare for and pass the CAHSEE, from middle school through grade twelve and beyond, and how effective are the programs or strategies?** This question is implied by requirements 2, 3, and 4 for the biennial reports specified in RFP Section 3.3.C (p. 16).

6. **How effective are test variations for students with disabilities and for English learners?** This question is implied by requirements 5 and 6 for the biennial reports specified in RFP Section 3.3.C (pp. 16-17).

The final source for identifying specific research questions was HumRRO staff's professional judgment as evaluators, based on having talked with stakeholders and policymakers during the more than 10 years of the CAHSEE evaluation:

7. **Is the CAHSEE requirement sufficiently rigorous to ensure that students receiving a diploma possess proficiency in reading and mathematics sufficient for college or work?** This question is at the heart of the current national debate over common standards for K–12 student achievement.

Organization and Contents of 2012 Annual CAHSEE Evaluation Report

The 2012 Annual CAHSEE Evaluation Report covers activities performed in the independent evaluation from November 1, 2011 through June 30, 2012. It covers results from CAHSEE administrations during the 2011–12 school year.

Chapter 2 analyzes results from the 2011–12 CAHSEE administrations, reporting results for grade twelve students in the Class of 2012 and comparing their passing rates to those of grade twelve students in the classes of 2006, 2007, 2008, 2009, 2010, and 2011. In addition, we report passing rates for grade ten students in the Class of 2014 in comparison to passing rates for grade ten students in previous classes, and passing rates and score gains for grade eleven students in the Class of 2013 who did not meet the CAHSEE requirements during their sophomore year. This chapter also analyzes the rates of persistence and progress of students from the classes of 2006 through 2011 who did not meet the CAHSEE requirement in time to graduate with their classes. This chapter also includes our observations regarding the Test Administration Range Finder meeting conducted by the administration contractor, ETS.

Chapter 3 investigates the challenges and impacts of the CAHSEE program from the student perspective. Brief questionnaires were administered to students upon completion of each CAHSEE test. Analyses include comparisons of current year responses to response patterns in previous years, as well as comparisons among distinct groups of students (e.g., students who passed the CAHSEE versus those who did not).

Chapter 4 presents results from a special study of post-high school outcomes (PHO). HumRRO collaborated with twelve volunteer local education agencies (LEAs) over an 18 month period to collect, analyze, and interpret relationships between CAHSEE scores and PHO. This limited study investigated what PHO could be linked to CAHSEE performance, how well CAHSEE performance predicts post-high school performance, and the feasibility of a collaborative effort among volunteer LEAs to conduct such an investigation.

Chapter 5 presents trends in educational achievement and perseverance 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. These analyses draw on publicly available data from external sources such as the CDE's DataQuest, which provides access to the California Basic Educational Data System (CBEDS).

Finally, Chapter 6 presents our findings and recommendations based on the data analyses and results presented in previous chapters.

Chapter 2: Analyses of CAHSEE 2011–12 Test Results

Introduction and Brief History of CAHSEE Testing

The legislation establishing the California High School Exit Examination (CAHSEE) called for the first operational forms of the examination to be administered in spring 2001 to grade nine students in the Class of 2004. At the first administration grade nine students could volunteer, but were not required, to take either or both portions of the examination. Students who did not take or did not pass the examination in that administration were required to take the examination as grade ten students 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 State Board of Education (SBE), and the California Department of Education (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 grade ten students 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 grade ten students 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 grade ten students in the Class of 2007 taking the CAHSEE for the first time and grade eleven students in the Class of 2006 who had not passed the CAHSEE as grade ten students. The grade eleven students took the CAHSEE one or more times in September and November 2004, or February, March, and May 2005. The grade ten students participated in the February, March, or May 2005 administrations. In addition, a small number of adult education (AE) 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 grade ten students in the Class of 2008, grade eleven students in the Class of 2007, and grade twelve students in the Class of 2006. Except for students in special education programs who could meet the CAHSEE requirement in other ways, grade twelve students 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 grade ten students in the Class of 2009 were tested for the first time in February, March, or May of 2007. Grade eleven 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. Grade twelve 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 students repeating grade twelve or as Adult Education (AE) 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 (SWD). While the suit was pending, the parties agreed that SWD 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 local 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 SWD pass the CAHSEE and requiring the CDE to conduct a study of SWD who are unable to pass. Analyses of results from the 2007–08 and 2008–09 CAHSEE administrations, including passing rates for SWD in the Classes of 2008 and 2009 were reported in our 2008 and 2009 annual reports (Becker and Watters, 2008; Becker and Watters, 2009). All of these reports are available on the CDE Web site at http://www.cde.ca.gov/ta/tg/hs/evaluations.asp.

Chapter Scope and Organization

This chapter is organized into three main sections. The first section describes HumRRO's review of CAHSEE administration and scoring for the 2011–12 school year. This is followed by a section describing processing steps in creating data files for the analyses of test results and procedures used to estimate passing rates. The remainder of the chapter describes test results for each high school class including a number of descriptive analyses of student groups, both those that have met, and those that have not yet met the CAHSEE requirement.

Test Administration and Scoring

Observation of CAHSEE Test Administrations

Under Educational Testing Service's (ETS) current contract with CDE, auditing of CAHSEE test sites (conducted by a subcontractor) is conducted with a small percentage of high schools to determine compliance with criteria for pre-administration activities, administration plans, testing facilities, administration activities, and post-administration activities. HumRRO's test administration site visits complement ETS's audits and include site personnel interviews in addition to observations. HumRRO

consulted with CDE to select one Local Educational Agency (LEA) to visit in 2012. The CAHSEE coordinator of the selected LEA facilitated HumRRO's site visit arrangements, informing school site personnel several weeks prior to test administration about the purpose and procedures for HumRRO's visit.

HumRRO observed test administrations of English Language Arts (ELA) and mathematics on March 13–14, 2012 at one central California high school. Our goals for the site visit were to use observation and interview outcomes (a) to evaluate the procedures followed at the test site relative to the procedures described in the administration manuals published by ETS and (b) to make quality control recommendations that could improve standardization or achieve greater efficiency or security.

As has been customary in the past, HumRRO conducted the site visit in such a way as to avoid interfering with the operational administration. Our data collection methods involved observing from a distance (e.g., remaining seated at the back of the testing classrooms for the duration of each session without interacting with students), "looking over the shoulder" (e.g., to see how test materials were handled), and inquiring about particular aspects of the administration (e.g., asking test examiners about accommodations provided). We also conducted a structured interview with the test site coordinator about security, test examiner training, test variations, and general site logistics.

In preparation for the site visit, HumRRO staff reviewed the *California High School Exit Examination District and Test Site Coordinator's Manual* and the *Directions for Administration* and *Directions for Administration – Special Test Versions* manuals. These are the documents provided to school site personnel by ETS as the means of communicating requirements for all aspects of test administration. Key findings from our observations of the test administrations and our interview with test site coordinator are described below.

Observations During Testing

Testing Environment. Conditions were adequate with respect to lighting, ventilation, space and a writing surface for each student, and minimal noise. The observed testing rooms included a classroom and a large multi-purpose room. In the multi-purpose room, tables were labeled with student names in alphabetical order, and two students were seated at each front-facing, six-foot table. Examiners established a tone of seriousness, respect, focus, and discipline appropriate for the assessment.

Test Materials Distribution/Collection. Test examiners distributed materials in accordance with standard procedures. Examiners in the large group checked student identification, and all examiners asked students to verify their preprinted names on the Pre-ID answer documents.

Directions and Monitoring. Test examiners carefully read the *Directions for Administration* in accordance with standard procedures. They also either collected or

reminded students to turn off and put away cell phones and all other materials during testing. Test examiners appropriately monitored students and responded quickly to students' questions. Four roving examiners monitored about 130 students in the large group.

Testing Variations, Accommodations, and Modifications. We observed the administration of the ELA test to a group of nine SWD; no modifications were used although all students were in the special day class (SDC) program. The test examiner used a projector to display the answer document and test booklet as she read the directions, demonstrating how and where students should fill in the various fields. The examiner, who was the students' teacher, provided encouragement on several occasions, reassuring students that "you have many tools and test taking strategies that I've taught you – use them! You can do this!" When asked, "What if we don't pass?" the examiner encouraged them to do their best this time and reminded them there would be other opportunities to try to pass.

Timing. As the CAHSEE is an untimed but not unlimited time test, the sessions were observed to be adequately conducted with respect to the approximate testing times listed in the manuals, with allowance for additional time as needed by individual students or early dismissal when all students were finished. The classroom clock did not display the correct time, so the test examiner had another one brought to the room. With regard to additional time within a test, examiners ensured students completed Session 1 before having them begin Session 2. Examiners also reminded students not to change the Session 1 portion of their answer documents when working in Session 2.

Student Motivation. Most students appeared to take the tests seriously and seemed to be concentrating on their work and quietly responding to CAHSEE questions.

Findings from Interview with Test Site Coordinator

Materials. The test site coordinator indicated that her district took care of the ordering process with ETS. The test version numbers on a few of the ELA booklets were blurred (these were not used in testing), and some ELA packages of test booklets arrived with the shrink-wrapping split and were thus more time consuming to count. No testing materials were missing.

Maintaining Security. The test site coordinator provided controlled access to testing materials, storing them in a secure locked closet within a locked office in the school library; she ensured all examiners had signed the Test Security Agreements. HumRRO observed use of the ETS inventory form to document the test booklet ID numbers as materials were distributed to each test examiner. The test materials were monitored in a secure manner throughout the two testing days.

Training Test Examiners. The test site coordinator was new to this role and had attended a training session conducted for test site coordinators from the district's seven high schools by the director of assessment of her LEA. The ETS training video was not shown, but experienced coordinators shared lessons learned and tips for successful

testing. The test site coordinator held two meetings with her school site examiners to review procedures and plan logistics; examiners who requested an administration manual to review were provided one in advance of the test date.

Preparing for Administration. The test site coordinator described the tasks of coordinating rooms, test examiners, students, supervised breaks, and bell schedules for this census administration of approximately 400 students. She appreciated the efficiency of the Pre-ID service, and inherited a well-designed schedule from the prior test site coordinator. She planned for students a testing environment that would best support their optimal performance on the test. Alternative room arrangements were made for students who might need extended time to complete the tests and for late arrivals.

Providing Testing Variations, Accommodations, and Modifications. The test site coordinator indicated that this school's policy is to specify in grade ten students' IEPs or 504 plans that administration of the CAHSEE will be without modifications. This approach is intended "to get a baseline" for students that could then be revisited in grades eleven and twelve to include any modifications that might be needed for CAHSEE assessment. This site had no need for English learner variations.

Evaluation of Test Administration

Overall, the March 2012 CAHSEE test administration we observed at a high school in central California was conducted smoothly and in accordance with the required procedures, and no security problems were observed. However, we have one specific recommendation for CDE regarding test administration to grade ten students with disabilities.

- Emphasize to LEAs the importance of having students' Individualized Education Program (IEP) decision-making teams ensure that appropriate testing variations, accommodations, and modifications (in terms of test materials, facilities, and proctoring) are offered.

Our concern with the observed school's approach to administering the test to grade ten students with disabilities is that students' best interests are not being served, because the most valid scores will result from testing in the most appropriate setting. Students may benefit from additional supports and perform better on the test using test variations (e.g., test an individual student separately) or accommodations (e.g., test over more than one day for a test) that are included in their IEPs and used regularly in their classroom instruction. Perhaps it is unclear to schools and LEAs that allowing SWD to use test administration variations and accommodations or to use the modification of a calculator on the math test does not result in changes to Adequate Yearly Progress (AYP) calculations, although use of all other modifications does result in changes. Students who use modifications other than the calculator on math (e.g., read aloud ELA test questions and answer options) are not counted towards AYP participation, although if they achieve the equivalent of a passing score (350 or higher) on one or both parts of the CAHSEE they are eligible to request a waiver of the CAHSEE requirement. If the exemption for SWD is no longer in place for the Class of

2013, it will be vital for test site coordinators and special education teachers to understand the nuances between providing students with testing variations, accommodations, and modifications.

Observation of Range-Finding Session for Essay Scoring

On October 20, 2011, two HumRRO staff members attended the second day of the three-day CAHSEE Range-Finding Session facilitated by ETS staff at their Sacramento office. The purpose of this meeting was to review sample student responses to the CAHSEE ELA writing prompts from the field test and select a set of responses to serve as exemplars of the scoring guide points and the range of possible student approaches. The papers chosen to train and qualify scorers of student responses to the February, March, and May 2012 CAHSEE administrations would serve a critical role in standardizing application of the generic CAHSEE essay scoring rubric to responses to particular prompts. HumRRO's goals in observing the meeting were to understand the processes ETS uses to achieve scorer consistency and to recommend possible areas for improvement. HumRRO staff used a checklist of best practices for training and manual scoring to guide their observations.

Two ETS facilitators led the meeting. Participants included five experienced scoring leaders. The goals of the meeting were: (a) to designate as anchor papers the clearest and most straightforward of the reviewed responses and (b) to designate as range-finding papers the responses that represented unusual approaches to the prompt.

ETS guided the participants through the training materials, which included the writing prompt, the scoring guide, two sets of 15 student essays, and range-finding score sheets. After having the prompt read aloud and emphasizing that it functioned merely as a stimulus or gateway to the essay, the facilitator led the participants through an in-depth review of the four-point scoring guide handout. Discussion of what could be considered "responsive" to this particular prompt was an important step in calibrating the participants to apply the scoring guide. The facilitator explained that even if a response failed to meet one or two of the six bulleted criteria of the scoring guide at a particular score point, the response might still qualify for that holistic score. For example, a response that meets all of the criteria for a score level of two should not be lowered to a score level of one solely because the response contains errors in English language conventions. The ETS facilitator also explained that no single bulleted criterion takes precedence over the others for raising or lowering the score. After all participants indicated thorough understanding of the general content of the scoring guide, the facilitator proceeded to the next activity.

The facilitator explained that the goal of the session was to identify 12 anchor papers and 12 range-finding papers. The two types of papers served different purposes:

Anchor papers: As a set, the anchor papers would clearly demarcate acceptable types of papers within a single score point and would help readers differentiate between adjacent score points. Therefore, the student responses selected as anchor papers

needed to represent each of the four score points as well as scores at the high and low ends of the range to define the score point boundaries, as indicated by a plus sign (+) for high and a minus sign (-) for low.

Range finding papers: Range-finding responses were to be selected to illustrate a variety of unusual approaches with good training discussion points. The appropriate score point for each was recorded as a whole number.

Participants independently read and recorded scores for the first set of 15 papers in their packets of pre-screened (already scored by the facilitator and chosen for this session) student responses. Readers were told to add a plus sign (+) or a minus sign (-) to a score if a paper mostly exhibited a particular score point's standards but one or two of the bulleted criteria were above or below that score point. The scores were recorded on a spreadsheet and projected on a screen for discussion.

ETS facilitated the following steps in the process for discussing each paper:

1. A volunteer read the entire student response aloud. This helped readers avoid unintentionally correcting or filling in blanks of a student's writing and highlighted solid writing skills of students whose poorer handwriting or misspellings could bias scoring decisions.

2. Readers on the high and low ends (in their personal scoring) presented the rationale for their judgments.

3. Readers discussed the ideas presented regarding the appropriate score.

4. Readers were asked if they wanted to change their initial score as a result of listening to the discussion.

5. Changes to scores were recorded on the spreadsheet.

Based on the discussion, ETS staff recorded preliminary notes about why a paper received a particular score. These notes would be included in the annotations or scoring notes to be used during actual scoring of March responses. To help evaluate the readers' differing decisions and to determine the final score level, the ETS facilitator sometimes read aloud the score-point description of each bulleted criterion in the scoring guide. As the session progressed, she also occasionally invited readers to refer to papers that had already been discussed to help guide scoring decisions.

Once the group reached consensus on a paper's score, the facilitator suggested that the response be assigned as an anchor paper, a range-finding paper, or neither, and asked the readers if they had any objections. The facilitator chose several range-finding papers to help readers learn to avoid allowing personal bias to influence scoring. He then reviewed some responses in the packet that illustrated what should or should not be considered a "crisis" paper (i.e., a paper in which a student displays personal or emotional problems, such as evidence of physical or mental abuse). When there were

several papers under consideration for a particular cell of the chart, the facilitator stressed that the group should choose the paper they thought would best teach future readers to apply the scoring guide to this prompt. This process was repeated until all anchor and range-finding papers had been selected.

Evaluation of Range-Finding Session

Overall, the October 2011 CAHSEE Range-Finding Session was excellently managed and professionally conducted. The time allowed for the tasks seemed adequate, and the ETS facilitators used that time efficiently. The discussions were always collegial and thorough—there was no indication that any comments or opinions were disregarded.

HumRRO observed ETS staff using several techniques that were effective in ensuring selection of appropriate anchor and range-finding papers for future reader training. For example, ETS asked readers to explicitly describe the score point criteria that matched the paper under discussion and ensured that scoring decisions were consistently driven by the scoring guide.

Consistency in Scoring the Essays

We analyzed data on essay scoring results to determine the degree of consistency in the scoring of the student essays used with the 2011–12 CAHSEE administrations and compared the results to indicators of scoring consistency from 2004–05 through 2010–11. 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 (text-based versus stand-alone) varied across administrations. In the 2005–06 through 2011–12 testing years, stand-alone prompts were used in each administration.

As in prior years, each essay was graded by at least two different readers (scorers) using 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 one essay topic to another and different topics were asked about in different administrations, we monitored the level of agreement between independent readers for the question used with each administration. Tables 2.1 and 2.2 show agreement rates, by grade, for each of the 2011–12 test forms and for test forms from prior years. Agreement is measured by: (a) how often (what percentage of the time) there was exact agreement versus (b) 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 readers who agreed to within a single score point.

As shown in Table 2.1, we again analyzed scoring consistency separately for students in grades ten, eleven, and twelve. For each administration 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 grade eleven and twelve students, none of whom had passed the CAHSEE ELA when they were in grade ten. The greater range of scores increases the possibility that readers may disagree by more than one point, leading to lower agreement rates for the grade ten essays. The Kappa statistic[3] shown in Table 2.1 takes differences in chance agreement rates into account. The statistic has a value of 1.0 when there is perfect agreement and a value of 0.0 when agreement is at chance levels. Kappa values were not computed prior to 2011, as indicated in Table 2.2.

Table 2.1. 2010–11 Scoring Consistency for Student Essays by Administration and Grade

	Grade Ten			Grade Eleven			Grade Twelve		
Admin.	Percent Exact Agreement	Percent > 1 Score Point Different	Coefficient Kappa	Percent Exact Agreement	Percent > 1 Score Point Different	Coefficient Kappa	Percent Exact Agreement	Percent > 1 Score Point Different	Coefficient Kappa
Jul-11	n/a	n/a	n/a	n/a	n/a	n/a	79.5	0.3	0.58
Oct-11	n/a	n/a	n/a	77.0	0.4	0.58	78.0	0.3	0.56
Nov-11	n/a	n/a	n/a	76.0	0.4	0.58	77.5	0.3	0.61
Dec-11	n/a	n/a	n/a	80.3	0.0	0.49	83.8	0.1	0.56
Feb-12	67.2	0.8	0.52	81.0	0.2	0.62	82.3	0.2	0.63
Mar-12	69.5	0.6	0.51	84.0	0.1	0.60	85.1	0.2	0.63
May-12	71.2	0.6	0.65	77.3	0.3	0.61	80.4	0.2	0.62
All 2011–12	69.0	0.7	0.52	78.5	0.3	0.59	80.2	0.2	0.61

Agreement rates were consistently high across grades and administrations/test forms, with Kappa values ranging from about .49 to .65. Agreement rates were somewhat lower for grade ten students in the two main census administrations. The exact agreement rate was less than 70 percent; the rate of significant disagreement (more than one score point) was above .5 percent; and the Kappa value was barely above .50. It is likely that ETS had to bring in new scorers to handle the large volume of scoring of this administration.

Table 2.2 provides a comparison of agreement rates across years. Overall, the frequency of significant disagreements (more than one score point) at each grade level was noticeably less in 2011–12 compared to 2010–11. The exact agreement rate for grade ten this year was 69.0 compared to 66.7 percent the last year. The exact agreement rate for grade eleven increased from 76.7 to 78.5 percent, and the agreement rate for grade twelve also increased, from 78.6 to 80.2 percent. 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 came much closer to meeting these targets in the 2011–12 testing year for the grade ten essays and exceeded them

[3] See Cohen, Jacob (1960). "A coefficient of agreement for nominal scales". *Educational and Psychological Measurement* **20** (1): 37–46.

for the grade eleven and twelve essays. While agreement rates are generally acceptable, ETS may still wish to review their scorer training and monitoring processes to see if further improvements are possible.

Table 2.2. Comparison of Scoring Agreement Rates from 2004–05 Through 2011–12

	Grade Ten			Grade Eleven			Grade Twelve		
Admin.	Percent Exact Agreement	Percent > 1 Score Point Different	Coefficient Kappa	Percent Exact Agreement	Percent > 1 Score Point Different	Coefficient Kappa	Percent Exact Agreement	Percent > 1 Score Point Different	Coefficient Kappa
All 2004–05	66.5	0.9	n/a	70.3	0.9	n/a	n/a	n/a	n/a
All 2005–06	66.9	0.7	n/a	73.5	0.4	n/a	73.6	0.4	n/a
All 2006–07	69.9	0.4	n/a	77.4	0.2	n/a	77.7	0.3	n/a
All 2007–08	67.2	0.9	n/a	76.8	0.4	n/a	77.9	0.4	n/a
All 2008–09	66.9	0.8	n/a	77.4	0.3	n/a	79.5	0.3	n/a
All 2009–10	66.6	0.8	n/a	77.1	0.2	n/a	80	0.2	n/a
All 2010–11	66.7	1.0	0.49	76.7	0.4	0.57	78.6	0.4	0.58
All 2011–12	69.0	0.7	0.52	78.5	0.3	0.59	80.2	0.2	0.61

Tables 2.3 through 2.5 provide more detailed information on scores assigned by each of the two independent readers for grade ten students over each of the last three years respectively. Readers agreed perfectly 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 reader assigning a score of 2 and the other a score of 4. The average ratings were similar, 2.5 for last year and 2.4 for this year, and the pattern of disagreement between independent readers was also very similar.

Table 2.3. Percentage of Grade Ten Essays Assigned Each Score Level by Each Reader in the February Through May 2010 Administrations

First Score	Second Score 0	1	2	3	4
0	**1.01**	0.00	0.00	0.00	0.00
1	0.00	**1.21**	0.77	0.01	0.00
2	0.00	0.75	**36.52**	12.19	0.38
3	0.00	0.01	12.13	**25.31**	3.43
4	0.00	0.00	0.39	3.35	**2.53**
Average score from first reader					2.5
Average score from second reader					2.5
Percent Exact Agreement (sum of diagonal elements)					66.6
Percent with differences greater than one point					0.8

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

Table 2.4. Percentage of Grade Ten Essays Assigned Each Score Level by Each Reader in the February Through May 2011 Administrations

First Score	Second Score 0	1	2	3	4
0	**0.84**	0.00	0.00	0.00	0.00
1	0.00	**1.64**	1.05	0.02	0.00
2	0.00	1.03	**41.09**	11.94	0.49
3	0.00	0.02	12.02	**21.02**	3.06
4	0.00	0.01	0.50	3.20	**2.07**
Average score from first reader					2.4
Average score from second reader					2.4
Percent Exact Agreement (sum of diagonal elements)					66.7
Percent with differences greater than one point					1.0

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

Table 2.5. Percentage of Grade Ten Essays Assigned Each Score Level by Each Reader in the February Through May 2012 Administrations

First Score	Second Score 0	1	2	3	4
0	**0.80**	0.00	0.00	0.00	0.00
1	0.00	**1.17**	0.69	0.01	0.00
2	0.00	0.69	**42.30**	11.65	0.35
3	0.00	0.01	11.52	**22.52**	2.89
4	0.00	0.00	0.33	2.92	**2.17**
Average score from first reader					2.4
Average score from second reader					2.4
Percent Exact Agreement (sum of diagonal elements)					69.0
Percent with differences greater than one point					0.7

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

In summary, scoring consistency was improved compared to prior years and was generally acceptable. Nonetheless, ETS should review the training, qualification, and monitoring procedures used when new scorers are brought in to handle the large volume of essays in the two grade ten census administrations, so as to make scoring consistency more comparable across administrations.

A final point about the accuracy of the essay scores is that there is no way of directly estimating how much a student's score would vary across different essay prompts, since each student responds to only a single prompt. Prior analyses of similar tests (Wise, 2011) suggests that differences in student scores for different essay prompts could be significant. Currently, this facet is not addressed in assessing the accuracy of the overall ELA scores and the consistency in classifying students as meeting or not meeting the CAHSEE ELA requirement.

Assembling Comparable Forms

In prior years, HumRRO provided an independent verification of the procedures used by ETS for assembling test forms and equating scores across the different forms used each year. Since there were no significant changes to test assembly and form equating processes, there was no need to repeat this independent verification. As in prior years, however, we have continued to monitor the degree of consistency in the scoring tables used to map number correct scores for each test form onto the constant reporting scale.

Tables 2.6 and 2.7 show the scoring tables for each ELA and mathematics test form used this year. Key decision points, CAHSEE passing levels, and proficiency levels for school accountability use are highlighted. The test forms do vary slightly by difficulty, but the number of correct responses to reach each of the decision points varies by only one or two across all of the forms. This indicates a high level of success in assembling test forms of approximately equal difficulty.

One other point about the scoring tables is that the expected score for students who guess on every question is higher than the minimum score of 275, particularly for mathematics. The mathematics test consists of 80 questions with four possible responses each. On average, students who guess randomly on each question will end up with correct answers for 20 of the questions and will earn a score ranging from 306 to 309. Guessing is less of a factor for ELA because it is not possible to guess on the essay, but guessing on each of the multiple choice questions will still yield a score above the minimum. Thus, caution is needed in interpreting differences among very low scores, as chance factors may account for such differences. Guessing is much less of an issue around the minimum scores required for passing (350) or for being classified as proficient (380).

Table 2.6. Raw-to-Scale Score Conversions for the 2011–12 ELA Tests

Raw Score	Scale Score							Raw Score	Scale Score						
	Jul 10	Oct 10	Nov 10	Dec 10	Feb 11	Mar 11	May 11		Jul 10	Oct 10	Nov 10	Dec 10	Feb 11	Mar 11	May 11
0-15	275	275	275	275	275	275	275	51	344	342	341	343	344	339	339
16	275	275	275	275	275	275	275	52	346	344	343	345	346	342	341
17	276	275	275	275	276	275	275	53	348	346	345	347	348	344	343
18	**278~**	**277~**	**278~**	**275~**	**279~**	**275~**	**277~**	54	350*	347	347	349	350*	346	345
19	280	279	280	275	281	275	279	55	352	350*	349	351*	352	348	347
20	283	281	282	276	283	276	281	56	354	352	351*	353	354	350*	349
21	285	283	284	278	285	279	283	57	356	354	353	355	356	352	351*
22	287	285	286	281	287	281	285	58	358	356	356	357	358	355	353
23	289	287	288	284	289	283	287	59	360	358	358	359	360	357	355
24	291	289	290	286	291	285	289	60	363	360	360	362	362	359	357
25	293	291	292	289	293	287	291	61	365	362	362	364	365	361	359
26	295	293	294	291	295	289	293	62	367	364	364	366	367	364	362
27	297	295	296	293	297	291	294	63	369	366	367	368	369	366	364
28	299	297	298	296	299	293	296	64	372	369	369	371	372	369	366
29	301	299	300	298	301	295	298	65	374	371	371	373	374	371	368
30	302	301	302	300	303	297	300	66	376	373	374	376	377	374	371
31	304	303	304	302	305	299	302	67	379	376	376	378	379	377	373
32	306	305	306	304	307	301	304	68	381**	378	379	381**	382**	379	375
33	308	307	307	307	309	303	306	69	384	381**	382**	384	385	382**	378
34	310	309	309	309	311	305	308	70	386	384	384	386	387	385	381**
35	312	311	311	311	313	307	310	71	389	386	387	389	390	388	383
36	314	313	313	313	314	309	311	72	392	389	390	392	393	391	386
37	316	315	315	315	316	311	313	73	395	392	393	395	396	394	389
38	318	317	317	317	318	313	315	74	398	395	396	399	399	398	392
39	320	319	319	319	320	315	317	75	401	399	400	402	403	401	395
40	322	320	320	321	322	317	319	76	404	402	403	406	406	405	399
41	324	322	322	323	324	319	321	77	407	405	407	409	410	409	402
42	326	324	324	325	326	321	323	78	411	409	411	413	414	413	406
43	328	326	326	327	328	323	324	79	415	413	415	416	418	418	410
44	330	328	328	329	330	325	326	80	419	418	420	422	423	423	414
45	332	330	330	331	332	327	328	81	423	422	425	426	428	428	419
46	334	332	332	333	334	329	330	82	428	427	430	431	433	433	424
47	336	334	334	335	336	331	332	83	433	433	436	437	439	439	429
48	338	336	336	337	338	333	334	84	438	439	442	450	445	446	435
49	340	338	337	339	340	335	336	85	445	446	449	450	450	450	442
50	342	340	339	341	342	337	337	86-90	450	450	450	450	450	450	450

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

Table 2.7. Raw-to-Scale Score Conversions for the 2011–12 Mathematics Tests

Raw Score	Scale Score							Raw Score	Scale Score						
	Jul 10	Oct 10	Nov 10	Dec 10	Feb 11	Mar 11	May 11		Jul 10	Oct 10	Nov 10	Dec 10	Feb 11	Mar 11	May 11
0-8	275	275	275	275	275	275	275	43	350*	351	350*	353	350*	351*	351*
9	275	275	275	275	275	275	275	44	352	353	351	355	352	353	352
10	277	279	277	276	276	277	278	45	353	355	353	357	353	355	354
11	281	283	281	280	280	281	282	46	355	357	355	359	355	357	356
12	284	286	285	284	284	284	285	47	357	358	357	360	357	358	358
13	288	289	288	290	287	288	289	48	359	360	359	362	359	360	359
14	291	292	291	293	290	291	292	49	360	362	360	364	361	362	361
15	294	295	294	296	293	294	294	50	362	364	362	366	363	364	363
16	296	298	296	299	296	296	297	51	364	366	364	368	364	366	365
17	299	301	299	302	298	299	300	52	366	368	366	370	366	368	367
18	301	303	302	304	301	302	302	53	368	370	368	372	368	370	369
19	304	306	304	307	303	304	305	54	370	372	370	374	370	372	371
20	**306~**	**308~**	**306~**	**309~**	**306~**	**307~**	**307~**	55	372	374	372	376	372	374	373
21	308	310	309	311	308	309	309	56	374	376	374	378	374	376	375
22	311	312	311	314	310	311	312	57	376	378	376	380**	377	378	377
23	313	314	313	316	312	313	314	58	378	380**	378	382	379	380**	379
24	315	317	315	318	315	315	316	59	380**	382	380**	384	381**	383	381**
25	317	319	317	320	317	318	318	60	383	384	383	386	383	385	383
26	319	321	319	322	319	320	320	61	385	387	385	389	386	387	386
27	321	323	321	324	321	322	322	62	387	389	387	391	388	390	388
28	323	324	323	326	323	324	324	63	390	392	390	394	391	392	391
29	325	326	325	328	325	326	326	64	392	394	393	396	393	395	393
30	327	328	327	330	326	327	328	65	395	397	395	399	396	398	396
31	328	330	328	332	328	329	329	66	398	400	398	402	399	401	399
32	330	332	330	333	330	331	331	67	401	403	401	405	402	404	402
33	332	334	332	335	332	333	333	68	404	406	404	408	405	407	405
34	334	336	334	337	334	335	335	69	408	409	408	411	409	410	408
35	336	337	336	339	336	337	337	70	411	413	412	415	412	414	412
36	337	339	337	341	337	339	338	71	415	417	416	419	416	418	416
37	339	341	339	343	339	340	340	72	420	422	420	424	421	423	420
38	341	343	341	344	341	342	342	73	425	426	425	428	426	428	425
39	343	344	343	346	343	344	344	74	430	432	431	434	431	433	431
40	344	346	344	348	345	346	345	75	437	438	437	440	438	440	437
41	346	348	346	350*	346	348	347	76	445	446	445	448	446	448	445
42	348	350*	348	351	348	349	349	77-80	450	450	450	450	450	450	450

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

Test Result Data

The primary source of data used to analyze CAHSEE test results was the detailed item-analysis files received from ETS, the testing contractor after each CAHSEE administration. These data were analyzed and documented in brief reports to the CDE with cumulative results through each separate administration. The files contain test item and student questionnaire responses for each student who took the CAHSEE, but do not include corrections to demographic information, which come later in the year, and may exclude a small number of students whose test results were not processed in time to be included in these files.

Table 2.8 shows the number of answer document records in the files received from ETS for each of the 2011–12 CAHSEE administrations.[4] For this report, data from July 2011 through May 2012 administrations are included. For each CAHSEE test, Table 2.8 also shows the number of answer documents and the number of documents with passing scores by administration date and current grade. The July 2011 CAHSEE administration included students in grade twelve and in AE. The October through December 2011 administrations also included students in grade eleven. Grade ten students are included in the February, March, and May administrations, along with students in grades eleven and twelve, and AE students who are still trying to pass. One curious result shown in Table 2.8 is that roughly one-third of the answer documents received for the July 2011 test were for students who were signed up to be tested and either failed to show up or did show up but turned in a blank answer document. CDE may wish to investigate this result further in deciding on testing schedules or test material orders for future years.

Cumulative passing rates are estimated in this report for current grade ten, eleven, and twelve students (Classes of 2014, 2013, and 2012 respectively), as well as for students who were previously in the Classes of 2009 through 2011. Passing rates for students in AE programs are not analyzed further except for those students who were previously in the Classes of 2009 through 2011.

Some students used more than one answer document in the same CAHSEE administration (usually one for the ELA test and one for the mathematics test), resulting in multiple test records on the ETS files for the same student. In addition, many grade eleven and grade twelve students participate in more than one administration during the year. We matched answer documents within and across the 2011–12 administrations to avoid counting the same student more than once. Table 2.9 shows the resulting estimates of the number of different students participating in one or more of the 2011–12 CAHSEE administrations and the numbers and percentages of these students passing each of the two tests. There are minor discrepancies in the numbers passing between Table 2.8 and Table 2.9 because grade codes were corrected for a small number of students who had more than one answer document and had inconsistent grade codes across the different answer documents.

[4] Note that the data analyzed here are preliminary results prior to final review and correction of demographic information by schools and districts.

Table 2.8. Number Answer Documents from Each 2011–12 CAHSEE Administration and Number with Passing Scores

Test Date	Grade[1]	Total Answer Sheets	Blank Answer Sheets	ELA Number Taking[2]	ELA Number Passing	Math Number Taking[2]	Math Number Passing
Jul-11	11	0	0	0	0	0	0
	12	14,678	4,730	6,534	1,581	6,337	1,505
	Adult Education	1,662	82	965	363	1,004	361
	Total	16,340	4,812	7,499	1,944	7,341	1,866
Oct-11	11	19,016	2,012	12,517	4,898	12,501	4,864
	12	40,334	4,809	24,591	7,535	25,091	7,933
	Adult Education	2,763	53	1,704	751	1,821	743
	Total	62,113	6,874	38,812	13,184	39,413	13,540
Nov-11	11	95,499	8,873	63,277	25,358	64,663	25,980
	12	57,229	7,753	33,525	9,982	35,697	11,591
	Adult Education	4,879	259	2,913	1,215	3,064	1,257
	Total	157,607	16,885	99,715	36,555	103,424	38,828
Dec-11	11	376	64	223	82	185	85
	12	4,104	1,415	1,762	399	1,564	444
	Adult Education	736	10	427	180	456	189
	Total	5,216	1,489	2,412	661	2,205	718
Feb-12	10	122,309	5,987	113,991	95,327	114,104	94,389
	11	29,549	4,198	18,598	5,488	18,033	5,324
	12	45,447	7,997	25,658	5,656	25,247	6,189
	Adult Education	4,546	264	2,723	1,082	2,808	1,104
	Total	201,851	18,446	160,970	107,553	160,192	107,006
Mar-12	10	369,153	16,062	346,092	287,566	346,322	289,261
	11	41,403	4,747	26,891	8,386	25,722	7,839
	12	31,442	5,638	17,640	3,789	14,364	3,949
	Adult Education	4,220	96	2,627	1,156	2,750	1,076
	Total	446,218	26,543	393,250	300,897	389,158	302,125
May-12	10	16,727	3,533	9,423	5,338	9,175	5,288
	11	23,562	3,509	14,401	3,306	13,829	3,698
	12	29,099	6,677	15,404	1,860	14,232	2,531
	Adult Education	4,209	247	2,415	863	2,706	1,032
	Unknown	6	0	5	2	5	3
	Total	73,603	13,966	41,643	11,369	39,942	12,552
Total All Records		962,948	89,015	744,301	472,163	741,675	476,635

[1] Grade ten students are in the Class of 2014, grade eleven students are in the Class of 2013, and grade twelve students are in the Class of 2012.

[2] Students who took a test with a modification are included in the counts of the number of students taking each test but not counted as having passed. Note that in DataQuest these students are not counted as having taken the test.

Table 2.9. Counts of Unique Students and Passing Rates by Grade Level in the 2011–12 CAHSEE Administrations

Count[1]	Grade 10	Grade 11	Grade 12	Adult Education	Total[3]
Total Unique Students	486,892	132,796	96,093	15,675	731,458
Blank Answer Documents[2]	14,528	8,420	11,023	524	34,495
Number Taking ELA	467,226	95,311	56,283	10,025	628,847
Number Passing ELA	387,674	47,508	27,933	5,304	468,421
Percentage Passing ELA	83.0%	49.8%	49.6%	52.9%	74.5%
Number Taking Math	467,291	94,676	55,959	10,827	628,755
Number Passing Math	388,406	47,831	30,242	5,348	471,829
Percentage Passing Math	83.1%	50.5%	54.0%	49.4%	75.0%

1 Counts of students passing by grade level may differ from those in Table 1 because of corrections to inconsistent grade codes across answer documents for the same student and because a number of students appear to have passed the same test more than once. Counts of students taking each test *include* students who took the test with a modification.

2 Both blank and non-blank answer documents were found for some students. These students were not counted as having blank answer documents in Table 2.9, resulting in lower counts of blank answer documents in comparison to Table 2.8. Students with blank answer documents who previously passed one or both tests are included here.

3 Totals include two additional students for whom grade is missing. Both students took and passed both tests.

We matched the 2012–12 CAHSEE test data to test results from the 2005–06, 2006–07, 2007–08, 2008–09, 2009–10, and 2010–11 CAHSEE administrations. Matches were found for 83 percent of the current grade eleven students, 88 percent of the current grade twelve students, and 56 percent of the students currently enrolled in AE programs[5.]

Table 2.10 shows the relationship of the high school class based on the grade reported last year during 2010–11 testing to the high school class and grade indicated in the 2011–12 test records for students with matching prior-year records. More than three-quarters (76 percent) of the grade twelve students testing this year (Class of 2012) were in grade eleven last year (58,302 of 76,084 current grade twelve students matched to last year's records). A substantial number (11,342) of students shown as grade twelve students this year were first-time grade twelve students last year (Class of 2011). Some others of this year's examinees were from even earlier high school classes. When we counted AE students, we found 977 who were in the Class of 2008, 1,783 who were in the Class of 2009, and 4,108 who were in the Class of 2010.

It is important to note that some students were retained in or skipped a grade and thus moved to a different high school class between the 2010–11 and 2011–12 school years. If students who changed to a different class had previously passed only one of the CAHSEE tests, they had to be removed from the prior counts of students passing that test for their original class and added to the corresponding counts for their new class. For this reason, counts of students in a given class who had passed either the

[5] Note that students who did not have any matching prior-year records are treated as additions to their respective high school class, increasing the counts of students in the class who had not passed the CAHSEE by May 2010.

ELA or mathematics test in previous years were subject to change. Counts of students who passed both tests, and thus did not need to participate in further CAHSEE testing, should not have changed; however, we found and deleted a few records for students who had already been counted as meeting the CAHSEE requirement. Some of the students previously meeting the CAHSEE requirement might have changed to a different high school class, but we would have no way of verifying such a change.

Table 2.10. Number of 2011–12 Examinees (Excluding Blank Answer Documents) Matched to Prior-Year Records by Current and Prior High School Class

Grade and High School Class in 2010–11	Grade and High School Class in 2011–12 School Year					
	Grade 10 (Class of 2014[1])	Grade 11 (Class of 2013)	Grade 12 (Class of 2012)	Adult Education (AE)	Missing or Invalid	Total Matched
Grade 9 (Class of 2014[1])	467,038*					467,038
Grade 10 (Class of 2013)	4,564	99,558*	3,091	169		107,382
Grade 11 (Class of 2012)	689	3,740	58,302*	581		63,312
Grade 12 (Class of 2011)	129	466	11,342*	2,287*		14,224
Grade 12 in 2009–10 (Class of 2010)	31	96	2,279*	1,702*		4,108
Grade 12 in 2008–09 (Class of 2009)	9	31	765*	978*		1,783
Grade 12 in 2007–08 (Class of 2008)	11	9	234*	723*		977
Adult Education	41	24	71	1,705*		1,841
Missing or Invalid					2	2
Total	472,512	103,924	76,084	8,145	2	660,667

[1] Current grade ten students not matched to 2010–11 CAHSEE records were assumed to have been in the Class of 2014 last year as well as this year.

[2] Current grade twelve students include students previously in the Classes of 2006 through 2011 as well as the Class of 2012.

Note: Shaded cells or cells with asterisk indicate normal grade progression. Normal progression for grade twelve students who did not pass is either to repeat grade twelve or to enter AE.

We corrected all of the CAHSEE records with missing or inconsistent gender or race/ethnicity codes from the 2011–12 CAHSEE administrations. For records with missing or inconsistent gender codes, we assigned the gender most common to their first name. In a few cases, their first name was not shared with 10 or more others, so we selected a gender code randomly. For records with missing or inconsistent race/ethnicity codes, we assigned the race/ethnicity code with the highest frequency for their first or last name, whichever one had a higher frequency among a single race/ethnicity group. We also corrected inconsistencies in first and last names by selecting the most frequent first or last name among different names found for a given student. Name corrections did not affect statistical analyses directly but did have some impact on efforts to match student records across administrations and years.

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 2.11 compares fall enrollment counts (reported by DataQuest), enrollment counts from the Standardized Testing and Reporting (STAR) Program 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 grade ten accountability under the federal Elementary and Secondary Education Act (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 grade ten 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 2.11. Grade Ten Enrollment Estimates from California Basic Education Data System (CBEDS), STAR, and CAHSEE[1]

Source	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12
Fall enrollment (CBEDS)	490,465	497,203	515,761	517,873	513,707	509,157	506,042	502,452	494,739
STAR reported enrollment	475,201	482,164	502,616	500,655	495,912	495,705	497,957	495,322	Not yet available
STAR students tested (Grade Ten ELA)	452,242	462,795	482,781	481,950	478,582	479,510	482,333	466,937	Not yet available
CAHSEE examinees[2]	459,199	470,891	505,045	502,106	493,559	496,688	498,187	480,868	486,892
Percentage of fall enrollment	93.7%	94.7%	97.9%	96.9%	96.0%	97.6%	98.4%	95.7%	98.4%

[1] CBEDS and STAR data were retrieved online through CDE's Dataquest facility at http://dq.cde.ca.gov/dataquest.

[2] CAHSEE student counts, after merges to remove duplication, were used in computing passing rates. Students with blank answer documents are included in the grade ten counts.

The denominators used in computing passing rates for students in grades eleven and twelve 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 2010–11. 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 grade twelve 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 grade twelve, there is some evidence (described in Chapter 6) that the CAHSEE requirement has prevented or delayed between one and four percent of seniors from graduating.

The denominators used in computing passing rates for the classes of 2008–11 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

Key Analysis Questions

This section presents cumulative CAHSEE results through the 2011–12 administrations. Analyses of test results are organized around four main issues:

1. **Grade twelve students:** How many first-time grade twelve students in the Class of 2012 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 2012? How did these numbers compare to the results for the classes of 2006 through 2011?

2. **Grade eleven students:** How did the performance of grade eleven students in the Class of 2013 who had not yet passed the CAHSEE change and what can we expect for those who have not yet passed by the end of grade eleven? Also, how did improved performance for grade eleven students in the Class of 2013 compare to improvements seen in our previous analyses for grade eleven students over the last several years?

3. **Grade ten students:** How did 2012 results for grade ten students in the Class of 2014 compare to results for the classes of 2006 through 2013 when those students took the CAHSEE for the first time as grade ten students in 2004 through 2011 respectively?

4. **Prior classes:** How many students from the classes of 2009 through 2011 who had not met the CAHSEE requirement continued to try to pass the CAHSEE in 2011? How many of them passed?

Our analyses answer each of these questions for students in specific demographic categories defined by gender, race/ethnicity, economic disadvantage, and English-learner or special education status. Results for AE students are reported briefly,

but are not the primary policy focus of these analyses except for AE students who were previously in the Classes of 2006 through 2011.

Class of 2012 — Once Again Seniors Struggled to Meet Graduation Deadline

Tables 2.12 through 2.17 show cumulative passing rates for students in the Class of 2012, this year's first-time seniors. To avoid duplication, students who had been seniors in 2006, 2007, 2008, 2009, 2010, or 2011 were excluded from the counts in Tables 2.12 through 2.17. In the primary tables, students with disabilities are excluded from all rows, due to the exemption currently reinstated for these students. We also provide an alternative to each table where students with disabilities are included in all rows, allowing for direct comparison to prior-year results in some cases.

In computing the estimates shown in these tables, adjustments were made to previous estimates of the numbers who had passed each part in prior years.

- We removed students who appeared to shift from the Class of 2012 to a different high school class, because they were retained in grade eleven between the 2010–11 and 2011–12 school years, or in a few cases, dropped back to grade ten.

- We added in a few students who joined the target class because of grade skipping (from grade ten in the 2010–11 school year to grade twelve in the 2011–12 school year). We did not, however, add students from the Class of 2011 who were retained in grade twelve. These students are included in the tables below for the classes of 2009 through 2011. Adding students moving into the Class of 2012 may have increased the number of students in the class who had passed one but not both parts of the CAHSEE by May 2011.

- Finally, we removed Class of 2012 students who had not passed both parts and did not participate in any of the 2011–12 test administrations, excluding them from the denominator used in computing passing rates. Some of these students left the state or enrolled in a private school; others may have given up trying to earn a California high school diploma. We did also include a small number of grade twelve students who participated in the 2011–12 administrations but could not be matched to any prior records. Most of these students were most likely new to the state, although some were students who could not be matched to their prior records because of coding errors in key student identifiers.

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

Table 2.12. Estimated Number and Percentage of Students in the Class of 2012[1] Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed[2]	Percent Pass
All Students	395,349	62,678	29,131	22,144	11,403	424,480	22,144	95.0%
Females	201,365	29,133	14,380	10,121	4,632	215,745	10,121	95.5%
Males	193,984	33,545	14,751	12,023	6,771	208,735	12,023	94.6%
American Indian or Alaska Native	3,731	419	195	115	109	3,926	115	97.2%
Asian	41,972	2,767	1,439	974	354	43,411	974	97.8%
Pacific Islander	2,787	449	211	150	88	2,998	150	95.2%
Filipino	13,241	765	449	229	87	13,690	229	98.4%
Hispanic or Latino	180,034	39,823	17,606	14,742	7,475	197,640	14,742	93.1%
African American or Black	25,651	6,857	2,930	2,523	1,404	28,581	2,523	91.9%
White, non-Hispanic	126,139	8,108	4,707	1,925	1,476	130,846	1,925	98.6%
Multiple Races[3]	1,794	3,490	1,594	1,486	410	3,388	1,486	--[3]
Economically Disadvantaged	185,491	41,556	18,243	15,691	7,622	203,734	15,691	92.8%
English Learner	36,026	24,906	9,890	10,299	4,717	45,916	10,299	81.7%
Reclassified Fluent English	90,595	4,875	3,199	1,085	591	93,794	1,085	98.9%

1 Current grade twelve students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade twelve students who tested as grade ten students last year have been moved into counts for the Class of 2012 and are included here along with students who tested as grade eleven students last year. Students in special education programs are *excluded* from all rows.

2 Students who have not passed and did not continue to try to pass this year have been dropped from the cumulative totals. The number dropped is shown in the "Not Tested" column.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated since no students who passed previously in grade ten are included.

Explanation of table contents: Tables 2.13–2.17, 2.19–2.24, and 2.26–2.31 are all formatted the same as Table 2.15 above. Line 1 shows that through May of 2011, 395,349 students now in the Class of 2012 who were not in special education classes had passed the CAHSEE and 62,678 had not. This year, 29,131 of the students who had not passed by May 2011 completed the CAHSEE requirement. Another 22,144 of these students took the CAHSEE, but have not yet passed both parts. An estimated 11,403 Class of 2012 students who had not passed by May 2011 did not participate in any of the 2011–12 administrations. These students do not appear to be trying to pass the CAHSEE and have been dropped from the cumulative counts. Overall, we estimate that 424,480 students in the Class of 2012 have now passed the CAHSEE, which is 95.0 percent of the general education students in the Class of 2012 after adjusting for students moving into and out of this class and dropping students no longer trying to pass.

Table 2.13. Estimated Number and Percentage of Students in the Class of 2012[1] Passing Both CAHSEE Tests Through May 2012, Including Students with Disabilities

Group	By May 2011		July 2011–May 2012			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed[2]	Percent Pass
All Students	413,056	91,041	33,446	39,769	17,826	446,502	39,769	91.8%
Females	207,248	39,383	15,995	16,498	6,890	223,243	16,498	93.1%
Males	205,808	51,658	17,451	23,271	10,936	223,259	23,271	90.6%
American Indian or Alaska Native	3,954	647	220	257	170	4,174	257	94.2%
Asian	43,043	3,539	1,618	1,427	494	44,661	1,427	96.9%
Pacific Islander	2,882	571	225	219	127	3,107	219	93.4%
Filipino	13,532	1,003	489	366	148	14,021	366	97.5%
Hispanic or Latino	187,604	55,834	20,077	24,834	10,923	207,681	24,834	89.3%
African American or Black	26,906	10,569	3,367	4,946	2,256	30,273	4,946	86.0%
White, non-Hispanic	133,185	13,671	5,574	5,029	3,068	138,759	5,029	96.5%
Multiple Races[3]	1,950	5,207	1,876	2,691	640	3,826	2,691	--[3]
Economically Disadvantaged	193,862	60,502	20,993	27,850	11,659	214,855	27,850	88.5%
English Learner	39,830	35,425	11,538	17,127	6,760	51,368	17,127	75.0%
Reclassified Fluent English	92,320	5,871	3,442	1,608	821	95,762	1,608	98.3%
Special Education	17,707	28,363	4,315	17,625	6,423	22,022	17,625	55.5%

1 Current grade twelve students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade twelve students who tested as grade ten students last year have been moved into counts for the Class of 2012 and are included here along with students who tested as grade eleven students last year. Students in special education programs are *included* in all rows.

2 Students who have not passed and did not continue to try to pass this year have been dropped from the cumulative totals. The number dropped is shown in the "Not Tested" column.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated since no students who passed previously in grade ten are included.

For the Class of 2012, more than 51,000 general education students and nearly 22,000 special education students took the CAHSEE during the 2011–12 school year. Just under 57 percent of the general education students who took the CAHSEE this year and just under 20 percent of the students in special education completed their CAHSEE requirement. More than 11,000 general education students and about 6,400 special education students from the Class of 2012 who have not yet met the CAHSEE requirement have not yet taken the CAHSEE this year and have been dropped from estimates of passing rates. This leaves more than 22,000 general education students and nearly 18,000 special education students in the Class of 2012 who are still trying to

pass the CAHSEE but have not yet done so, although special education students are not currently required to meet the CAHSEE requirement due to the exemption.

Table 2.14. Estimated Number and Percentage of Students in the Class of 2012[1] Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total[2]		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	413,823	44,204	21,487	14,583	11,403	432,041	14,583	96.7%
Females	211,949	18,549	9,753	5,844	4,632	220,022	5,844	97.4%
Males	201,874	25,655	11,734	8,739	6,771	212,019	8,739	96.0%
American Indian or Alaska Native	3,881	269	143	66	109	3,975	66	98.4%
Asian	42,252	2,487	1,295	885	354	43,500	885	98.0%
Pacific Islander	2,911	325	158	108	88	3,040	108	96.6%
Filipino	13,423	583	349	167	87	13,752	167	98.8%
Hispanic or Latino	191,966	27,891	12,494	9,876	7,475	202,506	9,876	95.3%
African American or Black	27,986	4,522	2,075	1,500	1,404	29,604	1,500	95.2%
White, non-Hispanic	128,559	5,688	3,718	1,083	1,476	131,688	1,083	99.2%
Multiple Races[3]	2,845	2,439	1,255	898	410	3,976	898	--[3]
Economically Disadvantaged	197,617	29,430	13,124	10,651	7,622	208,774	10,651	95.1%
English Learner	40,740	20,192	8,104	8,153	4,717	48,062	8,153	85.5%
Reclassified Fluent English	93,286	2,184	1,472	415	591	94,464	415	99.6%

1 Current grade twelve students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade twelve students who tested as grade ten students last year have been moved into counts for the Class of 2012 and are included here along with students who tested as grade eleven students last year. Students in special education programs are *excluded* from all rows.

2 Students who have not passed both parts and did not continue to try to pass this year have been dropped from the cumulative totals. The total number dropped is shown in the "Not Tested" column. Some of these students had previously passed the ELA test but did not attempt the Mathematics test this year. The "Cumulative Total" passed is less than the sum of the "Passed by May 2011" and the "Passed" this year columns by the number of these previously passing students being dropped.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated since no students who passed previously in grade ten are included.

Table 2.15. Estimated Number and Percentage of Students in the Class of 2012[1] Passing the CAHSEE ELA Test Through May 2012, Including Students with Disabilities

Group	By May 2011		July 2011–May 2012			Cumulative Total[2]		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	437,147	66,950	25,907	28,198	12,845	458,073	28,198	94.2%
Females	220,376	26,255	11,329	10,457	4,469	229,284	10,457	95.6%
Males	216,771	40,695	14,578	17,741	8,376	228,789	17,741	92.8%
American Indian or Alaska Native	4,149	452	170	174	108	4,257	174	96.1%
Asian	43,411	3,171	1,469	1,291	411	44,797	1,291	97.2%
Pacific Islander	3,032	421	171	165	85	3,161	165	95.0%
Filipino	13,762	773	387	281	105	14,106	281	98.0%
Hispanic or Latino	202,217	41,221	15,056	17,960	8,205	214,555	17,960	92.3%
African American or Black	29,963	7,512	2,564	3,354	1,594	31,865	3,354	90.5%
White, non-Hispanic	137,264	9,592	4,542	3,176	1,874	140,612	3,176	97.8%
Multiple Races[3]	3,349	3,808	1,548	1,797	463	4,720	1,797	--[3]
Economically Disadvantaged	209,125	45,239	15,994	20,427	8,818	222,278	20,427	91.6%
English Learner	45,646	29,609	9,890	14,051	5,668	54,444	14,051	79.5%
Reclassified Fluent English	95,398	2,793	1,646	726	421	96,644	726	99.3%
Special Education	23,324	22,746	4,420	13,615	4,711	26,032	13,615	65.7%

1 Current grade twelve students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade twelve students who tested as grade ten students last year have been moved into counts for the Class of 2012 and are included here along with students who tested as grade eleven students last year. Students in special education programs are *included* in all rows.

2 Students who have not passed both parts and did not continue to try to pass this year have been dropped from the cumulative totals. The total number dropped is shown in the "Not Tested" column. Some of these students had previously passed the ELA test but did not attempt the Mathematics test this year. The "Cumulative Total" passed is less than the sum of the "Passed by May 2011" and the "Passed" this year columns by the number of these previously passing students being dropped.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated since no students who passed previously in grade ten are included.

Table 2.16. Estimated Number and Percentage of Students in the Class of 2012[1] Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total[2]		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	410,360	47,667	23,803	14,837	11,403	431,787	14,837	96.7%
Females	207,140	23,358	12,247	7,292	4,632	218,574	7,292	96.8%
Males	203,220	24,309	11,556	7,545	6,771	213,213	7,545	96.6%
American Indian or Alaska Native	3,815	335	162	82	109	3,959	82	98.0%
Asian	43,278	1,461	1,035	262	354	44,123	262	99.4%
Pacific Islander	2,887	349	179	98	88	3,050	98	96.9%
Filipino	13,422	584	393	132	87	13,787	132	99.1%
Hispanic or Latino	190,123	29,734	13,988	9,836	7,475	202,546	9,836	95.4%
African American or Black	26,626	5,882	2,640	2,010	1,404	29,094	2,010	93.5%
White, non-Hispanic	127,671	6,576	4,069	1,343	1,476	131,428	1,343	99.0%
Multiple Races[3]	2,538	2,746	1,337	1,074	410	3,800	1,074	--[3]
Economically Disadvantaged	196,623	30,424	14,191	10,227	7,622	209,198	10,227	95.3%
English Learner	44,661	16,271	7,210	5,585	4,717	50,630	5,585	90.1%
Reclassified Fluent English	91,659	3,811	2,502	853	591	94,026	853	99.1%

1 Current grade twelve students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade twelve students who tested as grade ten students last year have been moved into counts for the Class of 2012 and are included here along with students who tested as grade eleven students last year. Students in special education programs are *excluded* from all rows.

2 Students who have not passed both parts and did not continue to try to pass this year have been dropped from the cumulative totals. The total number dropped is shown in the "Not Tested" column. Some of these students had previously passed the Mathematics test but did not attempt the ELA test this year. The "Cumulative Total" passed is less than the sum of the "Passed by May 2011" and the "Passed" this year columns by the number of these previously passing students being dropped.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated since no students who passed previously in grade ten are included.

Table 2.17. Estimated Number and Percentage of Students in the Class of 2012[1] Passing the CAHSEE Mathematics Test Through May 2012, Including Students with Disabilities

Group	By May 2011		July 2011–May 2012			Cumulative Total[2]		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	433,081	71,016	28,331	28,165	14,520	458,106	28,165	94.2%
Females	214,505	32,126	13,972	12,320	5,834	227,421	12,320	94.9%
Males	218,576	38,890	14,359	15,845	8,686	230,685	15,845	93.6%
American Indian or Alaska Native	4,077	524	185	199	140	4,232	199	95.5%
Asian	44,622	1,960	1,203	486	271	45,602	486	98.9%
Pacific Islander	2,996	457	199	153	105	3,173	153	95.4%
Filipino	13,765	770	437	221	112	14,166	221	98.5%
Hispanic or Latino	200,755	42,683	16,601	17,261	8,821	215,254	17,261	92.6%
African American or Black	28,273	9,202	3,102	4,091	2,009	31,128	4,091	88.4%
White, non-Hispanic	135,623	11,233	4,945	3,765	2,523	140,023	3,765	97.4%
Multiple Races[3]	2,970	4,187	1,659	1,989	539	4,528	1,989	--[3]
Economically Disadvantaged	208,419	45,945	17,188	19,323	9,434	223,382	19,323	92.0%
English Learner	50,857	24,398	9,006	10,227	5,165	58,268	10,227	85.1%
Reclassified Fluent English	93,591	4,600	2,721	1,240	639	96,130	1,240	98.7%
Special Education	22,721	23,349	4,528	13,328	5,493	26,319	13,328	66.4%

1 Current grade twelve students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade twelve students who tested as grade ten students last year have been moved into counts for the Class of 2012 and are included here along with students who tested as grade eleven students last year. Students in special education programs are *included* in all rows.

2 Students who have not passed both parts and did not continue to try to pass this year have been dropped from the cumulative totals. The total number dropped is shown in the "Not Tested" column. Some of these students had previously passed the Mathematics test but did not attempt the ELA test this year. The "Cumulative Total" passed is less than the sum of the "Passed by May 2011" and the "Passed" this year columns by the number of these previously passing students being dropped.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated since no students who passed previously in grade ten are included.

Table 2.18 provides a comparison of CAHSEE passing rates for this year's grade twelve students to passing rates for grade twelve students in the classes of 2006 through 2011 as of the end of their senior year. The overall passing rate for general education students is up compared to last year's rate (95.0%compared to 94.2%). Passing rates increased for all demographic groups except students in special education who were exempt. Passing rates for all Class of 2012 groups have increased even more dramatically in comparison to the Class of 2006, the first class to take the

current CAHSEE. Figure 2.1 illustrates the trends in cumulative grade twelve passing rates for selected demographic groups.

Table 2.18. Comparison of Estimated Percentage of Students Meeting the CAHSEE Requirement for the Classes of 2006 Through 2012 through May of Their Senior Year, Excluding Students with Disabilities[1]

Group[1]	Passed Both Parts of the CAHSEE						
	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2011	Class of 2012
All Students	91.2%	93.3%	93.6%	93.4%	94.4%	94.2%	95.0%
Females	91.6%	93.6%	94.1%	93.9%	94.8%	94.7%	95.5%
Males	90.7%	92.9%	93.2%	92.9%	93.9%	93.7%	94.6%
American Indian or Alaska Native	--[2]	--[2]	93.6%	94.6%	95.4%	94.8%	97.2%
Asian	95.3%	96.3%	96.5%	96.2%	97.4%	97.1%	97.8%
Pacific Islander	--[2]	--[2]	--[2]	93.1%	95.3%	93.6%	95.2%
Filipino	--[2]	--[2]	--[2]	97.2%	98.1%	97.9%	98.4%
Hispanic or Latino	85.5%	88.6%	89.9%	89.9%	91.4%	91.7%	93.1%
African American or Black	83.7%	88.4%	87.2%	87.5%	89.6%	89.6%	91.9%
White, non-Hispanic	97.3%	98.4%	98.2%	97.9%	98.1%	98.2%	98.6%
Multiple Races[3]	--[3]	--[3]	--[3]	--[3]	--[3]	--[3]	--[3]
Economically Disadvantaged	85.7%	88.3%	89.8%	89.5%	91.3%	91.4%	92.8%
English Learner	76.0%	77.1%	78.6%	78.4%	81.0%	80.3%	81.7%
Reclassified Fluent English	--[2]	--[2]	--[2]	98.1%	98.5%	98.6%	98.9%
Special Education[4]	47.8%	48.8%	54.5%	56.6%	53.3%	56.3%	55.5%

1 Note grade twelve students who also tested as grade twelve students in the previous year are *excluded* from this table.

2 Results were not analyzed separately for Pacific Islander, Filipino, or Reclassified Fluent English students prior to 2009. Results were not reported separately for American Indian/Alaska Native students prior to the Class of 2008.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. Passing rates could not be computed since multiple race students were not identified among those passing as grade ten students prior to 2010.

4 Students in special education in the Classes of 2008 and 2009 were required to pass the CAHSEE to receive a diploma. An exemption was available to students in special education in 2006, 2007, and now again in 2010 through 2012. Students in special education are included only in the last row of this table.

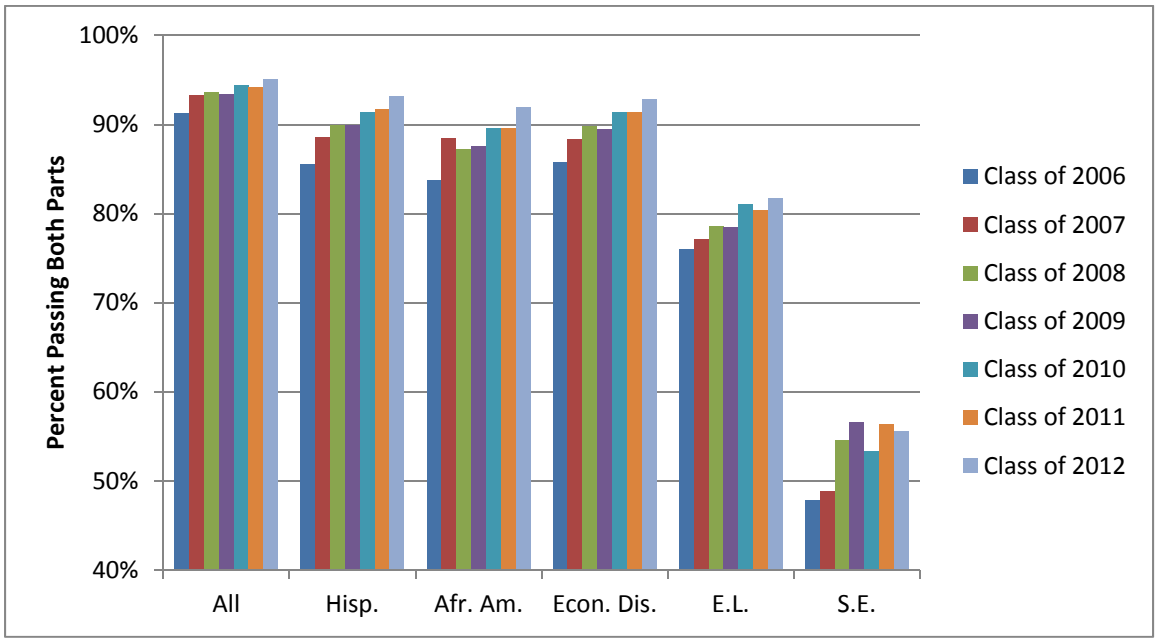


Figure 2.1. Trends in cumulative grade twelve passing rates for selected groups.

Analysis of Students Who Do Not Continue to Try to Pass the CAHSEE

As noted in Table 2.13 above, nearly 18,000 Class of 2012 students who had not passed the CAHSEE by May 2011 did not participate in any of the 2011–12 CAHSEE administrations. About 6,400 of these students were in special education and were not required to pass the CAHSEE. Others may have transferred to a private school or out of state. Others dropped out of school altogether. A few others may actually have been tested, but coding errors in their data records prevented matching their new records to their records from prior years. We conducted further analyses of the characteristics of students who did not continue to try to pass the CAHSEE.

Table 2.19 shows a comparison of students in key demographic categories who did and did not continue to try to pass the CAHSEE. Grade eleven students who had not passed both parts of the CAHSEE by May 2011 were divided into three groups: (a) those who had passed the ELA test, (b) those who had passed the mathematics test, and (c) those who had passed neither test. For each of these three groups, the percentage not continuing to take the CAHSEE is shown along with a comparison of the prior year means for students who did not and students who did continue to take the CAHSEE in 2011–12.

The percentage of students who stopped taking the tests was higher for those who had not passed either test through grade eleven (34.5%) than for those who had passed one of the two tests (19.5% and 17.1%). Within each category, the prior mean on tests yet to be passed was slightly higher for students who continued compared to

students who did not, but both groups had mean scores well below the score of 350 required to pass each test. Note that SWD are excluded from these analyses because they were exempted from the CAHSEE requirement and also because we could not tell if they did not continue because they received a waiver after having achieved a passing score with a testing modification.

Table 2.20 shows a similar comparison of students who took, but did not pass the CAHSEE in grade ten in 2011, who did or did not continue to take the CAHSEE as grade eleven students this year. As noted in Table 2.22, nearly 23,000 Class of 2013 students who had not passed the CAHSEE by May 2011 did not participate in any of the 2011–12 CAHSEE administrations. About 8,200 of these students were in special education and are excluded from this table because they may have received a waiver and therefore did not need to take the CAHSEE again this year.

Table 2.19. Comparison of Test Results for Grade Twelve Students Not Passing by May 2011 Who Did and Did Not Continue to Take the CAHSEE in 2011–12, Excluding Students with Disabilities[1]

	Passed ELA			Passed Math			Passed Neither				
		Prior Year Math Mean			Prior Year ELA Mean			Prior Year ELA Mean		Prior Year Math Mean	
	% not Cont.	Not Cont.	Cont.	% not Cont.	Not Cont.	Cont.	% not Cont.	Not Cont.	Cont.	Not Cont.	Cont.
All Students	19.5%	333.1	335.2	17.1%	327.9	331.9	34.5%	317.2	323.6	322.9	327.3
Females	17.4%	333.9	335.6	15.3%	331.1	333.6	31.1%	320.5	326.9	324.4	328.4
Males	22.2%	332.1	334.5	18.2%	326.3	330.8	37.1%	315.3	320.9	322.0	326.3
Asian	18.6%	330.7	337.8	15.0%	323.6	329.1	32.4%	311.0	318.4	327.1	331.1
Hispanic	18.0%	333.0	335.2	16.9%	328.4	332.4	32.9%	316.8	323.6	323.4	327.5
Afr. Am.	21.5%	331.1	334.8	19.1%	326.7	334.1	37.8%	317.7	327.8	320.3	325.2
White	26.8%	335.8	335.5	22.5%	328.8	330.7	46.5%	319.9	324.3	322.6	327.3
E.D.	17.8%	332.6	335.0	15.5%	327.5	332.0	32.0%	316.5	323.4	322.9	327.4
EL	17.7%	332.2	334.8	15.1%	326.8	330.9	30.6%	314.8	322.2	324.7	328.3
RFEP	12.3%	334.1	336.8	17.5%	332.6	337.2	28.6%	324.5	328.7	328.1	329.8

[1] Students with disabilities (SWD) are excluded from all rows because they may have been exempt from passing the CAHSEE if they met other requirements.

Explanation of table contents: Line 1 indicates that 19.5% of grade eleven students who by May 2011 had passed the ELA test, but not the mathematics test, did not take the CAHSEE in 2011–12. The prior mathematics mean (the test yet to be passed) for the students who did not continue was 333.1 compared to a mean of 335.2 for students in this category who did take the CAHSEE in 2011-12. Similarly 17.1% of the students who had passed the mathematics test, but not the ELA test, did not continue to try to pass the CAHSEE last year. The prior ELA mean for these students was 327.9 compared to 331.9 for students in this category who did continue to try to pass. Finally, 34.5% of students who had not passed either test did not continue to take the CAHSEE last year. These students had prior ELA and mathematics means of 317.2 and 322.9 respectively, compared to prior means of 323.6 and 327.3 for students who did continue to try to pass. *Note that, for each test, a score of 350 or higher is required to pass.*

Table 2.20. Comparison of Test Results for Grade Eleven Students Not Passing by May 2011 Who Did and Did Not Continue to Take the CAHSEE in 2011–12, Excluding Students with Disabilities[1]

	Passed ELA			Passed Math			Passed Neither				
		Prior Year Math Mean			Prior Year ELA Mean			Prior Year ELA Mean		Prior Year Math Mean	
	% not Cont.	Not Cont.	Cont.	% not Cont.	Not Cont.	Cont.	% not Cont.	Not Cont.	Cont.	Not Cont.	Cont.
All Students	11.2%	336.6	338.0	8.8%	333.4	336.1	20.5%	319.3	326.4	325.2	330.0
Females	9.8%	336.4	338.3	8.6%	335.0	337.4	19.1%	322.7	329.4	326.1	330.6
Males	13.2%	336.8	337.6	8.9%	332.4	335.3	21.7%	317.0	323.8	324.7	329.4
Asian	9.4%	345.5	340.9	7.9%	329.8	329.7	19.7%	319.1	319.2	328.7	331.6
Hispanic	10.2%	335.2	337.8	8.5%	332.7	336.7	19.7%	318.2	326.4	325.0	330.1
Afr. Am.	14.0%	334.8	337.4	10.2%	336.5	337.6	22.6%	321.2	327.9	323.3	328.8
White	13.6%	341.7	339.1	10.0%	336.1	336.7	24.9%	322.8	326.9	328.0	330.3
E.D.	10.8%	335.6	337.8	8.4%	332.6	335.8	19.5%	319.0	325.9	325.3	329.9
EL	10.3%	333.6	336.9	8.3%	329.3	333.1	18.0%	315.5	323.5	325.2	329.9
RFEP	7.6%	338.1	339.2	5.1%	337.8	340.5	18.4%	328.1	334.8	328.6	334.6

[1] Students with disabilities (SWD) were excluded from all rows in this table. We could not tell from available data whether they were granted a waiver and did not have to continue to pass the CAHSEE. In addition, they may have been waiting to see whether the exemption currently in place for SWD would continue.

Class of 2013 — Improvement for Students Who Retested in Grade Eleven

Tables 2.21 through 2.26 show cumulative passing rates for students in the Class of 2013 (this year's grade eleven students) through May 2012. In the primary tables, students with disabilities are excluded from all rows. To avoid duplication, we excluded students who had been seniors in 2006, 2007, 2008, 2009, 2010, or 2011 from the counts in Tables 2.21 through 2.26. For each table, we also provide an alternative table in which students with disabilities are included in all rows, allowing for direct comparison to prior year results in some cases.

Table 2.21. Estimated Number and Percentage of Students in the Class of 2013[1] Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities

Group	By May 2011		July 2011–May 2012			Cumulative Total		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed[2]	Percent Pass
All Students	352,109	106,085	48,905	42,414	14,766	401,014	42,414	90.4%
Females	180,759	50,115	24,227	19,456	6,432	204,986	19,456	91.3%
Males	171,350	55,970	24,678	22,958	8,334	196,028	22,958	89.5%
American Indian or Alaska Native	2,519	802	362	278	162	2,881	278	91.2%
Asian	37,994	4,799	2,434	1,891	474	40,428	1,891	95.5%
Pacific Islander	2,234	730	347	273	110	2,581	273	90.4%
Filipino	12,287	1,680	1,038	508	134	13,325	508	96.3%
Hispanic or Latino	157,149	66,731	29,132	28,603	8,996	186,281	28,603	86.7%
African American or Black	19,397	10,672	4,362	4,528	1,782	23,759	4,528	84.0%
White, non-Hispanic	113,175	16,446	9,319	4,558	2,569	122,494	4,558	96.4%
Multiple Races[3]	7,354	4,225	1,911	1,775	539	9,265	1,775	83.9%
Economically Disadvantaged	163,988	70,971	30,251	30,912	9,808	194,239	30,912	86.3%
English Learner	23,029	35,769	11,805	19,194	4,770	34,834	19,194	64.5%
Reclassified Fluent English	85,485	12,944	8,592	3,153	1,199	94,077	3,153	96.8%

[1] Current grade eleven students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade eleven students who tested as grade eleven students last year have been moved into counts for the Class of 2013 and are included here along with students who tested as grade ten students last year. Students in special education programs are *excluded* from all rows.

[2] Students who have not passed and did not continue to try to pass this year have been dropped from the cumulative totals. The number dropped is shown in the "Not Tested" column.

[3] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records.

Table 2.22. Estimated Number and Percentage of Students in the Class of 2013[1] Passing Both CAHSEE Tests Through May 2012, Including Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed[2]	Percent Pass
All Students	362,649	147,469	55,241	69,267	22,961	417,890	69,267	85.8%
Females	183,983	64,811	26,521	29,051	9,239	210,504	29,051	87.9%
Males	178,666	82,658	28,720	40,216	13,722	207,386	40,216	83.8%
American Indian or Alaska Native	2,633	1,199	420	521	258	3,053	521	85.4%
Asian	38,501	6,230	2,729	2,669	832	41,230	2,669	93.9%
Pacific Islander	2,288	925	369	401	155	2,657	401	86.9%
Filipino	12,449	2,146	1,125	764	257	13,574	764	94.7%
Hispanic or Latino	161,090	89,827	32,452	44,416	12,959	193,542	44,416	81.3%
African American or Black	20,076	15,679	4,872	7,881	2,926	24,948	7,881	76.0%
White, non-Hispanic	118,008	25,625	11,134	9,662	4,829	129,142	9,662	93.0%
Multiple Races[3]	7,604	5,838	2,140	2,953	745	9,744	2,953	76.7%
Economically Disadvantaged	168,467	98,166	33,932	49,263	14,971	202,399	49,263	80.4%
English Learner	24,241	50,834	13,906	29,808	7,120	38,147	29,808	56.1%
Reclassified Fluent English	86,612	14,616	9,046	4,062	1,508	95,658	4,062	95.9%
Special Education	10,540	41,384	6,336	26,853	8,195	16,876	26,853	38.6%

1 Current grade eleven students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade eleven students who tested as grade eleven students last year have been moved into counts for the Class of 2013 and are included here along with students who tested as grade ten students last year. Students in special education programs are *included* in all rows.

2 Students who have not passed and did not continue to try to pass this year have been dropped from the cumulative totals. The number dropped is shown in the "Not Tested" column.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records.

As shown in Tables 2.21 and 2.22, more than 91,000 general education students and more than 33,000 students in special education from the Class of 2013 took the CAHSEE this year. Nearly 54 percent of these general education students and just over 19 percent of these special education students completed the CAHSEE requirement. Nearly 15,000 general education students and more than 8,000 special education students from the Class of 2013 who had not yet met the CAHSEE requirement did not take the CAHSEE this year and have been dropped from estimates of passing rates[6]. Of those that remain, more than 42,000 general education students and nearly 27,000

6 Some of the students who did not take the CAHSEE in grade eleven also had a blank answer document last year. We include blank answer documents in "Not Passed" counts for the grade ten census testing but as "Not Tested" in other grades.

special education students in the Class of 2013 have yet to meet the CAHSEE requirement.

Table 2.23. Estimated Number and Percentage of Students in the Class of 2013[1] Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total[2]		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	377,218	80,976	39,959	29,014	14,766	414,414	29,014	93.5%
Females	195,676	35,198	18,585	11,632	6,432	212,810	11,632	94.8%
Males	181,542	45,778	21,374	17,382	8,334	201,604	17,382	92.1%
American Indian or Alaska Native	2,726	595	301	164	162	2,995	164	94.8%
Asian	38,442	4,351	2,216	1,703	474	40,616	1,703	96.0%
Pacific Islander	2,374	590	300	197	110	2,657	197	93.1%
Filipino	12,643	1,324	844	368	134	13,465	368	97.3%
Hispanic or Latino	173,116	50,764	23,550	19,790	8,996	195,094	19,790	90.8%
African American or Black	22,275	7,794	3,611	2,796	1,782	25,491	2,796	90.1%
White, non-Hispanic	117,277	12,344	7,486	2,844	2,569	124,208	2,844	97.8%
Multiple Races[3]	8,365	3,214	1,651	1,152	539	9,888	1,152	89.6%
Economically Disadvantaged	180,443	54,516	24,683	21,777	9,808	203,374	21,777	90.3%
English Learner	27,740	31,058	11,238	15,523	4,770	38,505	15,523	71.3%
Reclassified Fluent English	90,486	7,943	5,654	1,461	1,199	95,769	1,461	98.5%

1 Current grade eleven students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade eleven students who tested as grade eleven students last year have been moved into counts for the Class of 2013 and are included here along with students who tested as grade ten students last year. Students in special education programs are *excluded* from all rows.

2 Students who have not passed both parts and did not continue to try to pass this year have been dropped from the cumulative totals. The total number dropped is shown in the "Not Tested" column. Some of these students had previously passed the ELA test but did not attempt the Mathematics test this year. The "Cumulative Total" passed is less than the sum of the "Passed by May 2011" and the "Passed" this year columns by the number of these previously passing students being dropped.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records.

Table 2.24. Estimated Number and Percentage of Students in the Class of 2013[1] Passing the CAHSEE ELA Test Through May 2012, Including Students with Disabilities

Group	By May 2011		July 2011–May 2012			Cumulative Total[2]		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	393,161	116,957	47,037	50,649	19,271	436,508	50,649	89.6%
Females	201,285	47,509	21,183	18,894	7,432	220,661	18,894	92.1%
Males	191,876	69,448	25,854	31,755	11,839	215,847	31,755	87.2%
American Indian or Alaska Native	2,912	920	369	337	214	3,237	337	90.6%
Asian	39,041	5,690	2,513	2,405	772	41,494	2,405	94.5%
Pacific Islander	2,450	763	325	305	133	2,753	305	90.0%
Filipino	12,862	1,733	933	573	227	13,765	573	96.0%
Hispanic or Latino	179,504	71,413	27,369	33,001	11,043	204,957	33,001	86.1%
African American or Black	23,552	12,203	4,276	5,502	2,425	27,327	5,502	83.2%
White, non-Hispanic	123,988	19,645	9,314	6,456	3,875	132,348	6,456	95.3%
Multiple Races[3]	8,852	4,590	1,938	2,070	582	10,627	2,070	83.7%
Economically Disadvantaged	187,762	78,871	28,923	37,148	12,800	214,514	37,148	85.2%
English Learner	29,946	45,129	13,650	24,943	6,536	43,012	24,943	63.3%
Reclassified Fluent English	91,984	9,244	6,085	2,080	1,079	97,640	2,080	97.9%
Special Education	15,943	35,981	7,078	21,635	7,268	22,094	21,635	50.5%

[1] Current grade eleven students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade eleven students who tested as grade eleven students last year have been moved into counts for the Class of 2013 and are included here along with students who tested as grade ten students last year. Students in special education programs are *included* in all rows.

[2] Students who have not passed both parts and did not continue to try to pass this year have been dropped from the cumulative totals. The total number dropped is shown in the "Not Tested" column. Some of these students had previously passed the ELA test but did not attempt the Mathematics test this year. The "Cumulative Total" passed is less than the sum of the "Passed by May 2011" and the "Passed" this year columns by the number of these previously passing students being dropped.

[3] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records.

Table 2.25. Estimated Number and Percentage of Students in the Class of 2013[1] Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities

Group	By May 2011		July 2011–May 2012			Cumulative Total[2]		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	376,314	81,880	40,873	28,383	14,766	415,045	28,383	93.6%
Females	190,008	40,866	20,933	14,294	6,432	210,148	14,294	93.6%
Males	186,306	41,014	19,940	14,089	8,334	204,897	14,089	93.6%
American Indian or Alaska Native	2,680	641	302	193	162	2,966	193	93.9%
Asian	40,082	2,711	1,838	568	474	41,751	568	98.7%
Pacific Islander	2,404	560	287	180	110	2,674	180	93.7%
Filipino	12,715	1,252	852	292	134	13,541	292	97.9%
Hispanic or Latino	172,840	51,040	24,058	19,310	8,996	195,574	19,310	91.0%
African American or Black	21,149	8,920	3,831	3,490	1,782	24,797	3,490	87.7%
White, non-Hispanic	116,384	13,237	7,944	3,055	2,569	123,997	3,055	97.6%
Multiple Races[3]	8,060	3,519	1,761	1,295	539	9,745	1,295	88.3%
Economically Disadvantaged	181,508	53,451	24,679	20,439	9,808	204,712	20,439	90.9%
English Learner	33,734	25,064	9,984	11,197	4,770	42,831	11,197	79.3%
Reclassified Fluent English	88,957	9,472	6,237	2,213	1,199	95,017	2,213	97.7%

[1] Current grade eleven students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade eleven students who tested as grade eleven students last year have been moved into counts for the Class of 2013 and are included here along with students who tested as grade ten students last year. Students in special education programs are *excluded* from all rows.

[2] Students who have not passed both parts and did not continue to try to pass this year have been dropped from the cumulative totals. The total number dropped is shown in the "Not Tested" column. Some of these students had previously passed the Mathematics test but did not attempt the ELA test this year. The "Cumulative Total" passed is less than the sum of the "Passed by May 2011" and the "Passed" this year columns by the number of these previously passing students being dropped.

[3] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records.

Table 2.26. Estimated Number and Percentage of Students in the Class of 2013[1] Passing the CAHSEE Mathematics Test Through May 2012, Including Students with Disabilities

Group	By May 2011		July 2011–May 2012			Cumulative Total[2]		
	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	392,228	117,890	47,942	49,435	20,513	437,722	49,435	89.9%
Females	194,763	54,031	23,483	22,181	8,367	217,374	22,181	90.7%
Males	197,465	63,859	24,459	27,254	12,146	220,348	27,254	89.0%
American Indian or Alaska Native	2,834	998	364	398	236	3,176	398	88.9%
Asian	40,973	3,758	2,170	939	649	42,960	939	97.9%
Pacific Islander	2,483	730	311	281	138	2,777	281	90.8%
Filipino	12,943	1,652	950	474	228	13,864	474	96.7%
Hispanic or Latino	179,947	70,970	27,904	31,585	11,481	206,373	31,585	86.7%
African American or Black	22,196	13,559	4,468	6,383	2,708	26,446	6,383	80.6%
White, non-Hispanic	122,372	21,261	9,739	7,110	4,412	131,694	7,110	94.9%
Multiple Races[3]	8,480	4,962	2,036	2,265	661	10,432	2,265	82.2%
Economically Disadvantaged	189,566	77,067	28,981	34,790	13,296	216,872	34,790	86.2%
English Learner	37,408	37,667	12,630	18,891	6,146	49,064	18,891	72.2%
Reclassified Fluent English	90,427	10,801	6,598	2,888	1,315	96,832	2,888	97.1%
Special Education	15,914	36,010	7,069	21,052	7,889	22,677	21,052	51.9%

1 Current grade eleven students who also tested as grade twelve students in 2005–06 (Class of 2006), 2006–07 (Class of 2007), 2007–08 (Class of 2008), 2008–09 (Class of 2009), 2009–10 (Class of 2010), or 2010–11 (Class of 2011) are *excluded* from this table. Current grade eleven students who tested as grade eleven students last year have been moved into counts for the Class of 2013 and are included here along with students who tested as grade ten students last year. Students in special education programs are *included* in all rows.

2 Students who have not passed both parts and did not continue to try to pass this year have been dropped from the cumulative totals. The total number dropped is shown in the "Not Tested" column. Some of these students had previously passed the Mathematics test but did not attempt the ELA test this year. The "Cumulative Total" passed is less than the sum of the "Passed by May 2011" and the "Passed" this year columns by the number of these previously passing students being dropped.

3 The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records.

Table 2.27 provides a comparison of passing rates for this year's grade eleven students with students in the Classes of 2011 and 2012 at this same point in grade eleven. Figures 2.2 and 2.3 display trends in passing rates for selected groups for the ELA and mathematics tests respectively. The exemption from the CAHSEE requirement for students in special education is currently in effect through September 25, 2012 and may be extended to December 31, 2012 if the permanent CAHSEE regulations are approved. Also, Assembly Bill 1705, which would, if approved, extend the exemption through June 30, 2015, is pending. Requirements for the Class of 2013 will not be

known until either a regulations or an extension to the current exemption is implemented. For comparison purposes, we are including special education students along with general education students. Overall, passing rates are up 1.5 percent for the Class of 2013 (85.8% compared to 84.3% last year). Results are mixed for different racial/ethnic groups, although the inclusion of the "multiple races" category may affect comparisons for other groups. Passing rates increased by more than 1 percent for English Learners (from 54.7% to 56.1%) and by nearly 2 percent for economically disadvantaged students (from 78.6% to 80.4%). At the same time, the rate for special education students dropped from 43.1percent to 38.6 percent. The declining passing rate for grade 11 students in special education is a concern, since these students might not receive the exemption currently in place for current grade 12 students in special education. Figures 2.2 and 2.3 illustrate the trends in cumulative grade eleven passing rates for each CAHSEE test for selected demographic groups.

Table 2.27. Comparison of Estimated Passing Rates for the Classes of 2011 through 2013 Through May of their Grade Eleven Year, Including Students with Disabilities[1]

	Passed ELA			Passed Mathematics			Passed Both		
Group	Class of 2011	Class of 2012	Class of 2013	Class of 2011	Class of 2012	Class of 2013	Class of 2011	Class of 2012	Class of 2013
All Students	88.6%	89.1%	89.6%	88.2%	88.3%	89.9%	83.9%	84.3%	85.8%
Females	91.2%	91.5%	92.1%	88.8%	89.2%	90.7%	85.8%	86.3%	87.9%
Males	86.0%	86.7%	87.2%	87.6%	87.4%	89.0%	82.1%	82.4%	83.8%
American Indian or Alaska Native	89.2%	90.9%	90.6%	87.3%	88.9%	88.9%	83.6%	85.7%	85.4%
Asian	93.9%	94.5%	94.5%	97.2%	97.3%	97.9%	93.1%	93.6%	93.9%
Pacific Islander	89.4%	89.7%	90.0%	89.2%	88.7%	90.8%	85.3%	85.2%	86.9%
Filipino	95.8%	95.8%	96.0%	96.2%	95.8%	96.7%	94.1%	94.1%	94.7%
Hispanic or Latino	83.9%	85.1%	86.1%	84.0%	84.5%	86.7%	77.9%	79.0%	81.3%
African American	81.5%	82.8%	83.2%	76.6%	77.9%	80.6%	72.1%	74.1%	76.0%
White, non-Hispanic	95.0%	95.4%	95.3%	94.1%	94.3%	94.9%	92.2%	92.5%	93.0%
Multiple Races[2]	--[2]	--[2]	83.7%	--[2]	--[2]	82.2%	--[2]	--[2]	76.7%
Economically Disadvantaged	83.0%	84.5%	85.2%	83.5%	84.2%	86.2%	77.1%	78.6%	80.4%
English Learner	63.5%	63.2%	63.3%	71.0%	69.9%	72.2%	55.7%	54.7%	56.1%
Reclassified Fluent English	97.5%	97.9%	97.9%	96.1%	96.2%	97.1%	94.7%	95.1%	95.9%
Special Education	50.6%	55.5%	50.5%	50.8%	53.1%	52.2%	38.0%	43.1%	38.6%

[1] Students who also tested as grade twelve 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.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records.

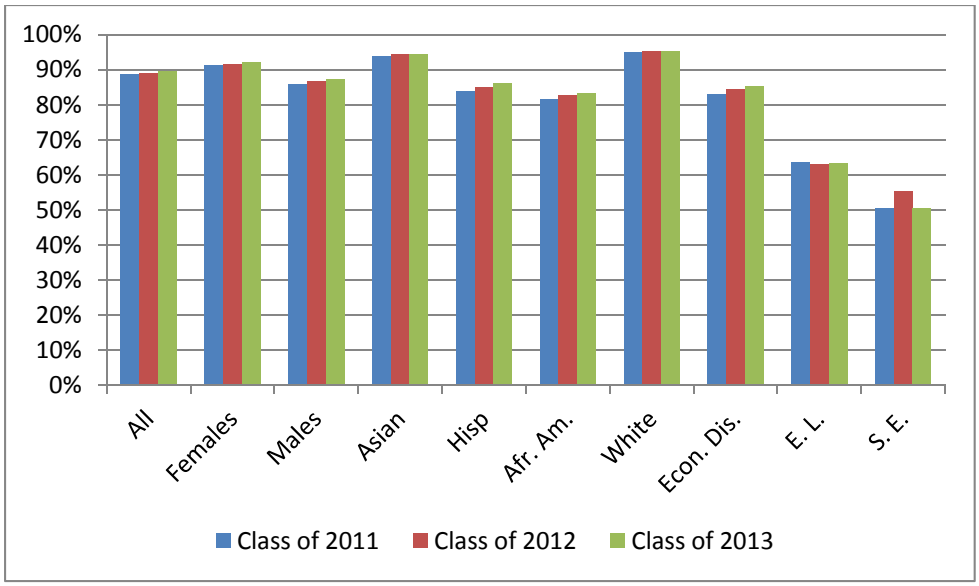


Figure 2.2. Trends in cumulative grade eleven ELA passing rates for selected groups.

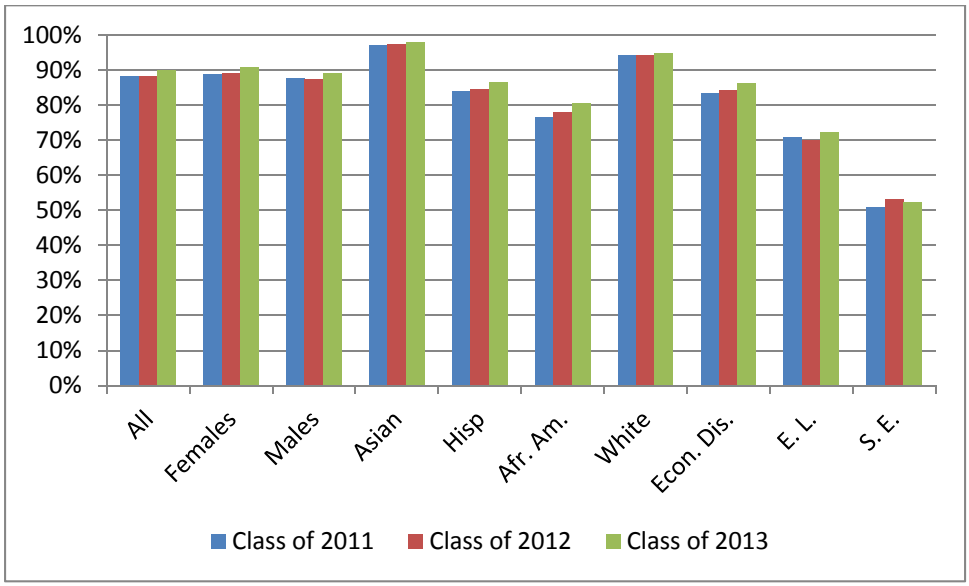


Figure 2.3. Trends in cumulative grade eleven mathematics passing rates for selected groups.

Initial Results for the Class of 2014

Results for grade ten students have particular policy relevance for two reasons. First, all grade ten students are required to take the CAHSEE, so results are indicative of the class as a whole. Second, this is the first opportunity for students to take the CAHSEE. Passing rates reflect the cumulative effectiveness of instruction up to that

point. Tables 2.28 through 2.30 show cumulative passing rates for students in the Class of 2014, this year's grade ten students. Grade ten students with disabilities are required to take the CAHSEE and are included in all rows. A small number of students who tested as grade ten students this year were repeating grade ten. Some of these students passed one part of the CAHSEE previously.

Table 2.28. Estimated Number and Percentage of Students in the Class of 2014 Passing Both CAHSEE Tests Through May 2012, Including Students with Disabilities

	By May 2011[1]		July 2011—May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed[2]	Percent Pass
All Students	3,673	483,036	360,536	111,886	10,614	364,209	122,500	74.8%
Females	1,552	236,479	183,943	48,187	4,349	185,495	52,536	77.9%
Males	2,121	246,557	176,593	63,699	6,265	178,714	69,964	71.9%
American Indian or Alaska Native	15	3,576	2,468	974	134	2,483	1,108	69.1%
Asian	52	43,141	38,532	4,176	433	38,584	4,609	89.3%
Pacific Islander	13	2,746	2,010	677	59	2,023	736	73.3%
Filipino	36	13,914	12,291	1,450	173	12,327	1,623	88.4%
Hispanic or Latino	2,610	242,098	163,925	72,607	5,566	166,535	78,173	68.1%
African American or Black	315	32,144	19,004	11,929	1,211	19,319	13,140	59.5%
White, non-Hispanic	513	133,541	113,256	17,590	2,695	113,769	20,285	84.9%
Multiple Races	119	11,876	9,050	2,483	343	9,169	2,826	76.4%
Economically Disadvantaged	2,697	262,565	174,003	81,935	6,627	176,700	88,562	66.6%
English Learner	353	68,695	23,318	42,655	2,722	23,671	45,377	34.3%
Reclassified Fluent English	1,154	108,529	95,575	12,076	878	96,729	12,954	88.2%
Special Education	101	54,204	13,964	35,224	5,016	14,065	40,240	25.9%

[1] Students who repeated grade ten may have passed one or both CAHSEE tests in prior years. Grade ten students who have not yet tested are not yet included in counts of students who have not passed.

[2] Grade ten students with blank answer documents are included in counts of students who have not yet passed. Grade eleven and twelve students with blank answer documents are judged as not still trying to pass the CAHSEE and dropped from counts of students who have yet to pass.

More than 360,000 grade ten students have passed both parts of the CAHSEE this year. Nearly 112,000 more students participated in CAHSEE administrations this year but have not yet passed both parts.

Table 2.29. Estimated Number and Percentage of Students in the Class of 2014 Passing the CAHSEE ELA Test Through May 2012, Including Students with Disabilities

	By May 2011[1]		July 2011—May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed[2]	Percent Pass
All Students	5,156	481,553	387,717	83,286	10,550	392,873	93,836	80.7%
Females	2,345	235,686	199,623	31,748	4,315	201,968	36,063	84.8%
Males	2,811	245,867	188,094	51,538	6,235	190,905	57,773	76.8%
American Indian or Alaska Native	23	3,568	2,717	717	134	2,740	851	76.3%
Asian	62	43,131	39,039	3,660	432	39,101	4,092	90.5%
Pacific Islander	19	2,740	2,177	504	59	2,196	563	79.6%
Filipino	50	13,900	12,647	1,080	173	12,697	1,253	91.0%
Hispanic or Latino	3,675	241,033	180,417	55,089	5,527	184,092	60,616	75.2%
African American or Black	474	31,985	22,186	8,596	1,203	22,660	9,799	69.8%
White, non-Hispanic	669	133,385	118,764	11,937	2,684	119,433	14,621	89.1%
Multiple Races	184	11,811	9,770	1,703	338	9,954	2,041	83.0%
Economically Disadvantaged	3,777	261,485	191,909	62,984	6,592	195,686	69,576	73.8%
English Learner	608	68,440	28,881	36,845	2,714	29,489	39,559	42.7%
Reclassified Fluent English	1,522	108,161	100,330	6,963	868	101,852	7,831	92.9%
Special Education	222	54,083	19,234	29,839	5,010	19,456	34,849	35.8%

[1] Students who repeated grade ten may have passed one or both CAHSEE tests in prior years. Grade ten students who have not yet tested are not yet included in counts of students who have not passed.

[2] Grade ten students with blank answer documents are included in counts of students who have not yet passed. Grade eleven and twelve students with blank answer documents are judged as not still trying to pass the CAHSEE and dropped from counts of students who have yet to pass.

Table 2.30. Estimated Number and Percentage of Students in the Class of 2014 Passing the CAHSEE Mathematics Tests Through May 2012, Including Students with Disabilities

	By May 2011[1]		July 2011—May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed[2]	Percent Pass
All Students	4,714	481,995	388,514	82,902	10,579	393,228	93,481	80.8%
Females	1,876	236,155	193,829	37,988	4,338	195,705	42,326	82.2%
Males	2,838	245,840	194,685	44,914	6,241	197,523	51,155	79.4%
American Indian or Alaska Native	18	3,573	2,684	755	134	2,702	889	75.2%
Asian	79	43,114	40,826	1,855	433	40,905	2,288	94.7%
Pacific Islander	21	2,738	2,218	461	59	2,239	520	81.2%
Filipino	43	13,907	12,774	960	173	12,817	1,133	91.9%
Hispanic or Latino	3,434	241,274	181,916	53,813	5,545	185,350	59,358	75.7%
African American or Black	386	32,073	20,957	9,910	1,206	21,343	11,116	65.8%
White, non-Hispanic	592	133,462	117,594	13,182	2,686	118,186	15,868	88.2%
Multiple Races	141	11,854	9,545	1,966	343	9,686	2,309	80.8%
Economically Disadvantaged	3,532	261,730	194,874	60,252	6,604	198,406	66,856	74.8%
English Learner	768	68,280	35,796	29,770	2,714	36,564	32,484	53.0%
Reclassified Fluent English	1,362	108,321	99,285	8,160	876	100,647	9,036	91.8%
Special Education	215	54,090	19,884	29,195	5,011	20,099	34,206	37.0%

1 Students who repeated grade ten may have passed one or both CAHSEE tests in prior years. Grade ten students who have not yet tested are not yet included in counts of students who have not passed.

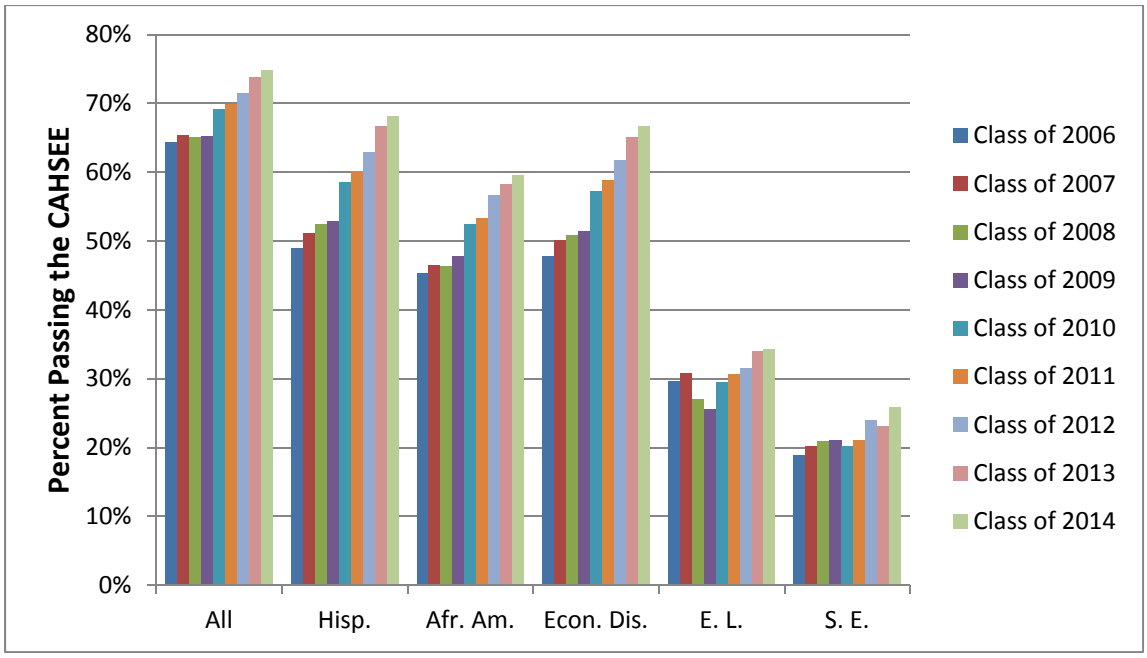
2 Grade ten students with blank answer documents are included in counts of students who have not yet passed. Grade eleven and twelve students with blank answer documents are judged as not still trying to pass the CAHSEE and dropped from counts of students who have yet to pass.

Table 2.31 shows a comparison of CAHSEE passing rates from the census testing of grade ten students for the high school classes of 2006 through 2014. As shown in Table 2.31, passing rates have increased steadily over the years. The current passing rate is up by one percentage point from last year (74.8% compared to 73.8% last year). Passing rates increased for all groups this year. Figure 2.4 illustrates the trends in grade ten passing rates for both parts of the CAHSEE for selected demographic groups.

Table 2.31. Comparison of Estimated Percentage of Students Meeting the CAHSEE Requirement for the Classes of 2006 –14 Through May of Their Grade Ten Year, Including Students with Disabilities

Group	Class of 2006	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2011	Class of 2012	Class of 2013	Class of 2014
All Students	64.3%	65.4%	65.1%	65.2%	69.2%	69.9%	71.5%	73.8%	74.8%
Females	67.1%	68.1%	67.9%	68.0%	71.8%	72.4%	74.2%	76.6%	77.9%
Males	61.7%	62.8%	62.4%	62.5%	66.8%	67.4%	68.9%	71.2%	71.9%
American Indian or Alaska Native	59.9%	59.6%	61.0%	61.6%	66.0%	64.8%	68.6%	67.4%	69.1%
Asian	81.5%	82.5%	82.5%	83.2%	85.8%	86.1%	88.0%	88.5%	89.3%
Pacific Islander	60.4%	63.4%	62.9%	63.3%	69.7%	68.9%	70.0%	73.2%	73.3%
Filipino	80.8%	81.3%	81.3%	82.4%	84.5%	85.1%	86.7%	87.6%	88.4%
Hispanic or Latino	49.0%	51.1%	52.4%	52.9%	58.5%	60.1%	62.9%	66.6%	68.1%
African American or Black	45.3%	46.4%	46.3%	47.8%	52.5%	53.3%	56.6%	58.3%	59.5%
White, non-Hispanic	80.7%	81.4%	80.5%	80.5%	83.4%	83.2%	83.5%	84.6%	84.9%
Multiple Races[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	--[1]	73.8%	76.4%
Economically Disadvantaged	47.7%	50.1%	50.8%	51.4%	57.2%	58.8%	61.8%	65.0%	66.6%
English Learner	29.6%	30.8%	27.0%	25.6%	29.5%	30.6%	31.5%	34.0%	34.3%
Reclassified Fluent English	76.3%	78.6%	78.1%	77.9%	83.3%	84.1%	85.5%	87.5%	88.2%
Special Education	18.8%	20.2%	20.9%	21.1%	20.2%	21.1%	23.9%	23.1%	25.9%

[1] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year test records.



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

Figure 2.4. Trends in overall grade ten passing rates for selected groups.

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 higher mathematics for success after high school. Shortly thereafter, a state-wide requirement that students take Algebra was enacted in further recognition of the importance of mathematics skills.

As in prior years, we analyzed passing rates on the mathematics part of the CAHSEE for students who had completed varying levels ofhigh school mathematics courses. Table 2.32 shows the distribution of the highest level of mathematics courses completed by the end of grade ten for students in the Class of 2013 compared to students in the classes of 2006 through 2012. Over the past eight years, the proportion of students taking higher levels of mathematics courses by grade ten has increased. The most significant change in 2011 was that the percentage of students already taking Algebra II or Advanced Mathematics rose from 30.1 percent to 31.7 percent. In 2004, only 20.6 percent of the grade ten students in the Class of 2006 had taken mathematics courses beyond geometry.

Table 2.33 shows the percentage of students in key demographic groups who have taken courses beyond Algebra I (meets expectation at grade ten) when students with missing information are excluded. Students following the expected curriculum would be taking at least geometry by grade ten. Students who took Algebra I in grade eight could be taking Algebra II in grade ten. More than two-thirds of the grade ten students had taken or were taking mathematics courses beyond Algebra I. Nearly 90 percent of Asian students were taking courses beyond Algebra I. The percentage of students in special education taking courses beyond Algebra I increased very significantly from 24 percent for the Class of 2007 to 44 percent for the Class of 2014; however, their rate is still low compared to students in other demographic groups.

Table 2.32. Distribution of Grade Ten Students by Highest Mathematics Course Taken

	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2011	Class of 2012	Class of 2013	Class of 2014
General Math	2.0%	1.9%	0.9%	0.0%	1.2%	1.1%	1.0%	0.9%
Pre-Algebra	9.9%	11.7%	3.1%	2.2%	8.7%	8.3%	8.2%	7.8%
Algebra I/Int. Math I	24.9%	18.9%	28.3%	27.7%	18.3%	17.2%	16.8%	16.2%
Geometry/Int. Math II	31.7%	34.3%	33.6%	36.9%	38.5%	38.6%	37.4%	36.6%
Algebra II/Int. Math III	17.9%	20.4%	21.3%	23.4%	25.4%	26.3%	27.6%	29.2%
Advanced Math	2.5%	2.7%	2.8%	3.1%	3.4%	3.8%	4.1%	4.8%
None/Missing	10.1%	10.3%	10.0%	6.6%	4.6%	4.6%	4.6%	4.6%
No. of Students	470,891	502,874	502,501	474,351	458,777	461,663	461,716	454,874

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

Table 2.33. Trends in Mathematics Courses Taken by Demographic Group

	Percentage of Grade Ten Students Taking Mathematics Courses Beyond Algebra I							
Group[1]	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2011	Class of 2012	Class of 2013	Class of 2014
All Students	59.6%	64.0%	64.2%	68.0%	70.4%	72.0%	72.6%	74.0%
Females	62.9%	67.1%	67.6%	71.1%	73.3%	74.8%	75.4%	76.9%
Males	56.5%	61.0%	60.9%	65.0%	67.6%	69.2%	69.9%	61.1%
Native American	--[2]	--[2]	50.1%	55.6%	57.0%	61.4%	60.9%	63.5%
Asian	83.8%	85.1%	85.0%	87.9%	88.9%	89.4%	89.7%	91.0%
Pacific Islander	--[2]	--[2]	62.0%	67.5%	70.7%	70.2%	72.8%	74.5%
Filipino	--[2]	--[2]	79.7%	82.1%	84.4%	85.1%	85.9%	87.2%
Hispanic	49.2%	56.3%	56.3%	60.8%	64.1%	66.4%	67.4%	68.7%
African American	53.4%	58.4%	59.2%	63.4%	64.9%	66.6%	66.8%	68.3%
White (not Hispanic)	65.8%	68.8%	69.3%	72.5%	74.6%	76.0%	76.7%	77.9%
Econ. Disadvantaged	51.1%	57.2%	57.3%	61.7%	64.6%	66.6%	67.1%	68.6%
English Learners	42.8%	46.1%	43.3%	48.3%	52.3%	53.5%	53.5%	54.7%
Reclassified Fluent	--[2]	--[2]	76.7%	78.7%	80.5%	81.7%	81.6%	82.3%
Special Education	24.3%	33.3%	31.7%	33.9%	36.8%	41.7%	41.9%	44.2%

[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 except English learners, the percentage taking courses beyond Algebra I continued to increase last year. However, the percentage of economically disadvantaged, Hispanic, and African American students taking courses beyond Algebra I continued to lag behind that of white, Asian, and Filipino students. For example, the percentage of grade ten African-American students taking courses beyond Algebra I in 2011–12 (68 percent) was about the same as the percentage of grade ten white students taking courses beyond Algebra I in 2005−06.

Table 2.34 shows the CAHSEE mathematics passing rates for students at each course level. Passing rates increased at all levels. Not only are more students taking higher level mathematics courses, but CAHSEE passing rates have increased for students at each level.

Table 2.34. Grade Ten Mathematics Passing Rates by Class and Highest Mathematics Course Taken

Highest Math Course Taken	Class of 2007	Class of 2008	Class of 2009	Class of 2010	Class of 2011	Class of 2012	Class of 2013	Class of 2014
Algebra I/Int. Math I	57.5%	53.5%	59.0%	61.1%	58.3%	59.0%	61.1%	61.5%
Geometry/Int. Math II	85.2%	81.3%	84.2%	85.3%	84.9%	85.0%	86.7%	87.1%
Algebra II/Int. Math III	96.0%	91.9%	95.4%	96.0%	98.8%	96.0%	96.2%	96.3%
Advanced Math	99.5%	96.4%	98.9%	99.2%	99.7%	98.6%	99.1%	98.9%
None/Missing	41.2%	49.0%	35.4%	48.9%	64.6%	64.9%	67.4%	69.1%
No. of Students	470,891	502,874	502,501	474,351	458,777	461,663	461,716	454,874

Predicting Initial Success on the CAHSEE

As noted above, CAHSEE success rates for grade ten students reflect the cumulative impact of instruction at all prior grades. To explore further the relationship between learning at prior grades and success on the CAHSEE, HumRRO merged 2009 STAR data for grade seven students with 2012 CAHSEE data for grade ten students. We selected grade seven for two reasons. The primary reason was that much of the content covered by the CAHSEE has been introduced by grade seven, particularly in mathematics. A secondary reason was that the use of statewide student identifiers was not completely reliable much before 2009, so that matching prior STAR records to current CAHSEE records was considerably more difficult. Overall, we matched records for current grade ten students to grade seven results from 2009. Matches were found for 426,524 students which is 86.9 percent of the 490,793 students with STAR data in 2009 and 87.6 percent of the grade ten students with CAHSEE data in 2012.

STAR results are reported in terms of five performance levels: far below basic, below basic, basic, proficient, and advanced (shown as 1-5, respectively, in Tables 2.35 and 2.36). For ELA, most grade seven students take the same test, covering the grade seven content standards. For mathematics, most students took the grade seven mathematics test. However, some of the more advanced students took an Algebra course and thus took the Algebra I end-of-course assessment. In the Tables below, we

show results separately for students taking each of the different ELA and mathematics assessments.

Table 2.35 shows the means, standard deviations, and correlations of the grade seven CST and grade ten CAHSEE scores for the students taking a grade seven CST in 2009 and the CAHSEE in 2012. As described, nearly all students took the grade seven ELA and mathematics tests, but a significant number of more advanced students took the Algebra I end-of-course test instead of the grade seven mathematics test. In nearly all cases, the correlations between grade seven and grade ten scores are quite high.

Table 2.36 shows the percentage of students for each grade seven achievement level who passed the CAHSEE on their first try in grade ten. Passing the CAHSEE is equivalent to scoring at or above the basic achievement level. The percentage that scored at the proficient level or higher is also shown in Table 2.36. Nearly all students scoring at the top three achievement levels on the grade seven ELA and mathematics tests, and virtually all the students taking the Algebra I test in grade seven, passed the corresponding CAHSEE test on their first try in grade 10.

Table 2.37 shows a comparison of CAHSEE passing rates for different racial/ethnic groups of students at each grade seven achievement level. While passing rates vary slightly at the lower achievement levels, passing rates at the higher achievement levels are very similar for the different racial/ethnic groups.

Table 2.35. Means, Standard Deviations (S.D.), and Correlations for Grade 7 CST and Grade 10 CAHSEE Scores

Group	N	Grade 7 CST Score Mean	Grade 7 CST Score S. D.	Grade 10 CAHSEE Score Mean	Grade 10 CAHSEE Score S. D.	Correlation	Pct. Pass	Pct. Prof.
		Grade 7 ELA		CAHSEE ELA				
All Matched Students	393,396	357.6	57	386.9	34.6	0.81	86.6%	58.5%
General Education	364,056	362.3	54.8	389.9	32.7	0.79	89.5%	62.0%
Special Education	29,340	299.8	52.7	349.4	35.5	0.75	50.2%	18.5%
		Grade 7 Mathematics		CAHSEE Mathematics				
All Matched Students	365,846	349	65.8	388.1	35.2	0.80	85.7%	58.5%
General Education	337,123	353.8	64.6	390.9	33.9	0.79	88.6%	61.6%
Special Education	28,723	293.6	52.7	355.5	33.5	0.75	52.2%	22.2%
		Grade 7 Algebra		CAHSEE Mathematics				
All Matched Students	26,949	423.4	82.9	432.6	22	0.61	99.5%	97.3%
General Education	26,619	423.8	82.6	432.8	21.6	0.60	99.6%	97.4%
Special Education	330	392.3	100.2	416.8	39.4	0.71	90.6%	84.2%

Table 2.36 CAHSEE Results for Students at Differing Grade Seven STAR Achievement Levels

2009 Grade Seven Results		2012 CAHSEE Grade Ten Results				
Grade 7 Test / Performance Level[1]	Score Range	Number of Students	CAHSEE Mean	CAHSEE S.D.	Pct. Pass	Pct.Prof.
STAR G7 ELA		CAHSEE ELA Test Results				
1	150-255	22,869	331.0	56.8	25.6	3.4
2	256-299	40,746	349.3	23.4	52.6	8.1
3	300-349	107,460	370.9	21.4	86.4	31.8
4	350-399	130,367	396.1	21.0	98.6	78.8
5	400-600	91,954	423.1	20.0	99.9	98.2
STAR G7 Mathematics		CAHSEE Mathematics Test Results				
1	150-255	23,113	339.8	24.1	30.4	5.5
2	256-299	61,892	355.1	22.8	59.3	13.1
3	300-349	114,494	377.6	21.5	91.2	45.7
4	350-399	104,113	403.9	22.4	99.2	87.2
5	400-600	62,234	431.7	19.2	99.9	99.0
STAR Algebra I		CAHSEE Mathematics Test Results				
1	150-255	281	373.7	31.2	80.8	41.6
2	256-299	1,391	396.3	26.7	95.5	75.5
3	300-349	3,313	415.2	21.6	99.8	95.1
4	350-399	10,215	428.3	24.1	98.3	96.5
5	400-600	12,190	444.1	11.0	100.0	99.9

[1] Legend: 1= Far Below Basic, 2=Below Basic, 3=Basic, 4=Proficient, and 5=Advanced

Results for Students from Prior High School Classes

In prior years, we tracked continued efforts by students from all prior high school classes subject to the CAHSEE requirement from 2006 through 2009. Beginning in 2011, we tracked students for the first three years after their initial graduation date. The reason is that the number of students still trying to pass after more than three years is very low (about 250 students who may have been in the Class of 2007 and 100 who may have been in the Class of 2006), and the difficulty in matching student records across long periods of time is great, particularly for earlier high school classes where common student identifiers were not used consistently on CAHSEE answer documents. Consequently, the rate of error in estimates of the numbers of students still testing may be greater than the number itself.

Results for students who were first-time seniors in 2009 through 2011 are included in this report. A significant number of students from these high school classes continued to take the CAHSEE, either as repeat grade twelve students or through an AE program.

Table 2.37. CAHSEE Passing Rates by Grade Seven Achievement Levels and Race/Ethnicity

2009 Grade Seven Results		2012 CAHSEE Grade Ten Results				
Test / Performance Level[1]	Score Range	Native Am.	Asian	Hispanic	Afr. Am.	White
STAR G7 ELA		Percent Passing CAHSEE ELA Test				
1	150-255	25.2	38.4	24.3	19.8	32.9
2	256-299	49.0	60.0	51.9	45.6	58.2
3	300-349	80.8	91.0	86.1	82.3	87.6
4	350-399	97.1	99.5	98.5	98.0	98.6
5	400-600	99.6	99.9	99.8	99.8	99.8
STAR G7 Mathematics		Percent Passing CAHSEE Mathematics Test				
1	150-255	26.5	46.6	29.9	23.3	35.7
2	256-299	52.0	71.0	58.4	51.4	64.9
3	300-349	88.8	96.2	90.2	87.7	93.2
4	350-399	98.3	99.7	98.9	98.5	99.4
5	400-600	99.5	100.0	99.8	99.5	99.9
STAR Algebra I		Percent Passing CAHSEE Mathematics Test				
1	150-255			78.1	73.3	91.8
2	256-299		97.1	94.5	89.8	98.5
3	300-349		100.0	99.7	100.0	99.8
4	350-399	93.9	99.4	96.9	92.3	99.1
5	400-600	100.0	100.0	99.9	99.5	100.0

[1] Legend: 1= Far Below Basic, 2=Below Basic, 3=Basic, 4=Proficient, and 5=Advanced

Class of 2009. Tables 2.38 through 2.40 show the number of students originally in the Class of 2009 (first-time seniors in spring 2009) who continued to take the CAHSEE this year and the number now estimated to have passed the CAHSEE through May 2012. ***To avoid duplication, we have excluded students who were counted previously as being in the Class of 2006 through 2008, even though some of those students were also in grade twelve in 2009.*** Thus, the definition of the Class of 2009 used here is students who were in grade twelve for the first time in spring 2009. We are continuing to report students in special education programs separately but exclude them from the other student groups, including the counts for all students, since ***these*** students may have been granted a waiver and/or an exemption. Note that it is possible that a few more students originally from the Class of 2009 tested again this year but could not be matched to earlier records because of differences in coding identifying information.

This year, more than 1,800 general education students and more than 140 special education students from the Class of 2009 took the CAHSEE, with 564 of the general education students and 18 of the special education students completing the CAHSEE requirement.

Table 2.38. Estimated Number and Percentage of Students in the Class of 2009[1] Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	422,845	25,662	564	1,287	23,811	423,409	25,098	94.4%
Females	215,732	11,877	310	749	10,818	216,042	11,567	94.9%
Males	207,113	13,785	254	538	12,993	207,367	13,531	93.9%
American Indian or Alaska Native	3,387	149	1	6	142	3,388	148	95.8%
Asian	42,765	1,237	20	51	1,166	42,785	1,217	97.2%
Pacific Islander	2,965	176	3	6	167	2,968	173	94.5%
Filipino	13,980	305	5	19	281	13,985	300	97.9%
Hispanic or Latino	179,231	17,116	381	877	15,858	179,612	16,735	91.5%
African American or Black	30,450	3,587	62	128	3,397	30,512	3,525	89.6%
White, non-Hispanic	149,791	2,751	42	75	2,634	149,833	2,709	98.2%
Multiple Races[2]	92	341	50	125	166	142	291	--[2]
Economically Disadvantaged	169,637	14,596	167	404	14,025	169,804	14,429	92.2%
English Learner	52,527	11,574	206	594	10,774	52,733	11,368	82.3%
Reclassified Fluent English	76,254	1,234	32	50	1,152	76,286	1,202	98.4%
Special Education	21,847	15,237	18	125	15,094	21,865	15,219	59.0%

[1] Many students in special education programs who had not passed the CAHSEE by the end of grade twelve were allowed a local waiver if they took the CAHSEE with a modification and achieved a passing score. In addition, students with disabilities were exempted in some years but not others. For comparison across years with different exemption policies, students in special education programs were *excluded* from all rows of the table except for the last row.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated because no students who passed previously in grade ten are included.

Table 2.39. Estimated Number and Percentage of Students in the Class of 2009[1] Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	431,953	16,554	346	722	15,486	432,299	16,208	96.4%
Females	220,936	6,673	167	381	6,125	221,103	6,506	97.1%
Males	211,017	9,881	179	341	9,361	211,196	9,702	95.6%
American Indian or Alaska Native	3,456	80	0	3	77	3,456	80	97.7%
Asian	42,928	1,074	14	46	1,014	42,942	1,060	97.6%
Pacific Islander	3,036	105	2	2	101	3,038	103	96.7%
Filipino	14,065	220	3	15	202	14,068	217	98.5%
Hispanic or Latino	184,839	11,508	240	490	10,778	185,079	11,268	94.3%
African American or Black	32,055	1,982	32	56	1,894	32,087	1,950	94.3%
White, non-Hispanic	151,155	1,387	24	36	1,327	151,179	1,363	99.1%
Multiple Races[2]	235	198	31	74	93	266	167	--[2]
Economically Disadvantaged	174,234	9,999	105	234	9,660	174,339	9,894	94.6%
English Learner	54,912	9,189	156	412	8,621	55,068	9,033	85.9%
Reclassified Fluent English	77,003	485	11	15	459	77,014	474	99.4%
Special Education	26,333	10,751	21	89	10,641	26,354	10,730	71.1%

[1] Many students in special education programs who had not passed the CAHSEE by the end of grade twelve were allowed a local waiver if they took the CAHSEE with a modification and achieved a passing score. In addition, students with disabilities were exempted in some years but not others. For comparison across years with different exemption policies, students in special education programs were *excluded* from all rows of the table except for the last row.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated because no students who passed previously in grade ten are included.

Table 2.40. Estimated Number and Percentage of Students in the Class of 2009[1] Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	430,266	18,241	403	826	17,012	430,669	17,838	96.0%
Females	218,634	8,975	225	515	8,235	218,859	8,750	96.2%
Males	211,632	9,266	178	311	8,777	211,810	9,088	95.9%
American Indian or Alaska Native	3,412	124	1	5	118	3,413	123	96.5%
Asian	43,552	450	11	9	430	43,563	439	99.0%
Pacific Islander	3,014	127	2	4	121	3,016	125	96.0%
Filipino	14,092	193	2	10	181	14,094	191	98.7%
Hispanic or Latino	184,430	11,917	269	568	11,080	184,699	11,648	94.1%
African American or Black	30,994	3,043	51	93	2,899	31,045	2,992	91.2%
White, non-Hispanic	150,385	2,157	30	55	2,072	150,415	2,127	98.6%
Multiple Races[2]	203	230	37	82	111	240	193	--[2]
Economically Disadvantaged	174,106	10,127	124	259	9,744	174,230	10,003	94.6%
English Learner	57,351	6,750	111	291	6,348	57,462	6,639	89.6%
Reclassified Fluent English	76,506	982	33	40	909	76,539	949	98.8%
Special Education	25,237	11,847	13	98	11,736	25,250	11,834	68.1%

[1] Many students in special education programs who had not passed the CAHSEE by the end of grade twelve were allowed a local waiver if they took the CAHSEE with a modification and achieved a passing score. In addition, students with disabilities were exempted in some years but not others. For comparison across years with different exemption policies, students in special education programs were *excluded* from all rows of the table except for the last row.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated because no students who passed previously in grade ten are included.

Class of 2010. Tables 2.41 through 2.43 show estimated cumulative passing rates for the Class of 2010 after including results through the May 2012 CAHSEE administration. ***To avoid duplication, we have excluded students who were counted previously as being in the Class of 2006 through 2009, even though some of those students were also in grade twelve in 2010.*** Thus, the definition of the Class of 2010 used here is students who were in grade twelve for the first time in spring 2010. As with the Class of 2009, we have *excluded* students in special education programs from the counts, except for the last row in each table, since many of these students were exempted from the CAHSEE requirement.

Table 2.41. Estimated Number and Percentage of Students in the Class of 2010[1] Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	423,413	23,302	1,101	2,517	19,684	424,514	22,201	95.0%
Females	215,207	10,782	621	1,399	8,762	215,828	10,161	95.5%
Males	208,206	12,520	480	1,118	10,922	208,686	12,040	94.5%
American Indian or Alaska Native	3,383	135	2	8	125	3,385	133	96.2%
Asian	43,323	973	32	71	870	43,355	941	97.9%
Pacific Islander	2,986	131	3	6	122	2,989	128	95.9%
Filipino	13,706	229	15	32	182	13,721	214	98.5%
Hispanic or Latino	186,114	15,881	748	1,756	13,377	186,862	15,133	92.5%
African American or Black	29,863	3,000	96	228	2,676	29,959	2,904	91.2%
White, non-Hispanic	143,719	2,376	93	176	2,107	143,812	2,283	98.4%
Multiple Races[2]	191	577	112	240	225	303	465	39.5%
Economically Disadvantaged	180,274	14,011	443	1,041	12,527	180,717	13,568	93.0%
English Learner	51,469	10,669	412	1,249	9,008	51,881	10,257	83.5%
Reclassified Fluent English	82,961	1,115	84	112	919	83,045	1,031	98.8%
Special Education	18,665	15,389	33	377	14,979	18,698	15,356	54.9%

[1] Many students in special education programs who had not passed the CAHSEE by the end of grade twelve were allowed a local waiver if they took the CAHSEE with a modification and achieved a passing score. In addition, students with disabilities were exempted in some years but not others. For comparison across years with different exemption policies, students in special education programs were *excluded* from all rows of the table except for the last row.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated because no students who passed previously in grade ten are included.

In the 2011-12 school year, more than 3,600 general education students and more than 400 special education students in the Class of 2010 who had not passed the CAHSEE by May of 2011 continued to try to meet the CAHSEE requirement, more than a year after their scheduled graduation. Table 25 shows 95.0 percent of the general education students counted as being in the Class of 2010 have now passed the CAHSEE. This is slightly higher than the 94.4 percent passing rate for the Class of 2009 shown in Table 22, even though students in the Class of 2009 have had an additional year after grade twelve to meet the requirement.

Table 2.42. Estimated Number and Percentage of Students in the Class of 2010[1] Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	431,798	14,917	620	1,504	12,793	432,418	14,297	96.8%
Females	219,984	6,005	318	756	4,931	220,302	5,687	97.5%
Males	211,814	8,912	302	748	7,862	212,116	8,610	96.1%
American Indian or Alaska Native	3,440	78	4	4	70	3,444	74	97.9%
Asian	43,446	850	23	65	762	43,469	827	98.1%
Pacific Islander	3,019	98	2	4	92	3,021	96	96.9%
Filipino	13,775	160	11	19	130	13,786	149	98.9%
Hispanic or Latino	191,527	10,468	424	1,085	8,959	191,951	10,044	95.0%
African American or Black	31,233	1,630	46	100	1,484	31,279	1,584	95.2%
White, non-Hispanic	144,775	1,320	45	98	1,177	144,820	1,275	99.1%
Multiple Races[2]	455	313	65	129	119	520	248	67.7%
Economically Disadvantaged	184,909	9,376	240	654	8,482	185,149	9,136	95.3%
English Learner	53,866	8,272	295	928	7,049	54,161	7,977	87.2%
Reclassified Fluent English	83,632	444	34	40	370	83,666	410	99.5%
Special Education	22,540	11,514	36	303	11,175	22,576	11,478	66.3%

[1] Many students in special education programs who had not passed the CAHSEE by the end of grade twelve were allowed a local waiver if they took the CAHSEE with a modification and achieved a passing score. In addition, students with disabilities were exempted in some years but not others. For comparison across years with different exemption policies, students in special education programs were *excluded* from all rows of the table except for the last row.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated because no students who passed previously in grade ten are included.

Table 2.43. Estimated Number and Percentage of Students in the Class of 2010 Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	430,323	16,392	778	1,578	14,036	431,101	15,614	96.5%
Females	217,799	8,190	461	947	6,782	218,260	7,729	96.6%
Males	212,524	8,202	317	631	7,254	212,841	7,885	96.4%
American Indian or Alaska Native	3,411	107	2	6	99	3,413	105	97.0%
Asian	43,990	306	14	13	279	44,004	292	99.3%
Pacific Islander	3,034	83	2	2	79	3,036	81	97.4%
Filipino	13,799	136	7	19	110	13,806	129	99.1%
Hispanic or Latino	190,932	11,063	534	1,080	9,449	191,466	10,529	94.8%
African American or Black	30,351	2,512	77	189	2,246	30,428	2,435	92.6%
White, non-Hispanic	144,301	1,794	70	114	1,610	144,371	1,724	98.8%
Multiple Races[2]	377	391	72	155	164	449	319	58.5%
Economically Disadvantaged	184,570	9,715	314	645	8,756	184,884	9,401	95.2%
English Learner	55,948	6,190	223	583	5,384	56,171	5,967	90.4%
Reclassified Fluent English	83,200	876	68	85	723	83,268	808	99.0%
Special Education	21,974	12,080	31	290	11,759	22,005	12,049	64.6%

[1] Many students in special education programs who had not passed the CAHSEE by the end of grade twelve were allowed a local waiver if they took the CAHSEE with a modification and achieved a passing score. In addition, students with disabilities were exempted in some years but not others. For comparison across years with different exemption policies, students in special education programs were *excluded* from all rows of the table except for the last row.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated because no students who passed previously in grade ten are included.

Class of 2011. Tables 2.44 through 2.46 show estimated cumulative passing rates for the Class of 2011 after including results from the 2011–12 CAHSEE administrations through May 2012. ***To avoid duplication, we have excluded students who were counted above as being in prior high school classes, even though many of those students were also in grade twelve again in 2011.*** As with the Class of 2009 and the Class of 2010, the definition of the Class of 2011 used here is students who were in grade twelve for the first time in spring 2011. For consistency with other classes, we continue to report results separately for students in special education and *exclude* these students from counts for other categories.

Table 2.44. Estimated Number and Percentage of Students in the Class of 2011 Passing Both CAHSEE Tests Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	423,361	25,783	3,557	6,946	15,280	426,918	22,226	95.1%
Females	215,009	11,928	1,817	3,599	6,512	216,826	10,111	95.5%
Males	208,352	13,855	1,740	3,347	8,768	210,092	12,115	94.5%
American Indian or Alaska Native	3,194	141	6	22	113	3,200	135	96.0%
Asian	42,908	1,099	155	288	656	43,063	944	97.9%
Pacific Islander	2,979	192	16	39	137	2,995	176	94.4%
Filipino	13,911	264	33	86	145	13,944	231	98.4%
Hispanic or Latino	190,897	17,105	2,372	4,767	9,966	193,269	14,733	92.9%
African American or Black	29,564	3,102	343	668	2,091	29,907	2,759	91.6%
White, non-Hispanic	138,739	2,415	326	455	1,634	139,065	2,089	98.5%
Multiple Races[2]	1,169	1,465	306	621	538	1,475	1,159	56.0%
Economically Disadvantaged	191,179	16,511	2,144	4,211	10,156	193,323	14,367	93.1%
English Learner	49,379	11,772	1,451	3,673	6,648	50,830	10,321	83.1%
Reclassified Fluent English	87,166	1,264	305	305	654	87,471	959	98.9%
Special Education	19,152	15,217	335	2,339	12,543	19,487	14,882	56.7%

[1] Many students in special education programs who had not passed the CAHSEE by the end of grade twelve were allowed a local waiver if they took the CAHSEE with a modification and achieved a passing score. In addition, students with disabilities were exempted in some years but not others. For comparison across years with different exemption policies, students in special education programs were *excluded* from all rows of the table except for the last row.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated because no students who passed previously in grade ten are included.

More than 10,000 general education students and more than 2,600 special education students in the Class of 2011 who had not passed the CAHSEE by May 2011 continued to try to pass the CAHSEE this year. By the end of the 2011–12 school year, 3,557 of these general education students and 335 of the special education students had passed, bringing the total passing rates to 95.1 percent for general education students and 56.7 percent for students in special education programs.

Table 2.45. Estimated Number and Percentage of Students in the Class of 2011 Passing the CAHSEE ELA Test Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	432,511	16,633	2,119	4,303	10,211	434,630	14,514	96.8%
Females	220,122	6,815	966	1,973	3,876	221,088	5,849	97.4%
Males	212,389	9,818	1,153	2,330	6,335	213,542	8,665	96.1%
American Indian or Alaska Native	3,257	78	2	11	65	3,259	76	97.7%
Asian	43,033	974	136	257	581	43,169	838	98.1%
Pacific Islander	3,034	137	11	27	99	3,045	126	96.0%
Filipino	13,977	198	24	66	108	14,001	174	98.8%
Hispanic or Latino	196,651	11,351	1,457	3,037	6,857	198,108	9,894	95.2%
African American or Black	30,947	1,719	163	307	1,249	31,110	1,556	95.2%
White, non-Hispanic	139,829	1,325	167	240	918	139,996	1,158	99.2%
Multiple Races[2]	1,783	851	159	358	334	1,942	692	73.7%
Economically Disadvantaged	196,606	11,084	1,300	2,717	7,067	197,906	9,784	95.3%
English Learner	51,938	9,213	1,114	2,810	5,289	53,052	8,099	86.8%
Reclassified Fluent English	87,948	482	120	98	264	88,068	362	99.6%
Special Education	22,928	11,441	326	1,801	9,314	23,254	11,115	67.7%

[1] Many students in special education programs who had not passed the CAHSEE by the end of grade twelve were allowed a local waiver if they took the CAHSEE with a modification and achieved a passing score. In addition, students with disabilities were exempted in some years but not others. For comparison across years with different exemption policies, students in special education programs were *excluded* from all rows of the table except for the last row.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated because no students who passed previously in grade ten are included.

Table 2.46. Estimated Number and Percentage of Students in the Class of 2011 Passing the CAHSEE Mathematics Test Through May 2012, Excluding Students with Disabilities

	By May 2011		July 2011–May 2012			Cumulative Total		
Group	Passed	Not Yet Passed[2]	Passed	Not Passed	Not Tested	Passed	Not Yet Passed	Percent Pass
All Students	431,120	18,024	2,558	4,292	11,174	433,678	15,466	96.6%
Females	218,003	8,934	1,412	2,443	5,079	219,415	7,522	96.7%
Males	213,117	9,090	1,146	1,849	6,095	214,263	7,944	96.4%
American Indian or Alaska Native	3,216	119	6	19	94	3,222	113	96.6%
Asian	43,637	370	48	73	249	43,685	322	99.3%
Pacific Islander	3,038	133	11	22	100	3,049	122	96.2%
Filipino	14,013	162	26	34	102	14,039	136	99.0%
Hispanic or Latino	196,237	11,765	1,702	2,896	7,167	197,939	10,063	95.2%
African American or Black	30,061	2,605	284	544	1,777	30,345	2,321	92.9%
White, non-Hispanic	139,336	1,818	251	309	1,258	139,587	1,567	98.9%
Multiple Races[2]	1,582	1,052	230	395	427	1,812	822	68.8%
Economically Disadvantaged	196,312	11,378	1,570	2,522	7,286	197,882	9,808	95.3%
English Learner	54,421	6,730	854	1,720	4,156	55,275	5,876	90.4%
Reclassified Fluent English	87,423	1,007	240	245	522	87,663	767	99.1%
Special Education	22,440	11,929	302	1,805	9,822	22,742	11,627	66.2%

[1] Many students in special education programs who had not passed the CAHSEE by the end of grade twelve were allowed a local waiver if they took the CAHSEE with a modification and achieved a passing score. In addition, students with disabilities were exempted in some years but not others. For comparison across years with different exemption policies, students in special education programs were *excluded* from all rows of the table except for the last row.

[2] The "Multiple Races" category was added last year. Students are shown in the "Multiple Races" category above only if they could be identified as such from current-year or prior-year test records. ETS codes for race/ethnicity were used here but may be revised subsequently using different rules to identify missing data. Passing rates for this category cannot be estimated because no students who passed previously in grade ten are included.

Additional Analyses of Results for Students with Disabilities

One of the most persistent problems for the CAHSEE has been the low passing rate for SWD. 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:

1. 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.

2. 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 content was not yet 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.

3. Finally, there are options concerning *alternative types of diplomas* for students who are not able to demonstrate competency in the CAHSEE standards.

Our 2005 and 2006 CAHSEE evaluation reports described analyses of characteristics of students in this population and the types of services they received in relation to success in passing the CAHSEE (Wise, et al., 2005b, Chapter 7; Wise, et al. 2006b). 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, resource specialists) and participate in the regular curriculum 80 percent 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 percent of their time in regular instruction. A limited number of these students pass the CAHSEE; therefore, other goals may be more appropriate for these students. It is worth noting, however, that 10 percent of the students in this category do pass the CAHSEE, so expectations for meeting the CAHSEE requirement should not be abandoned lightly.

Last year, SWD were once again exempt from the CAHSEE requirement while the SBE and CDE studied alternative ways whereby these students might meet the CAHSEE requirement as called for by Assembly Bill (AB) 2040.

Supplemental Data on Students Receiving Special Education Services

In 2006 and 2009, 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 in 2009 to assess the extent of changes over the past three years in the nature of this population of students and their success in meeting the CAHSEE requirement. In 2011, we once again merged CASEMIS data with CAHSEE records and conducted additional analyses for SWD. Last year's analyses are limited to grade ten students, all of whom are required to take the CAHSEE. Consistent comparisons across time are not possible for grade eleven and grade twelve students in special education because of the potential for special education students to satisfy CAHSEE using either a local waiver or the exemption over the past several years. Therefore in 2012, only CAHSEE results were analyzed

Table 2.47 shows the number and percentage of ten SWD in each primary disability category and the ELA and mathematics passing rates for students in each of these categories. The vast majority of SWD in the matched sample had a *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 the 2009, 2010, 2011, and 2012 matched samples. The distribution of students across primary disability categories was similar in 2009 through 2012. In 2012 compared to prior years, more students were classified as having autism and other health impairments and slightly fewer were classed as having specific learning disabilities. Passing rates were predictably somewhat variable across years in categories with relatively few students. Passing rates for students with specific learning disabilities, the category accounting for about two-thirds of the students in special education, have increased slightly but were still slightly lower than passing rates for all students in special education.

The CAHSEE allows a number of testing accommodations for students who need them. In addition, some students take the CAHSEE with test modifications[7] specified in their individual education programs (IEPs), even though these modifications invalidate their scores. Students who test with modifications and score at or above the passing level are allowed to petition for a local waiver from the CAHSEE requirement. Tables 2.48 and 2.49 categorize the various accommodations and modifications recorded for the CAHSEE ELA and mathematics tests. Each table shows the percentage of grade ten and twelve SWD who received each type of accommodation or modification. In 2009, SWD were not exempt from the CAHSEE requirement. In 2011 and 2012 SWD were once again exempted from the CAHSEE requirement. The use of accommodations and modifications decreased somewhat. Of particular note in the tables are the figures indicating that the oral presentation modification for ELA (Table

[7] Test modifications are changes to test administration procedures thought to change the construct being measured, such as allowing calculators on test questions measuring computational skill. When test modifications are used, scores are not considered valid for meeting the CAHSEE requirement due to the impact on what is being measured.

2.48) and the calculator modification for mathematics (Table 2.49) were used extensively for grade twelve students in 2009, when SWD were required to pass the CAHSEE. Students who obtained a passing score with a modification were granted a local waiver. By 2011, the exemption for SWD was reinstated and the use of modifications for grade twelve students declined noticeably.

Table 2.47. Primary Disability Codes for Grade Ten Students Receiving Special Education Services with CAHSEE Success Information

Primary Disability Category	Percent of Students with Disabilities in Category				Percent in Category Passing CAHSEE ELA[1]				Percent in Category Passing CAHSEE Math[1]			
	2009	2010	2011	2012	2009	2010	2011	2012	2009	2010	2011	2012
010 = Mental Retardation	5.2%	5.0%	4.8%	4.8%	4.2%	2.0%	3.9%	2.6%	4.3%	1.4%	3.6%	2.8%
020 = Hard of Hearing	1.0%	1.1%	1.1%	1.1%	40.4%	45.5%	53.2%	52.8%	48.1%	49.9%	57.5%	54.4%
030 = Deaf	0.7%	0.7%	0.7%	0.6%	18.9%	20.7%	20.6%	22.3%	27.9%	32.0%	29.3%	38.0%
040 = Speech/Lang. Impairment	5.8%	5.6%	5.5%	6.2%	46.5%	46.9%	49.5%	53.5%	49.3%	50.8%	52.9%	58.6%
050 = Visual Impairment	0.6%	0.6%	0.5%	0.6%	52.3%	60.6%	65.3%	58.5%	47.6%	61.7%	59.4%	63.4%
060 = Emotional Disturbance	8.1%	7.5%	7.9%	7.1%	43.5%	43.4%	44.9%	43.5%	34.3%	35.7%	34.5%	36.9%
070 = Orthopedic Impairment	1.6%	1.7%	1.7%	1.6%	50.5%	48.7%	48.2%	49.8%	44.3%	45.1%	40.3%	45.5%
080 = Other Health Impairment	8.9%	9.7%	10.2%	10.9%	54.1%	51.5%	52.6%	51.3%	44.9%	44.6%	44.1%	44.7%
090 = Specific Learning Disability	62.0%	62.3%	61.3%	60.1%	30.2%	30.1%	32.1%	32.1%	29.7%	29.3%	32.1%	32.5%
100 = Deaf-Blindness	0.0%	0.0%	0.0%	0.0%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
110 = Multiple Disabilities	0.8%	0.6%	0.5%	0.5%	41.8%	25.0%	20.8%	8.8%	35.4%	32.2%	20.0%	13.6%
120 = Autism	4.7%	4.9%	5.5%	6.1%	57.1%	59.6%	59.1%	57.1%	54.7%	55.9%	55.4%	56.8%
130 = Traumatic Brain Injury	0.5%	0.4%	0.3%	0.3%	38.0%	36.2%	24.8%	37.0%	36.0%	36.2%	33.6%	34.8%
Number of Students	48,334	48,737	49,742	49,913	35.5%	35.4%	37.5%	37.8%	33.8%	33.9%	36.0%	37.4%

[1] The percent passing was not computed if there were fewer than 20 students in a particular disability category.

Table 2.48. Percentage of Students with Disabilities Receiving Specific ELA Accommodations and Modifications in 2009, 2011, and 2012 by Grade

Description of Accommodation or Modification	Grade Ten			Grade Twelve		
	2009	2011	2012	2009	2011	2012
Number of Administrations to SWD	39,804	49,968	58,000	48,669	62,221	72,844
Accommodations						
Transfer of Responses to Answer Document	0.2%	0.2%	0.4%	0.5%	0.2%	0.2%
Oral Responses Dictated to a Scribe	0.5%	0.1%	0.2%	0.4%	0.3%	0.2%
Spell Checker or Grammar Checker Off	0.5%	0.6%	0.5%	1.0%	0.6%	0.3%
Essay Responses	0.3%	0.4%	0.1%	0.6%	0.3%	0.1%
Assistive Device	0.3%	0.2%	0.2%	0.4%	0.2%	0.1%
Braille Version	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%
Large Print Version	0.3%	0.2%	0.2%	0.2%	0.1%	0.1%
Test Over Multiple Days	3.2%	2.8%	2.8%	4.4%	1.8%	2.0%
Supervised Breaks	9.2%	9.1%	8.6%	11.0%	8.2%	8.5%
Beneficial Time	1.4%	1.6%	1.6%	1.8%	1.4%	1.4%
Tested Home or Hospital	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%
Modifications						
Dictionary	1.6%	1.3%	1.0%	10.4%	5.2%	5.0%
Sign Language	0.1%	0.1%	0.1%	0.7%	0.4%	0.3%
Oral Presentation	3.0%	2.5%	2.0%	27.6%	13.1%	12.3%
Spell Checker or Grammar Checker	0.3%	0.2%	0.1%	3.6%	1.4%	1.2%
Essay Responses	0.1%	0.1%	0.1%	0.9%	0.4%	0.4%
Assistive Device	0.0%	0.0%	0.0%	0.2%	0.1%	0.1%
Unlisted Modification	0.0%	0.1%	0.1%	0.3%	0.1%	0.1%

Table 2.49. Percentage of Students with Disabilities Receiving Specific Mathematics Accommodations and Modifications in 2009, 2011, and 2012 by Grade

Description of Accommodation or Modification	Grade Ten			Grade Twelve		
	2009	2011	2012	2009	2011	2012
Number of Administrations to SWD	61,787	54,919	49,913	40,735	50,732	50,732
Accommodations						
Transfer of Responses to Answer Document	0.4%	0.4%	0.4%	0.3%	0.2%	0.2%
Oral Responses Dictated to a Scribe	0.2%	0.2%	0.1%	0.2%	0.1%	0.1%
Braille Version	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%
Large Print Version	0.3%	0.2%	0.2%	0.2%	0.1%	0.1%
Test Over More Than 1 Day	2.2%	2.2%	2.1%	2.7%	1.1%	1.2%
Supervised Breaks	8.3%	8.1%	7.8%	8.9%	7.0%	7.3%
Beneficial Time	1.3%	1.5%	1.5%	1.4%	1.3%	1.2%
Tested At Home or Hospital	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%
Dictionary	0.1%	0.2%	0.1%	1.5%	0.9%	1.0%
Sign Language	0.2%	0.2%	0.2%	0.4%	0.3%	0.3%
Oral Presentation	4.0%	2.7%	2.3%	16.0%	7.0%	6.7%
Modifications						
Calculator	10.2%	8.3%	7.0%	42.8%	23.4%	22.0%
Arithmetic Table	0.3%	0.3%	0.2%	3.9%	2.2%	2.2%
Math Manipulatives	0.1%	0.1%	0.1%	0.3%	0.3%	0.2%
Assistive Device	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%
Unlisted Modification	0.1%	0.0%	0.1%	0.2%	0.2%	0.2%

Summary of Test Results

HumRRO evaluation efforts found no significant problems with the processes used to develop, administer, and score the CAHSEE. Scoring consistency increased somewhat in 2012 compared to rates in 2011 as shown in Table 2.2. The test forms assembled by ETS had comparable difficulty, meaning that the number of correct responses needed to reach scoring decision points varied only slightly across all of the forms, as shown in Tables 2.6 and 2.7.

CAHSEE test results show significant increases in students' competency in targeted skills since the implementation of the CAHSEE requirement. As shown in Table 2.18, overall grade twelve passing rates for seniors have increased steadily from 91 percent for the Class of 2006 to 95 percent for this year's Class of 2012. Similarly, as shown in Table 2.31, overall passing rates for grade ten students taking the CAHSEE have increased steadily from 64 percent for the Class of 2006 (tested in 2004) to 75 percent for the Class of 2014 tested last year. As shown in Table 2.31 and illustrated in Figure 2.4, initial passing rates have increased significantly for all demographic groups. That said, it should also be noted that passing rates for SWD are still unacceptably low and that passing rates for English learners are also low and have increased only modestly since the CAHSEE requirement went into effect. Passing rates for economically disadvantaged, Hispanic, and African American students also continue to be significantly lower than passing rates for white and Asian students at all grade levels.

A second encouraging finding is the large number of students who continue to try to pass the CAHSEE after their originally scheduled graduation date. Of the approximately 26,000 general education students in the Class of 2011 who did not complete the CAHSEE requirement by the end of grade twelve, more than 10,000 took the CAHSEE one or more times last year. More than 3,500 completed the CAHSEE requirement, as shown in Table 2.44. Also nearly 3,600 general education students in the Class of 2010 who had not yet passed the CAHSEE continued to try to pass it last year and more than 1,000 did pass (Table 2.41). Finally, more than 1,800 general education students from the Class of 2009 took the CAHSEE last year, more than two years after their original graduation date, and more than 500 of them completed the CAHSEE requirement (Table 2.38).

A third significant trend since the implementation of the CAHSEE requirement has been the proportion of students taking more advanced mathematics courses in high school. As shown in Table 2.32, the percentage of students taking mathematics courses beyond Algebra I by grade ten has increased from 60 percent for the Class of 2007 to 74 percent for this year's grade ten students in the Class of 2014. All demographic groups showed significant increases in the percentage of students taking more advanced courses over this period, including very significant gains—from 24 percent to 44 percent—for students in special education. Here too, however, significant gaps exist. Analyses show that fewer SWD (44%), English learners (54%), economically disadvantaged students (67%), Native American (64%), African American (68%), and Hispanic (69%) students are taking advanced mathematics courses by grade ten compared to white (78%) and Asian (91%) grade ten students.

A fourth finding highlights the fact that CAHSEE success rates for grade ten students reflect the cumulative impact of instruction at all prior grades. HumRRO explored the relationship between learning at prior grades and success on the CAHSEE by merging 2009 STAR data for grade seven students with 2012 CAHSEE data for grade ten students. We analyzed grade seven scores because much of the content covered by the CAHSEE has been introduced by this year, particularly in mathematics. Overall, we matched records for 86.9 percent of the students with STAR data in 2009 and 87.6 percent of the grade ten students with CAHSEE data in 2012. The correlations between grade seven and grade ten scores are quite high (Table 2.35). Nearly all students scoring at the top three achievement levels on the grade seven ELA and mathematics tests and virtually all the students taking the Algebra I test in grade seven passed the corresponding ELA or math portion of the CAHSEE on their first try in grade 10 (Table 2.36). Students scoring at the bottom two achievement levels in grade seven struggled with the CAHSEE in grade ten, with only 50 to 60 percent of students scoring at level two in grade seven and only 25 to 30 percent of the students at level one passing the CAHSEE on their first attempt (Table 2.36).

Finally, the CAHSEE gains for students with disabilities have been mixed. As shown in Figure 2.1, cumulative grade twelve passing rates for students with disabilities increased significantly starting with the Class of 2008, whose members were required to pass. Rates have been flat since 2010 when the exemption was reinstated.

Chapter 3: Student Questionnaire Responses

Rebecca L. Norman Dvorak

HumRRO designed a 12-item student questionnaire designed 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. This questionnaire was administered to all students at the end of the ELA and mathematics portion of the CAHSEE. Students who took both portions of the CAHSEE had two opportunities to answer the questionnaire. The questionnaire has been administered since 2001; we made significant changes in 2005 and minor changes in more recent years. This chapter provides results from both the mathematics and ELA questionnaires and is based on student response data from 2005 through 2012. First we examine grade ten student responses over time and broken down by demographic and test passing category, then follow up with a selection of responses for 2012 grade twelve students who had failed to pass the CAHSEE in grade ten and took the CAHSEE this past school year.

Grade Ten Student Questionnaire Respondents

Table 3.1 displays demographic characteristics of the grade ten students who completed the CAHSEE ELA and mathematics tests in 2012. Hispanic students accounted for approximately half of all grade ten students, with white students being the second largest racial/ethnic group at 28 percent. Approximately 2.5 percent of grade 10 students were identified as both English Learners (EL) and Students with Disabilities (SWD), just over 6 percent of grade students were identified as only SWD and 11.5 percent of students as only EL. Just over half of the students (50.7 percent) were identified as economically disadvantaged (ED) based on inclusion in the national school lunch program (NSLP).

Table 3.2 presents the number of students who passed both the ELA and mathematics tests in 2012, only one of the two, and neither test. Almost 75 percent of all grade 10 students were successful on both tests in 2012.

Table 3.1. Demographic Characteristics by Percentage of 2012 Grade Ten Student Questionnaire Respondents

Variable		ELA (n=468,360)	Math (n=468,560)
Gender	Female	49.2	49.2
	Male	50.8	50.8
Ethnicity	American Indian or Alaskan Native	0.7	0.7
	Asian	8.4	8.4
	Pacific Islander	0.6	0.6
	Filipino	3.0	3.0
	Hispanic	50.4	50.4
	African American	6.6	6.6
	White	28.0	28.0
	Multiple Races	2.4	2.4
Student with Disability (SWD), not EL	No	93.8	93.8
	Yes	6.2	6.2
English Learner (EL), not SWD	No	88.5	88.6
	Yes	11.5	11.4
EL and SWD	No	97.5	97.6
	Yes	2.5	2.4
Economically Disadvantaged (ED)	No	48.6	48.6
	Yes	50.7	50.7

Table 3.2. Frequencies of 2012 Grade Ten Students by Tests Passed

Tests Passed	Frequency	Percent
Both	364,769	74.7
Only ELA	28,965	5.9
Only Math	29,180	6.0
Neither	65,284	13.4

Comparisons on Student Perspective

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

- grade ten student responses from 2005 to 2012;
- grade ten student responses in 2012 by passing categories (whether they passed both tests, only ELA, only mathematics, or neither test);

- 2012 grade ten responses by key demographic characteristics (gender, ethnicity, disability status, English learner status, economic disadvantage status); and

- 2012 grade twelve responses in 2010 and 2012 by those who passed in 2012 and those who did not pass.

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, and the response data are displayed using both tables and bar graphs. Modifications to test questions and response options have been applied as recently as 2011 – we note these changes and advise readers to consider them when observing trend data.

The second part of this chapter presents the results comparing student responses by key demographic characteristics. We also present a summary of findings by topic.

Lastly, we present and discuss a selection of responses of 2012 grade twelve students who are still attempting to pass the CAHSEE.

Findings from 2012 Grade Ten Student Responses

Test Preparation

Question 1: How did you prepare for this test?

Grade 10 students in 2012 responded similarly to students of the previous year on how they prepared for the ELA and math tests. A slightly higher percentage of students in 2012 compared to previous years reported that a teacher spent time in class helping them to prepare and that they practiced on questions similar to the test. Note that one option (marked A.*) was not included on the 2011 or 2012 questionnaires. This may have affected the student response patterns.

Table 3.3. Question 1: How Did You Prepare for This Test? (Mark All That Apply) (Grade Ten Students' Responses 2005–12)

After ELA	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
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	36.6	n/a	n/a
A. I practiced on questions similar to those on the test.	31.1	32.4	33.8	33.6	32.0	35.3	33.5	33.7
B. 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	38.5	42.8	43.9
C. 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	6.6	7.5	7.5
D. 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	3.3	3.7	4.1
E. 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	27.7	34.1	33.4

After Math	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
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	34.4	n/a	n/a
A. I practiced on questions similar to those on the test.	31.3	32.6	33.25	33.2	33.2	36.2	38.4	39.2
B. 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	26.2	27.0	27.6
C. 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	5.7	6.8	6.8
D. 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	3.1	3.4	3.7
E. 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	34.1	41.9	41.3

*This response option was not included on the 2011 or 2012 student questionnaires.

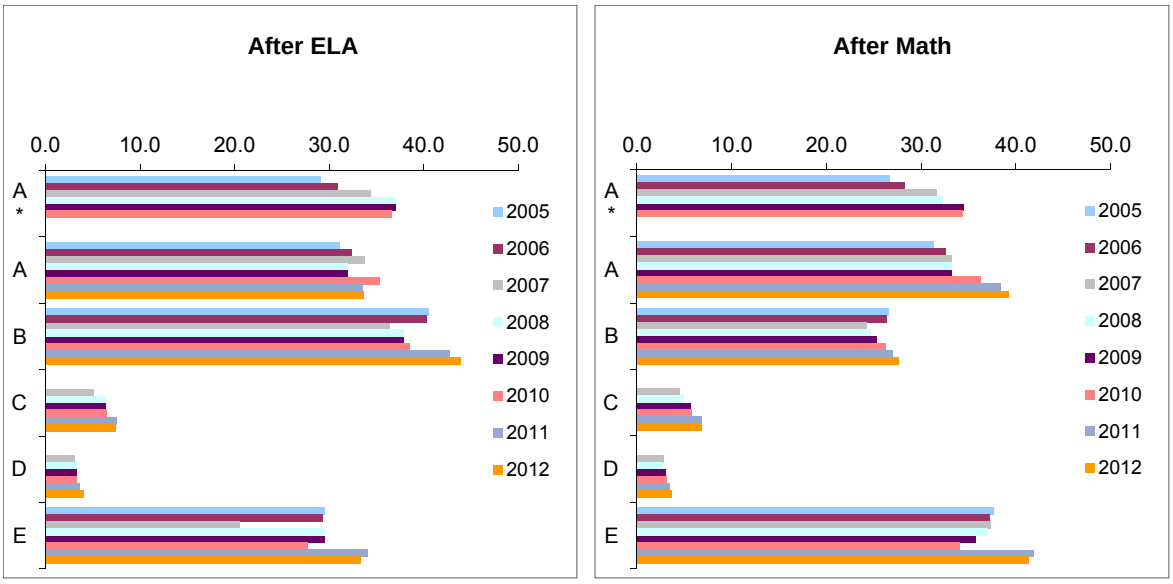


Figure 3.1. Test preparation by grade ten students over the years as reported after CAHSEE ELA and mathematics tests, in percentages.[8]

As shown in Table 3.4, those who did not pass at least one test were more likely than those who passed both to have taken a special class that covered the topics on the CAHSEE. Those who passed both tests were the most likely of all students to respond that they did not do anything in addition to regular course work to prepare for the test.

[8] Response Options: A*. A teacher or counselor told me about the purpose of the test, A. I practiced on questions similar to those on the test, B. A teacher spent time in class helping me to get ready to take the test, C. I took a special class during the regular school day that covered the topics on the CAHSEE, D. I took a special class after school or during the summer that covered the topics on the CAHSEE, E. I did not do anything in addition to regular course work to prepare for this test.

Table 3.4. Question 1: How Did You Prepare for This Test? (Mark All That Apply) (Percentages of 2012 Grade Ten Student Responses by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. I practiced on questions similar to those on the test.	33.6	34.1	35.3	33.5	38.4	40.7	46.8	40.8
B. A teacher spent time in class helping me to get ready to take the test.	45.6	40.3	41.6	34.6	27.0	28.5	34.0	29.2
C. I took a special class during the regular school day that covered the topics on the CAHSEE	6.3	10.9	11.8	11.9	5.9	9.2	10.6	10.4
D. I took a special class after school or during the summer that covered the topics on the CAHSEE	3.7	4.4	6.2	5.4	3.4	4.0	5.2	4.5
E. I did not do anything in addition to regular course work to prepare for this test.	35.7	27.0	22.6	24.0	45.3	32.5	23.0	24.9

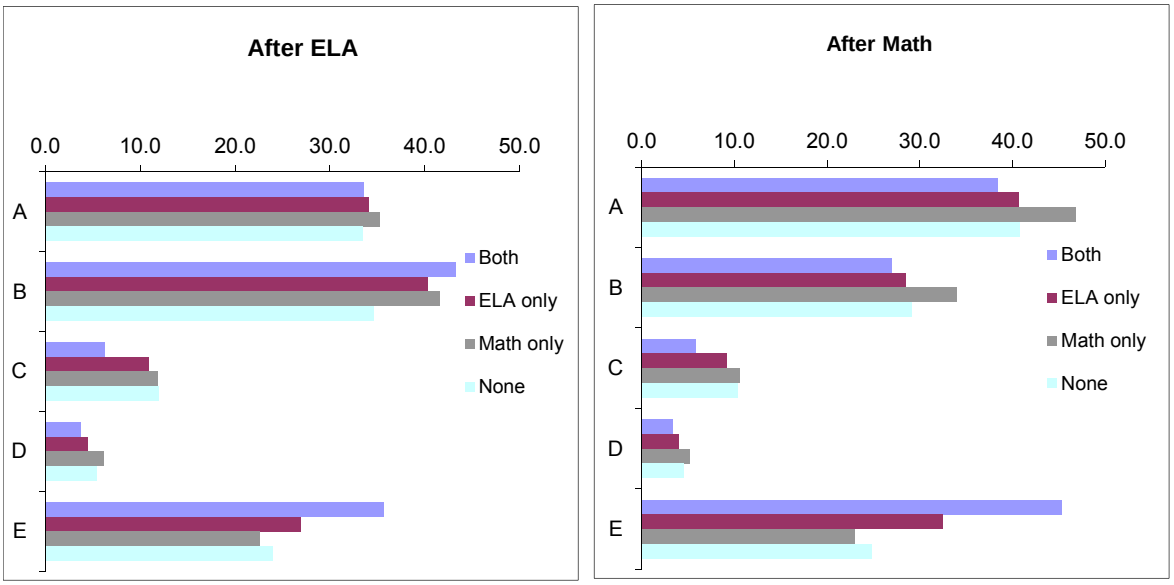


Figure 3.2. Test preparation of students as reported after taking CAHSEE ELA and mathematics tests, by tests passed in 2012, in percentages.

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

Question 2 was a new addition to the student questionnaire in 2009. Response options were modified in 2011 to provide a new choice which may affect the comparability of student responses over time. More students in 2012 reported having used released (sample) test questions to prepare for the both of the tests than in previous years, and fewer students reported using the ELA student guide. The percentage of grade 12 students using textbooks to prepare has decreased for both tests; the decrease from 2009 to 2012 was more than 12 percentage points for mathematics test respondents (see Table 3.5).

Table 3.5. Question 2: What Materials Did You Use to Prepare for This Test? (MarkAll That Apply) (Grade Ten Student Responses, 2009–12)

After ELA	**Percentage**			
	2009	**2010**	**2011**	**2012**
A. Textbooks	20.0	18.7	13.0	12.6
B. ELA Student Guide	19.2	29.4	11.2	10.7
C.* Mathematics Student Guide	8.1	13.3	n/a	n/a
C. CAHSEE Online Prep**	8.5	7.5	12.2	12.9
D. Released (sample) test questions	39.8	37.7	39.9	41.6
E. Other Resources	37.7	32.9	20.2	20.4
F. I did not use any materials to prepare.	n/a	n/a	27.9	27.3
After Math	**Percentage**			
	2009	**2010**	**2011**	**2012**
A. Textbooks	28.9	27.2	17.5	16.5
B.* ELA Student Guide	9.6	12.8	n/a	n/a
B. Mathematics Student Guide	12.6	21.9	14.0	13.8
C. CAHSEE Online Prep**	7.5	6.8	10.0	10.6
D. Released (sample) test questions	29.8	28.6	28.8	30.6
E. Other resources	38.7	34.0	16.3	16.5
F. I did not use any materials to prepare.	n/a	n/a	35.6	35.3

*Response option not included in 2011-12.
**Wording slightly modified in 2011-12.

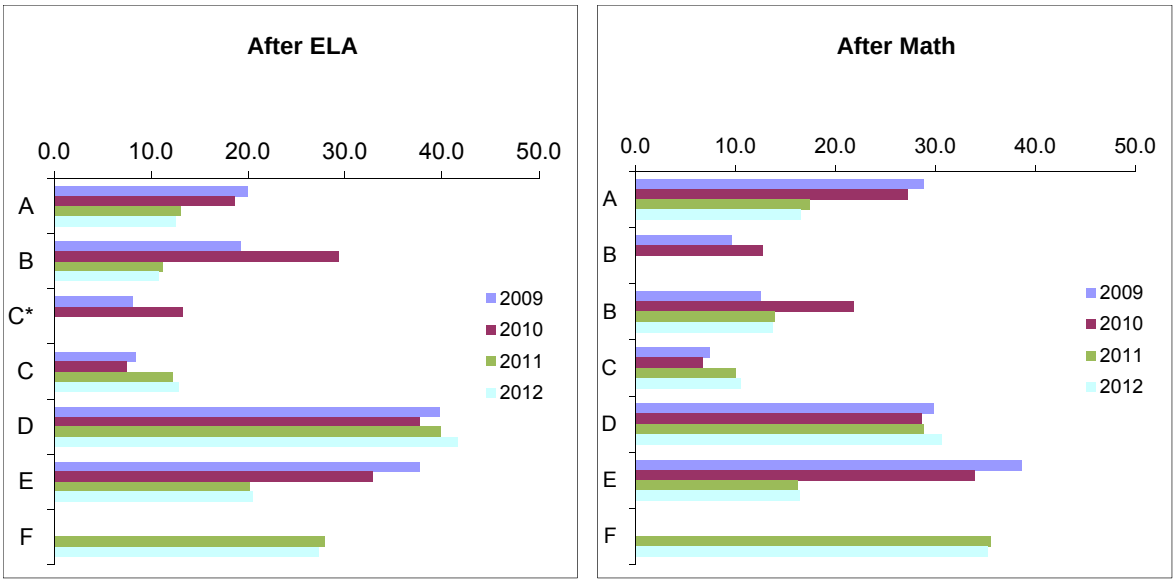


Figure 3.3. Students' report of materials used to prepare for CAHSEE ELA and mathematics tests, 2009–12, in percentages.

Table 3.6 shows that students who passed both tests were the least likely of all grade 10 students to use textbooks, the ELA or mathematics student guides, or the CAHSEE online prep to prepare; however, these students were the most likely to use released (sample) items in preparation for the tests.

Table 3.6. Question 2: What Materials Did You Use to Prepare for This Test? (Mark All That Apply) (Percentages of Grade Ten Student Responses in 2012 by Tests Passed)

Response Choice	Percentage of Tests Passed, After ELA Questionnaire				Percentage of Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. Textbooks	11.2	15.5	17.9	18.7	15.0	20.5	23.2	22.3
B. ELA/Math Student Guide	10.0	11.8	15.1	13.7	12.1	17.1	22.8	20.8
C. CAHSEE On-line Prep	11.6	15.7	19.0	17.7	9.6	12.7	15.5	14.5
D. Released (sample) test questions	45.5	36.1	29.9	21.6	32.9	27.5	25.9	17.6
E. Other resources	19.8	23.5	24.3	21.7	15.5	20.4	21.3	19.3
F. I did not use any materials to prepare	29.2	19.7	17.7	30.3	39.2	23.8	18.5	20.6

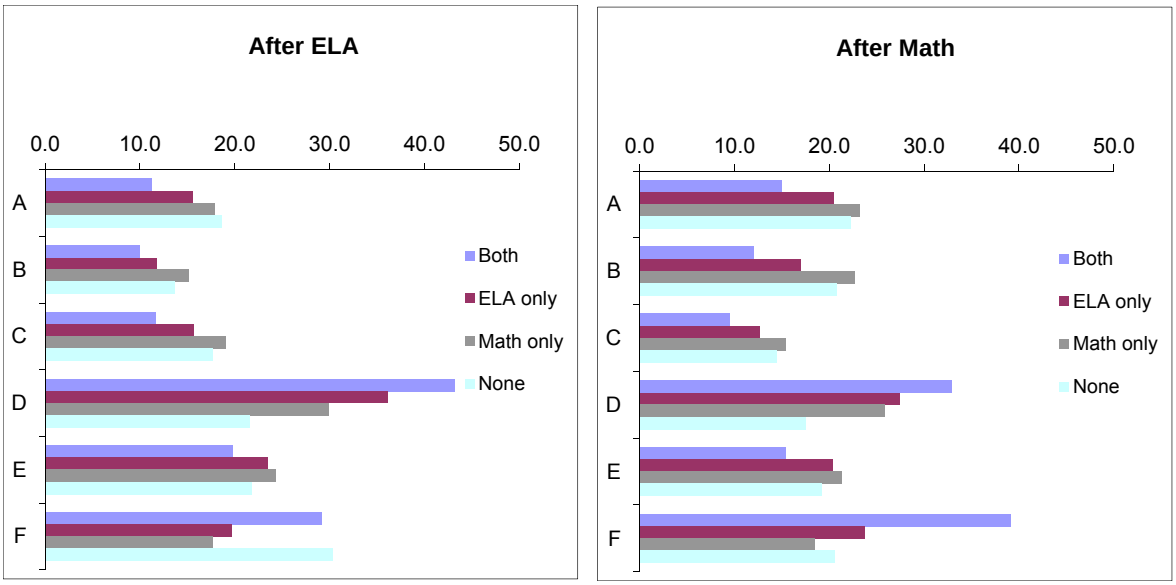


Figure 3.4. Materials used by grade ten students, by percentage, as reported after taking ELA and mathematics tests in 2012.

Graduation Expectations and Post-High School Plans

Question 3: Do you think you will receive a high school diploma?

Question 3 was revised for the 2009 CAHSEE administration, providing four years of comparison data. Option F was modified in 2011. A slightly higher percentage of grade 10 students expected to graduate with their class or earlier in 2012 than in the previous years, and a slightly smaller percentage did not expect to receive a high school diploma (see Table 3.7).

Table 3.7. Question 3: Do You Think You Will Receive a High School Diploma? (Grade Ten Student Responses, 2009–12)

	Percentage			
After ELA	**2009**	**2010**	**2011**	**2012**
A. Yes, with the rest of my class (or earlier).	84.4	84.3	83.8	85.0
B. Yes, but I will likely have to take classes after my original graduation date.	9.9	10.2	10.4	9.8
C. Yes, but I will pursue a diploma in Adult Education.	2.5	2.4	2.5	2.3
D. No, I probably will not receive a high school diploma.	2.1	2.0	2.0	1.7
E. No, I plan to take the GED.	0.7	0.7	0.7	0.6
F. No, but I plan to go to community college.	n/a	n/a	0.7	0.7
F.* No, I plan to take the CHSPE.	0.4	0.4	n/a	n/a
	Percentage			
After Math	**2009**	**2010**	**2011**	**2012**
A. Yes, with the rest of my class (or earlier).	84.0	83.9	82.9	84.3
B. Yes, but I will likely have to take classes after my original graduation date.	10.1	10.3	10.7	10.0
C. Yes, but I will pursue a diploma in Adult Education.	2.3	2.3	2.4	2.2
D. No, I probably will not receive a high school diploma.	2.4	2.4	2.4	2.1
E. No, I plan to take the GED.	0.8	0.8	0.8	0.7
F. No, but I plan to go to community college.	n/a	n/a	0.9	0.8
F.* No, I plan to take the CHSPE**.	0.5	0.5	n/a	n/a

*Option F was revised in 2011.
**California High School Proficiency Examination.

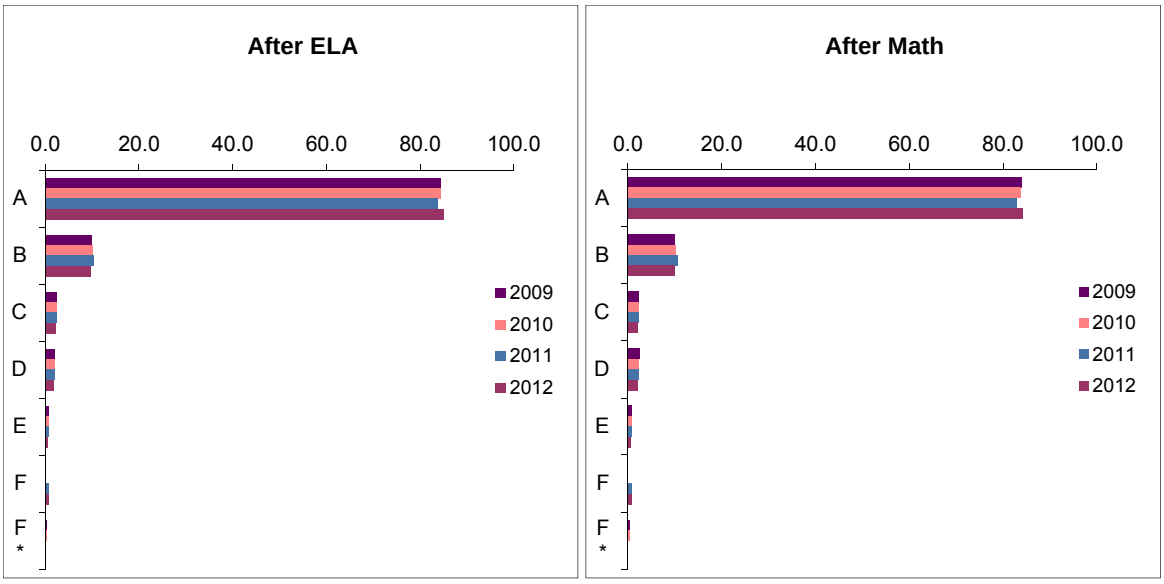


Figure 3.5. Comparison of grade ten students' expectations of receiving a high school diploma, by percentage, after taking ELA and mathematics tests, 2009–12.[9]

As shown in Table 3.8, the majority of students in each group (passed both tests, passed ELA only, passed math only, or passed none) responded that they were most likely to receive a high school diploma with the rest of their class or earlier. However, only slightly more than half of those who did not pass either test selected this option, while over 90 percent of those who passed both tests did. Among grade 10 students who passed neither test, 7.9 percent (after ELA) and 8.8 percent (after math) do not expect to receive a high school diploma.

[9] Response Options: A. Yes, with the rest of my class (or earlier), B. Yes, but I will likely have to take classes after my original graduation date, C. Yes, but I will pursue a diploma in Adult Education, D. No, I probably will not receive a high school diploma, E. No, I plan to take the GED, F. No, but I plan to go to community college, F.* No, I plan to take the CHSPE.

Table 3.8. Question 3: Do You Think You Will Receive a High School Diploma? (Percentages of Grade Ten Students' Responses in 2012 by Pass or Not Pass)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. Yes, with the rest of my class (or earlier).	91.6	70.6	65.9	51.9	91.0	68.0	68.0	51.8
B. Yes, but I will likely have to take classes after my original graduation date.	6.0	21.0	21.7	26.3	6.1	22.0	20.6	26.2
C. Yes, but I will pursue a diploma in Adult Education.	1.3	3.3	5.1	8.1	1.3	3.1	4.5	7.6
D. No, I probably will not receive a high school diploma.	0.7	3.1	4.6	7.9	0.9	4.2	4.4	8.8
E. No, I plan to take the GED.	0.3	1.0	1.0	2.5	0.4	1.5	1.0	2.5
F. * No, I plan to take the CHSPE**.	0.3	1.1	1.8	3.2	0.4	1.3	1.6	3.2

**California High School Proficiency Examination.

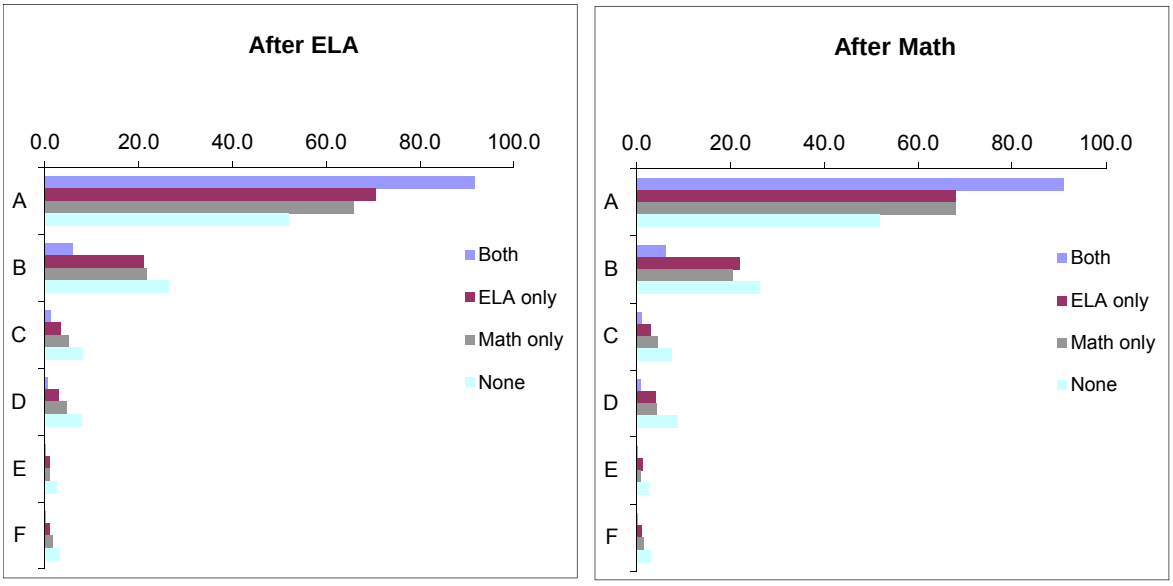


Figure 3.6. Comparison of grade ten students' expectations of receiving a diploma, by tests passed in 2012, in percentages.

Question 4: What might prevent you from obtaining a high school diploma?

In 2006 there was a peak in the percentage of students who believed that not passing the CAHSEE might prevent them from obtaining a high school diploma. As mentioned previously, this was the first year that the CAHSEE was a graduation requirement. The percentage of students concerned with passing the CAHSEE exam in 2012 is about the same as in 2011 and slightly less than in the years prior. A higher

percentage of grade 10 students expressed confidence in their ability to receive a high school diploma in 2012 than in previous years (see Table 3.9).

Table 3.9. Question 4: What Might Prevent You From Receiving a High School Diploma? (Mark All That Apply) (Grade Ten Responses, 2005–12)*

After ELA	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
A. I may not pass all the required courses.	n/a	25.1	19.7	18.8	21.8	21.7	19.6	19.4
B. I may not pass the CAHSEE exam.	n/a	38.4	20.6	18.9	20.6	18.7	15.9	16.0
C. I may drop out before the end of 12th grade.	n/a	13.3	2.5	2.3	2.6	2.5	2.3	2.0
D. I may not meet some other graduation requirement.	n/a	23.2	13.4	12.6	12.2	12.2	11.8	11.7
E. I am confident I will receive a high school diploma.	n/a	n/a	63.3	65.6	63.1	63.9	65.5	66.6

After Math	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
A. I may not pass all the required courses.	n/a	26.7	21.4	20.3	23.8	23.6	21.0	20.9
B. I may not pass the CAHSEE exam.	n/a	41.1	23.3	21.4	22.8	21.1	19.0	18.8
C. I may drop out before the end of 12th grade.	n/a	11.8	2.8	2.6	2.9	2.8	2.5	2.2
D. I may not meet some other graduation requirement.	n/a	20.4	12.6	11.8	10.3	10.2	9.8	9.7
E. I am confident I will receive a high school diploma.	n/a	n/a	59.8	62.2	59.4	60.3	62.0	63.3

*In 2009 the wording of question 4 was changed from 'what might prevent you from graduating high school' to 'what might prevent you from receiving a high school diploma.'

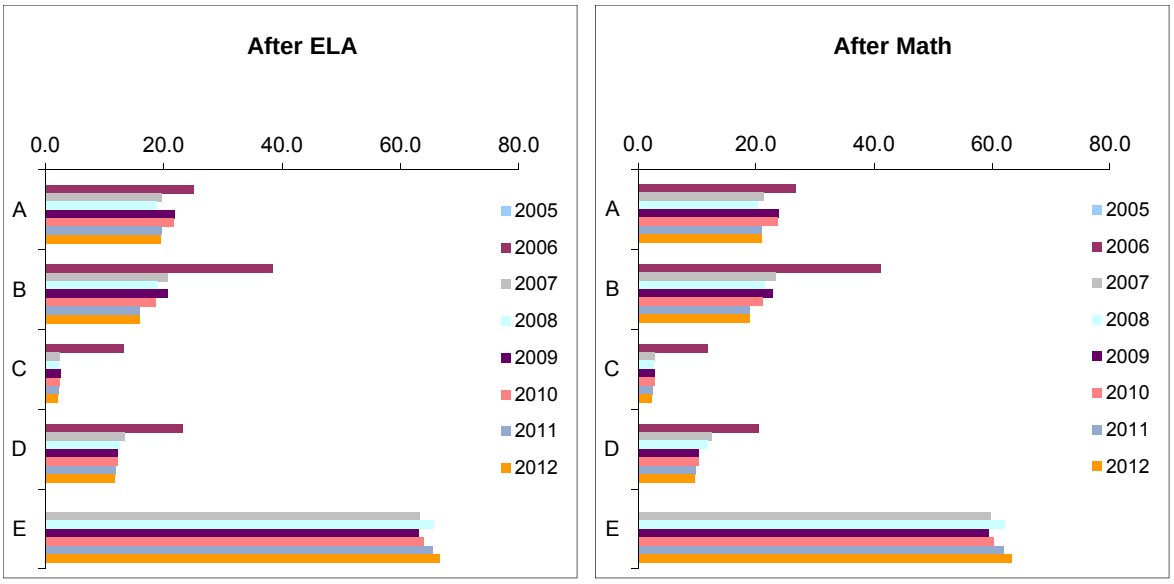


Figure 3.7. Grade ten respondents' reasons why they might not graduate with their class, as reported from 2005 through 2012, in percentages.[10]

Table 3.10 shows that those who passed only ELA were the most likely to believe that failure to pass a class might prevent them from receiving a high school diploma, with about one-third of these students selecting this option. Close to 40 percent of those who did not pass either test felt that the CAHSEE exam might prevent them from receiving a diploma. More than 70 percent of those who passed both tests were confident that they would graduate.

Table 3.10. Question 4: What Might Prevent You From Receiving a High School Diploma? (Mark All That Apply) (Percentages of Grade Ten Students' Responses by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. I may not pass all the required courses.	16.8	33.3	27.7	26.6	18.2	34.7	30.8	28.8
B. I may not pass the CAHSEE exam.	11.0	29.8	34.5	37.1	13.6	39.0	33.6	39.9
C. I may drop out before the end of 12th grade.	1.3	2.5	4.4	6.3	1.5	2.8	4.4	6.1
D. I may not meet some other graduation requirement.	10.5	19.2	15.8	14.1	8.7	14.7	13.2	12.0
E. I am confident I will receive a high school diploma.	74.8	41.6	39.4	31.9	71.7	34.4	38.3	28.8

[10] Response Options: A. I may not pass all the required courses, B. I may not pass the CAHSEE exam, C. I may drop out before the end of 12th grade, D. I may not meet some other graduation requirement, E. I am confident I will receive a high school diploma.

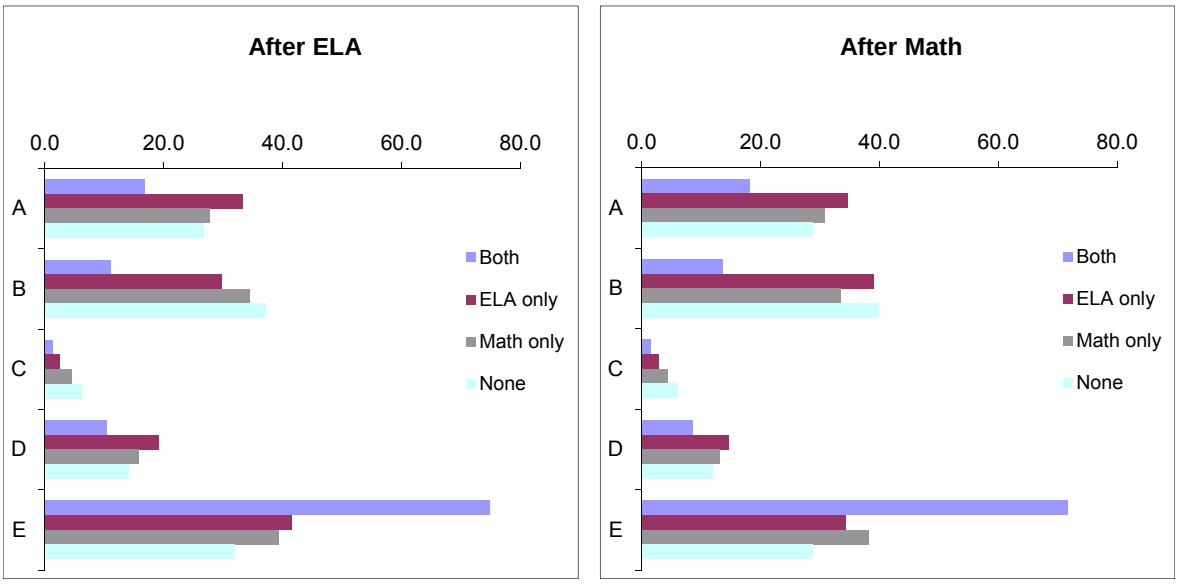


Figure 3.8. Reasons reported by grade ten students for possibly not receiving a diploma on time, by tests passed in 2012, in percentages.[11]

In addition to examining the responses to Question 4 by trend and by tests passed, we also examined the data based on students' responses to option 'B' of the question, comparing students who believed that not passing the CAHSEE might prevent them from receiving a high school diploma with those who did not feel this way. Table 3.11 presents these results. Disaggregating data in this way reveals that about 30 percent of those who were concerned with passing the CAHSEE also felt that failure to pass the required course work might prevent them from receiving a diploma. More than 75 percent of students who did not think the CAHSEE would prevent them from earning a high school diploma were confident that they would graduate.

[11] Response Options: A. I may not pass all the required courses, B. I may not pass the CAHSEE exam, C. I may drop out before the end of 12th grade, D. I may not meet some other graduation requirement, E. I am confident I will receive a high school diploma.

Table 3.11. Question 4: What Might Prevent You From Receiving a High School Diploma? (Mark All That Apply) (Percentages of Grade Ten Students' Responses in 2012 by Response to Option B - 'I may not pass the CAHSEE exam')

Response	After ELA Questionnaire		After Math Questionnaire	
	Selected Option 'B'	Did not Select Option 'B'	Selected Option 'B'	Did not Select Option 'B'
A. I may not pass all the required courses.	29.5	17.5	29.2	19.0
B. I may not pass the CAHSEE exam.	100.0	0.0	100.0	0.0
C. I may drop out before the end of 12th grade.	3.0	1.8	2.7	2.1
D. I may not meet some other graduation requirement.	18.9	10.3	14.8	8.5
E. I am confident I will receive a high school diploma.	14.2	76.6	11.0	75.4

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

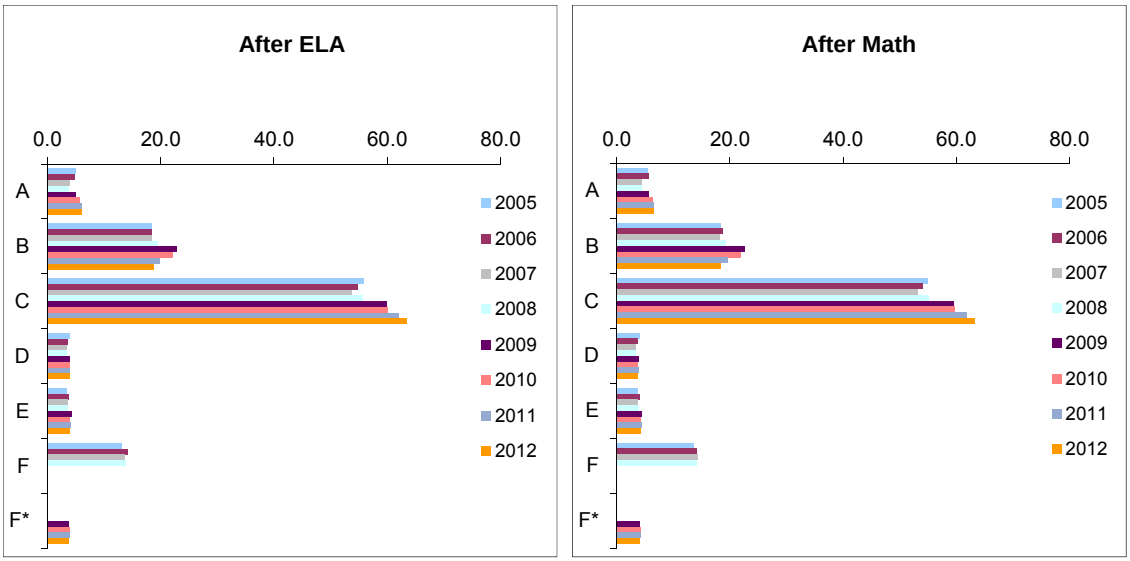
Response option "F" for Question 5 was modified in 2009 as shown in Table 3.12; therefore, data prior to 2009 is not directly comparable. The percentage of students reporting that they will attend a 4-year college or university has been increasing since 2007. There has also been a slight upward trend in the percentage of students reporting that they will join the military.

Table 3.12. Question 5: What Do You Think You Will Do After High School? (Responses from Grade Ten Students, 2005–12)

After ELA	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
A. I will join the military.	5.0	4.9	4.1	3.9	5.0	5.8	6.1	6.1
B. I will go to a community college.	18.4	18.5	18.5	19.6	22.8	22.1	19.8	18.7
C. I will go to a 4-year college or university.	55.9	54.8	53.8	55.7	60.0	60.1	62.0	63.5
D. I will go to a vocational, technical, or trade school.	4.0	3.7	3.5	3.4	4.0	3.9	4.0	3.9
E. I will work full-time.	3.5	3.9	3.6	3.7	4.3	4.1	4.1	3.9
F. I really don't know what I will do after high school.	13.2	14.2	13.8	13.8	n/a	n/a	n/a	n/a
F.* Do something else (besides school, work, or the military).	n/a	n/a	n/a	n/a	3.9	4.0	3.9	3.8

After Math	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
A. I will join the military.	5.4	5.5	4.4	4.3	5.6	6.3	6.5	6.5
B. I will go to a community college.	18.3	18.6	18.2	19.3	22.5	21.9	19.5	18.4
C. I will go to a 4-year college or university.	55.0	54.1	53.2	55.1	59.6	59.7	61.8	63.3
D. I will go to a vocational, technical, or trade school.	4.0	3.6	3.4	3.3	3.8	3.7	3.8	3.7
E. I will work full-time.	3.7	4.0	3.8	3.8	4.4	4.2	4.4	4.2
F. I really don't know what I will do after high school.	13.6	14.1	14.2	14.2	n/a	n/a	n/a	n/a
F.* Do something else (besides school, work, or the military).	n/a	n/a	n/a	n/a	4.1	4.2	4.2	4.0

* Option 'F' was revised in 2009.



* Option 'F' was revised in 2009.

Figure 3.9. Grade ten students' estimate of what they will do after high school, by percentage, 2005–12, after taking ELA and mathematics tests.[12]

Those who did not pass either test were the most likely to report that they would join the military or work full time after high school, while those who passed both tests were most likely to report that they would attend a 4-year college or university. Those who passed ELA only were the most likely to plan on attending a community college. The most popular response (nearly 70% for both tests) for all groups, regardless of tests passed, was to attend a 4-year college or university (see Table 3.13).

Table 3.13. Question 5: What Do You Think You Will Do After High School? (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. I will join the military.	4.9	8.9	9.9	11.7	5.4	9.6	10.0	11.9
B. I will go to a community college.	16.6	29.7	25.0	25.9	16.2	29.2	24.4	25.5
C. I will go to a 4-year college or university.	69.9	42.9	45.3	35.3	69.8	42.9	46.0	35.1
D. I will go to a vocational, technical, or trade school.	3.5	5.3	5.1	5.8	3.2	5.1	4.7	5.5
E. I will work full time.	2.3	6.7	8.5	12.2	2.5	7.0	8.7	13.0
F. Do something else (besides school, work, or the military).	2.8	6.5	6.2	9.1	3.0	6.3	6.3	9.0

[12] Response Options: A. Join the military, B. Go to a community college, C. Go to a 4-year college or university, D. Go to a vocational, technical, or trade school, E. Work full time, F. Do something else (besides school, work, or the military.

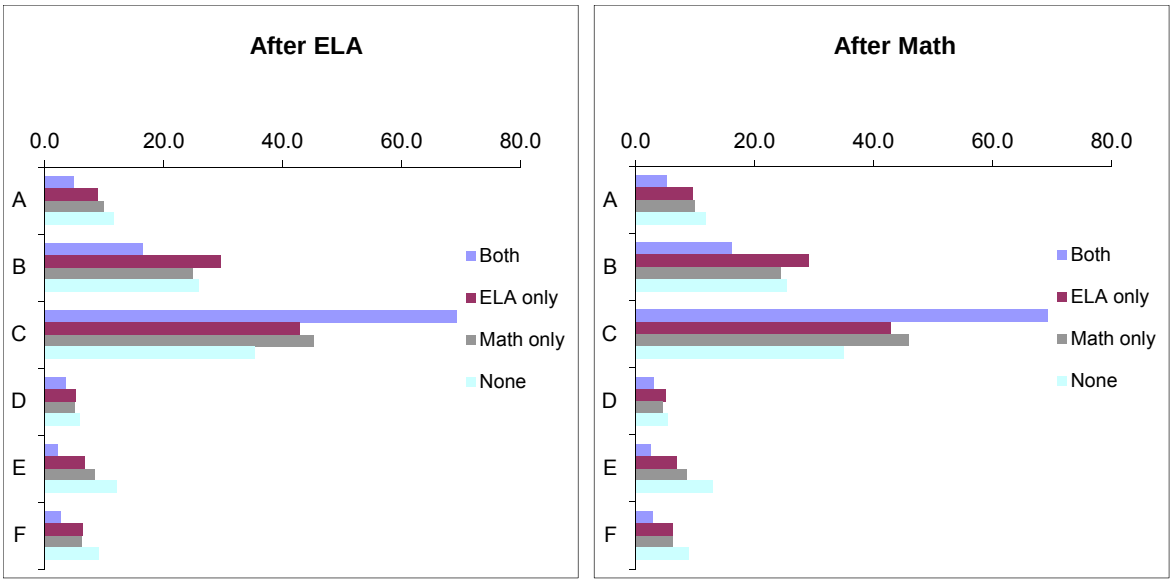


Figure 3.10. Grade ten students' estimate of what they will do after high school by tests passed in 2012, in percentages.[13]

Test Performance and Influencing Factors

Question 6: How well did you do on this test:

In 2011 Question 6 was modified from "The main reasons I did not do as well as I could have on this test" to "How well did you do on this test." This change should be considered when examining the response data. The majority of students each year responded that they did as well as they could have on the tests. Students reported nervousness as the most common factor affecting their performance (see Table 3.14).

[13] Response Options: A. Join the military, B. Go to a community college, C. Go to a 4-year college or university, D. Go to a vocational, technical, or trade school, E. Work full time, F. Do something else (besides school, work, or the military.

Table 3.14. Question 6: How Well Did You Do on This Test? (Mark All That Apply) (Grade Ten Students' Responses, 2009–12)

After ELA	Percentage			
	2009	2010	2011	2012
A. I did as well as I could.	86.7	87.3	79.8	79.6
B. I was too nervous to do as well as I could.	9.0	8.6	6.8	7.4
C. I was not motivated to do well.	4.2	4.1	3.5	3.4
D. I did not have time to do as well as I could.	1.5	1.3	1.2	1.2
E. Conditions in the testing room made it difficult to concentrate.	4.7	4.3	3.7	3.7
F. There were other reasons why I did not do as well as I could.	4.6	4.1	3.4	3.6
After Math	**Percentage**			
	2009	**2010**	**2011**	**2012**
A. I did as well as I could.	86.4	86.3	84.8	85.9
B. I was too nervous to do as well as I could.	9.3	9.3	9.0	9.2
C. I was not motivated to do well.	3.9	3.9	4.3	4.0
D. I did not have time to do as well as I could.	1.3	1.2	1.2	1.1
E. Conditions in the testing room made it difficult to concentrate.	3.6	3.4	3.4	3.2
F. There were other reasons why I did not do as well as I could.	5.3	5.0	5.8	5.6

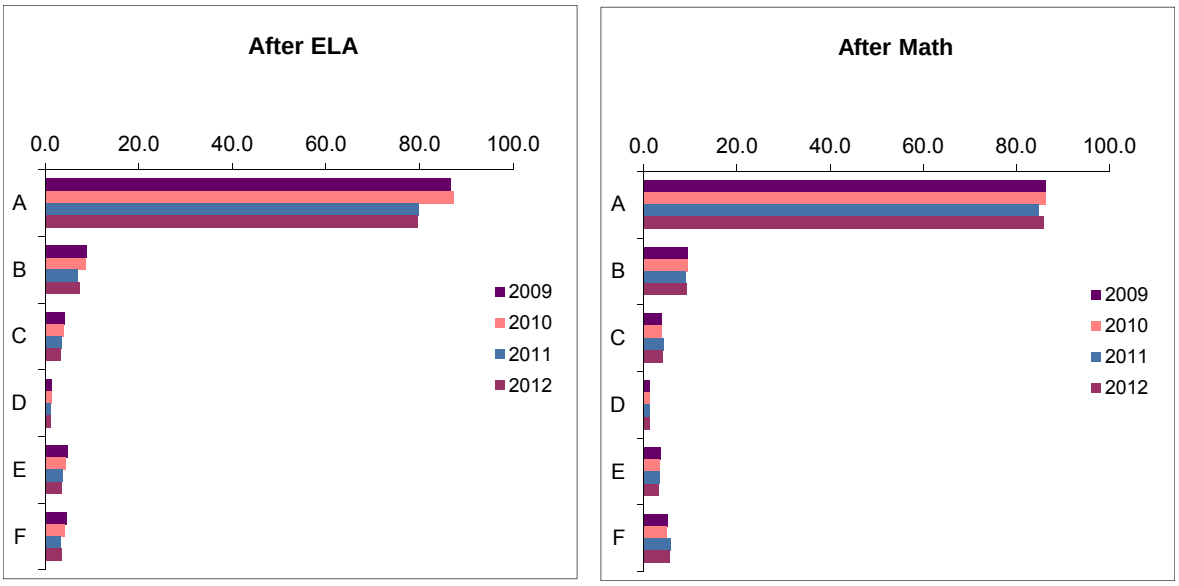


Figure 3.11. Reasons given by grade ten students for why they did or did not do as well as they could on ELA and mathematics tests in 2009–12, in percentages.

Table 3.15 reveals that those who passed both tests were more likely than all other students to report that they did as well as they could on the CAHSEE; those who passed neither test were the least likely to do so. Among students who did not pass either test, approximately 15 percent of students after ELA and 19 percent of students after mathematics said that nervousness affected how well they did on the CAHSEE. Very few students felt that time or testing conditions prevented them from doing as well as they could.

Table 3.15. Question 6: How Well Did You Do on This Test? (Mark All That Apply) (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. I did as well as I could.	84.6	77.7	63.5	56.2	89.6	73.7	80.3	67.6
B. I was too nervous to do as well as I could.	5.7	7.8	16.0	14.5	7.1	16.1	15.0	18.6
C. I was not motivated to do well.	2.9	3.1	5.6	6.0	3.2	7.1	5.3	8.0
D. I did not have time to do as well as I could.	0.8	1.1	2.3	2.9	0.8	1.7	1.9	3.3
E. Conditions in the testing room made it difficult to concentrate.	4.0	3.1	3.6	3.7	3.0	3.6	3.0	4.2
F. There were other reasons why I did not do as well as I could.	3.3	2.7	5.2	4.9	5.0	11.4	4.8	7.8

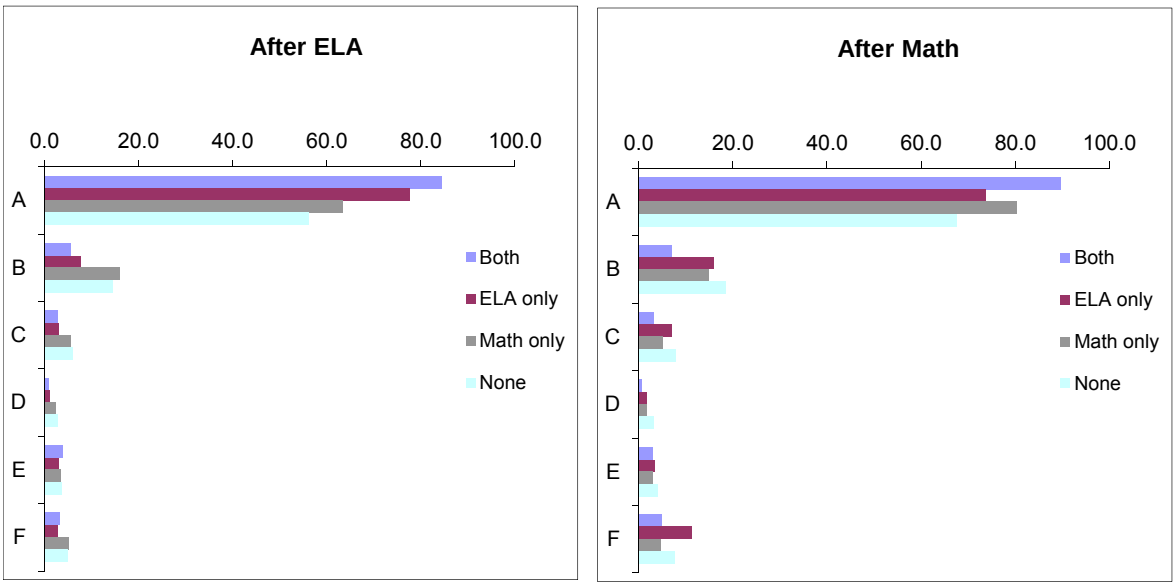


Figure 3.12. Reasons given by grade ten students for not doing as well as they could on the CAHSEE, by tests passed in 2012, in percentages.

Content and Instruction Coverage

Question 7: Were the topics on the test covered in courses you have taken?

Table 3.16 shows that the percentage of students who believe that most or all of the topics on the CAHSEE were covered in their courses has increased slightly between 2005 and 2012—with a slightly higher percentage of ELA test takers than mathematics test takers reporting that topics were similar. Similar to previous years, options A and B were combined.

Table 3.16. Question 7: Were the Topics on the Test Covered in Courses You Have Taken? (Grade Ten Students' Responses, 2005–12)

After ELA	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
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	95.1	94.7	95.2
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	4.9	5.4	4.8
After Math	**Percentage**							
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
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	92.7	91.3	92.04
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	7.4	8.8	8.0

Figure 3.13. Opinions reported by grade ten students, 2005–12, of whether all materials tested were covered in the courses they took, in percentages.[14]

Table 3.17 reveals that students who did not pass either test were the most likely to report that topics on the CAHSEE were not covered in their courses. Also, students who passed only one test were more likely to report that the topics were not covered than those who passed both. However, the majority of all categories of passing students said that at least most of the topics were covered during their courses.

Table 3.17. Question 7: Were the Topics on the Test Covered in Courses You Have Taken? (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. Yes, all of them. B. Most, but not all of them (two-thirds or more were covered).	97.1	93.5	88.6	84.7	94.2	82.7	89.5	81.3
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	2.9	6.5	11.5	15.3	5.7	17.3	10.6	18.8

[14] Response Options: A., Yes, all of them, B. Most, but not all of them (two-thirds or more were covered), C. Many topics on the test were not covered in my courses (less than two-thirds were covered).

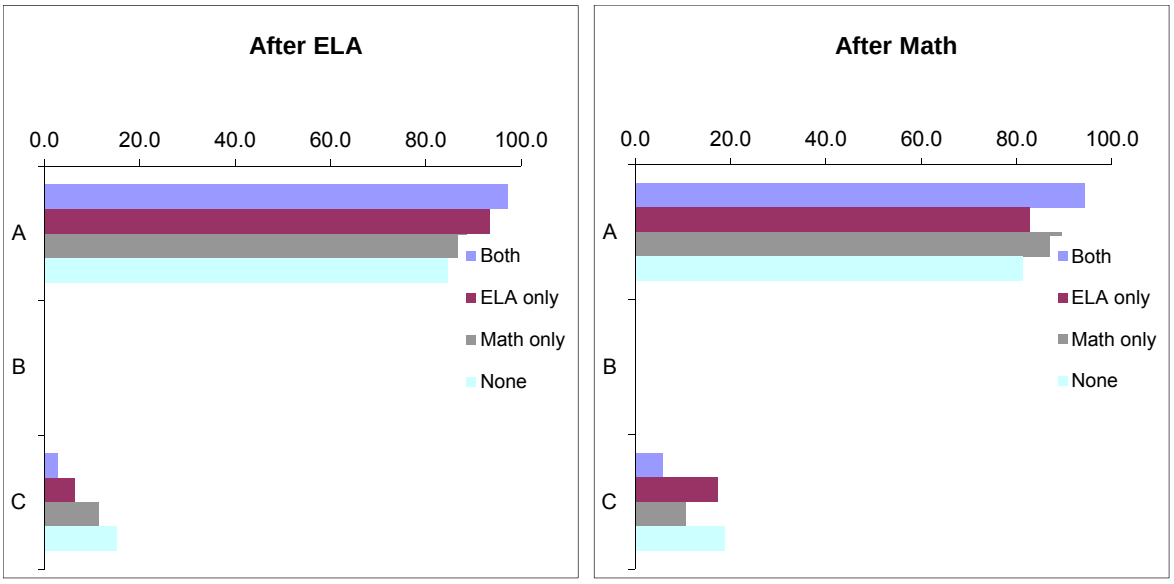


Figure 3.14. Responses of grade ten students as to whether topics tested on CAHSEE ELA and mathematics tests were covered in the courses they took, by tests passed in 2012, in percentages.[15]

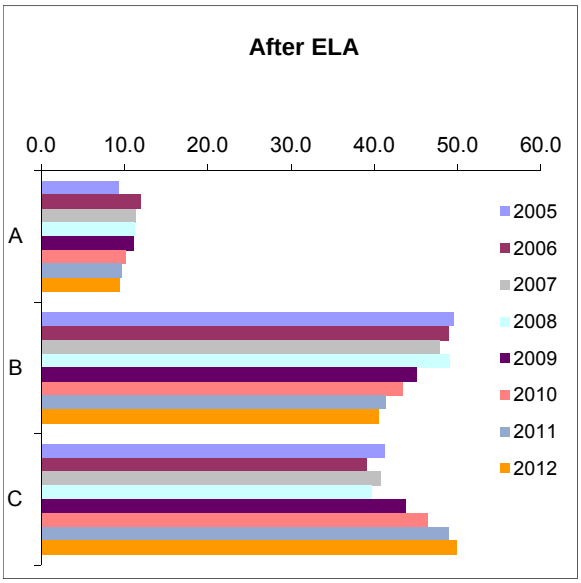
Question 8: Were any of the questions on the test different from the types of questions or answer options you have encountered in your homework assignments or classroom tests?

Approximately half of the grade 10 students reported that all items on the CAHSEE were similar to those they had encountered. More students reported that items differed from those they had encountered after math than after ELA (see Table 3.18).

[15] Response Options: A., Yes, all of them, B. Most, but not all of them (two-thirds or more were covered), C. Many topics on the test were not covered in my courses (less than two-thirds were covered).

Table 3.18. Question 8: 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? (Grade Ten Students' Responses, 2005–12)

After ELA	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
A. Yes, many were different from anything I had seen before.	9.3	11.9	11.37	11.3	11.1	10.1	9.7	9.5
B. Yes, a few were different from anything I had seen before.	49.5	48.9	47.84	49.0	45.1	43.5	41.3	40.6
C. No, all were similar to ones used in my classes	41.2	39.1	40.73	39.7	43.8	46.4	48.9	49.9
After Math	**Percentage**							
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
A. Yes, many were different from anything I had seen before.	14.4	13.5	12.62	11.7	12.4	11.9	12.3	11.7
B. Yes, a few were different from anything I had seen before.	51.0	49.2	47.22	45.7	44.9	44.4	43.8	43.1
C. No, all were similar to ones used in my classes	34.7	37.3	40.07	42.7	42.7	43.6	43.9	45.3



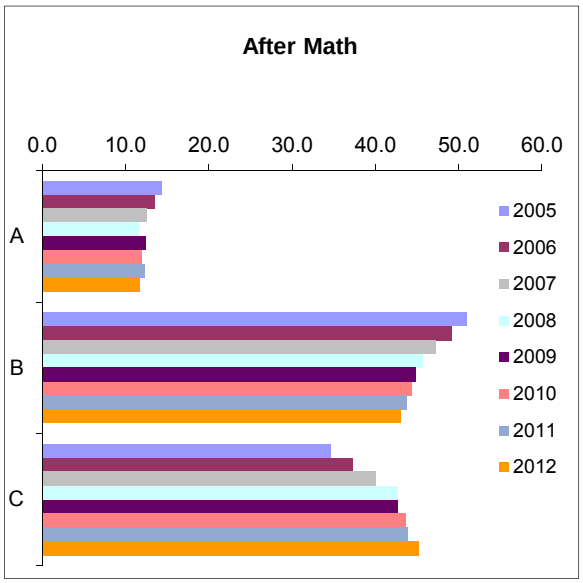


Figure 3.15. Percentage of grade ten students, 2005–12, who said questions were the same or different from those encountered in class tests, in percentages.

When broken down by test passing category, the data reveal that the majority of those who did not pass at least one test found that a few or many test questions were different from anything they had seen before; while just over half of those who passed both tests reported all questions to be similar to what they had encountered in their classes (see Table 3.19).

Table 3.19. Question 8: 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? (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. Yes, many were different from anything I had seen before.	6.8	11.0	19.4	24.4	8.8	19.5	17.9	26.7
B. Yes, a few were different from anything I had seen before.	37.6	48.8	55.9	51.6	39.9	56.5	56.5	52.7
C. No, all were similar to ones used in my classes	55.7	40.1	24.8	24.0	51.3	24.0	25.6	20.6

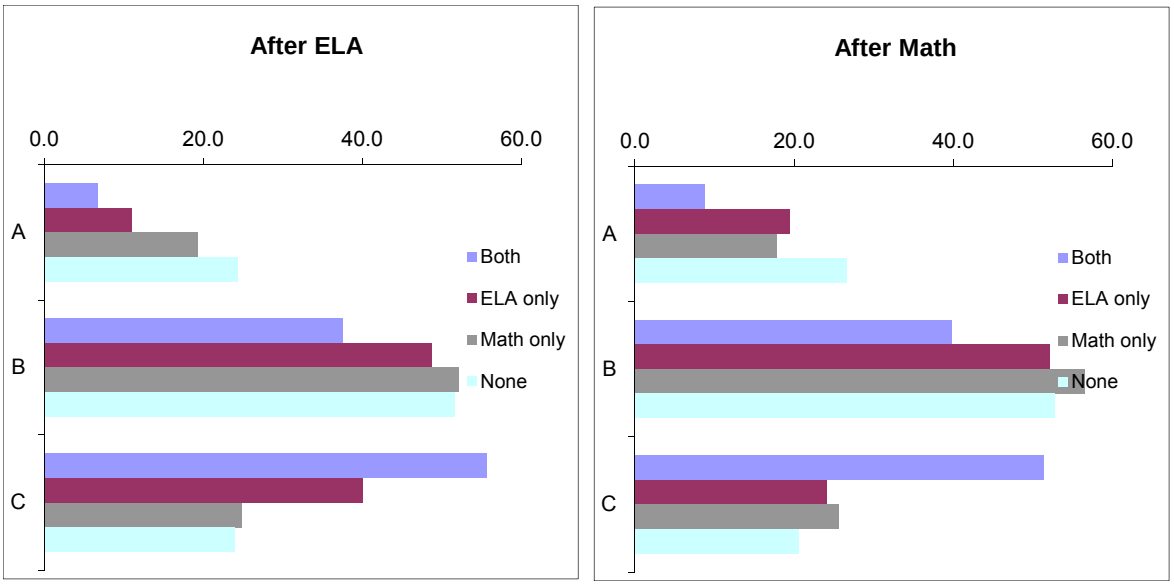


Figure 3.16. Grade ten students' responses regarding difference or similarity of CAHSEE tests to classroom tests, by CAHSEE tests passed in 2012, in percentages.

Question 9: Were the questions on this test more difficult than questions you were given in classroom tests or homework assignments?

Table 3.20 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 are intended to be either equally difficult or less difficult than those encountered in class. Approximately 5 percent more students in 2012 than in 2005 reported that the items were the same or easier than what they saw in class. Students were more likely to find the mathematics questions difficult compared to the ELA questions.

Table 3.20. Question 9: Were the Questions on This Test More Difficult Than Questions You Were Given in Classroom Tests or Homework Assignments? (Grade Ten Students' Responses, 2005–12)

After ELA	**Percentage**							
	2005	2006	2007	2008	2009	2010	2011	2012
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	12.3	12.1	12.1
B. The test questions were generally about as difficult as the questions I encountered in my course work. C. The test questions were generally easier than the questions I encountered in my course work.	82.5	83.7	83.5	83.4	85.9	87.7	87.9	87.9

After Math	**Percentage**							
	2005	2006	2007	2008	2009	2010	2011	2012
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	16.9	19.0	17.2
B. The test questions were generally about as difficult as the questions I encountered in my course work. C. The test questions were generally easier than the questions I encountered in my course work.	77.7	79.2	80.8	82.2	82.4	83.1	81.0	82.8

Figure 3.17. Percentage of grade ten students taking the CAHSEE, 2005–12, who found the CAHSEE test questions more difficult, the same as, or less difficult than those encountered in course work (B and C combined in chart).

The majority of all students, regardless of tests passed, found the questions to be similar to or easier than what they had encountered in class; however, a much larger percentage of those who did not pass either test found the test questions to be more difficult than what they had seen compared to those who passed both tests (see Table 3.21).

Table 3.21. Question 9: Were the Questions on This Test More Difficult Than Questions You Were Given in Classroom Tests or Homework Assignments? (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	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.	8.2	15.5	28.4	32.4	12.6	34.8	26.4	38.0
B. The test questions were generally about as difficult as the questions I encountered in my course work.	91.8	84.5	71.6	67.6	87.4	65.2	73.6	62.0
C. The test questions were generally easier than the questions I encountered in my course work.								

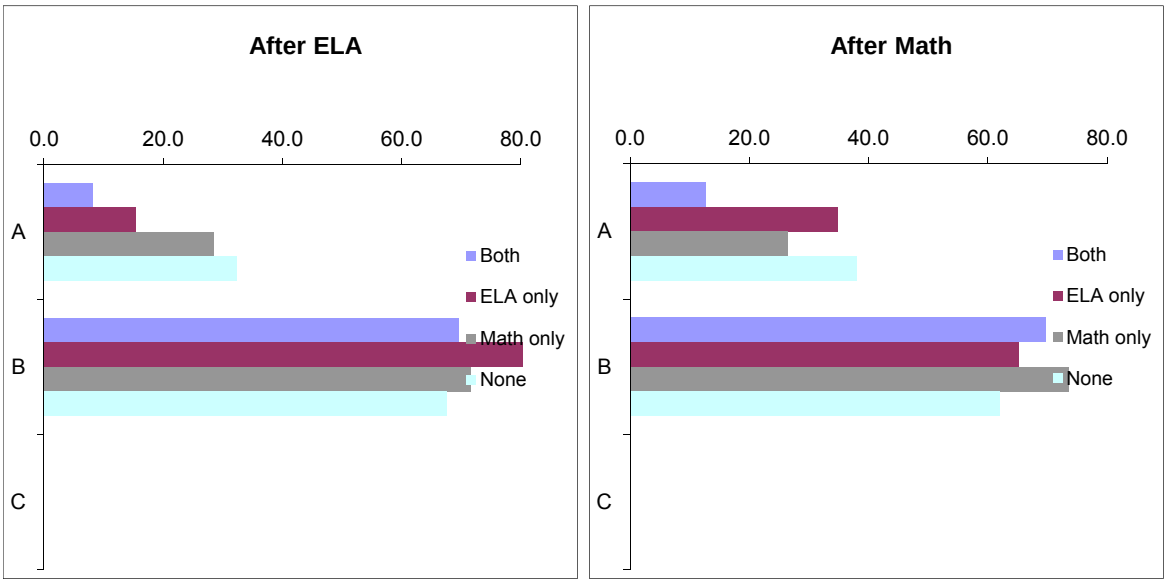


Figure 3.18. Percentages of grade ten students who thought the CAHSEE test questions were more difficult, the same, or less difficult than those encountered in the classroom or homework assignments, by tests passed in 2012.

Question 10: If some topics on the test were difficult for you, was it because:

The most common reason that students reported having difficulty with the CAHSEE was forgetting things that they were taught. More students reported that none of the topics were difficult for them after taking the ELA test than did so after the mathematics test. The percentage of students who reported that they did not take a course that covered CAHSEE topics has decreased over time (see Table 3.22) and the percentage reporting none of the topics was difficult has increased.

Table 3.22. Question 10: If Some Topics on the Test Were Difficult for You, Was It Because: (Grade Ten Students' Responses, 2005–12)

After ELA	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
A. I did not take courses that covered these topics.	8.2	7.6	7.2	7.2	7.3	6.6	6.4	5.6
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	17.6	16.0	16.3
C. I have forgotten things I was taught about these topics.	37.9	37.8	41.6	42.5	39.0	40.2	40.1	39.4
D. None of the topics was difficult for me.	35.8	37.1	33.3	33.0	35.9	35.6	37.5	38.8
After Math	**Percentage**							
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
A. I did not take courses that covered these topics.	13.5	12.6	10.8	9.5	10.6	9.9	9.7	9.0
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	23.9	23.5	22.2
C. I have forgotten things I was taught about these topics.	44.7	43.8	45.0	46.1	44.2	44.2	46.0	46.7
D. None of the topics was difficult for me.	19.2	19.8	20.8	21.7	21.2	21.9	20.8	22.2

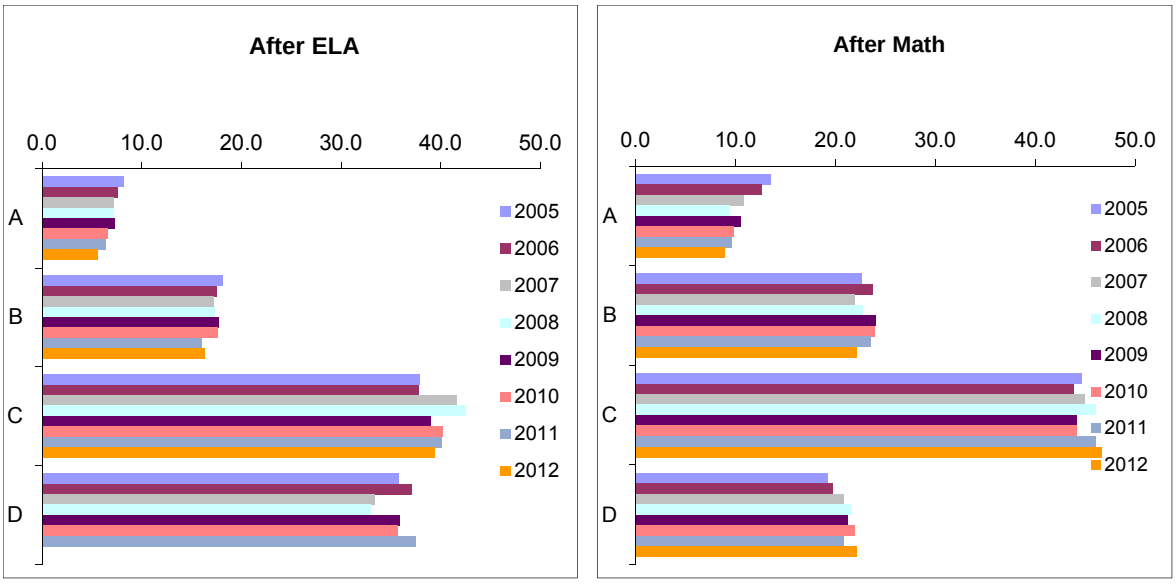


Figure 3.19. Reasons given by grade ten students, 2005–12, as to whether and why they found the CAHSEE test questions difficult, in percentages. [16]

Students who did not pass either test were the most likely to report that they did not take courses that covered the topics. Students from all test passing categories were more likely to report difficulty with mathematics topics than ELA topics (see Table 3.23).

Table 3.23. Question 10: If Some Topics on the Test Were Difficult for You, Was It Because: (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. I did not take courses that covered these topics.	3.7	7.6	12.3	15.1	6.8	15.5	14.8	18.8
B. I had trouble with these topics when they were covered in courses I took.	13.6	21.7	28.7	28.0	18.8	39.7	30.3	34.4
C. I have forgotten things I was taught about these topics.	39.1	42.9	42.6	38.3	48.8	39.0	43.0	35.7
D. None of the topics was difficult for me.	43.7	27.8	16.3	18.6	25.6	5.8	11.9	11.0

[16] Response Options: A. I did not take courses that covered these topics, B. I had trouble with these topics when they were covered in courses I took, C. I have forgotten things I was taught about these topics, D. None of the topics was difficult for me.

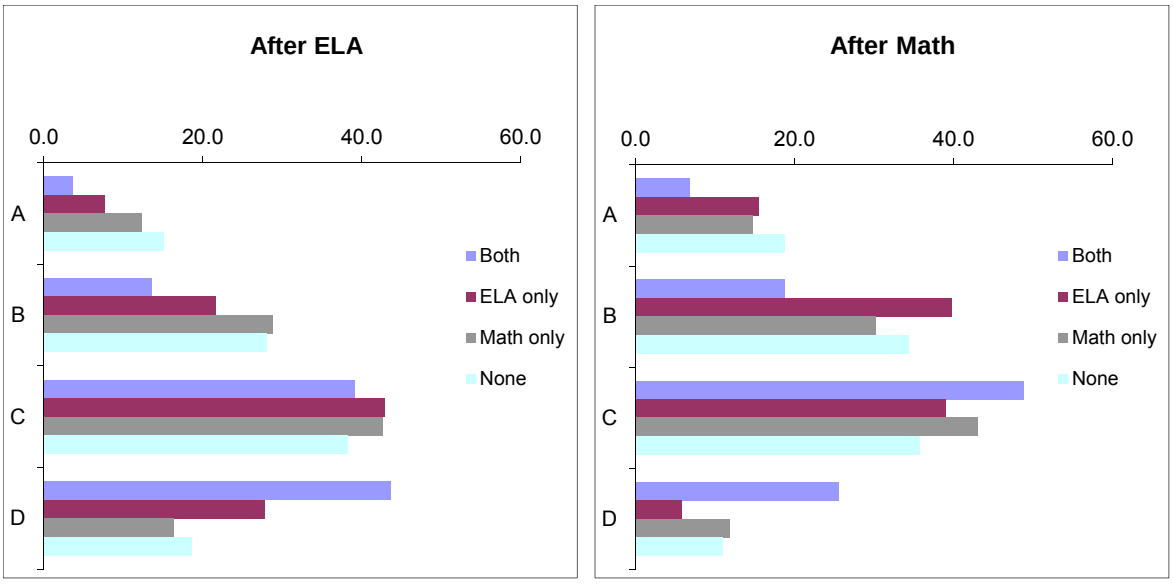


Figure 3.20. Reasons given by grade ten students, 2005–12, for whether and why they found test questions difficult, in percentages, by tests passed in 2012.[17]

Effort Put into the CAHSEE

Question 11: Have you worked or will you work harder to learn the English-language arts or mathematics skills tested by the CAHSEE?

Over the years the percentage of students who have indicated that they do not have to work harder to learn the skills to pass the CAHSEE has gradually increased. The percentage of students getting help outside of the classroom has decreased over time. Option 'F' (Table 3.24) was an addition to the questionnaire in 2009; therefore comparisons to years prior to this may not be valid.

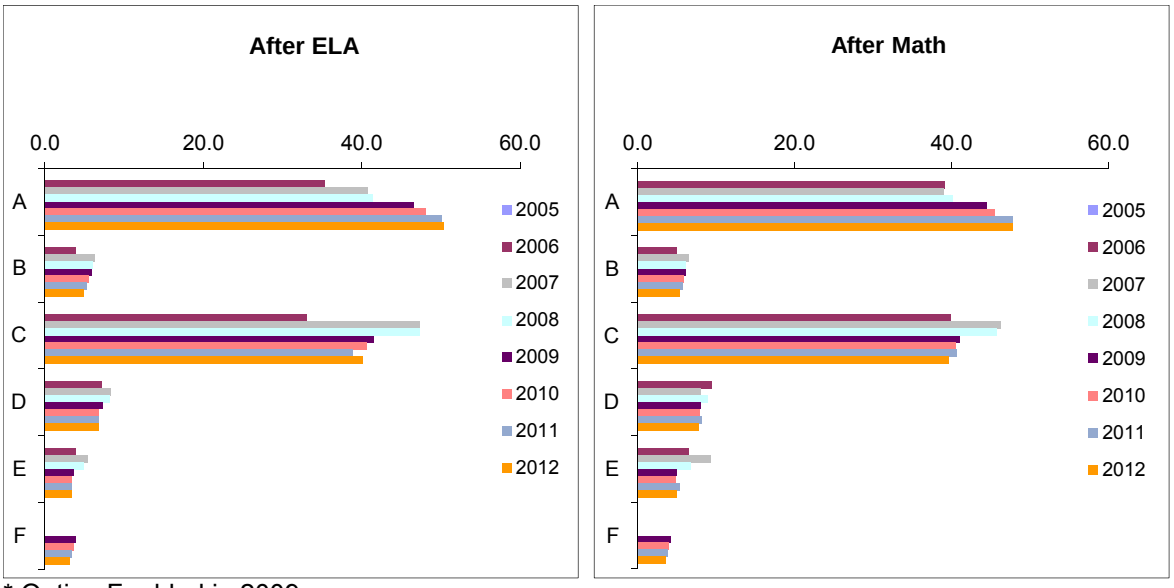
[17] Response Options: A. I did not take courses that covered these topics, B. I had trouble with these topics when they were covered in courses I took, C. I have forgotten things I was taught about these topics, D. None of the topics was difficult for me.

Table 3.24. Question 11: 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) (Grade Ten Students' Responses, 2005–12)

After ELA	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
A. I do not have to work any harder to meet the CAHSEE requirement.	n/a	35.3	40.8	41.4	46.6	48.1	50.1	50.3
B. I am taking additional courses.	n/a	3.9	6.2	6.1	5.9	5.5	5.2	4.9
C. I am working harder in the courses I am taking.	n/a	33.0	47.3	47.3	41.4	40.7	38.8	40.1
D. I am getting help outside of the classroom.	n/a	7.2	8.3	8.2	7.3	6.8	6.8	6.8
E. I am repeating a course to learn the material better.	n/a	3.9	5.3	4.9	3.6	3.4	3.4	3.3
F. I will stay in school an additional year to learn the required material.	n/a	n/a	n/a	n/a	3.9	3.5	3.4	3.1

After Math	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
A. I do not have to work any harder to meet the CAHSEE requirement.	n/a	39.1	39.0	40.2	44.5	45.5	47.8	47.8
B. I am taking additional courses.	n/a	5.0	6.5	6.2	6.2	5.9	5.8	5.3
C. I am working harder in the courses I am taking.	n/a	39.9	46.3	45.8	41.0	40.5	40.6	39.7
D. I am getting help outside of the classroom.	n/a	9.4	8.0	9.0	8.1	7.9	8.2	7.8
E. I am repeating a course to learn the material better.	n/a	6.5	9.3	6.8	5.0	4.8	5.3	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	3.9	3.9	3.6

* Option F added in 2009.



* Option F added in 2009.

Figure 3.21. Percentage of grade ten students, 2005–12, who said they have worked or will work harder, and in what ways, to meet the CAHSEE requirement.[18]

As shown in Table 3.25, students who passed only one test were more likely than other students, including those who passed neither test, to report that they were working harder in the courses they were taking to learn the skills required by the CAHSEE. The majority of students who passed both tests reported not having to work any harder to meet the CAHSEE requirement.

[18] Response Options: A. I do not have to work any harder to meet the CAHSEE requirement, B. I am taking additional courses, C. I am working harder in the courses I am taking, D. I am getting help outside of the classroom, E. I am repeating a course to learn the material better, F. I will stay in school an additional year to learn the required material.

Table 3.25. Question 11: 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 Grade Ten Students' Responses in 2012 by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. I do not have to work any harder to meet the CAHSEE requirement.	58.2	26.3	20.3	16.5	55.9	16.1	26.2	15.1
B. I am taking additional courses.	3.4	8.3	10.8	12.0	3.8	9.7	10.9	12.2
C. I am working harder in the courses I am taking.	37.3	53.5	51.4	45.3	37.1	56.3	50.3	45.4
D. I am getting help outside of the classroom.	5.2	11.0	12.5	13.7	6.3	13.8	11.5	13.7
E. I am repeating a course to learn the material better.	2.0	5.9	8.0	9.7	3.4	11.6	8.2	11.4
F. I will stay in school an additional year to learn the required material.	1.5	5.1	8.6	11.6	2.1	6.2	7.9	11.9

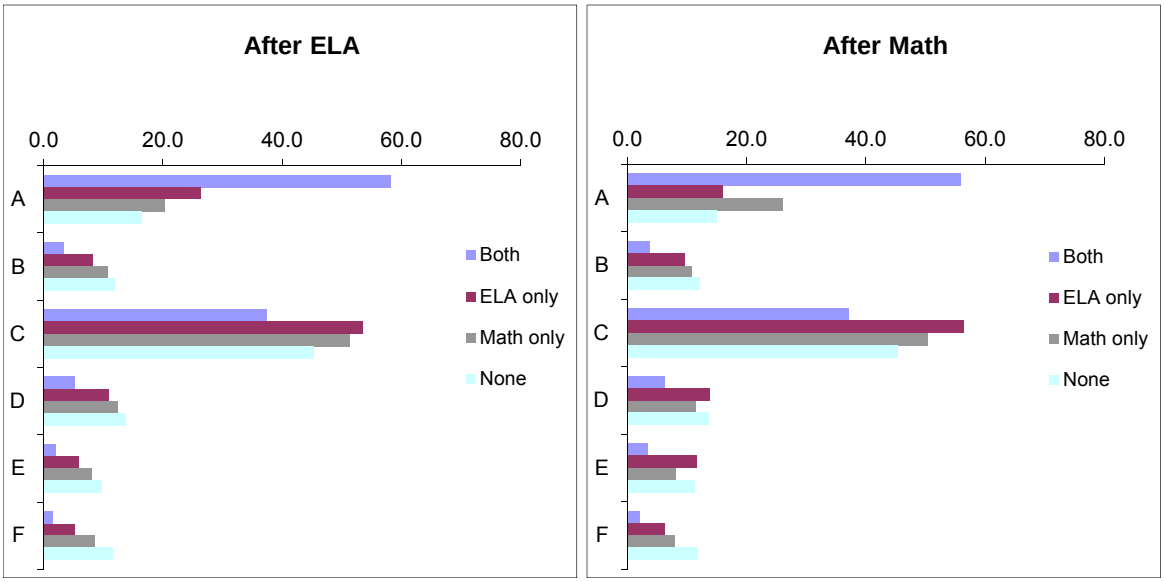


Figure 3.22. Percentage of grade ten students, by tests passed in 2012, who said they had or had not worked harder or will work harder in the future to pass the CAHSEE skills test(s).

Question 12: If you do not pass the CAHSEE in this administration, what are you most likely to do?

Table 3.27 shows that the majority of students (78.8 percent of ELA test takers and 79.0 percent of mathematics test takers) intend to stay in school and try to pass the CAHSEE again if they did not pass during this administration. This percentage has increased since the question first appeared on questionnaires in 2007. Only a very small percentage of students responded that they would try to get a GED certificate or give up trying to earn a diploma.

Table 3.26. Question 12: If You Do Not Pass the CAHSEE in This Administration, What Are You Most Likely to Do? (Mark the Most Likely Option) (Grade Ten Students' Responses, 2005–12)

After ELA	Percentage							
	2005	2006	2007	2008	2009	2010	2011	2012
A. I will stay in school and try again to pass the CAHSEE.	n/a	n/a	68.2	75.8	77.3	77.4	77.8	78.8
B. I will take courses at a community college and try again to pass the CAHSEE.	n/a	n/a	5.0	5.3	5.2	5.2	4.4	4.1
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	9.4	8.8	8.5
D. I will try to get a GED certificate.	n/a	n/a	1.8	1.9	1.7	1.6	1.6	1.5
E. I will give up trying to get a diploma altogether.	n/a	n/a	1.1	1.2	1.1	1.1	1.2	1.2
F. I really do not know what I will do.	n/a	n/a	5.4	5.4	5.4	5.4	6.2	6.0
After Math	**Percentage**							
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
A. I will stay in school and try again to pass the CAHSEE.	n/a	n/a	70.7	77.2	78.6	78.5	78.2	79.0
B. I will take courses at a community college and try again to pass the CAHSEE.	n/a	n/a	4.9	5.2	5.3	5.3	4.5	4.2
C. I will participate in some other type of program that will help me to pass the CAHSEE.	n/a	n/a	8.2	8.7	7.4	7.5	6.9	6.6
D. I will try to get a GED certificate.	n/a	n/a	1.8	1.9	1.7	1.6	1.7	1.6
E. I will give up trying to get a diploma altogether.	n/a	n/a	1.3	1.4	1.3	1.3	1.6	1.5
F. I really do not know what I will do.	n/a	n/a	5.8	5.7	5.8	5.8	7.2	7.2

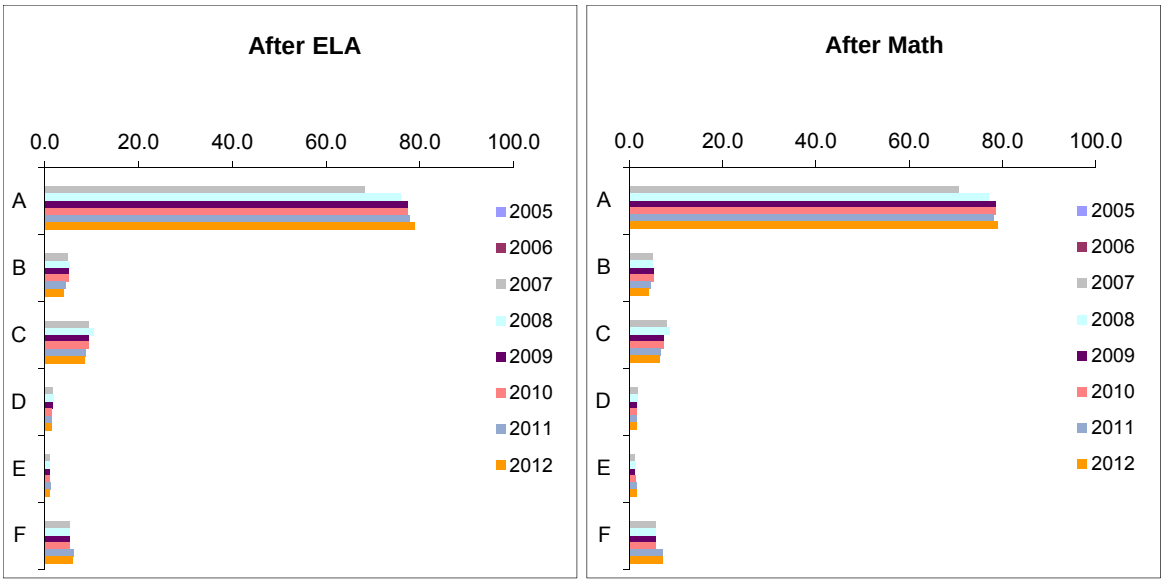


Figure 3.23. Most likely planned courses of action for grade ten students if they do not pass the CAHSEE by the time they complete high school, by year, in percentages.[19]

Table 3.27 shows that the majority of grade ten 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. However, this percentage was larger for those who passed both tests than for those who did not pass at least one test. Approximately 9 percent of those who did not pass either test reported that they would try to get a GED or give up trying for a diploma if they did not pass the CAHSEE in this administration.

[19] Response Options: A. I will stay in school and try again to pass the CAHSEE, B. I will take courses at a community college and try again to pass the CAHSEE, C. I will participate in some other type of program that will help me to pass the CAHSEE, D. I will try to get a GED certificate, E. I will give up trying to get a diploma altogether, F. I really do not know what I will do.

Table 3.27. Question 12: If You Do Not Pass the CAHSEE in This Administration, What Are You Most Likely to Do? (Mark the Most Likely Option) (Percentages of Grade Ten Students' Responses in 2012 by Tests Passed)

Response Choice	Tests Passed, After ELA Questionnaire				Tests Passed, After Math Questionnaire			
	Both Tests	ELA Only	Math Only	None	Both Tests	ELA Only	Math Only	None
A. I will stay in school and try again to pass the CAHSEE.	82.7	72.3	68.2	58.3	82.6	72.5	71.0	59.1
B. I will take courses at a community college and try again to pass the CAHSEE.	3.1	5.6	6.8	9.0	3.2	6.1	6.5	9.7
C. I will participate in some other type of program that will help me to pass the CAHSEE.	7.3	11.8	12.9	13.6	5.4	9.6	10.4	11.6
D. I will try to get a GED certificate.	0.8	2.4	2.9	5.3	0.9	2.8	2.7	5.3
E. I will give up trying to get a diploma altogether.	0.8	1.1	1.7	3.4	1.3	1.3	1.6	3.3
F. I really do not know what I will do.	5.3	6.9	7.6	10.4	6.6	7.6	7.8	11.0

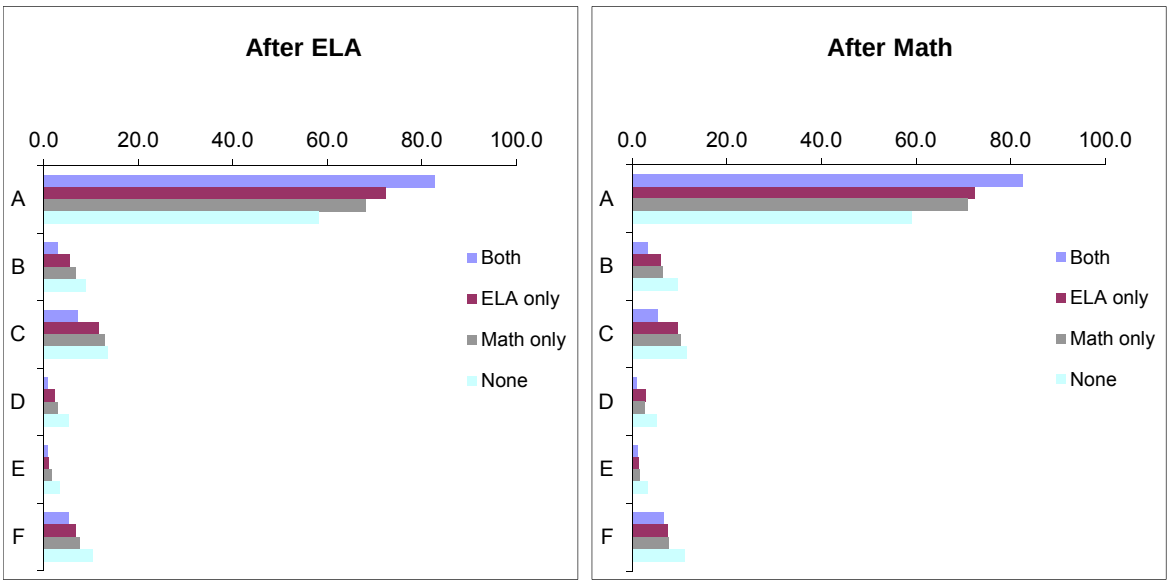


Figure 3.24. Most likely planned courses of action for grade ten students if they do not pass the CAHSEE by the time they complete high school, by tests passed in 2012, in percentages.

Comparisons of Grade Ten Student Responses in 2012 by Demographic Characteristics

We compared student questionnaire responses on five demographic variables: gender, ethnicity, SWD, EL status, and ED status (based on National School Lunch Program participation). Overall, the response differences by these five variables were very similar for ELA and mathematics questionnaires; therefore they will be discussed together. The questionnaire results from students who took the ELA test are presented in Table 3.28 and the questionnaire results from those who took the mathematics test are presented in Table 3.29.

Test Preparation (Table 3.28 and Table 3.29, Questions 1–2)

- Females were more likely than males to report that they practiced on similar test items to prepare, or that a teacher helped them prepare in class; males were more likely than females to report that they did nothing additional to prepare.

- A higher percentage of Hispanic and Black students reported practicing on questions similar to those on the test, or that they had taken a special class during the regular school day to prepare, than other racial/ethnic groups.

- ED students were more likely than non-ED students to report using textbooks, CAHSEE on-line prep, released test questions, or other resources to prepare for the CAHSEE.

- A larger percentage of SWD and EL students than the general population took a special class (either after school or during the school day) to pass the CAHSEE, however, the majority of the SWD and EL students did not take a special course.

Graduation from High School and Post-High School Plans (Table 3.28 and Table 3.29, Questions 3–5)

- The majority of all grade 10 students, regardless of demographic group, expect to graduate with the rest of their class (or earlier).

- More than 7 percent (larger than any other group examined) of those labeled as both SWD and EL students do not expect to receive a high school diploma; just over a third of these students are confident that they will receive a high school diploma.

- Asian students are more likely than any other racial/ethnic group to indicate plans to attend a 4-year college or university after high school; American Indian/Alaskan Natives are the least likely to respond this way.

- Males more frequently report plans to work full time, join the military, or do something else (besides school, work, or military) than females.

Test Performance and Influencing Factors (Table 3.28 and Table 3.29, Question 6)

- Hispanic students were more likely than students of other races to report that nervousness prevented them from doing as well as they could on the CAHSEE; EL students reported higher levels of nervousness than other demographic groups.

- The majority of all students, regardless of group, felt that they did as well as they could on the tests.

Content and Instruction Coverage (Table 3.28 and Table 3.29, Questions 7–9)

- A higher percentage of females than males reported similarity between class content and instruction coverage and the topics and types of questions on the CAHSEE.

- African American students were more likely than other racial/ethnic groups to respond that many topics on the test were not covered in their courses; Filipino students were the least likely to respond this way.

- EL and SWD students more frequently responded that test items were more difficult than what they had encountered in class than the general population. This was especially true for those who were both EL and SWD.

Effort Put into the CAHSEE (Table 3.28 and Table 3.29, Questions 10–12)

- Students who are classified as SWD or EL were more likely to report not having taken courses that covered CAHSEE topics than other students.

- More than 60 percent of Asian and White students reported that they did not have to work harder to meet the CAHSEE requirement; this was true for only approximately 40 percent of Hispanic students. A larger percentage of non-ED students reported that they did not have to work harder to meet the requirement than ED students.

- Although the majority of students, regardless of race, reported that they would stay in school and attempt to pass the CAHSEE again if they did not pass during this administration, SWD and EL students were less likely to select this response than the general population.

Table 3.28. Distribution of Grade Ten Students' Responses to Questionnaire After Taking CAHSEE ELA Examination in 2012, by Gender, Ethnicity, Disability, English Learner Status, and Economic Disadvantage.

After Taking CAHSEE ELA Exam (Student Responses in Grade ten)	Gender		Ethnicity								SWD & EL Status			ED	
	F	M	Am Indian/ AK Native	Asian	Pacific	Filipino	Hispanic	African Am	White	Multiple	SWD & EL	SWD only	EL only	Yes	No
1. How did you prepare for this test? (Mark all that apply.)															
A. I practiced on questions similar to those on the test.	36.6	30.8	32.0	26.5	34.4	34.6	38.0	35.6	28.0	28.2	34.0	33.1	37.6	37.9	29.4
B. A teacher spent time in class helping me to get ready to take the test.	47.1	40.6	44.4	35.5	46.2	47.4	47.0	44.8	40.7	38.8	39.2	39.1	43.3	46.8	41.1
C I took a special class during the regular school day that covered the topics on the CAHSEE.	7.4	7.5	7.7	2.8	6.6	4.7	10.1	9.9	4.1	5.3	13.4	10.0	12.6	10.2	4.6
D. I took a special class after school or during the summer that covered the topics on the CAHSEE.	4.2	3.9	3.2	2.5	3.4	2.9	5.8	5.0	1.6	2.6	6.4	4.6	7.1	5.8	2.3
E. I did not do anything in addition to regular course work to prepare for this test.	30.4	36.4	34.7	48.7	32.3	34.2	25.0	26.5	44.4	42.8	19.1	29.7	19.1	25.2	41.6
2. What materials did you use to prepare for this test: (Mark all that apply.)															
A. Textbooks	12.1	13.1	14.2	7.6	13.2	10.7	14.7	13.9	10.5	11.2	17.4	15.3	18.2	14.8	10.3
B. ELA Student Guide	11.0	10.5	9.0	7.4	13.8	10.3	12.5	13.7	8.3	8.4	15.2	12.1	14.9	12.6	8.8
C. CAHSEE Online Prep	13.7	12.0	11.1	9.4	13.1	11.5	15.4	17.1	8.9	9.7	20.3	15.6	20.4	15.3	10.3
D. Released (sample) test questions	46.6	36.8	40.1	34.1	39.3	45.1	45.4	38.8	38.1	36.2	23.3	29.4	34.2	44.7	38.6
E. Other resources	20.3	20.6	22.8	14.7	24.7	21.7	23.1	21.7	17.1	18.1	21.7	22.6	22.6	23.1	17.7
F. I did not use any materials to prepare.	24.5	30.0	28.8	43.7	25.0	27.6	18.4	20.6	38.5	36.8	18.3	25.3	14.4	19.0	35.7
3. Do you think you will receive a high school diploma?															
A. Yes, with the rest of my class (or earlier).	87.7	82.2	82.2	91.4	85.8	90.2	80.7	82.4	90.4	86.2	57.7	70.9	65.7	80.5	89.6
B. Yes, but I will likely have to take classes after my original graduation date.	8.4	11.2	10.8	4.9	10.3	6.9	12.9	11.3	5.9	8.6	22.9	16.2	21.6	12.9	6.6
C. Yes, but I will pursue a diploma in Adult Education.	1.7	2.9	2.9	1.6	1.4	1.5	2.7	2.9	1.8	2.3	7.5	5.2	4.9	2.7	1.8
D. No, I probably will not receive a high school diploma.	1.4	2.1	2.3	1.1	1.4	0.8	2.4	1.9	0.9	1.4	7.2	4.0	5.2	2.4	1.1
E. No, I plan to take the GED.	0.4	0.8	0.7	0.2	0.4	0.2	0.6	0.8	0.6	0.7	2.0	1.6	1.0	0.7	0.5
F. No, but I plan to go to community college.	0.5	0.8	1.1	0.8	0.6	0.5	0.8	0.7	0.5	0.7	2.8	2.2	1.7	0.8	0.5

Table 3.28. (Continued)

After Taking CAHSEE ELA Exam (Student Responses in Grade 10)	Gender		Ethnicity								SWD & EL Status			ED	
	F	M	Am Indian/ AK Native	Asian	Pacific	Filipino	Hispanic	African Am	White	Multiple	SWD & EL	SWD only	EL only	Yes	No
4. What might prevent you from receiving a high school diploma? (Mark all that apply.)															
A. I may not pass all the required courses.	18.1	20.6	22.3	10.9	20.8	17.6	23.6	18.9	14.8	18.2	21.8	24.3	26.6	23.3	15.3
B. I may not pass the CAHSEE exam.	16.9	15.0	17.0	10.8	17.7	12.6	20.6	17.5	9.5	11.9	39.2	30.4	33.4	21.0	10.8
C. I may drop out before the end of 12th grade.	1.3	2.7	2.8	1.5	2.2	1.1	2.3	2.4	1.7	2.0	5.4	4.3	4.1	2.5	1.6
D. I may not meet some other graduation requirement.	10.3	13.1	13.7	8.5	13.5	14.0	13.8	11.5	8.7	11.1	12.3	15.2	14.6	14.0	9.4
E. I am confident I will receive a high school diploma.	70.1	63.3	62.2	79.0	65.1	72.4	58.7	63.8	76.8	70.9	36.5	46.1	41.8	58.6	75.0
5. What do you think you will do after high school?															
A. I will join the military.	2.7	9.6	9.3	2.2	8.1	6.2	6.6	5.5	6.5	6.3	9.9	11.0	7.9	7.0	5.2
B. I will go to a community college.	19.5	18.0	21.9	8.7	17.2	15.3	21.6	14.2	18.6	17.4	27.4	26.9	24.5	20.7	16.8
C. I will go to a 4-year college or university.	69.9	57.0	52.9	84.6	64.7	72.6	57.9	68.7	64.1	64.4	38.5	40.8	49.8	58.5	68.6
D. I will go to a vocational, technical, or trade school.	3.0	4.8	5.1	1.7	2.6	2.6	4.3	4.1	4.2	4.2	5.5	6.3	4.3	4.3	3.6
E. I will work full-time.	2.5	5.4	4.6	1.1	3.6	1.2	5.3	3.6	3.0	3.3	10.7	7.0	8.3	5.2	2.7
F. Do something else (besides school, work, or the military).	2.4	5.3	6.2	1.7	3.9	2.2	4.4	3.8	3.7	4.4	7.9	7.9	5.4	4.4	3.2
6. How well did you do on this test? (Mark all that apply):															
A. I did as well as I could.	83.0	76.3	77.7	80.4	80.5	85.4	77.6	76.0	83.0	80.5	55.7	65.3	68.0	77.0	82.5
B. I was too nervous to do as well as I could.	7.8	7.0	6.6	6.6	8.3	6.5	9.5	6.4	4.3	5.2	15.4	9.2	15.5	9.2	5.4
C. I was not motivated to do well.	2.4	4.5	4.0	4.8	3.6	3.3	3.4	3.6	3.0	3.7	5.0	4.6	4.5	3.5	3.3
D. I did not have time to do as well as I could.	0.8	1.6	1.4	1.2	1.4	1.1	1.3	1.4	0.9	1.1	3.2	2.1	2.0	1.4	1.0
E. Conditions in the testing room made it difficult to concentrate.	3.7	3.6	3.8	4.7	3.2	4.2	3.4	3.2	3.7	3.9	3.5	3.8	3.6	3.6	3.7
F. There were other reasons why I did not do as well as I could.	3.3	3.9	4.6	5.1	3.4	3.9	3.5	2.9	3.5	4.1	4.0	4.7	4.0	3.7	3.5

Table 3.28. (Continued)

3	Gender		Ethnicity								SWD & EL Status			ED	
After Taking CAHSEE ELA Exam (Responses from Students in Grade ten)	F	M	Am Indian/ AK Native	Asian	Pacific	Filipino	Hispanic	African Am	White	Multiple	SWD & EL	SWD only	EL only	Yes	No
7. Were the topics on the test covered in courses you have taken?															
A. Yes, all of them.	67.1	59.6	61.3	66.8	60.9	69.9	59.0	56.8	70.5	65.8	34.9	45.7	41.0	57.5	69.3
B. Most, but not all of them (two-thirds or more were covered).	29.4	34.3	33.0	27.9	34.7	27.3	35.7	36.7	25.7	29.4	50.6	43.0	48.8	36.7	26.9
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	3.5	6.1	5.7	5.3	4.3	2.8	5.3	6.5	3.8	4.9	14.5	11.3	10.2	5.8	3.8
8. 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.	6.7	12.2	9.2	10.5	9.2	7.7	10.3	11.5	7.5	9.0	25.5	18.5	18.1	10.9	8.0
B. Yes, a few were different from anything I had seen before.	36.7	44.5	40.6	38.3	42.5	39.5	44.5	41.6	34.4	37.2	53.0	48.2	54.6	45.0	36.1
C. No, all were similar to ones used in my classes.	56.6	43.3	50.2	51.2	48.3	52.8	45.2	46.9	58.1	53.8	21.5	33.3	27.3	44.1	56.0
9. 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.	9.2	15.1	14.5	10.0	12.2	8.2	14.2	15.0	9.0	10.2	33.0	24.3	26.4	15.2	9.0
B. The test questions were generally about as difficult as the questions I encountered in my course work.	50.9	49.7	51.1	37.5	50.0	48.6	56.3	48.5	44.6	46.0	47.2	49.0	54.4	55.4	45.1
C. The test questions were generally easier than the questions I encountered in my course work.	39.9	35.3	34.5	52.5	37.8	43.2	29.5	36.5	46.4	43.8	19.8	26.7	19.2	29.4	45.9

Table 3.28. (Continued)

After Taking CAHSEE ELA Exam (Responses from Students in Grade ten)	Gender		Ethnicity								SWD & EL Status			ED	
	F	M	Am Indian/ AK Native	Asian	Pacific	Filipino	Hispanic	African Am	White	Multiple	SWD & EL	SWD only	EL only	Yes	No
10. If some topics on the test were difficult for you, was it because:															
A. I did not take courses that covered these topics.	4.2	6.9	5.6	6.0	5.3	3.6	6.2	7.3	4.1	5.4	14.7	10.4	12.3	6.7	4.3
B. I had trouble with these topics when they were covered in courses I took.	15.5	17.1	17.7	11.8	17.1	13.8	19.5	16.7	12.4	13.9	27.6	24.0	26.0	19.3	13.2
C. I have forgotten things I was taught about these topics.	41.6	37.2	37.6	36.4	41.3	42.0	44.0	37.0	32.6	36.1	39.0	36.0	44.7	43.2	35.5
D. None of the topics was difficult for me.	38.7	38.8	39.1	45.8	36.4	40.5	30.3	39.0	50.9	44.6	18.7	29.6	17.0	30.8	47.0
11. 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.	48.9	51.6	47.5	61.8	42.0	52.4	40.2	43.8	65.5	58.2	16.8	31.7	20.6	40.3	60.5
B. I am taking additional courses.	4.0	5.8	5.7	3.2	6.8	3.5	6.1	6.7	3.1	3.9	12.2	9.0	9.9	6.2	3.5
C. I am working harder in the courses I am taking.	43.4	36.8	40.7	34.3	48.0	45.3	46.1	42.0	30.1	34.7	46.7	44.7	53.1	45.9	34.1
D. I am getting help outside of the classroom.	6.9	6.6	7.8	5.8	8.6	5.9	7.8	9.8	4.6	6.2	12.1	12.3	11.6	8.2	5.3
E. I am repeating a course to learn the material better.	3.1	3.5	3.9	1.8	3.3	2.0	4.5	3.7	2.0	2.8	9.2	5.8	7.5	4.4	2.2
F. I will stay in school an additional year to learn the required material.	3.0	3.2	3.2	1.7	3.4	1.4	4.3	3.3	1.5	2.3	12.0	6.3	8.8	4.3	1.8
12. If you do not pass the CAHSEE in this administration, what are you most likely to do? (Mark the most likely option.)															
A. I will stay in school and try again to pass the CAHSEE.	78.8	78.9	77.1	81.6	78.0	82.9	76.5	75.1	82.3	78.8	60.5	67.1	68.6	76.1	81.6
B. I will take courses at a community college and try again to pass CAHSEE.	4.2	4.0	3.9	3.6	5.1	4.0	4.4	5.7	3.4	4.0	8.9	6.8	6.2	4.5	3.6
C. I will participate in some other type of program that will help me to pass the CAHSEE.	10.2	6.9	7.8	5.9	9.0	6.9	10.7	10.1	5.4	6.2	12.8	9.9	14.5	10.5	6.5
D. I will try to get a GED certificate.	1.0	1.9	2.6	0.7	1.1	0.7	1.7	2.1	1.3	1.9	4.6	3.5	2.6	1.8	1.2
E. I will give up trying to get a diploma altogether.	0.6	1.7	1.1	1.2	0.9	0.7	1.1	1.3	1.2	1.4	3.2	2.3	1.7	1.2	1.1
F. I really do not know what I will do.	5.3	6.7	7.6	7.0	5.9	4.9	5.6	5.7	6.4	7.6	10.0	10.4	6.5	5.9	6.1

Table 3.29. Distribution of Grade Ten Students' Responses, in Percentages, After Taking CAHSEE Mathematics Examination in 2012, by Gender, Ethnicity, Disability, English Learner Status, and Economic Disadvantage

After Taking CAHSEE MATH Exam (Student Responses in Grade 10)	Gender		Ethnicity								SWD & EL Status			ED	
	F	M	Am Indian/ AK Native	Asian	Pacific	Filipino	Hispanic	African Am	White	Multiple	SWD & EL	SWD only	EL only	Yes	No
1. How did you prepare for this test? (Mark all that apply.)															
A. I practiced on questions similar to those on the test.	42.1	36.3	37.7	28.0	41.2	39.6	45.7	42.4	30.7	32.1	42.6	39.4	47.1	45.4	32.8
B. A teacher spent time in class helping me to get ready to take the test.	29.4	25.9	29.1	16.2	29.9	27.0	32.6	31.3	22.0	21.3	33.7	30.4	33.3	32.4	22.9
C I took a special class during the regular school day that covered the topics on the CAHSEE.	6.9	6.7	6.7	2.5	5.9	4.2	9.2	9.0	4.0	5.1	11.8	9.5	10.5	9.2	4.4
D. I took a special class after school or during the summer that covered the topics on the CAHSEE.	3.9	3.5	2.6	2.1	3.1	3.2	5.1	4.3	1.7	2.4	5.5	4.1	5.7	5.1	2.2
E. I did not do anything in addition to regular course work to prepare for this test.	39.1	43.5	41.6	61.5	39.2	45.0	30.4	31.5	55.4	52.5	19.6	32.2	22.6	30.8	52.1
2. What materials did you use to prepare for this test: (Mark all that apply.)															
A. Textbooks	16.0	17.1	18.9	10.2	19.4	15.7	18.8	18.1	14.2	15.1	21.2	20.1	22.5	19.0	14.0
B. Math Student Guide	14.7	13.0	12.9	7.8	16.2	10.9	17.5	17.1	9.1	9.6	22.2	16.9	22.8	17.2	10.3
C. CAHSEE On-line Prep	11.3	9.9	9.8	7.1	10.8	9.7	12.7	14.3	7.3	8.6	17.0	13.3	16.2	12.6	8.4
D. Released (sample) test questions	34.7	26.6	30.9	21.4	31.1	32.1	35.8	29.8	24.9	24.3	19.5	23.6	27.2	35.3	26.0
E. Other resources	16.5	16.4	19.2	10.4	19.4	17.5	19.2	18.4	13.0	14.4	19.5	20.5	19.3	19.2	13.7
F. I did not use any materials to prepare.	33.1	37.4	33.9	57.0	31.7	38.9	24.2	25.8	49.3	45.6	18.3	27.2	17.6	24.8	46.0
3. Do you think you will receive a high school diploma?															
A. Yes, with the rest of my class (or earlier).	87.1	81.6	80.7	91.2	85.0	90.0	80.1	81.1	89.6	85.3	58.2	70.1	66.3	79.9	88.9
B. Yes, but I will likely have to take classes after my original graduation date.	8.7	11.2	11.4	4.8	9.3	6.8	13.0	11.9	6.1	8.7	22.6	16.6	20.8	13.0	6.7
C. Yes, but I will pursue a diploma in Adult Education.	1.5	2.9	2.9	1.5	2.5	1.2	2.5	2.9	1.8	2.2	6.7	4.9	4.4	2.6	1.8
D. No, I probably will not receive a high school diploma.	1.7	2.5	2.6	1.3	1.9	1.1	2.8	2.1	1.2	1.9	7.9	4.5	5.8	2.8	1.3
E. No, I plan to take the GED.	0.5	0.9	1.0	0.4	0.4	0.3	0.7	1.1	0.7	1.0	2.1	1.7	1.0	0.8	0.6
F. No, but I plan to go to community college.	0.6	1.0	1.4	0.9	1.0	0.6	0.8	0.9	0.7	1.0	2.5	2.3	1.7	0.9	0.7

Table 3.29. (Continued)

After Taking CAHSEE MATH Exam (Student Responses in Grade 10)	Gender		Ethnicity								SWD & EL Status			ED	
	F	M	Am Indian/ AK Native	Asian	Pacific	Filipino	Hispanic	African Am	White	Multiple	SWD & EL	SWD only	EL only	Yes	No
4. What might prevent you from receiving a high school diploma? (Mark all that apply.)															
A. I may not pass all the required courses.	19.4	22.5	24.3	11.8	23.0	18.9	25.6	20.2	15.8	19.2	23.7	26.1	29.3	25.1	16.6
B. I may not pass the CAHSEE exam.	20.9	16.7	20.1	11.0	19.8	15.3	24.2	20.7	11.8	15.4	41.7	34.0	35.6	24.2	13.3
C. I may drop out before the end of 12th grade.	1.5	3.0	2.6	1.9	2.1	1.2	2.4	2.8	2.0	2.6	5.0	4.0	4.2	2.6	1.9
D. I may not meet some other graduation requirement.	8.6	10.8	11.5	7.3	10.6	11.8	11.3	9.4	7.3	9.5	10.7	12.9	12.1	11.6	7.8
E. I am confident I will receive a high school diploma.	66.3	60.3	58.7	77.9	61.7	69.6	54.7	59.9	74.1	67.2	33.3	42.2	38.5	54.9	72.1
5. What do you think you will do after high school?															
A. I will join the military.	2.9	10.1	9.1	2.7	8.6	6.3	7.0	5.8	7.0	7.0	10.0	11.4	8.2	7.3	5.7
B. I will go to a community college.	19.2	17.6	21.2	8.6	17.8	14.9	21.1	14.5	18.2	17.0	26.4	26.4	24.1	20.4	16.4
C. I will go to a 4-year college or university.	69.9	56.7	52.7	84.0	64.0	72.9	57.9	67.7	63.8	63.9	39.0	40.6	49.8	58.3	68.4
D. I will go to a vocational, technical, or trade school.	2.8	4.5	5.2	1.4	2.6	2.2	4.0	3.9	3.9	3.6	5.1	6.0	4.1	4.0	3.3
E. I will work full-time.	2.7	5.7	5.3	1.2	3.5	1.2	5.6	4.0	3.2	3.8	11.9	7.6	8.6	5.5	2.9
F. Do something else (besides school, work, or the military).	2.5	5.4	6.6	2.1	3.6	2.5	4.4	4.2	3.9	4.6	7.6	8.1	5.4	4.5	3.4
6. How well did you do on this test? (Mark all that apply):															
A. I did as well as I could.	87.3	84.6	84.5	89.2	86.7	90.4	83.8	83.8	88.6	86.0	71.3	77.4	77.1	84.0	88.0
B. I was too nervous to do as well as I could.	10.3	8.0	9.0	5.4	9.5	7.1	11.9	9.3	5.8	7.1	18.8	12.7	17.3	11.3	7.0
C. I was not motivated to do well.	3.1	5.0	5.0	4.3	4.5	3.5	4.2	4.5	3.6	4.6	6.8	6.2	5.4	4.2	3.8
D. I did not have time to do as well as I could.	0.7	1.5	1.4	0.9	1.3	0.8	1.2	1.6	1.0	1.2	3.1	2.5	1.7	1.3	1.0
E. Conditions in the testing room made it difficult to concentrate.	3.1	3.2	3.6	3.3	2.4	3.2	3.0	2.9	3.5	3.8	3.5	4.2	3.2	3.1	3.2
F. There were other reasons why I did not do as well as I could.	5.8	5.4	6.5	4.7	4.7	5.1	5.8	5.6	5.6	6.3	5.9	7.9	5.6	5.9	5.3

Table 3.29. (Continued)

After Taking CAHSEE MATH Exam (Student Responses in 10th grade)	Gender		Ethnicity								SWD & EL Status			ED	
	F	M	Am Indian/ AK Native	Asian	Pacific	Filipino	Hispanic	African Am	White	Multiple	SWD & EL	SWD only	EL only	Yes	No
7. Were the topics on the test covered in courses you have taken?															
A. Yes, all of them.	53.8	52.0	46.6	71.7	53.1	63.4	46.3	43.6	59.7	55.3	28.2	33.3	34.4	46.2	59.9
B. Most, but not all of them (two-thirds or more were covered).	39.7	38.6	43.0	23.6	39.4	32.0	45.1	45.2	33.0	36.1	55.2	50.1	54.0	44.7	33.3
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	6.5	9.4	10.4	4.7	7.6	4.7	8.6	11.2	7.3	8.6	16.6	16.6	11.6	9.1	6.8
8. 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.	9.2	14.1	12.9	9.0	12.2	8.8	12.8	15.1	10.1	11.3	26.0	23.0	18.5	13.2	10.1
B. Yes, a few were different from anything I had seen before.	42.4	43.7	44.9	29.5	44.7	38.3	48.8	47.3	36.7	40.0	54.8	50.9	56.2	48.5	37.4
C. No, all were similar to ones used in my classes.	48.4	42.1	42.2	61.6	43.2	52.9	38.4	37.5	53.1	48.7	19.2	26.2	25.3	38.2	52.6
9. 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.	15.8	18.5	19.8	8.4	17.0	10.2	20.2	23.3	14.1	16.2	37.6	33.7	28.5	20.5	13.7
B. The test questions were generally about as difficult as the questions I encountered in my course work.	49.5	44.5	48.3	29.0	49.3	44.7	53.7	48.2	40.7	43.6	45.8	45.7	53.3	52.4	41.4
C. The test questions were generally easier than the questions I encountered in my course work.	34.7	37.0	32.0	62.7	33.7	45.1	26.1	28.5	45.2	40.2	16.6	20.7	18.3	27.2	44.9

Table 3.29. (Continued)

After Taking CAHSEE MATH Exam (Student Responses in 10th grade)	Gender		Ethnicity								SWD & EL Status			ED	
	F	M	Am Indian/ AK Native	Asian	Pacific	Filipino	Hispanic	African Am	White	Multiple	SWD & EL	SWD only	EL only	Yes	No
10. If some topics on the test were difficult for you, was it because:															
A. I did not take courses that covered these topics.	7.1	10.9	10.1	5.5	8.5	5.6	9.9	11.5	8.3	9.7	18.3	18.3	14.7	10.2	7.7
B. I had trouble with these topics when they were covered in courses I took.	24.0	20.3	27.7	10.2	23.2	17.0	26.6	26.7	17.8	19.8	30.8	28.8	31.1	26.0	18.2
C. I have forgotten things I was taught about these topics.	51.0	42.4	43.3	41.4	48.7	51.9	48.7	44.4	44.5	45.4	38.9	38.1	44.4	47.8	45.5
D. None of the topics was difficult for me.	17.9	26.4	18.9	43.0	19.7	25.5	14.8	17.4	29.4	25.1	12.0	14.9	9.9	16.0	28.6
11. 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.	43.9	51.7	44.0	67.2	40.0	53.7	37.2	38.5	61.9	55.0	15.9	28.4	20.9	38.0	58.0
B I am taking additional courses.	4.6	6.1	6.1	3.0	6.0	3.5	6.5	7.3	3.7	5.0	11.6	9.8	9.8	6.6	4.0
C. I am working harder in the courses I am taking.	44.6	34.8	39.9	27.6	46.3	41.3	46.7	43.7	30.1	34.4	47.9	45.7	52.2	45.8	33.4
D. I am getting help outside of the classroom.	8.8	6.7	9.7	5.3	10.1	6.6	8.7	11.2	6.2	7.5	12.7	12.4	11.3	8.9	6.6
E. I am repeating a course to learn the material better.	5.4	4.6	5.8	2.2	5.2	3.0	6.3	5.5	3.6	4.2	9.7	7.7	8.8	6.2	3.7
F. I will stay in school an additional year to learn the required material.	3.5	3.6	5.2	2.1	3.9	2.0	4.7	3.8	2.1	2.9	11.8	7.0	8.5	4.8	2.3
12. If you do not pass the CAHSEE in this administration, what are you most likely to do? (Mark the most likely option.)															
A. I will stay in school and try again to pass the CAHSEE.	79.9	78.1	76.4	78.9	76.7	81.9	78.1	75.5	81.2	78.2	61.1	67.5	70.7	77.5	80.5
B. I will take courses at a community college and try again to pass CAHSEE.	4.3	4.2	4.7	3.6	5.6	4.4	4.5	6.3	3.5	4.2	8.6	7.1	6.6	4.6	3.8
C. I will participate in some other type of program that will help me to pass the CAHSEE.	7.7	5.5	6.4	4.9	7.8	5.4	8.2	8.3	4.2	5.2	11.5	8.5	11.3	8.2	5.0
D. I will try to get a GED certificate.	1.1	2.0	2.6	0.9	1.4	0.8	1.7	2.2	1.4	1.9	4.6	3.7	2.6	1.8	1.3
E. I will give up trying to get a diploma altogether.	0.8	2.2	1.9	1.8	1.3	0.9	1.3	1.5	1.8	2.1	3.1	2.3	1.6	1.4	1.6
F. I really do not know what I will do.	6.3	8.0	8.1	9.9	7.2	6.6	6.3	6.1	8.0	8.4	11.1	10.9	7.1	6.6	7.8

Summary of Grade Ten Findings

Comparisons of Grade Ten Students' Responses 2005–12

The trend data reveal many positive changes in student perception of the CAHSEE over time. In 2012 an increased percentage of students reported:

- A teacher spent time in class helping them to prepare for the CAHSEE.
- They practiced on questions similar to those on the test to prepare (only after mathematics).
- They used released (sample) test questions to prepare for the CAHSEE.
- They expect to earn a high school diploma with the rest of their class (or earlier).
- They intend to attend a four-year college or university after high school.
- Test items were similar to those that they had seen in class.
- None of the test topics were difficult for them.
- They did not have to work any harder to pass the CAHSEE requirement.
- They will stay in school and try again to pass the CAHSEE if they do not pass during this administration.

A decreased percentage of students reported that

- They used textbooks to prepare for the CAHSEE.
- They may not pass the required courses to earn a high school diploma.
- They may drop out before the end of 12th grade.
- They did not take a course that covered the CAHSEE topics.

Comparisons of Grade Ten Students' Responses in 2012 by Whether They Passed the Tests

We compared student responses for those who passed both tests, passed only ELA, passed only mathematics, 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 were most likely to report that:

- They used released (sample) items to prepare for the CAHSEE.
- They would graduate with the rest of their class or earlier.

- They were confident that they would receive a high school diploma.
- They would attend a 4-year college or university after high school.
- The topics and test questions were familiar and easy.

Differences in Grade Ten Students' Responses in 2012 by Key Demographic Characteristics

By Gender. The data generally reveal more positive perceptions about the CAHSEE for females than males. Females are more likely to respond that they anticipate earning a high school diploma with the rest of their class, and that they are confident they will receive a diploma. Females are more likely than males to plan to attend a 4-year college or university or a community college than males. Females also reported more familiarity with the CAHSEE topics and item types than males.

By Ethnicity. Student perspectives across the questionnaire items differed between ethnic groups. Hispanic students were the most likely of all ethnic groups to see the CAHSEE as a potential barrier to earning their high school diploma, while Asian students were most likely to be confident that they would earn a high school diploma. Asian, White, and Filipino students reported familiarity with CAHSEE topics and test questions at higher levels than other groups, while more African Americans than other groups reported unfamiliarity with the topics and that test questions were more difficult than what they had encountered in their courses.

By Disability and English Learner Status. SWD and EL students express less confidence in their ability to earn a high school diploma with their class and are less likely to have plans to attend college (either 4-year or community) after high school than their peers. Approximately one third of grade 10 SWD and EL students believe that the CAHSEE may prevent them from earning a diploma. While most SWD and EL students report having seen CAHSEE topics and questions in their courses, more than 10 percent of students responded that the topics were not covered in their courses (higher after math), and more EL and SWD students reported that the questions were more difficult than what they had encountered in their courses than the general population. Those labeled as both EL and SWD were more likely than those who were only SWD or only EL to select negative responses.

By Economically Disadvantaged Status. In general, students who are not labeled as ED have a more positive perspective on the CAHSEE. ED students were more likely to report that CAHSEE topics and questions were unfamiliar to them, and that they had to work harder to learn the skills necessary to pass the tests. ED students were also less confident in their ability to earn a diploma with the rest of their class and were less likely to have plans to attend a 4-year college or university after high school.

Overall Summary of Grade Ten Responses

In general, the grade 10 student perspectives of the CAHSEE are positive and are either staying consistent or improving over time. Student responses after taking the ELA tend to be slightly more positive than those of students who had just taken the mathematics exam. There is, however, room for improvement. As noted in past years, SWD and EL students report at higher levels than other students that they are not being exposed to the CAHSEE topics and question types in their courses, and that the questions on the CAHSEE are more difficult than what they have encountered. It should be noted that the EL group comprises those who have been in the United States for varying lengths of times, and from a variety of countries; therefore, it is understandable that exposure to topics will be limited for some students. Certain ethnic groups also seem to be less exposed to CAHSEE content than others; African Americans, Hispanics, and American Indian/Alaskan Native students were less likely to report they were exposed to CAHSEE topics than other groups. California should continue to increase efforts to provide exposure to CAHSEE topics and question types through coursework, with special consideration for EL students, SWD, and those who identify as African American, Hispanic or American Indian/Alaskan Native.

Findings from 2012 Grade Twelve Students

The next section examines a selection of responses to the student questionnaires of 2012 grade twelve students in 2010, when they first took the examination, and again in 2012. The questions selected were those pertaining to post-graduation plans and content and instruction coverage. We were interested in how grade twelve students who are still taking the CAHSEE respond to these topics toward the end of their education compared to when they were grade ten students. We compared the responses of those who passed the CAHSEE in 2012 and those who did not.

Grade Twelve Demographic Information

Table 3.30 provides the frequencies of grade twelve students who had taken the CAHSEE in 2010 and were still attempting to pass the ELA and/or mathematics portions of the CAHSEE in 2012 by whether they passed or did not pass in 2012. More students who were still taking the CAHSEE in 2012 in grade 12 failed than passed.

Table 3.30. Frequency of 2012 Grade Twelve Students Who Took the CAHSEE in 2010 and 2012 By Who Passed and Who did Not Pass the Tests in 2012

Grade 12 Passing Category	ELA	Mathematics
Passed in 2012	13,857	16,537
Did not pass in 2012	22,015	21,266

Graduation Expectations and Post-High School Plans

In 2012, grade twelve students who were still taking the CAHSEE were more likely to believe that the CAHSEE would prevent them from earning a high school diploma than they were in 2010; however, they were less likely to see their courses as a barrier to graduation (see Table 3.31). A higher percentage of students who passed in 2012 reported confidence that they would earn a diploma. The percentage of students who reported confidence in earning a high school diploma was similar across all grade 12 students still taking the CAHSEE; however, it should be noted that 60.3 percent of grade 10 students in 2010 reported confidence (see Table 3.9).

Table 3.31. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to What Might Prevent Them from Receiving a Diploma, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)

Question 4. What might prevent you from receiving a high school diploma? (Mark all that apply.)	ELA Questionnaire Responses				Math Questionnaire Responses			
	Students Passing		Students Not Passing		Students Passing		Students Not Passing	
	2010	2012	2010	2012	2010	2012	2010	2012
A. I may not pass all the required courses.	31.8	16.8	25.6	18.1	35.2	16.0	30.8	18.3
B. I may not pass the CAHSEE exam.	39.7	51.5	40.2	49.6	41.4	55.9	42.4	50.6
C. I may drop out before the end of 12th grade.	5.4	2.9	7.2	6.4	4.6	3.1	5.8	5.6
D. I may not meet some other graduation requirement.	14.8	10.1	11.7	9.8	12.9	8.9	11.8	10.1
E. I am confident I will receive a high school diploma.	32.4	33.6	31.4	27.1	29.3	29.0	26.8	25.7

Table 3.32 breaks out the question 4 responses by whether or not a student selected option 'B'—'I may not pass the CAHSEE exam'. By grade 12, those still taking the CAHSEE are more likely to pinpoint one reason for what might prevent them from earning a diploma than those in grade 10 (see Table 3.9 for comparison). Those who feel that the CAHSEE might prevent them from earning a diploma are less likely to see other barriers as reasons for not earning a diploma.

Table 3.32. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to What Might Prevent Them from Receiving a Diploma, by Those Who Passed in 2012 and Those Who Did Not (in Percentages), by those who selected option 'B' and those who did not.

Response After ELA Questionnaire	Students Passing in 2012				Students Not Passing in 2012			
	2010		2012		2010		2012	
	Selected Option 'B'	Did not Select Option 'B'	Selected Option 'B'	Did not Select Option 'B'	Selected Option 'B'	Did not Select Option 'B'	Selected Option 'B'	Did not Select Option 'B'
A. I may not pass all the required courses.	25.9	35.7	11.6	22.4	16.0	32.1	9.6	26.4
B. I may not pass the CAHSEE exam.	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0
C. I may drop out before the end of 12th grade.	3.6	6.5	0.9	5.1	2.7	10.3	1.4	11.4
D. I may not meet some other graduation requirement.	13.3	15.8	6.1	14.4	7.8	14.3	4.0	15.4
E. I am confident I will receive a high school diploma.	8.9	47.9	7.2	61.7	7.0	47.9	4.4	49.5

Response After Math Questionnaire	Students Passing in 2012				Students Not Passing in 2012			
	2010		2012		2010		2012	
	Selecte d Option 'B'	Did not Select Option 'B'	Selected Option 'B'	Did not Select Option 'B'	Selected Option 'B'	Did not Select Option 'B'	Selected Option 'B'	Did not Select Option 'B'
A. I may not pass all the required courses.	20.3	40.8	10.2	23.3	27.0	38.5	9.4	27.3
B. I may not pass the CAHSEE exam.	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0
C. I may drop out before the end of 12th grade.	1.9	6.1	0.7	6.1	3.3	8.6	0.9	10.4
D. I may not meet some other graduation requirement.	9.2	13.2	5.1	13.8	11.8	13.8	4.6	15.8
E. I am confident I will receive a high school diploma.	5.0	45.2	5.0	59.3	7.2	42.8	3.6	48.4

A higher percentage of grade 12 students who were still taking the CAHSEE in 2012 responded that they would attend a community college after high school in 2012 than they did in 2010 – they were less likely to report plans to attend a 4-year college or university than they did as tenth graders (see Table 3.33).

Table 3.33. Grade Twelve Students' Responses in 2010 and 2012 After ELA and Mathematics Tests as to What They Would Do After High School, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)

Question 5. What do you think you will do after high school?*	ELA Questionnaire Responses				Math Questionnaire Responses			
	Students Passing		Students Not Passing		Students Passing		Students Not Passing	
	2010	2012	2010	2012	2010	2012	2010	2012
A. I will join the military.	9.2	9.9	9.9	10.5	9.2	9.4	10.1	10.2
B. I will go to a community college.	28.3	48.0	26.0	41.9	30.1	49.4	28.4	43.5
C. I will go to a 4-year college or university.	41.2	23.4	36.4	20.3	39.5	22.3	34.5	19.2
D. I will go to a vocational, technical, or trade school.	4.8	6.3	5.6	6.6	4.9	6.8	5.5	7.2
E. I will work full-time.	9.6	9.1	12.9	15.1	8.9	8.5	12.7	14.1
F. Do something else (besides school, work, or the military.	6.9	3.3	9.4	5.7	7.4	3.5	8.9	5.8

Content and Instruction Coverage

Approximately 20 percent of those who did not pass the CAHSEE in 2012 responded that many topics on the CAHSEE were not covered in their courses this year. Those who did pass in 2012 were more likely to be familiar with the topics (see Table 3.34).

Table 3.34. Responses of Grade Twelve Students' in 2010 and 2012 After CAHSEE Tests as to Whether the Tested Topics Had Been Covered in Courses Taken, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)

Question 7. Were the topics on the test covered in courses you have taken?	ELA Questionnaire Responses				Math Questionnaire Responses			
	Students Passing		Students Not passing		Students Passing		Students Not passing	
	2010	2012	2010	2012	2010	2012	2010	2012
A. Yes, all of them.	34.9	37.5	34.4	29.7	28.4	28.3	28.2	26.0
B. Most, but not all of them (two-thirds or more were covered).	53.8	50.3	50.6	50.7	57.0	58.9	54.8	53.9
C. Many topics on the test were not covered in my courses (less than two-thirds were covered).	11.3	12.3	15.0	19.6	14.6	12.9	17.0	20.2

Table 3.35 shows an increase in the percentage of students reporting that test questions were easier or similar to those they had encountered in 2012 compared to their responses in 2010.

Table 3.35. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to Whether Test Questions Differed From Those Encountered in Homework or Classroom Tests, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)

Question 8. Were any of the questions on the test different from the types of questions or answer options you have encountered in your homework assignments or classroom tests?	ELA Questionnaire Responses				Math Questionnaire Responses			
	Students Passing		Students Not passing		Students Passing		Students Not passing	
	2010	2012	2010	2012	2010	2012	2010	2012
A. Yes, many were different from anything I had seen before.	21.8	17.2	28.5	26.2	22.1	17.8	27.9	24.9
B. Yes, a few were different from anything I had seen before.	56.3	53.9	51.1	50.5	56.6	58.3	52.0	52.5
C. The test questions were generally easier than the questions I encountered in my course work.	21.9	28.9	20.4	23.4	21.2	23.9	20.2	22.6

The grade twelve students were less likely in 2012 than in 2010 to report that questions on the CAHSEE were more difficult than those they had seen in class. Grade twelve students who passed the mathematics test in 2010 were less likely than those who passed in 2012 to report that the questions were easier than questions encountered in course work (see Table 3.36).

Table 3.36. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests Regarding the Comparative Difficulty of the Test Questions, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)

Question 9. Were the questions on this test more difficult than questions you were given in classroom tests or homework assignments?	ELA Questionnaire Responses				Math Questionnaire Responses			
	Students Passing		Students Not passing		Students Passing		Students Not passing	
	2010	2012	2010	2012	2010	2012	2010	2012
A. Yes, the test questions were generally more difficult that the questions I encountered in my course work.	29.6	23.0	35.6	31.8	34.8	31.1	38.6	35.2
B. The test questions were generally about as difficult as the questions I encountered in my course work.	52.3	59.0	45.5	48.9	50.9	58.3	45.7	49.3
C. The questions were generally easier than the questions I encountered in my course work.	18.2	18.0	18.9	19.3	14.3	10.7	15.8	15.6

Students who were taking the CAHSEE in grade 12 were more likely to report in 2012 than in 2010 that they did not take courses that covered CAHSEE topics or that they had trouble with the topics when they were covered. They were less likely to report that they had forgotten things they were taught about the topics in 2012 compared to 2010 – this was true for students who did and did not pass in 2012 (see Table 3.37).

Table 3.37. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to Why Some Topics Were Difficult for Them, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)

Question 10. If some topics on the test were difficult for you, was it because:	ELA Questionnaire Responses				Math Questionnaire Responses			
	Students Passing		Students Not Passing		Students Passing		Students Not Passing	
	2010	2012	2010	2012	2010	2012	2010	2012
A. I did not take courses that covered these topics.	14.6	15.6	17.6	21.1	17.2	18.8	19.4	21.6
B. I had trouble with these topics when they were covered in courses I took.	30.2	31.0	30.7	32.6	39.0	42.5	37.3	39.0
C. I have forgotten things I was taught about these topics.	39.8	34.5	35.3	30.5	36.1	33.5	32.8	28.7
D. None of the topics was difficult for me.	15.4	18.9	16.4	15.9	7.6	6.2	10.5	10.6

Efforts Put Into the CAHSEE

Just over 40 percent of the students who did not pass in 2012 reported that they would stay in school and try again to pass the CAHSEE, a considerably lower percentage (more than 15%) than in 2010. However, only about 4 percent of students who did not pass responded that they would give up trying to get a diploma and about one-fifth of them said they planned to take courses at a community college (see Table 3.38).

Table 3.38. Grade Twelve Students' Responses in 2010 and 2012 After CAHSEE Tests as to What They Are Most Likely To Do If They Do Not Pass, by Those Who Passed in 2012 and Those Who Did Not (in Percentages)

Question 12. If you do not pass the CAHSEE in this administration, what are you most likely to do? (Mark the most likely option.)	ELA Questionnaire Responses				Math Questionnaire Responses			
	Students Passing		Students Not passing		Students Passing		Students Not passing	
	2010	2012	2010	2012	2010	2012	2010	2012
A. I will stay in school and try again to pass the CAHSEE.	64.2	55.9	56.5	41.3	67.2	52.6	59.5	41.9
B. I will take courses at a community college and try again to pass CAHSEE.	9.1	17.6	11.7	21.2	9.1	18.5	11.4	21.9
C. I will participate in some other type of program that will help me to pass the CAHSEE.	14.1	10.8	14.6	11.5	11.9	10.9	12.3	10.8
D. I will try to get a GED certificate.	3.7	4.1	5.7	7.7	3.1	4.3	5.2	7.3
E. I will give up trying to get a diploma altogether.	2.2	1.9	3.4	3.9	1.7	2.3	3.2	3.9
F. I really do not know what I will do.	6.7	9.7	8.2	14.2	7.1	11.4	8.4	14.2

Summary of Grade Twelve Findings

Slightly more than half of the students who did not pass the CAHSEE as grade 12 students in 2012 believed that the CAHSEE would prevent them from earning a high school diploma; this was an increase from just over 42 percent in 2010. On the other hand, the percentage of these students who believed that course work would prevent them from doing so went down between 2010 and 2012. While just over 40 percent of students who did not pass stated that they would stay in school and attempt the CAHSEE again if they did not pass, approximately 4 percent of these students reported that they would give up trying to get a diploma altogether.

There is generally a very slight increase in familiarity with test topics and question types between 2010 and 2012 for this sample of students – indicating that those who were not exposed to CAHSEE-like topics and questions in grade 10 were unlikely to be exposed to them later in high school.

Chapter 4: Post High School Outcomes Study

D. E. (Sunny) Becker and Caroline R.H. Wiley

Background

More than ten years ago, the California High School Exit Examination Panel recommended content to be included in the California High School Exit Examination (CAHSEE). The State Board of Education (SBE) adopted both the content blueprints and passing standards for each of the two CAHSEE tests (English-language Arts and mathematics). In 2003, when the SBE determined that schools and students needed more time to prepare for the CAHSEE and deferred the requirement for two years, they adopted minor revisions to both the CAHSEE content blueprints and the passing levels. The revised standards have now been in place for nine years. Six high school classes (2006 through 2011) have had to meet the CAHSEE graduation requirement to receive a diploma. When the SBE set the initial cut score for the graduation requirement, the board expressed an intention of increasing the rigor of the CAHSEE requirement over time. It is now reasonable to examine what students who graduated with differing levels of proficiency on the CAHSEE are doing after high school, so as to help high school educators inform critical decision making. Other states and the nation are similarly examining what it means to be ready for college or career at the end of high school.

High school graduates may embark upon a variety of paths, including pursuing higher education, starting a career, and joining the military. Post high school outcomes (PHO) can be defined for each of these endeavors in terms of beginning, persisting, succeeding, and completing the undertaking of new milestones. Higher education outcomes may include enrollment in a college, university, or trade school, the need for remedial coursework, college persistence over time, college grade point average, and college graduation. Military outcomes include application, enlistment, completion of initial entry training, and completion of initial contract. Work outcomes include full- or part-time employment, enrollment in (and completion of) a job training program, the type of job obtained initially, and continued, sustained employment and/or promotion.

Research Questions

The California Department of Education (CDE) contracted with HumRRO to conduct a small-scale study in collaboration with volunteer local education agencies (LEAs) to determine the viability of a more extensive effort. This Post High School Outcomes Study addressed three overarching research questions:

1. What post high school outcomes can be linked to CAHSEE performance?
2. How well and in what ways does CAHSEE performance predict post high school performance?
3. How feasible is a collaborative effort among volunteer LEAs to analyze the relationships between CAHSEE performance and post high school outcomes?

Study Design

We contacted LEAs including school districts and charter schools throughout the state of California to gauge the level of interest in participating in this study. Representatives of eighteen LEAs attended a Planning Workshop in March 2011 to discuss possible sources of relevant information, the value of the study to LEAs, and the expectations for LEAs that agreed to participate in the study. Twelve LEAs committed to participate, and we finalized our evaluation plan in summer 2011. Data collection continued from the summer of 2011 through January 2012. HumRRO conducted preliminary analyses that were reviewed and discussed in a June 2012 Preliminary Results Workshop with the LEAs. After the second workshop, we corrected data as necessary, fine-tuned analytic plans, and produced this chapter as our study report. Results for individual LEAs are being provided to the LEAs separately.

Data Sources

This study uses information provided by LEAs and available state data sources, including:

- **Student demographic characteristics:** (gender, race/ethnicity, disability type, special education status, economic status) for the graduating classes of 2007, 2009, and 2011.

- **CAHSEE English-language Arts (ELA) and mathematics test scores:** In California, all grade 10 students are tested in a census administration and students have several retest opportunities until they achieve a passing score on the ELA and mathematics portions of the CAHSEE. For this study we used the highest CAHSEE ELA and the highest CAHSEE mathematics score reached by each student. It is worth noting that throughout this report CAHSEE results are discussed in terms of whether students passed or did not pass. In this chapter we dig deeper to analyze various levels of performance. CAHSEE results are used not only as a high school graduation requirement, but also as a metric to measure school progress in meeting Adequate Yearly Progress (AYP) requirements. In this context, CAHSEE scores are categorized as Below Basic, Basic, Proficient, and Advanced. Scores of Basic and above are passing scores for graduation purposes.

- **Early Assessment Program (EAP) test results:** In response to an increase in incoming college freshman who required remediation in English and/or mathematics, the CDE and the SBE, in collaboration with the California State University (CSU) system, set up a voluntary program designed to provide early signals about students' readiness for college-level coursework. High school students take the ELA EAP in grade 11 with an opportunity for remediation in grade 12 if necessary. Students take the mathematics EAP upon completion of an Algebra 2 course, which is not a high school graduation requirement. High school students who achieve a

sufficient EAP test score on ELA and math are considered ready for college-level coursework and are exempt from the California State University Entry Level Mathematics (ELM) examination and the English Placement Test (EPT).

- **Senior survey (SSV) data:** In the March 2011 Planning Workshop a small number of LEAs shared the details of their routine surveys of graduating seniors. In the following months, we identified the questions most relevant to the PHO study and several additional LEAs administered a new survey to their graduating classes based on these questions. Other LEAs revised their existing surveys to align with the common questions and added individual student identification so the responses could be included in the PHO Study.

- **National Student Clearinghouse (NSC) Student Tracker (ST) data:** The NSC ST database provides individual student level information about student enrollment and progress in higher level institutions (National Student Clearinghouse, 2012). As of July 2012, more than 3,300 colleges and universities participate in the NSC database, which represents approximately 96 percent of all students enrolled in U.S. public and private postsecondary institutions. Four LEAs already subscribed to the NSC ST database. Based on an overwhelming interest expressed by LEAs in the Planning Workshop, we requested ST data for a sample of 20,000 high school graduates on behalf of the LEAs that did not already participate in NSC. To maximize the analytic power of these data and minimize the cost-burden, this data request was limited to the high school classes of 2007, 2009, and 2011.

We produced a combined data repository with all data linked at the individual student level. As we describe later, a subset of these data were used in this report and a more complete set of analyses was provided to each LEA.

Participating Local Education Agencies (LEAs)

HumRRO wishes to thank the representatives from the California LEAs who participated in the PHO Study—the individuals who attended workshops, the data analysts who prepared data, and the leaders who granted time and effort to contribute to this study. We appreciate their sharing ideas during the Planning Workshop, their sustaining the effort to provide data—in some cases, implementing new data collection processes such as senior surveys—and their working with us in the Preliminary Results Workshop to interpret and debug findings. Without their commitment and involvement this study would, quite literally, not be possible.

Characteristics of the twelve participating LEAs are identified in Table 4.1. *Region* is defined as North if the latitude of the LEA location is greater than 35º N and South if the latitude is less than or equal to 35º N. *Race/ethnicity* is based on the racial/ethnic distribution of the LEA's 2009–10 grade ten CAHSEE examinees. The category identifies LEAs with high percentages of minority populations, relative to the

student population in the state. If more than 8 percent of these students were Black or African American, the LEA was categorized as Black or African American. If more than 45 percent of the students were Hispanic or Latino, the LEA was categorized as Hispanic or Latino. If neither of these conditions were true, the LEA was categorized as White. While we attempted to recruit LEAs with student populations that, combined, would be representative of the state as a whole, we were unsuccessful. *LEA Size* was defined as Large if the LEA's number of 2009–10 grade ten CAHSEE examinees was 1,001–10,000; and Small in all other cases. While we were unable to obtain a representative sample of students across the state, we were successful in securing the participation of LEAs with a variety of sizes and populations.

Table 4.1. Characteristics of Participating LEAs

Local Education Agency	Region	Size	Race/ Ethnicity
Ceres Unified	North	Small	Hispanic
East Side Union High	North	Large	Hispanic
Elk Grove Unified High	North	Large	Black
Glendale Unified	South	Large	White
Placer Union High	North	Large	White
Pomona Unified High	South	Large	Hispanic
Sacramento City Unified	North	Large	Black
San Juan Unified	North	Large	White
San Mateo Union High	North	Large	White
Santa Rosa Academy	South	Small	White
Sweetwater Union High	South	Large	Hispanic
West Contra Costa Unified	North	Large	Black

Findings

Data Included in This Study

For the purposes of clear analysis and interpretation, we restricted the results in this report to graduates of the classes of 2007, 2009, and 2011.[20] The CAHSEE was first required for high school graduation in the Class of 2006. We reasoned that inclusion of students in the Class of 2011 provided an opportunity to expand the number of LEAs administering senior surveys, which in turn could be linked to short term postsecondary status four to five months after graduation. Students in the Class of 2009 could be studied for evidence of medium term postsecondary status, such as persistence in college after two years. Students in the class of 2007 offer an opportunity to evaluate longer term postsecondary status including persistence in higher education after four years, and in some cases, college graduation. While some LEAs provided data for students in the classes of 2006, 2008, and 2010 the numbers and distribution of

[20] Results for all data provided by LEAs have been provided to each LEA separately.

students across LEAs for those cohorts was highly variable and might lead to unintentionally biased results.

The combined data repository used in this report included 12 LEAs, approximately 68,000 graduates with at least one matched CAHSEE score, 16,000 senior surveys, and 44,000 Student Tracker records.[21] Table 4.2 indicates the number of students contributed by each participating LEA for each graduating class.

Table 4.2. Number of Students Analyzed in this Study by LEA and Graduating Class (2007, 2009, and 2011 Only)

LEA	Graduation Year			
	2007	2009	2011	Total
Ceres Unified	400	561	688	1,649
East Side Union High	4,332	4,412	5,186	13,930
Elk Grove Unified High	3,695	3,786	4,232	11,713
Glendale Unified	2,083	2,166	1,995	6,244
Placer Union High	989	991	1,023	3,003
Pomona Unified High	1,449	1,637	1,519	4,605
Sacramento City Unified	3,164	2,347	2,325	7,836
San Juan Unified	2,928	2,815	2,781	8,524
San Mateo Union High	1,758	1,765	0*	3,523
Santa Rosa Academy	0**	17	24	41
Sweetwater Union High	0*	5,930	6,260	12,190
West Contra Costa Unified	1,508	1,627	1,634	4,769
Total	22,306	28,054	27,667	78,027

* The absence of students in this cell was an artifact of the data collection process.
** Santa Rosa Academy did not exist in 2007.

All subsequent analyses in this chapter will provide results for the combined data pool. Table 4.3 details the demographic characteristics of the students included in the study, by graduation year. Table 4.3 also reflects familiar trends over time among the California student population. The percentage of Hispanic students increased from 25 percent in the Class of 2007 to over 40 percent in 2011. The percentage of students identified as economically disadvantaged increased from 32 percent to 49 percent over the same time period. The right-most columns in Table 4.3 show the percentage of students in various demographic categories for the graduating Class of 2011 across the entire state. Comparison of these percentages to the percentages in the PHO sample

[21] The full set of data included 12 LEAs, approximately 114,000 graduates with matched CAHSEE scores, 65,000 Early Assessment Program (EAP) records, 24,000 senior surveys, and 76,000 Student Tracker records. These include students in the graduating classes of 2006 through 2011. As described above, a subset of the data was used for this report.

for the same year indicates that the PHO sample does not fully match the state demographics but is reasonably representative of the state.

Table 4.3. PHO Student Demographics

Demographic Group	Graduation Year							
	2007		2009		2011		2011 State	
All Students	20,843	100.0%	27,870	100.0%	27,274	100.0%	382,558	100.0%
Females	10,503	50.4%	14,496	52.0%	13,663	50.1%	197,045	51.5%
Males	10,336	49.6%	13,374	48.0%	13,609	49.9%	185,513	48.5%
American Indian or Alaska Native	162	.8%	188	.7%	157	.6%	2,692	0.7%
Asian	4,175	20.0%	4,700	16.9%	4,406	16.2%	39,717	10.4%
Pacific Islander	245	1.2%	328	1.2%	320	1.2%	2,432	3.2%
Filipino	1,100	5.3%	1,835	6.6%	1,704	6.2%	12,104	3.2%
Hispanic or Latino	5,215	25.0%	10,177	36.5%	11,076	40.6%	167,886	43.9%
African American or Black	2,331	11.2%	2,222	8.0%	2,218	8.1%	24,917	6.5%
White, non-Hispanic	7,475	35.9%	8,265	29.7%	7,013	25.7%	124,863	32.6%
Multiple Races	60	.3%	92	.3%	186	.7%	5,311	1.4%
Economically Disadvantaged	6,316	31.5%	10,293	37.1%	13,325	48.9%	219,856	57.5%
English Learner	2,342	11.7%	3,109	12.6%	1,483	8.9%	60,280	15.8%
Reclassified Fluent English	4,190	21.0%	6,786	27.4%	4,374	26.4%	N/A	N/A
Special Education Students	1,516	7.5%	1,773	6.4%	2,121	7.8%	34,156	8.9%
Mental Retardation	67	.3%	15	.1%	28	.1%	N/A	N/A
Hard of Hearing	10	.1%	16	.1%	22	.1%	N/A	N/A
Deaf	6	.0%	4	.0%	6	.0%	N/A	N/A
Speech or Language Impairment	62	.3%	63	.3%	133	.5%	N/A	N/A
Visual Impairment	9	.0%	2	.0%	12	.0%	N/A	N/A
Emotional Disturbance	77	.4%	63	.3%	99	.4%	N/A	N/A
Orthopedic Impairment	11	.1%	25	.1%	17	.1%	N/A	N/A
Other Health Impairment	42	.2%	57	.2%	142	.5%	N/A	N/A
Specific Learning Disability	1,158	5.8%	1,141	4.6%	1,444	5.3%	N/A	N/A
Multiple Disorders	5	.0%	1	.0%	1	.0%	N/A	N/A
Autism	20	.1%	27	.1%	68	.2%	N/A	N/A
Traumatic Brain Injury	4	.0%	4	.0%	3	.0%	N/A	N/A
Other Disability Type	91	.5%	0	.0%	1	.0%	N/A	N/A

HumRRO matched historical CAHSEE scores to the student records provided by the LEAs. See Chapter 2 for a description of the matching process. We selected the highest ELA scores and highest mathematics score for each student. Table 4.4 shows the distribution of CAHSEE ELA and mathematics achievement levels for this

population. As explained in the table footnotes, CAHSEE scores were not successfully matched for all students.

Table 4.4. Number and Percentage of Students at Each CAHSEE Achievement Level*

CAHSEE Achievement Level	ELA		Mathematics	
	Number	Percentage	Number	Percentage
Below Basic	2,216	3.2	2,158	3.1
Basic	25,620	37.3	23,346	33.9
Proficient	18,510	27.0	26,836	39.0
Advanced	22,269	32.5	16,510	24.0
Total	68,615*	100.0	68,850*	100.0

* Matching CAHSEE scores were not found for 9,412 ELA and 9,177 Mathematics tests.

In anticipation of analyses at a more fine-grained level than the four standard CAHSEE achievement levels, but not so detailed as scale scores, we constructed a 10-tier set of performance levels for this study. The achievement levels of Basic, Proficient, and Advanced were subdivided into three sub-levels of roughly equal populations. Table 4.5 shows the cut points used and the number and percentage of students in each ELA category. Note that these cut points were selected specifically for this population of students and would not necessarily be the ideal cut points for the entire California student population.

Table 4.5. Number and Percentage of Students by CAHSEE ELA Performance: 10 Levels

ELA Achievement (10 Levels)	Number of Students	Percentage
Not passed (under 350)	2,216	3.2
Basic-Low (350-359)	8,594	12.5
Basic-Medium (360-369)	8,421	12.3
Basic-High (370-379)	8,605	12.5
Proficient-Low (380-386)	5,637	8.2
Proficient-Medium (387-394)	6,147	9.0
Proficient-High (395-402)	6,726	9.8
Advanced-Low (403-413)	6,835	10.0
Advanced-Medium (414-430)	8,164	11.9
Advanced-High (above 430)	7,270	10.6
Total	68,615	100.0

We constructed a similar 10-level scale for the mathematics portion of the CAHSEE. Table 4.6 shows the cut points used and the number and percentage of students in each mathematics category.

Table 4.6. Number and Percentage of Students by CAHSEE Mathematics Performance: 10 Levels

Mathematics Achievement (10 Levels)	Number of Students	Percentage
Not passed (under 350)	2,158	3.1
Basic-Low (350-359)	8,311	12.1
Basic-Medium (360-369)	7,860	11.4
Basic-High (370-379)	7,175	10.4
Proficient-Low (380-391)	8,742	12.7
Proficient-Medium (392-404)	9,396	13.6
Proficient-High (405-421)	8,698	12.6
Advanced-Low (422-433)	6,135	8.9
Advanced-Medium (434-449)	4,280	6.2
Advanced-High (above 449)	6,095	8.9
Total	68,850	100.0

We also constructed a combined measure of CAHSEE ELA and mathematics performance. Using the original four achievement levels for ELA and mathematics, we identified the combined categories for each student. As depicted in Table 4.7, the most common categories were All Around Basic (i.e., student scored Basic or Below Basic in ELA and Basic or Below Basic in mathematics), All Around Advanced (i.e., student scored at the Advanced level on both tests), and All Around Proficient (i.e., student scored at the Proficient Level on both tests). These three categories accounted for over 58 percent of students. Few students scored at very disparate levels; 1.6 percent of students scored at the Advanced level on mathematics and the Basic level in ELA and 2.2 percent of students scored at the Advanced level on ELA and the Basic level in mathematics.

Table 4.7. Number and Percentage of Students by Combined CAHSEE Achievement Levels (ELA and Mathematics)

Combined CAHSEE Results	Number of Students	Percentage
All Around Basic	17,752	26.3
Proficient Math-Basic ELA	8,059	11.9
Proficient ELA-Basic Math	5,106	7.6
Advanced Math-Basic ELA	1,108	1.6
Advanced ELA-Basic Math	1,508	2.2
All Around Proficient	9,810	14.5
Advanced Math-Proficient ELA	3,510	5.2
Advanced ELA-Proficient Math	8,853	13.1
All Around Advanced	11,878	17.6
Total	67,584*	100.0

* This table excludes students for whom we did not find **both** CAHSEE ELA and mathematics scores.

Findings from Early Assessment Program (EAP)

The EAP program provides a measure of student readiness for college level coursework. As described under the *Data Sources* section of this chapter, students take the EAP ELA test in grade 11 and the EAP mathematics test upon completion of an Algebra 2 course. Seven LEAs provided EAP data. We compared CAHSEE results to EAP results as one indicator of the value of CAHSEE scores to assess postsecondary success in the academic arena.

Table 4.8 classifies students based on their CAHSEE and EAP ELA scores. Students classified on the EAP as exempt have met the CSU placement standards and are exempt from taking the CSU English Placement Test (EPT). Non-exempt students are not excused from taking the EPT and are considered not ready for college level coursework. Students classified as EAP incomplete are not exempt from the EPT because their EAPs were incomplete. Inspection of Table 4.8 reveals that the two tests are positively correlated and the EAP examination has more rigorous standards than the CAHSEE. Nearly half the students who scored at the Advanced level on the CAHSEE were not sufficiently prepared for college studies to be classified as exempt on the EAP.

Table 4.8. Comparison of CAHSEE ELA Achievement Level and EAP ELA Status

CAHSEE ELA Achievement Level		EAP ELA Status			
		Incomplete	Non-Exempt	Exempt	Total
Below Basic	Count	57	579	2	638
	% within CAHSEE Level	8.9%	90.8%	0.3%	100.0%
Basic	Count	178	10,691	89	10,958
	% within CAHSEE Level	1.6%	97.6%	0.8%	100.0%
Proficient	Count	125	7,780	1,051	8,956
	% within CAHSEE Level	1.4%	86.9%	11.7%	100.0%
Advanced	Count	123	5,050	5,805	10,978
	% within CAHSEE Level	1.1%	46.0%	52.9%	100.0%
Total	Count	483	24,100	6,947	31,530
	%	1.5%	76.4%	22.0%	100.0%

Table 4.9 classifies students based on their CAHSEE and EAP mathematics scores. The reader is reminded that fewer students take the EAP mathematics test than the EAP ELA test. Students classified on the EAP as exempt have met the CSU placement standards and are exempt from taking the CSU Entry Level Mathematics (ELM) test. Conditionally exempt students are considered ready for college level coursework at the time of the test, but must enroll in a senior year experience to ensure that their mathematics expertise does not deteriorate before high school graduation. Non-exempt students are not excused from taking the ELM and are considered not ready for college level coursework. Students classified as EAP incomplete are not

exempt from the ELM because their EAPs were incomplete. Inspection of Table 4.9 reveals that the two tests are positively correlated and the EAP examination has more rigorous standards than the CAHSEE. Nearly two thirds of the students who scored at the Advanced level on the CAHSEE were classified as conditionally exempt on the EAP and only 26 percent were fully exempt. Very few students who performed at the Proficient level on the CAHSEE reached exempt status on the EAP (3.4 percent).

Table 4.9. Comparison of CAHSEE Mathematics Achievement Level and EAP Mathematics Status

CAHSEE Mathematics Achievement Level		EAP Mathematics Status				
		Incomplete	Non-Exempt	Conditionally Exempt	Exempt	Total
Below Basic	Count	8	24	3	2	37
	% within CAHSEE Level	21.6%	64.9%	8.1%	5.4%	100.0%
Basic	Count	46	2,427	280	4	2,757
	% within CAHSEE Level	1.7%	88.0%	10.2%	0.1%	100.0%
Proficient	Count	51	3,910	3,680	265	7,906
	% within CAHSEE Level	0.6%	49.5%	46.5%	3.4%	100.0%
Advanced	Count	14	553	4,484	1,805	6,856
	% within CAHSEE Level	0.2%	8.1%	65.4%	26.3%	100.0%
Total	Count	119	6,914	8,447	2,076	17,556
	%	0.7%	39.4%	48.1%	11.8%	100.0%

Findings from Senior Surveys

Senior surveys provide information about the intentions of students as they near graduation. While responses to such a survey are not strictly post high school "outcomes" they may serve as a proxy for post high school activity. We will review the seniors' responses and their relationship to CAHSEE scores. Later in this chapter we will investigate how accurately these intentions predict actual outcomes.

Six LEAs provided student-level responses to senior surveys.[22] The numbers of surveys were 2,698, 2,899, and 10,375 surveys in 2007, 2009, and 2011, respectively. The increase in 2011 resulted from several LEAs agreeing to deploy new surveys after our Planning Workshop. Although some LEAs administered additional unique questions, we restrict our analyses in this report to common questions included by most LEAs. Appendix A includes a list of common senior survey questions. It is important to bear in mind that different combinations of questions were presented to students across LEAs, so the responses across questions cannot be reconciled precisely.

Table 4.10 summarizes responses to a general question about post high school plans. This question is presented in this table as though each student was asked to

[22] Some additional LEAs administered senior surveys without student identifiers. Without the ability to match individual students' survey responses to these students' CAHSEE scores and other data, the survey responses could not be used in this study.

provide the single best response, so a student who planned to work part-time while attending college would likely report college plans. Some LEAs presented the question in this way; however, other LEAs allowed students to select multiple responses. In these cases, HumRRO researchers assigned each student to a single response category. Plans to attend college overrode work plans. Over half the respondents indicated plans to go to college: 21 percent to a community or two-year college and 30 percent to a four-year college or university. Over 40 percent reported plans to work: almost 9 percent full-time and 32 percent part-time. Three percent planned to join the military.

Table 4.10. Senior Survey: What Do You Plan to Do After High School?*

Post High School Plan	Number of Students	Percentage of Respondents
Military	455	3.0
Community/2-year college	3,167	20.9
4-year college/university	4,547	30.1
Vocational/tech/trade school	253	1.7
Work full-time	1,343	8.9
Work part-time	4,842	32.0
Do something else (besides school, work, military)	148	1.0
Multiple-unspecified	374	2.5
Total	15,129	100.0

* This question was not presented to (or not answered by) 843 of the 15,972 students who completed senior surveys.

Seniors were asked to indicate the highest level of education they planned to complete. Table 4.11 reveals a high rate of college degree intentions. Over 40 percent plan to complete a Bachelor degree and nearly another 40 percent intend to earn a graduate degree. Comparison of Tables 4.10 and 4.11 shows that approximately 7,700 students planned to go to a two- or four-year institution after graduation but over 10,600 intended to complete at least a four-year degree eventually.

Table 4.11. Senior Survey: What Is the Highest Level of Education You Plan To Complete?*

Highest Level of Education	Number of Students	Percentage of Respondents
High School	451	3.4
One year vocational school	129	1.0
Two years of college	638	4.8
Four years of college/Bachelor degree	5,434	40.7
Graduate degree	5,233	39.2
Undecided	1,444	10.8
Multiple/Unspecified	8	.1
Total	13,337	100.0

* This question was not presented to (or not answered by) 2,635 of the 15,972 students who completed senior surveys.

The previous two questions asked about general future plans with no time constraint. Students were also asked about their school plans in the fall following graduation. Table 4.12 indicates that more students planned to attend college or school full-time than part-time, by a ratio of almost four to one.

Table 4.12. Senior Survey: Fall College or School Plans*

Fall College or School Plans	Number of Students	Percentage of Respondents
Full-time (12 or more units or 3 or more classes)	9,740	73.8
Part-time (Fewer than 12 units or 3 classes)	2,598	19.7
No plans to attend college this fall	861	6.5
Total	13,199	100.0

* This question was not presented to (or not answered by) 2,773 of the 15,972 students who completed senior surveys.

Postsecondary school-bound seniors were asked what type of college or school they planned to attend. Inspection of Table 4.13 indicates that nearly 90 percent of respondents planned to attend college in California: nearly 55 percent in community college, 20 percent in California State University (CSU) campuses, 10 percent in University of California (UC) schools, and 3 percent in private California institutions.

Table 4.13. Senior Survey: Type of College or School You Will Attend*

Type of College or School	Number of Students	Percentage of Respondents
Community college	7,001	54.8
California State University (CSU)	2,572	20.1
University of California (UC)	1,285	10.1
Private CA college/university	409	3.2
Out of state 2-year college	76	.6
Out of state 4-year college/university	569	4.5
Trade school	284	2.2
Apprenticeship	15	.1
Other	506	4.0
Multiple/Not specified	22	.2
NA	32	.3
Total	12,771	100.0

* This question was not presented to (or not answered by) 3,201 of the 15,972 students who completed senior surveys.

Students were asked whether they had been accepted by this institution at the time the senior survey was administered. We do not know the exact timing of each LEA's survey administration, but most LEAs indicated they administered the survey in April or May. We were surprised to see that nearly a quarter of the respondents had not yet applied (Table 4.14). Upon the advice of LEA representatives during the Preliminary Results Workshop we investigated further and determined that 73 percent of the students who had not yet applied planned to attend community college. Most California community colleges accept applications even after the school term has started (http://www.cccapply.org/faq/admissions.asp#6). So this result is less concerning than it may initially seem to be.

Table 4.14. Senior Survey: Have You Been Accepted by This College or School?*

Have you been accepted by this college or school?	Number of Students	Percentage of Respondents
Yes	8,992	72.6
No	509	4.1
I still need to apply	2,880	23.2
Multiple/Not specified	11	.1
Total	12,392	100.0

* This question was not presented to (or not answered by) 3,580 of the 15,972 students who completed senior surveys.

The senior survey asked students to indicate their intended area of college study. Table 4.15 lists responses in descending order of frequency and indicates that the most common majors chosen from a list or 11 specific fields plus "undecided-other" were health/medicine (29%), computer/engineering/math (13%), and business/economics (12%). More than 16 percent of respondents reported they were undecided.

*Table 4.15. Senior Survey: What Best Describes Your Intended Area of College Study?**

What best describes your intended area of college study?	Number of Students	Percentage of Respondents
Health/Medicine/Science	3,799	29.2
Undecided/Other	2,146	16.5
Computer/Engineering/Math	1,646	12.6
Business/Economics	1,499	11.5
Law/Criminal Justice	1,001	7.7
Visual/Performing Arts	804	6.2
Psychology/Sociology	755	5.8
Liberal Arts/Education	417	3.2
Communications/Journalism	277	2.1
English/Foreign Language	237	1.8
History/Social Sciences	230	1.8
Agriculture/Forestry	168	1.3
Multiple/Not specified	43	0.3
Total	13,022	100.0

* This question was not presented to (or not answered by) 2,950 of the 15,972 students who completed senior surveys.

The LEA surveys asked seniors about their plans to work in the fall following high school graduation. Over three quarters of respondents intended to work, the majority of those part-time (Table 4.16).

*Table 4.16. Senior Survey: Fall Work Plans**

Fall Work Plans	Number of Students	Percentage of Respondents
Full time (30+ hours)	1,944	15.9
Part time	7,688	62.9
No plans to work this fall	2,170	17.8
Military	409	3.3
Multiple/Not specified	13	.1
Total	12,224	100.0

* This question was not presented to (or not answered by) 3,748 of the 15,972 students who completed senior surveys.

The senior survey sought to classify intended jobs in a hierarchy. We used a well-established comprehensive system for collecting, organizing, describing, and disseminating data on occupational characteristics and worker attributes, the O*NET (http://www,onetonline.org/). This system was developed under the sponsorship of the U.S. Department of Labor/Employment and Training Administration. One of the O*NET classifications assigns occupations to five zones. Occupations within a zone are similar

with respect to how much education, related experience, and on-the-job training people need to do the work. Jobs in zones 1 to 3 do not require a college degree, but most jobs in zones 4 and 5 do require a college degree. Each job zone also corresponds to a range of specific vocational preparation (SVP) on a scale of 1 to 9, reflecting the amount of lapsed time required by a typical worker to learn the techniques, acquire the information, and develop the facility needed for average performance in a specific job/worker situation.

For the purpose of characterizing the jobs graduates planned to hold immediately after high school, only the first three zones are relevant. We suggested the following descriptions to include on the surveys:

- Zone 1: Little or no previous work-related skill, knowledge, or experience is needed for these occupations. Examples include taxi drivers, amusement and recreation attendants, counter and rental clerks, construction laborers, continuous mining machine operators, and waiters/waitresses.

- Zone 2: Some previous work-related skill, knowledge, or experience is usually needed. Employees in these occupations need anywhere from a few months to one year of working with experienced employees. Examples include sheet metal workers, forest fire fighters, customer service representatives, physical therapist aides, salespersons (retail), and tellers.

- Zone 3: Previous work-related skill, knowledge, or experience is required for these occupations. Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers. A recognized apprenticeship program may be associated with these occupations. Examples include food service managers, electricians, agricultural technicians, legal secretaries, interviewers, and insurance sales agents.

Table 4.17 indicates that among graduates who plan to work in the fall, approximately half the respondents plan to work in Zone 1 occupations, over a quarter in Zone 2, and nearly 14 percent in Zone 3. High school seniors were asked whether this planned fall job was a long-term career goal. Only a quarter of respondents indicated that it was (Table 4.17).

*Table 4.17. Senior Survey: Expected Fall Job and Long-Term Career Goal**

	If you expect to be working in the fall, is the description you selected above your long-term career goal?		
Consider your fall school or work plans. If you plan to be working which best describes the job you expect to have?	No	Yes	Total
Zone 1: Little to no previous work-related skill, knowledge, or experience needed	56.4%	26.2%	48.7%
Zone 2: Some previous work-related skill, knowledge, or experience needed	27.0%	32.6%	28.4%
Zone 3: Previous work-related skill, knowledge, or experience needed	8.7%	30.%	14.1%
Other	7.8%	10.9%	8.5%
Multiple-not specified	0.2%	0.4%	0.3%
Total	100.0%	100.0%	100.0%

* One or both of these questions were not presented to (or not answered by) 11,314 of the 15,972 students who completed senior surveys.

In the final question included in the senior survey for this study, students were asked about long-term employment goals. Table 4.18 presents the responses in order of descending frequency. The most commonly selected employment areas were health sciences & medical technology (28 percent), arts/media/entertainment (11 percent), and education/child development/family services (9 percent).

*Table 4.18. Senior Survey: What Best Describes Your Long-Term Employment Area?**

What best describes your long-term employment area?	Number of Students	Percentage of Respondents
Health Science & medical technology	2,338	27.6
Other	1,303	15.4
Arts/media/entertainment	911	10.8
Engineering & design	751	8.9
Finance & business	617	7.3
Education/child development/family services	604	7.1
Public Services	454	5.4
Marketing/sales & service	266	3.1
Agriculture and natural science	208	2.5
Fashion & interior design	190	2.2
Information technology	165	2
Hospitality/tourism & recreation	153	1.8
Building trades/construction	100	1.2
Transportation	81	1
Multiple Responses	71	0.8
U.S. Marine Corps	57	0.7
None	61	0.7
Manufacturing & product development	36	0.4
U.S. Army	24	0.3
U.S. Navy	25	0.3
U.S. Air Force	24	0.3
Energy & utilities	19	0.2
Total	8,458	100.0

* This question was not presented to (or not answered by) 7,514 of the 15,972 students who completed senior surveys.

Relationship of CAHSEE Performance to Senior Survey Responses

We next looked at the relationships between CAHSEE ELA scores and the senior survey responses. Results for CAHSEE ELA and Mathematics were similar so we provide comparable tables for CAHSEE Mathematics scores and senior survey responses in Appendix B.

Table 4.19 compares students' plans after high school to the highest achievement level they attained on the CAHSEE ELA test. Table 4.19 includes percentages within each achievement level. For example, among students who scored at the Advanced level, nearly 45 percent planned to attend a four-year college or university. Among students who scored at the proficient level, 27 percent planned to attend a four-year institution and 22 percent planned to attend a two-year college. Students who scored at the Basic level were more inclined to attend a two-year college (28 percent) than a four-year college (22 percent).

Table 4.19. Post High School Plans by CAHSEE ELA Achievement Level*

What do you plan to do after high school?		ELA Achievement Level				Total
		Below Basic	Basic	Proficient	Advanced	
Military	Count	6	198	131	94	429
	% within ELA level	2.2%	3.8%	3.2%	2.0%	3.0%
Community/2-year college	Count	75	1,442	898	639	3,054
	% within ELA level	27.7%	27.6%	21.8%	13.3%	21.2%
4-year college/university	Count	45	1,138	1,118	2,138	4,439
	% within ELA level	16.6%	21.8%	27.2%	44.6%	30.8%
Vocational/tech/ trade school	Count	5	126	74	39	244
	% within ELA level	1.8%	2.4%	1.8%	.8%	1.7%
Work full-time	Count	54	545	357	260	1,216
	% within ELA level	19.9%	10.4%	8.7%	5.4%	8.4%
Do something else (besides school, work, military)	Count	6	85	32	24	147
	% within ELA level	2.2%	1.6%	.8%	.5%	1.0%
Work part-time	Count	52	1,519	1,398	1,530	4,499
	% within ELA level	19.2%	29.1%	34.0%	31.9%	31.2%
Multiple/Unspecified	Count	28	164	105	75	372
	% within ELA level	10.3%	3.1%	2.6%	1.6%	2.6%
Total	Count	271	5,217	4,113	4,799	14,400
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

Table 4.20 compares the relationship between high school seniors' education ambitions and CAHSEE ELA performance. Graduate degree ambitions provide evidence that CAHSEE performance is related to seniors' academic intentions. Nearly 40 percent of all students planned to complete a graduate degree, including 12 percent of students Below Basic, 28 percent at the Basic level, 38 percent Proficient, and 55 percent of Advanced students.

Table 4.20. Highest Planned Education Level by CAHSEE ELA Achievement Level*

Highest level of education you plan to complete?		ELA Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
High School	Count	66	271	62	37	436
	% within ELA level	26.8%	5.9%	1.7%	.9%	3.4%
One-year vocational school	Count	6	69	30	14	119
	% within ELA level	2.4%	1.5%	.8%	.3%	.9%
Two years of college	Count	56	361	136	57	610
	% within ELA level	22.8%	7.8%	3.8%	1.3%	4.8%
Four years of college/Bachelor degree	Count	54	2,008	1,638	1,441	5141
	% within ELA level	22.0%	43.5%	45.4%	34.1%	40.5%
Graduate degree	Count	30	1,294	1,366	2,332	5,022
	% within ELA level	12.2%	28.0%	37.9%	55.1%	39.5%
Undecided	Count	33	606	375	349	1,363
	% within ELA level	13.4%	13.1%	10.4%	8.3%	10.7%
Multiple/Unspecified	Count	1	6	1	0	8
	% within ELA level	.4%	.1%	.0%	.0%	.1%
Total	Count	246	4,615	3,608	4,230	12,699
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

Table 4.21 also reflects a relationship between CAHSEE scores and students' plans to attend college in the fall. Among students who scored at the Advanced level on the ELA test, nearly 88 percent planned to attend college full-time, compared to 77 percent of Proficient students, 62 percent of Basic students, and 32 percent of Below Basic students.

*Table 4.21. Fall School Plans by CAHSEE ELA Achievement Level**

Fall college or school plans?		ELA Achievement Level				Total
		Below Basic	Basic	Proficient	Advanced	
Full-time (12 or more units or 3 or more classes)	Count	78	2,797	2,759	3,692	9,326
	% within ELA level	31.8%	61.6%	77.2%	87.8%	74.2%
Part-time (Fewer than 12 units or 3 classes)	Count	126	1,341	615	351	2,433
	% within ELA level	51.4%	29.5%	17.2%	8.3%	19.4%
No plans to attend college this fall	Count	41	406	201	162	810
	% within ELA level	16.7%	8.9%	5.6%	3.9%	6.4%
Total	Count	245	4,544	3,575	4,205	12,569
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

Table 4.22 reflects a similar pattern. More Advanced students planned to attend a UC institution or an out of state four-year college than students at lower CAHSEE achievement levels. Students at the Basic level were more likely to plan to attend community college than students at higher CAHSEE achievement levels. The pattern of academic achievement in relation to California public institutions parallels the relative rigor of goals in the California community college, CSU, and UC systems.

*Table 4.22. Type of School by CAHSEE ELA Achievement Level**

The type of school you will attend		ELA Achievement Level				Total
		Below Basic	Basic	Proficient	Advanced	
Community college	Count	185	3,078	1,952	1,423	6,638
	% within ELA level	81.1%	70.9%	56.1%	34.4%	54.5%
Cal State University	Count	6	538	832	1,095	2,471
	% within ELA level	2.6%	12.4%	23.9%	26.4%	20.3%
UC	Count	5	99	216	931	1,251
	% within ELA level	2.2%	2.3%	6.2%	22.5%	10.3%
Private CA college/university	Count	2	69	85	245	401
	% within ELA level	.9%	1.6%	2.4%	5.9%	3.3%
Out of state 2-year college	Count	2	31	23	15	71
	% within ELA level	.9%	.7%	.7%	.4%	.6%
Out of state 4-year college/university	Count	2	110	130	299	541
	% within ELA level	.9%	2.5%	3.7%	7.2%	4.4%
Trade school	Count	4	144	82	44	274
	% within ELA level	1.8%	3.3%	2.4%	1.1%	2.2%
Apprenticeship	Count	1	6	4	2	13
	% within ELA level	.4%	.1%	.1%	.0%	.1%
Other	Count	19	239	142	76	476
	% within ELA level	8.3%	5.5%	4.1%	1.8%	3.9%
Multiple/Not specified	Count	0	12	3	7	22
	% within ELA level	.0%	.3%	.1%	.2%	.2%
NA	Count	2	15	11	4	32
	% within ELA level	.9%	.3%	.3%	.1%	.3%
Total	Count	228	4,341	3,480	4,141	12,190
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

Seniors' reports of whether they had been accepted by their intended college or school paralleled the previous questions. The majority of students indicated that they had been accepted, and that majority was largest for the highest-achieving students.

Table 4.23. Whether Accepted by CAHSEE ELA Achievement Level*

Have you been accepted by this college or school?		ELA Achievement Level				Total
		Below Basic	Basic	Proficient	Advanced	
Yes	Count	88	2,585	2,528	3,460	8,661
	% within ELA level	40.4%	61.4%	74.9%	85.6%	73.1%
No	Count	26	270	108	76	480
	% within ELA level	11.9%	6.4%	3.2%	1.9%	4.1%
I still need to apply	Count	104	1,349	737	505	2,695
	% within ELA level	47.7%	32.0%	21.8%	12.5%	22.7%
Multiple/Not specified	Count	0	9	0	2	11
	% within ELA level	.0%	.2%	.0%	.0%	.1%
Total	Count	218	4,213	3,373	4,043	11,847
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

Responses regarding seniors' intended area of college study painted a less clear picture. According to Table 4.24 the most popular area of study across all CAHSEE levels was health/medicine/science. The percentage of students selecting this field was slightly higher as CAHSEE achievement increased. Computer/engineering/ math followed the same pattern and business/economics fell close behind. Law/criminal justice followed the reverse pattern. That is, as CAHSEE achievement increased, the percentage of seniors planning this major decreased.

*Table 4.24. Intended Area of College Study by CAHSEE ELA Achievement Level**

What best describes your intended area of college study?		ELA Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Business/Economics	Count	26	529	425	443	1,423
	% within ELA level	11.1%	11.8%	12.0%	10.6%	11.5%
Agriculture/Forestry	Count	1	74	41	51	167
	% within ELA level	.4%	1.7%	1.2%	1.2%	1.3%
Liberal Arts/Education	Count	13	116	123	145	397
	% within ELA level	5.6%	2.6%	3.5%	3.5%	3.2%
Health/Medicine/ Science	Count	50	1,231	1,057	1,306	3,644
	% within ELA level	21.4%	27.5%	29.9%	31.3%	29.3%
English/Foreign Language	Count	14	54	50	106	224
	% within ELA level	6.0%	1.2%	1.4%	2.5%	1.8%
Computer/Engineering/ Math	Count	19	551	437	582	1,589
	% within ELA level	8.1%	12.3%	12.4%	14.0%	12.8%
Visual/Performing Arts	Count	18	286	205	254	763
	% within ELA level	7.7%	6.4%	5.8%	6.1%	6.1%
Psychology/Sociology	Count	5	232	189	294	720
	% within ELA level	2.1%	5.2%	5.3%	7.0%	5.8%
History/Social Sciences	Count	3	54	45	115	217
	% within ELA level	1.3%	1.2%	1.3%	2.8%	1.7%
Law/Criminal Justice	Count	31	454	286	188	959
	% within ELA level	13.2%	10.1%	8.1%	4.5%	7.7%
Communications/ Journalism	Count	6	50	95	110	261
	% within ELA level	2.6%	1.1%	2.7%	2.6%	2.1%
Undecided/Other	Count	48	820	575	570	2,013
	% within ELA level	20.5%	18.3%	16.3%	13.7%	16.2%
Multiple/Not specified	Count	0	26	10	7	43
	% within ELA level	.0%	.6%	.3%	.2%	.3%
Total	Count	234	4,477	3,538	4,171	12,420
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

Table 4.25 indicates that CAHSEE achievement among respondents was negatively related to plans to work full-time after high school graduation. Fewer than 10 percent of Advanced students planned to work full-time, compared to 16 percent of Proficient students, 20 percent of Basic students, and 35 percent of Below Basic students.

Table 4.25. Fall Work Plans by CAHSEE ELA Achievement Level*

Fall work plans		ELA Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Full-time (30+ hours)	Count	72	832	516	379	1,799
	% within ELA level	35.3%	20.5%	15.6%	9.5%	15.5%
Part-time	Count	101	2470	2160	2548	7,279
	% within ELA level	49.5%	60.9%	65.3%	63.7%	62.9%
No plans to work this fall	Count	28	579	516	978	2,101
	% within ELA level	13.7%	14.3%	15.6%	24.4%	18.2%
Military	Count	3	173	114	91	381
	% within ELA level	1.5%	4.3%	3.4%	2.3%	3.3%
Multiple-not specified	Count	0	4	3	6	13
	% within ELA level	.0%	.1%	.1%	.1%	.1%
Total	Count	204	4,058	3,309	4,002	11,573
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

Table 4.26 reveals that CAHSEE ELA achievement is positively related to Zone 1 work; that is, students with high achievement were more likely to plan low skill work in the fall. Table 4.27 reveals that CAHSEE ELA achievement was negatively related to seeing that job as a long-term career goal. In conjunction, responses to these two may indicate that students who had high academic performance planned to work at a low skill job as a short-term measure, while lower performing students were more inclined to work in a job requiring some specific previous knowledge, skills, and experience (KSE) and a long-term commitment. Nearly 60 percent of students at the Below Basic level planned to work in their long-term career immediately after high school graduation.

*Table 4.26. Expected Fall Job by CAHSEE ELA Achievement Level**

Consider your fall school or work plans: if you plan to be working, which best describes the job you expect to have?		ELA Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Zone 1: Little to no previous work-related KSE needed	Count	29	619	568	849	2,065
	% within ELA level	22.0%	38.8%	53.6%	62.9%	49.9%
Zone 2: Some previous work-related KSE needed	Count	41	505	303	295	1,144
	% within ELA level	31.1%	31.6%	28.6%	21.9%	27.6%
Zone 3: Previous work-related KSE needed	Count	29	310	118	111	568
	% within ELA level	22.0%	19.4%	11.1%	8.2%	13.7%
Other	Count	33	157	68	92	350
	% within ELA level	25.0%	9.8%	6.4%	6.8%	8.5%
Multiple/Not specified	Count	0	6	3	2	11
	% within ELA level	.0%	.4%	.3%	.1%	.3%
Total	Count	132	1,597	1,060	1,349	4,138
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table 4.27. Fall Job as Career Goal by CAHSEE ELA Achievement Level**

If you expect to be working in the fall, is the description you selected above your long-term career goal?		ELA Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Multiple/Not specified	Count	0	0	1	0	1
	% within ELA level	.0%	.0%	.1%	.0%	.0%
No	Count	58	1,188	1,023	1,348	3,617
	% within ELA level	40.3%	64.3%	81.3%	87.5%	75.5%
Yes	Count	86	661	235	193	1,175
	% within ELA level	59.7%	35.7%	18.7%	12.5%	24.5%
Total	Count	144	1,849	1,259	1541	4,793
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

The relationship of intended long-term employment area to CAHSEE achievement levels revealed only weak trends (Table 4.28). Health sciences and medical technology as well as engineering and design were more commonly cited as planned careers as CAHSEE achievement increased. Fashion and interior design followed the opposite pattern.

*Table 4.28. Long-term Employment Area by CAHSEE ELA Achievement Level**

What best describes your long-term employment area?		ELA Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Agriculture and natural science	Count	1	81	49	74	205
	% within ELA level	.6%	2.7%	2.1%	2.6%	2.5%
Arts/media/entertainment	Count	24	304	243	312	883
	% within ELA level	14.3%	10.3%	10.6%	11.0%	10.7%
Building trades/construction	Count	6	56	23	13	98
	% within ELA level	3.6%	1.9%	1.0%	.5%	1.2%
Education/child development/ family services	Count	16	197	159	210	582
	% within ELA level	9.5%	6.6%	7.0%	7.4%	7.1%
Energy & utilities	Count	1	5	7	5	18
	% within ELA level	.6%	.2%	.3%	.2%	.2%
Engineering & design	Count	7	246	185	300	738
	% within ELA level	4.2%	8.3%	8.1%	10.6%	8.9%
Fashion & interior design	Count	11	84	45	35	175
	% within ELA level	6.5%	2.8%	2.0%	1.2%	2.1%
Finance & business	Count	7	181	192	221	601
	% within ELA level	4.2%	6.1%	8.4%	7.8%	7.3%
Health Science & medical tech	Count	24	717	643	906	2,290
	% within ELA level	14.3%	24.2%	28.2%	32.0%	27.8%
Hospitality/tourism & recreation	Count	8	73	30	39	150
	% within ELA level	4.8%	2.5%	1.3%	1.4%	1.8%
Information technology	Count	3	57	42	57	159
	% within ELA level	1.8%	1.9%	1.8%	2.0%	1.9%
Manufacturing & product development	Count	1	15	13	7	36
	% within ELA level	.6%	.5%	.6%	.2%	.4%
Marketing/sales & service	Count	4	99	77	82	262
	% within ELA level	2.4%	3.3%	3.4%	2.9%	3.2%
Multiple responses	Count	0	45	15	11	71
	% within ELA level	.0%	1.5%	.7%	.4%	.9%
Public Services	Count	9	129	142	163	443
	% within ELA level	5.4%	4.4%	6.2%	5.8%	5.4%
Transportation	Count	1	51	17	11	80
	% within ELA level	.6%	1.7%	.7%	.4%	1.0%
U.S. Army	Count	3	9	2	10	24
	% within ELA level	1.8%	.3%	.1%	.4%	.3%
U.S. Navy	Count	2	10	7	6	25
	% within ELA level	1.2%	.3%	.3%	.2%	.3%
U.S. Air Force	Count	0	14	5	5	24
	% within ELA level	.0%	.5%	.2%	.2%	.3%
U.S. Marine Corps	Count	1	31	16	8	56
	% within ELA level	.6%	1.0%	.7%	.3%	.7%
Other	Count	39	529	358	344	1,270
	% within ELA level	23.2%	17.9%	15.7%	12.1%	15.4%
None	Count	0	30	13	14	57
	% within ELA level	.0%	1.0%	.6%	.5%	.7%
Total	Count	168	2,963	2,283	2,833	8,247
	% within ELA level	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

Tables similar to tables 4.20 through 4.29, exploring CAHSEE mathematics achievement rather than CAHSEE ELA achievement, are provided in Appendix B. Patterns of survey responses relative to academic achievement were quite similar to those discussed above.

We next compared the combined CAHSEE ELA and mathematics achievement scores (described in Table 4.7) to long-term employment intentions. Table 4.29 lists the long-term employment areas investigated by the senior survey in rows and the combined CAHSEE achievement level in columns. We hypothesized that some career areas might be associated with strong ELA performance and others with strong mathematics performance. A clear pattern did not arise in most employment areas, however. This may reflect the variety of types of jobs within each broad area. Consider the employment areas most commonly selected by respondents:

- Health science and medical technology was selected by more than a quarter of survey respondents (*n*=2,279). Inspection of the number of students across this row reveals a bimodal pattern, with the numbers of students at the extremes of All Around Basic and All Around Advanced accounting for nearly half the students (*n*=1,020).

- Arts/media/entertainment was identified by 880 students, nearly 11 percent of respondents. These students were distributed broadly across all achievement categories.

- Engineering and design was the intended employment area for 9 percent of respondents (*n*=735). This pool of students tended to exhibit a pattern of high mathematics achievement.

Table 4.29. Long-term Employment Area by CAHSEE Combined Achievement Level*

What best describes your long-term employment area?	Combined CAHSEE Results									
	All Around Basic	Prof Math-Basic ELA	Prof ELA-Basic Math	Adv Math-Basic ELA	Adv ELA-Basic Math	All Around Proficient	Adv Math-Prof ELA	Adv ELA-Prof Math	All Around Advanced	Total
Health Science & medical technology	462	241	154	29	36	341	146	312	558	2,279
Other	380	172	116	12	19	198	44	143	181	1,265
Arts/media/ entertainment	219	92	77	14	28	135	31	137	147	880
Engineering & design	96	125	15	29	4	105	65	62	234	735
Finance & business	104	68	34	11	12	108	50	67	142	596
Education/child dev/family services	143	60	57	7	19	79	23	106	85	579
Public Services	91	43	36	2	10	82	24	73	79	440
Marketing/sales & service	70	31	10	2	6	52	15	39	37	262
Agriculture and natural sciences	47	29	18	4	7	24	7	28	39	203
Fashion & interior design	78	16	17	0	2	23	5	22	11	174
Information technology	30	25	12	4	2	20	10	16	39	158
Hospitality/tourism & recreation	62	16	10	1	1	15	5	23	15	148
Building trades/construction	44	15	6	1	2	14	3	3	8	96
Transportation	31	20	4	1	1	7	6	4	6	80
Multiple	27	18	5	0	2	6	4	3	6	71
U.S. Marine Corps	18	13	6	1	1	7	3	4	3	56
None	17	5	4	4	1	7	2	7	6	53
Manufacturing & product development	8	6	3	1	0	10	0	0	7	35
U.S. Navy	10	2	3	0	0	4	0	5	1	25
U.S. Army	11	0	1	1	0	0	1	1	9	24
U.S. Air Force	11	3	3	0	0	1	1	1	4	24
Energy & utilities	2	4	5	0	0	0	2	3	2	18
Total	1,961	1,004	596	124	153	1,238	447	1,059	1,619	8,201

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

We investigated the relationship of post high school plans to the students' economic status (Table 4.30). The largest differences between economically disadvantaged students and students who are not economically disadvantaged appeared in their plans to attend community college (favored more by disadvantaged students, 25 percent to 18 percent) and plans to work part-time (favored more by non-economically disadvantaged students, 36 percent to 27 percent). Nearly identical percentages of economically disadvantaged and non-economically students planned to join the military (3 percent), attend a four-year college or university (30 percent), and work full-time (8 percent).

*Table 4.30. Post High School Plans by Economic Status**

What do you plan to do after high school?	Economically Disadvantaged or Not		
	Not ED	ED	Total
Military	3.0%	3.0%	3.0%
Community/2-year college	17.5%	25.2%	21.2%
4-year college/university	30.8%	30.3%	30.5%
Vocational/tech/trade school	1.4%	2.0%	1.7%
Work FT	8.8%	8.3%	8.6%
Work PT	36.0%	26.6%	31.5%
Do something else (besides school, work, military)	0.8%	1.2%	1.0%
Multiple/Unspecified	1.8%	3.4%	2.6%
Total Percentage	100.0%	100.0%	100.0%
Total Number of Students	7,595	6,992	14,587

* Table includes only students who answered this survey question **and** for whom we had ED status.

Findings from Student Tracker

NSC Student Tracker was our only source of actual post high school outcomes for all participating LEAs. Table 4.31 details the number of students for whom Student Tracker data were included in these analyses, by graduation year and LEA. The reader is reminded that Student Tracker data was requested for a sample of graduates. All analyses included in this report aggregate the Student Tracker data across LEAs.

Table 4.31. Number of Student Tracker Students by LEA and Graduating Class

Local Education Agency	Graduation Year			
	2007	2009	2011	Total
Ceres Unified	400	561	688	1,649
East Side Union High	2,587	1,613	2,010	6,210
Elk Grove Unified High	1,587	1,169	1,465	4,221
Glendale Unified	2,083	2,166	1,995	6,244
Placer Union High	641	348	404	1,393
Pomona Unified High	797	581	598	1,976
Sacramento City Unified	3,164	2,346	2,317	7,827
San Juan Unified	2,928	2,815	2,781	8,524
San Mateo Union High	137	642		779
Santa Rosa Academy		14	24	38
Sweetwater Union High		2,049	2,316	4,365
West Contra Costa Unified	246	582	170	998
Total	14,570	14,886	14,768	44,224

Student Tracker files contain detailed records of each instance of enrollment by each student. For example, a student who enrolled in eight consecutive semesters at a single institution and then graduated would be represented by at least nine records in the file: one for each semester and one for the attainment of a degree. The pattern of records grows more complicated as students enroll in multiple institutions, enroll and drop out, take breaks for a semester or more, earn multiple degrees and certifications, etc. We aggregated data for each student to inform the following analyses.

Students who are not found in the Student Tracker database are flagged as “not found.” These students may never have enrolled in a postsecondary institution in the United States, or may have enrolled in one of the institutions for which NSC does not collect data,[23] or may have requested that their data not be shared. It is important to keep in mind that students for whom we found no evidence of enrollment cannot be definitively characterized as never enrolling.

First we determined the first enrollment date for each student. We translated the specific date into a school year; we defined a school year as July 1 through June 30. Table 4.32 summarizes the first enrollment year for each graduating class for the 44,224 students who were submitted to Student Tracker. Among the 14,570 Class of 2007 students represented in the Student Tracker file, we found no evidence of enrollment for 21 percent. While a small percentage of students (2.6 percent) enrolled in the same school year in which they graduated[24], two-thirds of the students (65.5 percent) enrolled in the following school year. Small numbers of students first enrolled in each subsequent year. Enrollment in the year following graduation is highlighted in bold

[23] As of July 2012, more than 3,300 colleges and universities participate in the NSC database, approximating 96 percent of all students enrolled in U.S. public and private postsecondary institutions.

[24] High school graduation and first college enrollment in the same school year may reflect dual enrollment, graduation in the fall semester and college enrollment in the spring, or some other situation.

in Table 4.32 for each graduating class. The percentage of these enrollments appeared to decline for the Class of 2011, but the reader is reminded that the Student Tracker information was last updated in the fall semester of the 2011–12 school year. Hence, the 2011–12 school year result is a truncated sample.

Table 4.32. First Enrollment Date by Graduating Class

Graduating Class		First Enrollment Year							
		None	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Total
2007	Count	3,092	384	**9,549**	793	389	228	135	14,570
	% within Class	21.2%	2.6%	**65.5%**	5.4%	2.7%	1.6%	.9%	100.0%
2009	Count	3,150	0	0	495	**10,340**	654	247	14,886
	% within Class	21.2%	.0%	.0%	3.3%	**69.5%**	4.4%	1.7%	100.0%
2011	Count	5,271	0	0	0	0	292	**9,205**	14,768
	% within Class	35.7%	.0%	.0%	.0%	.0%	2.0%	**62.3%**	100.0%
Total	Count	11,513	384	9,549	1,288	10,729	1,174	9,587	44,224
	% within Class	26.0%	.9%	21.6%	2.9%	24.3%	2.7%	21.7%	100.0%

Note. **Bold underlined** font indicates senior survey responses accurately predicted actual outcomes.

Table 4.33 provides information on the rates of college participation as well as the timing of college enrollment. For the classes of 2007 and 2009, for which we have substantial longitudinal data, evidence of enrollment was found for nearly 80 percent of students: for both 2007 and 2009 classes, about two-thirds of the class enrolled in the year following high school graduation. We simplified this metric into three categories in Table 4.33 to facilitate subsequent analyses: no enrollment information, enrolled immediately after high school, and enrolled later. We included enrollment in the same year as high school graduation as "enrolled immediately."

Table 4.33. Enrollment Timing by High School Graduating Class

Graduating Class		Timing of Post High School Enrollment			
		No Enrollment Info	Enrolled Immediately after HS	Enrolled Later	Total
2007	Count	3,092	9,933	1,545	14,570
	% within Class	21.2%	68.2%	10.6%	100.0%
2009	Count	3,150	10,835	901	14,886
	% within Class	21.2%	72.8%	6.1%	100.0%
2011	Count	5,271	9,497*	Not applicable	14,768
	% within Class	35.7%	64.3%		100.0%
Total	Count	11,513	30,265	2,446	44,224
	% within Class	26.0%	68.4%	5.5%	100.0%

* The number of students in the Class of 2011 who enrolled immediately includes only the fall semester of 2011 Numbers for the Classes of 2007 and 2009 include an entire school year.

We next looked at college persistence. Table 4.34 provides an approximation of persistence by inspecting the latest enrollment date found in the Student Tracker database. This does not necessarily indicate continuous enrollment but does reflect participation in postsecondary education well after high school graduation. According to

Table 4.34, 40.4 percent of the Class of 2007 graduates were enrolled in an institute of higher education in the fall semester of the 2011–12 school year—the fifth year after high school graduation.

Table 4.34. Last Enrollment Date by Graduating Class

Graduating Class		Last Enrollment Year (as of Fall 2012)							
		None	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Total
2007	Count	3,102	19	691	1,263	1,557	2,055	5,883	14,570
	% within Class	21.3%	.1%	4.7%	8.7%	10.7%	14.1%	40.4%	100.0%
2009	Count	3,163	0	0	23	1,204	2,025	8,471	14,886
	% within Class	21.2%	.0%	.0%	.2%	8.1%	13.6%	56.9%	100.0%
2011	Count	5,289	0	0	0	0	39	9,440	14,768
	% within Class	35.8%	.0%	.0%	.0%	.0%	.3%	63.9%	100.0%
Total	Count	11,554	19	691	1,286	2,761	4,119	23,794	44,224
	% within Class	26.1%	.0%	1.6%	2.9%	6.2%	9.3%	53.8%	100.0%

We also investigated college graduation rates. Student Tracker records graduation dates for completion of degrees and certificates. Table 4.35 provides information on the students who were enrolled at least once (per Table 4.32). Among these postsecondary students, the table indicates the year in which students graduated. In cases where a student graduated multiple times, such as a two-year degree followed by a four-year degree, the latest graduation date is reflected. For example, of the 11,478 students in the Class of 2007 who enrolled in college at some point, 898 graduated in the 2011–12 school year and another 898 graduated in the 2010–11 school year.

Table 4.35. Last Graduation Date Among Students Enrolled At Least Once, by Graduating Class

Graduating Class		Last Graduation						
		None	2007–08	2008–09	2009–10	2010–11	2011–12	Total
2007	Count	9,385	7	67	223	898	898	11,478
	% within Class	81.8%	.1%	.6%	1.9%	7.8%	7.8%	100.0%
2009	Count	11,530	0	9	12	99	86	11,736
	% within Class	98.2%	.0%	.1%	.1%	.8%	.7%	100.0%
2011	Count	9,496	0	0	0	1	0	9,497
	% within Class	100.0%	.0%	.0%	.0%	.0%	.0%	100.0%
Total	Count	30,411	7	76	235	998	984	32,711
	% within Class	93.0%	.0%	.2%	.7%	3.1%	3.0%	100.0%

Together, Tables 4.34 and 4.35 reveal that approximately 79 percent of the sampled students in the Class of 2007 enrolled in college at some point, approximately 18 percent had earned at least one degree, and 40 percent were still enrolled in the fall of 2011.

We also looked at enrollment rates by demographic group. Table 4.36 shows the number of students in each demographic category and the number and percentage of those students for whom we found evidence of enrollment.

Table 4.36. Enrollment Rates by Demographic Group

Demographic Group	Total N	Enrolled in Postsecondary	
		Frequency	Percentage within Demographic Category
All Students			
Females	22,476	17,203	76.5%
Males	21,462	15,346	71.5%
American Indian or Alaska Native	369	263	71.3%
Asian	7,710	6,480	84.0%
Pacific Islander	452	309	68.4%
Filipino	2,250	1,665	74.0%
Hispanic or Latino	12,911	7,971	61.7%
African American or Black	3,553	2,640	74.3%
White, non-Hispanic	16,319	12,957	79.4%
Multiple Races	98	47	85.7%
Economically Disadvantaged	16,122	10,774	66.8%
Not Economically Disadvantaged	27,700	21,686	78.3%
English Only	20,409	15,780	77.3%
Initially Fluent English Proficient	2,885	2,264	78.5%
English Learner	3,338	1,893	56.7%
Reclassified Fluent English Proficient	8,545	6,831	79.9%
Special Education Students	2,795	1,597	57.1%
Not Special Education	41,106	30,922	75.2%

Relationship of CAHSEE Performance to Student Tracker Outcomes

We next revisited each of the Student Tracker outcomes and compared them to CAHSEE achievement. Table 4.37 explores the relationship of official CAHSEE achievement levels to whether a student enrolled in postsecondary education at all. Indeed, as CAHSEE achievement increased, the percentage of students enrolling in further education increased as well. This pattern is evident for both ELA and mathematics.

Table 4.37. Postsecondary Enrollment by CAHSEE ELA and Mathematics Achievement Levels

CAHSEE Performance		Enrolled in Postsecondary Education		
		No Enrollment Info	Enrolled	Total
ELA Achievement Level				
Below Basic	Count	755	618	1,373
	% within ELA level	55.0%	45.0%	100.0%
Basic	Count	5,004	8,823	13,827
	% within ELA level	36.2%	63.8%	100.0%
Proficient	Count	2,678	7,871	10,549
	% within ELA level	25.4%	74.6%	100.0%
Advanced	Count	2,077	11,474	13,551
	% within ELA level	15.3%	84.7%	100.0%
Total	Count	10,514	28,786	39,300
	% within ELA level	26.8%	73.2%	100.0%
Mathematics Achievement Level				
Below Basic	Count	736	598	1,334
	% within Math Level	55.2%	44.8%	100.0%
Basic	Count	4,612	7,941	12,553
	% within Math Level	36.7%	63.3%	100.0%
Proficient	Count	3,790	11,733	15,523
	% within Math Level	24.4%	75.6%	100.0%
Advanced	Count	1,391	8,631	10,022
	% within Math Level	13.9%	86.1%	100.0%
Total	Count	10,529	28,903	39,432
	% within Math Level	26.7%	73.3%	100.0%

We explored this relationship a bit more closely by using the 10 CAHSEE performance levels defined within the PHO study (see Tables 4.5 and 4.6). Table 4.38 shows the percentage of students at each performance level on CAHSEE ELA and CAHSEE mathematics that enrolled in postsecondary education.

Table 4.38. Postsecondary Enrollment by 10 CAHSEE ELA and Mathematics Performance Levels

CAHSEE Performance	Percentage of Students Enrolled in Post-Secondary According to Student Tracker	
	ELA Performance	Math Performance
Below Basic	45.3%	44.7%
Basic-Low	59.4%	59.2%
Basic-Medium	63.4%	62.1%
Basic-High	68.1%	67.9%
Proficient-Low	71.2%	72.5%
Proficient-Medium	73.1%	74.7%
Proficient-High	78.7%	79.4%
Advanced-Low	80.6%	84.1%
Advanced-Medium	85.3%	85.8%
Advanced-High	87.7%	88.3%

Figure 4.1 provides a graphical depiction of the data in Table 4.38. The blue line with diamond markers reflects the percentage of students at each level of CAHSEE ELA performance that enrolled in postsecondary education at any point and the red line with square markers provides comparable information regarding CAHSEE mathematics performance. One striking pattern is the similarity of the two lines, which diverge slightly only at the Advanced-Low level. This similarity is particularly notable in that the percentage of students scoring at these CAHSEE levels differs between ELA and mathematics.

A second notable characteristic of Figure 4.1 is the nearly linear increase in postsecondary enrollment at each CAHSEE level. The green vertical and horizontal lines denote the percentage of postsecondary enrollment at each CAHSEE cut point. Students scoring at the Basic-Low level enrolled at approximately a 60 percent rate; students at the Proficient-Low level enrolled at approximately a 72 percent rate; and Advanced-Low students enrolled at an 81–84 percent rate (for ELA and mathematics respectively).

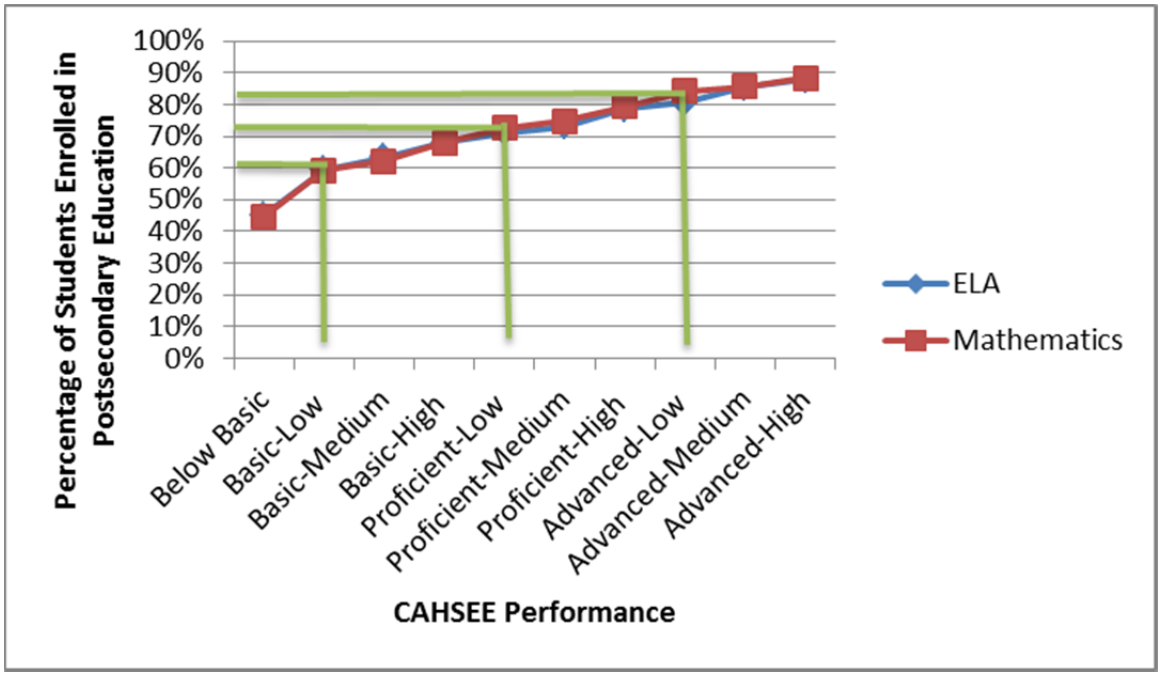


Figure 4.1. CAHSEE ELA and Mathematics performance are closely related to postsecondary enrollment rates.

Table 4.39 provides a similar comparison using the CAHSEE combined achievement levels described earlier. The combined CAHSEE rows are listed in order of increasing enrollment. Enrollment rates increase from 58.4 percent for students scoring Basic in both content areas to 88.1 percent for students scoring Advanced in both content areas. The small number of students with disparate scores—that is, Advanced in one content area and Basic in the other—enrolled at about a 74 percent rate regardless of which content area was their strength.

As another rough indicator of persistence, Table 4.40 characterizes individual students by the first and last dates of enrollment. Again, this does not measure persistence precisely because a student might not be enrolled continuously over this period.

Table 4.39. Postsecondary Enrollment by CAHSEE Combined Achievement Level

Combined CAHSEE Results		Enrolled in Postsecondary		
		No Enrollment Info	Enrolled	Total
All Around Basic	Count	4,038	5,667	9,705
	% within Combined CAHSEE Results	41.6%	58.4%	100.0%
Proficient ELA-Basic Math	Count	929	1,889	2,818
	% within Combined CAHSEE Results	33.0%	67.0%	100.0%
Proficient Math-Basic ELA	Count	1,429	3,078	4,507
	% within Combined CAHSEE Results	31.7%	68.3%	100.0%
Advanced ELA-Basic Math	Count	233	666	899
	% within Combined CAHSEE Results	25.9%	74.1%	100.0%
Advanced Math-Basic ELA	Count	165	483	648
	% within Combined CAHSEE Results	25.5%	74.5%	100.0%
All Around Proficient	Count	1,383	4,260	5,643
	% within Combined CAHSEE Results	24.5%	75.5%	100.0%
Advanced ELA-Proficient Math	Count	974	4,355	5,329
	% within Combined CAHSEE Results	18.3%	81.7%	100.0%
Advanced Math-Proficient ELA	Count	359	1,696	2,055
	% within Combined CAHSEE Results	17.5%	82.5%	100.0%
All Around Advanced	Count	867	6,446	7,313
	% within Combined CAHSEE Results	11.9%	88.1%	100.0%
Total	Count	10,377	28,540	38,917
	% within Combined CAHSEE Results	26.7%	73.3%	100.0%

Table 4.40. First and Last Enrollment by High School Graduating Class

Graduation Year			Last Enrollment Year (as of Fall 2012) None	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Total
2007	First Enrollment Year	None	3,092	0	0	0	0	0	0	3,092
		2006–07	1	19	21	38	47	59	199	384
		2007–08	6	0	670	1,002	1,208	1,656	5,007	9,549
		2008–09	2	0	0	223	155	151	262	793
		2009–10	0	0	0	0	147	94	148	389
		2010–11	1	0	0	0	0	95	132	228
		2011–12	0	0	0	0	0	0	135	135
	Total		3,102	19	691	1,263	1,557	2,055	5,883	14,570
2009	First Enrollment Year	None	3,150			0	0	0	0	3,150
		2008–09	0			23	86	59	327	495
		2009–10	9			0	1118	1741	7472	10,340
		2010–11	0			0	0	225	429	654
		2011–12	4			0	0	0	243	247
	Total		3,163			23	1204	2025	8471	14,886
2011	First Enrollment Year	None	5,271					0	0	5,271
		2010–11	2					39	251	292
		2011–12	16					0	9,189	9,205
	Total		5,289					39	9,440	14,768
Total	First Enrollment Year	None	11,513	0	0	0	0	0	0	11,513
		2006–07	1	19	21	38	47	59	199	384
		2007–08	6	0	670	1,002	1,208	1,656	5,007	9,549
		2008–09	2	0	0	246	241	210	589	1,288
		2009–10	9	0	0	0	1,265	1,835	7,620	10,729
		2010–11	3	0	0	0	0	359	812	1,174
		2011–12	20	0	0	0	0	0	9,567	9,587
	Total		11,554	19	691	1,286	2,761	4,119	23,794	44,224

Enrollment and persistence are important indicators of post high school outcomes but college graduation is the end goal. Table 4.41 details the number and types of degrees earned by graduates in the Class of 2007. This table is limited to students with a Student Tracker record of some sort of graduation.[25] Among the Class of 2007 students with a degree four and a half years after graduation, four percent held certificates such as professional licenses; nearly 20 percent held Associate degrees; over half (56.3 percent) earned Bachelor degrees; and two had master degrees. Student Tracker included graduation records for 427 Class of 2007 individuals without specifying the degree level. Unsurprisingly, most degrees held by the Class of 2009 graduates two and a half years after high school completion are Associate degrees (*n*=68), and the Class of 2011 graduates hold virtually no degrees as of the fall semester following high school graduation.

Table 4.41. Postsecondary Degree by Class of 2007

Most Recent Degree Title	Number of Degrees	Percentage
Not Specified	427	20.3%
Certificate	79	3.8%
Associate	412	19.6%
Bachelor	1,184	56.3%
Master	2	0.1%
Total	2,104	100.0%
Total Number of ST Records	14,570	
Degrees as a Percentage of ST records	14.4%	

Table 4.42 shows a clear relationship between degree completion and CAHSEE ELA and mathematics achievement levels. The relationship is particularly strong for ELA. Students scoring at the Advanced level on each test were most likely to earn degrees. Sixty percent of graduates were Advanced ELA students and 46 percent of graduates were Advanced Mathematics students.

[25] Researchers and LEA representatives were surprised that the percentages of degrees found in Student Tracker were so low. One hypothesis is that the recording of degrees into Student Tracker may be delayed.

Table 4.42. Postsecondary Degree by CAHSEE ELA and Mathematics Achievement Levels

Most Recent Degree Title		ELA Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Not Specified	Count	7	108	73	121	309
	% of Total	.4%	6.8%	4.6%	7.6%	19.3%
Certificate	Count	4	29	22	38	93
	% of Total	.3%	1.8%	1.4%	2.4%	5.8%
Associate	Count	4	86	102	146	338
	% of Total	.3%	5.4%	6.4%	9.1%	21.1%
Bachelor	Count	1	65	127	661	854
	% of Total	.1%	4.1%	7.9%	41.3%	53.4%
Master	Count	0	0	0	2	2
	% of Total	.0%	.0%	.0%	.1%	.1%
Total	Count	16	288	324	968	1,599
	% of Total	1.0%	18.1%	20.3%	60.6%	100.0%

Most Recent Degree Title		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Not Specified	Count	6	96	118	89	309
	% of Total	.4%	6.0%	7.4%	5.6%	19.3%
Certificate	Count	5	36	28	24	93
	% of Total	.3%	2.2%	1.7%	1.5%	5.8%
Associate	Count	3	98	147	90	338
	% of Total	.2%	6.1%	9.2%	5.6%	21.1%
Bachelor	Count	3	41	277	537	858
	% of Total	.2%	2.6%	17.3%	33.5%	53.5%
Master	Count	0	0	1	1	2
	% of Total	.0%	.0%	.1%	.1%	.1%
Total	Count	17	271	571	741	1,600
	% of Total	1.1%	17.0%	35.7%	46.3%	100.0%

Table 4.43 explores degree completion in terms of combined CAHSEE ELA and mathematics results. Column percentages reflect the percentage of students within each degree title that scores at specific levels on the two CAHSEE tests. For example, of the 314 students who earned an Associate degree, 15 percent scored at the Basic level on both CAHSEE ELA and mathematics, 9.9 percent scored at the Proficient level in mathematics and the Basic level in ELA, and so on. Inspection of the Total column

reveals that nearly 42 percent of degree earners scored at the Advanced level on both CAHSEE tests and another 20 percent were Advanced in ELA and Proficient in mathematics.

Table 4.43. Postsecondary Degree by CAHSEE Combined Achievement Levels

Combined CAHSEE Results		Most Recent Degree				Total
		Certificate	Associate	Bachelor	Master	
All Around Basic	Count	25	47	15	0	87
	% within Degree	33.3%	15.0%	2.0%	.0%	7.8%
Proficient Math-Basic ELA	Count	3	31	30	0	64
	% within Degree	4.0%	9.9%	4.1%	.0%	5.8%
Proficient ELA-Basic Math	Count	7	32	9	0	48
	% within Degree	9.3%	10.2%	1.2%	.0%	4.3%
Advanced Math-Basic ELA	Count	0	8	11	0	19
	% within Degree	.0%	2.5%	1.5%	.0%	1.7%
Advanced ELA-Basic Math	Count	2	16	12	0	30
	% within Degree	2.7%	5.1%	1.6%	.0%	2.7%
All Around Proficient	Count	5	41	64	0	110
	% within Degree	6.7%	13.1%	8.7%	.0%	9.7%
Advanced Math-Proficient ELA	Count	3	22	41	0	66*
	% within Degree	4.0%	7.0%	5.6%	.0%	5.8%
Advanced ELA-Proficient Math	Count	16	64	151	1	232*
	% within Degree	21.3%	20.4%	20.5%	50.0%	20.5%
All Around Advanced	Count	14	53	402	1	470
	% within Degree	18.7%	16.9%	54.7%	50.0%	41.7%
Total	Count	75	75	735	2	1,126
	% within Degree	100.0%	100.0%	100.0%	100.0%	100.0%

* Note: comparison of these two cells might lead the reader to conclude that students scoring at the advanced level on ELA and Proficient in mathematics graduated at a higher rate than students scoring at the advanced level on mathematics and Proficient in ELA, but this is an artifact of the relative numbers of students scoring at those levels. See Table 4.7.

We investigated the choice of degree major. Table 4.44 depicts the number of degrees by graduating class. Nearly a quarter of majors were not specified in the Student Tracker record. The most common majors were health/medicine/science, history/social sciences, and business/economics.

Table 4.44. Degree Major by High School Graduating Class

Most recent Degree Major		Graduation Year			
		2007	2009	2011	Total
Not Specified	Count	452	99	1	552
	% of Total	19.5%	4.3%	.0%	23.8%
Business/Economics	Count	250	5	0	255
	% of Total	10.8%	.2%	.0%	11.0%
Agriculture/Forestry	Count	8	1	0	9
	% of Total	.3%	.0%	.0%	.4%
Liberal Arts/Education	Count	107	18	0	125
	% of Total	4.6%	.8%	.0%	5.4%
Health/Medicine/Science	Count	334	14	0	348
	% of Total	14.4%	.6%	.0%	15.0%
English/Foreign Language	Count	51	0	0	51
	% of Total	2.2%	.0%	.0%	2.2%
Computer/Engineering/Math	Count	109	13	0	122
	% of Total	4.7%	.6%	.0%	5.3%
Visual/Performing Arts	Count	67	2	0	69
	% of Total	2.9%	.1%	.0%	3.0%
Psychology/Sociology	Count	187	4	0	191
	% of Total	8.1%	.2%	.0%	8.3%
History/Social Sciences	Count	306	17	0	323
	% of Total	13.2%	.7%	.0%	14.0%
Law/Criminal Justice	Count	36	2	0	38
	% of Total	1.6%	.1%	.0%	1.6%
Communications/Journalism	Count	81	1	0	82
	% of Total	3.5%	.0%	.0%	3.5%
Undecided/Other	Count	119	31	0	150
	% of Total	5.1%	1.3%	.0%	6.5%
Total	Count	2,107	207	1	2,315
	% of Total	91.0%	8.9%	.0%	100.0%

Tables 4.45 and 4.46 compare majors to performance on the CAHSEE ELA and mathematics test, respectively. All three of the most common majors were favored by Advanced students. Notably, students who performed at the Advanced level on the CAHSEE ELA test completed health/medicine/science degrees at a substantially higher rate than students scoring at lower achievement levels.

Table 4.45. Degree Major by CAHSEE ELA Achievement Level

Most Recent Degree Major		ELA Achievement Level				Total
		Below Basic	Basic	Proficient	Advanced	
Not Specified	Count	8	110	74	124	316
	% of Total	.5%	6.9%	4.6%	7.8%	19.8%
Business/Economics	Count	1	38	43	122	204
	% of Total	.1%	2.4%	2.7%	7.6%	12.8%
Agriculture/Forestry	Count	0	4	0	5	9
	% of Total	.0%	.3%	.0%	.3%	.6%
Liberal Arts/ Education	Count	1	17	24	42	84
	% of Total	.1%	1.1%	1.5%	2.6%	5.3%
Health/Medicine/ Science	Count	2	22	38	208	270
	% of Total	.1%	1.4%	2.4%	13.0%	16.9%
English/Foreign Language	Count	0	0	0	24	24
	% of Total	.0%	.0%	.0%	1.5%	1.5%
Computer/Engineer-ing/Math	Count	0	14	13	48	75
	% of Total	.0%	.9%	.8%	3.0%	4.7%
Visual/Performing Arts	Count	0	6	11	34	51
	% of Total	.0%	.4%	.7%	2.1%	3.2%
Psychology/ Sociology	Count	0	14	27	89	130
	% of Total	.0%	.9%	1.7%	5.6%	8.1%
History/Social Sciences	Count	2	31	40	155	228
	% of Total	.1%	1.9%	2.5%	9.7%	14.3%
Law/Criminal Justice	Count	0	8	7	12	27
	% of Total	.0%	.5%	.4%	.8%	1.7%
Communications/ Journalism	Count	0	4	13	47	64
	% of Total	.0%	.3%	.8%	2.9%	4.0%
Undecided/Other	Count	2	22	34	59	117
	% of Total	.1%	1.4%	2.1%	3.7%	7.3%
Total	Count	16	290	324	969	1,599
	% of Total	1.0%	18.1%	20.3%	60.6%	100.0%

Table 4.46. Degree Major by CAHSEE Mathematics Achievement Level

Most Recent Degree Major		Math Achievement Level				Total
		Below Basic	Basic	Proficient	Advanced	
Not Specified	Count	7	98	119	92	316
	% of Total	.4%	6.1%	7.4%	5.7%	19.7%
Business/Economics	Count	2	19	62	123	206
	% of Total	.1%	1.2%	3.9%	7.7%	12.9%
Agriculture/Forestry	Count	0	4	2	3	9
	% of Total	.0%	.2%	.1%	.2%	.6%
Liberal Arts/Education	Count	1	24	33	28	86
	% of Total	.1%	1.5%	2.1%	1.7%	5.4%
Health/Medicine/ Science	Count	1	14	75	180	270
	% of Total	.1%	.9%	4.7%	11.2%	16.8%
English/Foreign Language	Count	0	1	5	18	24
	% of Total	.0%	.1%	.3%	1.1%	1.5%
Computer/Engineering/ Math	Count	1	14	19	41	75
	% of Total	.1%	.9%	1.2%	2.6%	4.7%
Visual/Performing Arts	Count	0	6	18	26	50
	% of Total	.0%	.4%	1.1%	1.6%	3.1%
Psychology/Sociology	Count	0	8	57	65	130
	% of Total	.0%	.5%	3.6%	4.1%	8.1%
History/Social Sciences	Count	2	33	94	99	228
	% of Total	.1%	2.1%	5.9%	6.2%	14.2%
Law/Criminal Justice	Count	0	8	15	5	28
	% of Total	.0%	.5%	.9%	.3%	1.7%
Communications/ Journalism	Count	0	8	23	33	64
	% of Total	.0%	.5%	1.4%	2.1%	4.0%
Undecided/Other	Count	3	35	50	29	117
	% of Total	.2%	2.2%	3.1%	1.8%	7.3%
Total	Count	17	272	572	742	1,603
	% of Total	1.1%	17.0%	35.7%	46.3%	100.0%

Table 4.47 compares combined CAHSEE achievement to degree majors. Inspection of the totals row reveals that 29 percent of all degree holders scored at the Advanced level on both CAHSEE tests and nearly 20 percent scored at the Advanced level on ELA and the Proficient level on mathematics. There are hints of some relationships among specific majors but the small cell sizes preclude strong conclusions.

Table 4.47. Postsecondary Degree Major by Combined CAHSEE Achievement Level

Most Recent Degree Major		Combined CAHSEE Results									
		All Around Basic	Prof Math/ Basic ELA	Prof ELA/ Basic Math	Adv Math/ Basic ELA	Adv ELA/ Basic Math	All Around Proficient	Adv Math/ Prof ELA	Adv ELA/ Prof Math	All Around Advanced	Total
Missing	Count	83	29	18	2	2	39	17	49	73	312
	% of Total	5.2%	1.8%	1.1%	.1%	.1%	2.5%	1.1%	3.1%	4.6%	19.6%
Health/Medicine/ Science	Count	8	12	3	3	3	20	15	43	162	269
	% of Total	.5%	.8%	.2%	.2%	.2%	1.3%	.9%	2.7%	10.2%	16.9%
History/ Social Sciences	Count	14	14	11	5	10	18	10	62	83	227
	% of Total	.9%	.9%	.7%	.3%	.6%	1.1%	.6%	3.9%	5.2%	14.3%
Business /Economics	Count	13	17	4	9	3	15	24	29	90	204
	% of Total	.8%	1.1%	.3%	.6%	.2%	.9%	1.5%	1.8%	5.7%	12.8%
Psychology/ Sociology	Count	4	9	2	1	1	19	5	29	59	129
	% of Total	.3%	.6%	.1%	.1%	.1%	1.2%	.3%	1.8%	3.7%	8.1%
Undecided/Other	Count	16	7	14	0	6	14	5	29	24	115
	% of Total	1.0%	.4%	.9%	.0%	.4%	.9%	.3%	1.8%	1.5%	7.2%
Liberal Arts/Education	Count	12	6	9	0	2	12	3	15	25	84
	% of Total	.8%	.4%	.6%	.0%	.1%	.8%	.2%	.9%	1.6%	5.3%
Computer/ Engineering/Math	Count	13	0	2	0	0	4	7	14	34	74
	% of Total	.8%	.0%	.1%	.0%	.0%	.3%	.4%	.9%	2.1%	4.7%
Communications/ Journalism	Count	2	2	2	0	4	7	4	14	29	64
	% of Total	.1%	.1%	.1%	.0%	.3%	.4%	.3%	.9%	1.8%	4.0%
Visual/Performing Arts	Count	2	2	3	1	1	6	2	10	23	50
	% of Total	.1%	.1%	.2%	.1%	.1%	.4%	.1%	.6%	1.4%	3.1%
Law/Criminal Justice	Count	5	1	0	2	2	6	1	8	2	27
	% of Total	.3%	.1%	.0%	.1%	.1%	.4%	.1%	.5%	.1%	1.7%
English/Foreign Language	Count	0	0	0	0	1	0	0	5	18	24
	% of Total	.0%	.0%	.0%	.0%	.1%	.0%	.0%	.3%	1.1%	1.5%
Agriculture/ Forestry	Count	3	0	0	1	1	0	0	2	2	9
	% of Total	.2%	.0%	.0%	.1%	.1%	.0%	.0%	.1%	.1%	.6%
Total	Count	175	99	68	24	36	160	93	309	624	1,588
	% of Total	11.0%	6.2%	4.3%	1.5%	2.3%	10.1%	5.9%	19.5%	39.3%	100.0%

Potential Value of Senior Surveys

The senior surveys assess student intentions during the senior year of high school whereas Student Tracker provides actual outcomes for one postsecondary path: higher education. We next inspected the predictive power of the senior survey responses with respect to these outcomes. The following tables describe findings for 7,525 students for whom we have both senior survey and Student Tracker data. The bulk of these students were in the Class of 2011 *(n=5,362),* and the reader is reminded that actual outcome results are as of fall 2011.

Table 4.48 explores the students' stated post high school plans compared to whether they actually enrolled in institutes of higher education either immediately after graduation or eventually. The senior survey results have been ordered so that all responses indicating college/school plans appear together at the top of the table. Accurate predictions are highlighted in bold font throughout the table. The table reveals that a substantial majority of students planning to attend two- and four-year colleges did in fact do so (69% and 83%, respectively). However, no enrollment information was found for 70 percent of students planning to attend vocational/tech/trade schools. This may be an artifact of Student Tracker relationships with postsecondary institutions and represents a relatively small number of students. While these results seem to confirm the predictive power of this senior survey question, almost the same percentages of students planning to work part-time or full-time also enrolled in higher education (81% and 61%, respectively). It appears that many students who did not plan to attend college at the time of the senior survey decided to attend college, after all. This latter result counters the predictive power of the survey.

Table 4.48. Post High School Plans Versus Actual Enrollment

What do you plan to do after high school?		Timing of Post High School Enrollment			
		No Enrollment Info	Enrolled Immediately after HS	Enrolled Later	Total
Plans to Continue Education					
Community/2-year college	Count	509	**1,149**	**5**	1,663
	% within Plans	30.6%	**69.1%**	**.3%**	100.0%
4-year college/university	Count	379	**1915**	**8**	2,302
	% within Plans	16.5%	**83.2%**	**.3%**	100.0%
Vocational/tech/trade school	Count	97	**40**	**1**	138
	% within Plans	70.3%	**29.0%**	**.7%**	100.0%
Plans Other Than Continued Education					
Work FT	Count	**152**	285	27	464
	% within Plans	**32.8%**	61.4%	5.8%	100.0%
Work PT	Count	**295**	1,503	60	1,858
	% within Plans	**15.9%**	80.9%	3.2%	100.0%
Military	Count	**160**	39	15	214
	% within Plans	**74.8%**	18.2%	7.0%	100.0%
Do something else (besides school, work, military)	Count	**14**	4	0	18
	% within Plans	**77.8%**	22.2%	.0%	100.0%
Multiple/Unspecified	Count	**80**	55	0	135
	% within Plans	**59.3%**	40.7%	.0%	100.0%
Total	Count	1,686	4,990	116	6,792
	% within Plans	24.8%	73.5%	1.7%	100.0%

Note. **Bold underlined** font indicates senior survey responses accurately predicted actual outcomes.

Table 4.49 provides a more promising predictor of actual outcomes, when students were asked about their fall college plans in terms of attending college full-time, part-time, or not at all. Again, accurate predictions are highlighted in bold font. Of the students who planned to attend college full-time in the fall following high school graduation, 82 percent did so. Almost 59 percent of students planning to attend college part-time enrolled immediately and 80 percent of students not planning to enroll immediately did not, as predicted.

Table 4.49. Fall College Plans Versus Actual Enrollment

Fall college or school plans		Timing of Post High School Enrollment: Did Not Enroll Immediately*	Enrolled Immediately after HS	Total
FT=12 or more units or 3 or more classes	Count	673	**3,129**	3,802
	% within Plans	17.7%	**82.3%**	100.0%
PT=Fewer than 12 units or 3 classes	Count	376	**532**	908
	% within Plans	41.4%	**58.6%**	100.0%
No plans to attend college this fall	Count	**244**	61	305
	% within Plans	**80.0%**	20.0%	100.0%
Total	Count	1,293	3,722	5,015
	% within Plans	25.8%	74.2%	100.0%

Note. **Bold underlined** font indicates senior survey responses accurately predicted actual outcomes.
* "Did Not Enroll Immediately" column includes graduates with no enrollment information and students who enrolled later.

Table 4.50 investigates whether the accuracy of senior survey predictions of immediate enrollment vary by type of postsecondary institution. Notably, students who planned to attend a four-year institution—be it a CSU, UC, or out-of-state college/university—were accurate in more than 80 percent of cases.

Table 4.50. Type of School Planned Versus Actual Enrollment

The type of school you will attend in fall		Timing of Post High School Enrollment		
		Did Not Enroll Immediately*	Enrolled Immediately after HS	Total
Community college	Count	721	**1840**	2561
	% within Plans	28.1%	**71.8%**	100.0%
Cal State University	Count	91	**967**	1058
	% within Plans	8.6%	**91.4%**	100.0%
UC	Count	69	**451**	520
	% within Plans	13.2%	**86.7%**	100.0%
Private CA college/university	Count	46	**132**	178
	% within Plans	25.8%	**74.2%**	100.0%
Out of state 2-year college	Count	13	**14**	27
	% within Plans	48.1%	**51.9%**	100.0%
Out of state 4-year college/university	Count	38	**157**	195
	% within Plans	19.5%	**80.5%**	100.0%
Trade school	Count	78	**34**	112
	% within Plans	69.7%	**30.4%**	100.0%
Apprenticeship / Other / Multiple-not specified / NA	Count	179	57	236
	% within Plans	75.8%	24.2%	100.0%
Total	Count	1,135	1235	4,887
	% within Plans	23.2%	25.2%	100.0%

Note. **Bold underlined** font indicates senior survey responses accurately predicted actual outcomes.
* "Did Not Enroll Immediately" column includes graduates with no enrollment information and students who enrolled later.

Senior surveys also asked students whether they planned to attend a two-year, four-year, or other type of institution. Table 4.51 explores the accuracy of these predictions for each graduating class. The table reveals a substantial level of predictive accuracy for the survey.

Table 4.51. Planned Versus Actual First College Type (2- or 4-year)

Graduation Year			First college type				
			U	2-Yr.	4-Yr.	L	Total
2007	The type of school you will attend?	Community college	75	**431**	29		535
		Cal State University	21	68	**199**		288
		UC	21	46	**90**		157
		Out of state 2-year college	4	**4**	2		10
		Out of state 4-year college/university	7	17	**43**		67
		Unspecified *	27	32	39		98
	Total		155	598	402		1,155
2009	The type of school you will attend?	Community college	57	**390**	12		459
		Cal State University	17	38	**138**		193
		UC	4	25	**68**		97
		Out of state 2-year college	2	**5**	1		8
		Out of state 4-year college/university	6	6	**21**		33
		Unspecified *	23	21	25		69
	Total		109	485	265		859
2011	The type of school you will attend?	Community college	537	**1,003**	25	2	1,567
		Cal State University	43	70	**464**	0	577
		UC	37	65	**164**	0	266
		Out of state 2-year college	4	**4**	1	0	9
		Out of state 4-year college/university	23	13	**59**	0	95
		Unspecified *	227	52	76	1	280
	Total		871	1,207	789	3	2,870
Total	The type of school you will attend?	Community college	669	**1,824**	66	2	2,561
		Cal State University	81	176	**801**	0	1,058
		UC	62	136	**322**	0	520
		Out of state 2-year college	10	**13**	4	0	27
		Out of state 4-year college/university	36	36	**123**	0	195
		Unspecified *	277	105	140	1	447
	Total		1,135	2,290	1,456	3	4,808

Legend: U (Unknown), 2 (2-year school), 4 (4-year school), L (Less than half year).
Note. **Bold underlined** font indicates senior survey responses accurately predicted actual outcomes.
* "Unspecified" includes private CA college/university, trade school, apprenticeship, other, multiple-not specified, and NA.

Table 4.52 compared seniors' predictions as to whether they would attend a private or public institution to their actual enrollment choices. We were unable to determine the actual college type for nearly a quarter of the cases (1,135 out of 4,887) and the survey response did not specify private versus public for some of the school types such as out of state schools and trade schools (*n*=570). Among the cases that could be clearly classified on both the survey and the actual college attended, 3,397 of 3,464 students accurately predicted whether they would attend a private or public institution, an accuracy rate above 98 percent.

Table 4.52. Planned Versus Actual Private or Public Institution

Graduation Year			First college public/private			
			Unknown	Private	Public	Total
2007	The type of school you will attend?	Community college	75	4	**456**	535
		Cal State University	21	1	**266**	288
		UC	21	1	**135**	157
		Private CA college/university	3	**23**	16	42
		Unspecified public/private*	35	40	58	133
	Total		155	69	931	1,155
2009	The type of school you will attend?	Community college	57	6	**396**	459
		Cal State University	17	0	**176**	193
		UC	4	2	**91**	97
		Private CA college/university	2	**18**	4	24
		Unspecified public/private*	29	22	35	86
	Total		109	48	702	859
2011	The type of school you will attend?	Community college	537	14	**1,016**	1,567
		Cal State University	43	3	**531**	577
		UC	37	0	**229**	266
		Private CA college/university	36	**60**	16	112
		Unspecified public/private*	184	45	80	309
	Total		871	122	1,880	2,873
Total	The type of school you will attend?	Community college	669	24	**1,868**	2,561
		Cal State University	81	4	**973**	1058
		UC	62	3	**455**	520
		Private CA college/university	41	**101**	36	178
		Unspecified public/private*	248	107	173	528
	Total		1,135	239	3,513	4,887

Note. **Bold underlined** font indicates senior survey responses accurately predicted actual outcomes.
* "Unspecified public/private" includes out of state 2-year college, out of state 4-year college/university, trade school, apprenticeship, other, multiple-not specified, and NA.

Additional LEA Information

In addition to the LEA information described earlier, some types of information were provided by only one LEA so were not analyzed in this report. We briefly describe the types of information here, along with their potential value.

One LEA provided student-level information regarding enrollment in special programs such as time spent in special education instruction, enrollment in Advancement Via Individual Determination (AVID), gifted and talented education (GATE) status, migrant education, and supplemental educational services (SES). These were accompanied by beginning and ending dates of enrollment. This information might be valuable as a covariate to CAHSEE results to facilitate better prediction of PHO.

One LEA provided details of student-course-taking history and grade point average. Exploration of the relationships between courses, grade point average (GPA), CAHSEE scores, and PHO intentions might allow classification of students into a small

number of categories that could provide a clearer picture of the high school experience and PHO.

One LEA provided actual post high school outcomes for not only education, but also work, military and vocational paths. These data were obtained by labor-intensive follow-up with individual graduates, an approach that is likely infeasible for larger LEAs. These data would be ideal for a more complete PHO study if their collection were practical.

Conclusions and Recommendations

As a collaborative effort between HumRRO and volunteer LEAs, the PHO Study was largely successful. We describe here lessons learned from the process, promising analytic findings, and then answer the three research questions.

Lessons Learned

Four major lessons may be relevant to future similar efforts:

1. LEA recruitment is time-consuming and labor-intensive. In some cases, identifying the appropriate point of contact within an LEA was challenging. Numerous attempts were required to gauge initial interest, and confirming commitment to participate after the initial workshop again required multiple requests.

2. Clear specifications of expectations are important to facilitate full participation by the LEAs. We deliberately erred on the side of flexibility, allowing LEAs to provide data in whatever format was most convenient for them. This resulted in substantial work to reformat and reconcile data files which often did not share a common student identifier. In addition, when circumstances required that we request new, updated files from the LEAs, we often found that the format and contents changed unexpectedly. For example, LEAs asked to resubmit a file of graduates from 2007 with some additional variables usually submitted a file with a different number of students. In retrospect, the LEAs, HumRRO and the PHO Study itself would have benefitted from more rigid data requirements, even though this would result in some additional work at the outset for the LEAs and perhaps less willingness to participate.

3. Allowing dedicated time for discussion of the study was paramount to its success. We held two workshops with LEAs. The Planning Workshop (March 2011) included LEAs that were tentatively interested in participating in the study. We discussed the study intentions, design, and data sources, including benefits that could accrue to the LEA as a result of participation. The study design was revised substantially based on information gleaned during the Planning Workshop. One crucial data source, the HumRRO request for 20,000 Student Tracker records on behalf of non-subscribing LEAs, was suggested by an LEA representative

and proved to be the cornerstone of the study. Another important contribution was that several LEAs developed and fielded senior surveys to their Class of 2011 students in the short time period between the initial workshop and the end of the school year.

Another example of dedicated discussion time was the Preliminary Results Workshop to present preliminary analytic findings to the participating LEAs. In this workshop HumRRO staff presented overall findings from the aggregated data to the entire group, interspersed with individual LEAs reviewing comparable analyses of their own data. LEAs identified data that looked suspect and provided feedback on the usefulness and meaningfulness of various analyses. This workshop also served as a dry run for the HumRRO researchers to assess the clarity of data presentation. After the workshop, HumRRO worked with a few LEAs to clean up some data, revised portions of the analysis plans, and then reran all the analyses for this report.

4. Some senior survey items were of limited value and might benefit from revision if a similar study were conducted in the future. For example, the categories of college majors and career fields were too vague to detect relationships between CAHSEE scores and intentions. Another example was the question asking for a single post high school plan (e.g., full-time school, part-time work). Some of the response patterns were puzzling. A question that allows multiple responses might be more meaningful.

Promising Analytic Findings

This study was a limited small scale study with volunteer LEAs, meaning that the student population of the study is not representative of the state as a whole. Hence the findings should be interpreted with caution. That said, some of the findings have potential as important areas of study.

Six of the LEAs provided student-level responses to senior surveys. We analyzed responses to common items about future intentions after graduation and compared these responses to CAHSEE performance. Interesting findings include:

- Some LEAs that did not routinely administer senior surveys were able to produce and administer surveys for this study in a short period of time. In our PHO Results Workshop these LEAs reported that they plan to continue these surveys on an ongoing basis.

- Senior survey responses revealed that more than half of students plan to continue their education after graduation (Table 4.10). In response to another question asked of an overlapping, but not identical, group of students, approximately 80 percent plan to complete at least a Bachelor degree (Table 4.11) eventually.

- A large majority of seniors plan to attend California public colleges and universities (Table 4.13).

- The most common intended areas of college study are health/medicine/science, computer/engineering/math, and business/economics (Table 4.15).

- Health services and medical technology was by far the most frequently chosen long-term employment field, followed by arts/media/entertainment and engineering (Table 4.18).

- Analysis of CAHSEE scores relative to senior survey responses revealed:

    - A strong positive relationship between academic achievement as measured by the CAHSEE and plans for higher education, including graduate degrees;

    - A logical relationship between level of CAHSEE achievement and planned level of California public college (i.e., community college, CSU, UC); and

    - Students achieving at lower levels on CAHSEE were more likely to report plans to work after graduation in a job that requires previous work-related knowledge, skills, and experience and to see that job as a long term career goal.

We were unable to obtain PHO data for students who entered the world of work or the military after high school graduation. Student Tracker data provided actual postsecondary academic information for a sample of students from all participating LEAs. We analyzed ST data alone and then compared these responses to CAHSEE performance. Notable findings include:

- Approximately two-thirds of graduates enroll in postsecondary education within the year following high school graduation. After three years nearly 80 percent of graduates have enrolled at some point (Table 4.32);

- The college graduation rate, including Associate, Bachelor, and Master degrees, after four years is approximately 18 percent (Table 4.35).

- Analysis of CAHSEE scores relative to Student Tracker data revealed:

    - A strong relationship between CAHSEE achievement and college enrollment (Tables 4.37 and 4.38; Figure 1), peaking at above 88 percent of Advanced students (Table 4.39); and

    - Although limited graduation data were available, students earning Advanced CAHSEE status had much higher college graduation rates than their peers (Tables 4.37 and 4.42).

We compared senior survey responses to ST data to ascertain how accurately high school seniors predicted their PHO. We were unable to directly confirm plans to work or join the military, but investigated this indirectly through the absence of ST data for these students.

- A general senior survey question about plans after high school had limited accuracy (Table 4.48), however, survey questions about near-term plans for the fall season following high school graduation were quite accurate (Tables 4.49 through 4.52).

Answers to Research Questions

1. What post high school outcomes can be linked to CAHSEE performance?

The PHO Study was able to establish links between CAHSEE performance and postsecondary academic pursuits through analysis of Student Tracker data. In addition, we established links between CAHSEE performance and future intentions of high school seniors. These intentions, in turn show some promise for accurately predicting behavior.

2. How well and in what ways does CAHSEE predict post high school performance?

We found evidence that CAHSEE performance predicts near-term postsecondary academic pursuits with reasonable accuracy. We found some weaker evidence that seniors planning to work or join the military may well have done so, based on the absence of evidence that these students pursued higher education. The relationship between CAHSEE scores and postsecondary enrollment was particularly noteworthy. We found a robust relationship between the10 levels of CAHSEE achievement constructed for this study to postsecondary enrollment (Figure 4.1).

3. How feasible is a collaborative effort among volunteer LEAs to analyze the relationships between CAHSEE performance and post high school outcomes?

Most promising, we found that a collaborative effort between willing LEAs and a research firm is a very feasible approach to analyzing these sorts of research questions. We included lessons learned in this chapter to inform a future, more extensive effort, should that be pursued. HumRRO found that the data and insights provided by LEA staff were invaluable to a successful study. The LEAs, in turn, reported finding this study a worthwhile and informative effort that could improve counseling efforts and help school staff explain the importance of the CAHSEE to students, among other things. In fact, some LEAs now plan to administer senior surveys on a routine basis. CDE should consider providing a uniform questionnaire for LEA consideration.

Chapter 5: Trends in Educational Achievement and Persistence During the CAHSEE Era

Michele Mandeville Hardoin and D. E. (Sunny) Becker

Introduction

The CAHSEE examination is used to satisfy both the Elementary and Secondary Education Act (ESEA) requirements and statewide high school graduation requirements. Therefore, it is a high-stakes examination for both students and school staff that could have profound effects on the education system as a whole.

While other chapters in this report address direct characteristics and results of the CAHSEE program, this chapter explores a broader view of the educational milieu in California, examining factors such as dropout rates, graduation rates, and college preparation. We look at year-by-year trends to reveal changes over time. 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. To the extent possible, we look at trends beginning prior to the introduction of the CAHSEE graduation requirement and continuing up to the present; however when data are not comparable from one year to the next we truncate trend lines to limit the information to meaningful comparisons. While the other chapters in this report reflect data through the 2011–12 school year, many of the sources of information in this chapter lag at least a year behind. For example, graduation and dropout rates in this 2012 report reflect trends through the 2010–11 school year.

As in previous annual evaluation reports, we have gathered data from publicly available sources to inform this chapter. The primary source is the California Basic Educational Data System (CBEDS), a California Department of Education (CDE) online data system that historically was compiled from summary data provided to the CDE by district and county offices. The CDE implemented a new data collection system, the California Longitudinal Pupil Achievement Data System (CALPADS), with the potential to expand and improve available data. The CALPADS system aggregates data from a student-level database. The CALPADs design of retaining student-level data offers several analytic advantages. However, for the purposes of this report, some of the related changes limit comparison of trends over time. Throughout this chapter we note instances when the introduction of the CALPADS system limits comparability or provides information previously unavailable.

In the following sections, 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 (formerly Scholastic Aptitude Test) and ACT (formerly American College Testing) participation and scores, as well as shifts in participation and success rates in Advanced Placement (AP) examinations.

Students Who Leave High School Prematurely

An early and persistent concern regarding the implementation of the CAHSEE 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 few years, but because these systems are new, we continue to look at the dropout phenomenon from multiple perspectives.

At the same time, support systems for repeat grade twelve students have increased. We will provide multiple views of trends in student persistence through grade twelve. We first present the State of California's official dropout statistics. We will then look at enrollment trends for grades nine through twelve for various student cohorts.

Dropout Statistics

The CDE reports dropout rates publicly on its Web site. Two types of dropout calculations are common: one is based on the percentage of students who drop out over the four years between their class entering grade nine and their original graduation date; the other is based on the number of students who drop out in a given school year. We look first at cumulative four-year dropout rates and then at single-year dropout rates, both as reported by CDE. At the time of this report the most recent available data reflected the Class of 2011.

Changes to dropout calculations. The introduction of statewide student identifier numbers in 2006–07 made possible more accurate identification of student outcomes once students 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 those student-level data. Due to this change, the dropout rates from 2006–07 onward are not comparable with dropout rates in previous years.

CDE cumulative four-year dropout rates. The CDE routinely produces a cumulative four-year dropout rate, which is a common dropout metric. CDE reported the cumulative dropout rate as the "adjusted four-year derived dropout rate" from the 1991–92 school year through the 2009–10 school year. Beginning with the Class of 2010, however, CDE began reporting a new "four-year adjusted cohort dropout rate," and discontinued reporting the adjusted four-year derived dropout rate in 2011. The two different cumulative four-year dropout rate equations are depicted for the reader's reference when interpreting tables and figures. We present data for the recent time period during which CDE reported the adjusted four-year derived dropout rates for purposes of illustrating prior trends, and we remind the reader to evaluate separately the now available two years of data that use the four-year adjusted cohort dropout rate.

Equation 5.1 depicts the formula for the adjusted four-year derived dropout rate. This calculation is an estimate based upon the number of dropouts at grades nine, ten,

eleven, and twelve in a given school year, and projects what the four-year dropout rate would be in a four-year period based on these single year data.

Adjusted Four-Year Derived Dropout Rate =

(1-((1-(Adjusted Gr. 9 Dropouts/Gr. 9 Enrollment))*(1-(Adjusted Gr. 10 Dropouts/Gr. 10 Enrollment))*(1-(Adjusted Gr. 11 Dropouts/Gr. 11 Enrollment))*(1-(Adjusted Gr. 12 Dropouts/Gr. 12 Enrollment))))*100

The adjusted four-year derived dropout rate is an estimate of the percentage of students who would drop out in a four-year period based on data collected for a single year.

Equation 5.1

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest. (Retrieved on July 18, 2012).

Table 5.1 shows the CDE adjusted four-year derived dropout rates by race/ethnicity for the school years 2006–07 through 2009–10, ordered by descending rates for the most recent year. Note that these four-year dropout rates are derived from data on dropouts at all grade levels in a given year (See Equation 5.1) and therefore do not represent the dropouts from a cohort of students in a particular class.

The table indicates that more than a fifth (21.1 percent) of students attending California public high schools in 2006–07 dropped out over the grade nine through twelve high school years, using the four-year derived dropout rate equation. The rate was reduced by 2.2 percent for 2007–08, rose to 21.5 percent in 2008–09, and declined again to 17.4 percent in 2009–10, the last year the four-year derived dropout rate was reported. The rightmost column indicates the decrease in dropout rate across those four years and reveals that the dropout rate for each group was lower in the 2009–10 school year than in 2006–07. Table 5.1 indicates that the adjusted four-year derived dropout rate for African American students in the 2009–10 school year was 29.8 percent—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. The percentage of special education students dropping out was more volatile than that of other groups, with a decrease from 26.6 percent to 14.7 percent from 2006–07 to 2009–10. This may be due in part to changes in the exemption policies for these students. Students with disabilities (SWD) in the classes of 2006, 2007, 2010, and 2011 were exempt from the CAHSEE requirement as a condition of graduation, while SWD in the classes of 2008 and 2009 were required to pass the CAHSEE to earn a diploma. The extension date for the implementation of alternative means is currently in effect through June 30, 2015. When Assembly Bill 1705 was signed by the Governor, the implementation of alternative means—and the exemption—was extended through June 30, 2015.

Table 5.1. CDE Adjusted Four-Year Derived Dropout Rates by Demographic Group

Demographic Group	Adjusted Four-Year Derived Dropout Percentage				Percentage Point Decrease in Four-Year Derived Dropout Rate From 2006–07 to 2009–10
	2006–07	2007–08	2008–09	2009–10	
Race/Ethnicity					
African American (not Hispanic)	35.8%	32.9%	36.8%	*29.8%	6.0
Not Reported	N/A	N/A	N/A	*23.6%	N/A
American Indian	28.1%	24.1%	30.0%	*23.5%	4.6
Hispanic	26.7%	23.8%	26.7%	*21.6%	5.1
Pacific Islander	24.8%	21.3%	25.4%	18.8%	6.0
Two or More Races (not Hispanic)	N/A	N/A	N/A	*12.2%	N/A
White	13.3%	11.7%	14.1%	*10.6%	2.7
Filipino	10.6%	8.6%	10.7%	*7.2%	3.4
Asian American	9.0%	7.9%	9.6%	*7.0%	2.0
Multiple/No Response	26.8%	23.3%	N/A	N/A	N/A
Other Demographic Groups					
Economically Disadvantaged	25.4%	23.2%	25.2%	*18.6%	6.8
LEP†	23.5%	21.7%	26.4%	*22.3%	1.2
Special Education ‡	26.6%	23.6%	27.0%	*14.7%	11.9
State Totals	21.1%	18.9%	21.5%	*17.4%	3.7

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 18, 2012).

† Limited English Proficient for federal reporting includes English learners and fluent-English proficient students that have not yet tested at the proficient or above level for three years on the ELA California Standardized Test.

‡Special education students in the Classes of 2006, 2007, 2010 and 2011 were exempt from the CAHSEE requirement.

The * before a number represents an adjustment in data from the 2011 evaluation report due to an updating of the figures used.

The four-year adjusted cohort dropout rate CDE added to its standard reporting on the Web for school year 2009–10 is an important calculation that more accurately reports dropouts for the members of a graduating class as they move through their high school years. Equation 5.2 depicts this calculation for the Class of 2011.

Four-Year Adjusted Cohort Dropout Rate for Class of 2011 =

Number of cohort members who dropped out by the end of the 2010–11 school year

divided by

Number of first-time grade nine students in Fall 2007 (starting cohort) plus students who transfer in, minus students who transfer out, emigrate, or die during school years 2007–08, 2008–09, 2009–10, and 2010–11

Equation 5.2

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest. (Retrieved on July 18, 2012).

Table 5.2 reports the new cohort dropout calculations for the Class of 2010 and the Class of 2011. With only two years of data we cannot generalize changes as trends. The data are provided here for comparison to the traditional adjusted four-year derived dropout calculations in 2009–10 and 2010–11. The two metrics yield similar, but not identical, dropout rates. Note that the demographic groups for the four-year cohort

metric include "not reported" and "two or more races," whereas these were a single combined group for the derived dropout rate metric prior to the 2010–11 school year; comparisons must take this into account. Table 5.2 reveals a slight overall decline of 2.2 percentage points in the four-year adjusted cohort dropout rates from the Class of 2010 to the Class of 2011. Additionally, it indicates the cohort dropout rates are lower for the Class of 2011 than for the Class of 2010 for every demographic group except students in the two or more races subgroup. The table indicates that the cohort dropout rate for African American students in the Class of 2011 is 24.7 percent—substantially higher than for other groups, although a 2.1 percent reduction from the prior class's rate. Rates for American Indian/Alaskan Native, Hispanic, and Pacific Islander students also exceed the rate for the state as a whole.

Table 5.2. CDE Four-Year Adjusted Cohort Dropout Rates by Demographic Group

Demographic Group	Class of 2010	Class of 2011	Percentage Point Decrease in Four-Year Cohort Dropout Rate Class of 2010 to Class of 2011
Race/Ethnicity			
Not Reported	*41.6%	30.0%	11.6
African American (not Hispanic)	*26.8%	24.7%	2.1
American Indian	*22.0%	20.7%	1.3
Hispanic or Latino	*20.8%	17.7%	3.1
Pacific Islander	*19.6%	17.5%	2.1
White	*10.7%	8.9%	1.8
Two or More Races (not Hispanic)	*10.2%	11.2%	-1.0
Filipino	*7.9%	6.7%	1.2
Asian American	*7.2%	6.2%	1.0
Other Demographic Groups			
Economically Disadvantaged	*20.1%	17.7%	2.4
English Learners	*29.0%	24.9%	4.1
Special Education ‡	*22.0%	18.4%	3.6
State Totals	*16.6%	14.4%	2.2

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 18, 2012).
‡Special education students in the Classes of 2006, 2007, 2010 and 2011 were exempt from the CAHSEE requirement.
The * before a number represents an adjustment in data from the 2011 evaluation report due to an updating of the figures used.

CDE single-year dropout rate. CDE also produces a single-year dropout rate, which measures the percentage of students enrolled in grades nine through twelve who are identified as dropouts in a single school year. The official CDE annual adjusted grade nine through twelve dropout calculation derives the total number of students who drop out of grades nine through twelve as a percentage of the total grade nine through twelve enrollment in a single school year.[26] Equation 5.3 depicts the calculation for the single-year dropout rate for the 2010–11 school year.

[26] The dropouts counts are adjusted (a) to exclude students who had been initially reported as dropouts but later found to be enrolled in a California public school, (b) to include students who were initially reported as having transferred to another California public school but were not found enrolled in one, and (c) to include students reported as exiting for the summer but not found to be enrolled in the fall.

Single Year Dropout Rate for 2010–11 =

Number of Grade 9 Dropouts + Grade 10 Dropouts + Grade 11 Dropouts + Grade 12 Dropouts in the 2010–11 school year

divided by

Grade 9 Enrollment + Grade 10 Enrollment + Grade 11 Enrollment + Grade 12 Enrollment in the 2010–11 school year

Equation 5.3

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest. (Retrieved on July 18, 2012).

As shown in the *State Total* summary row in Table 5.3, the single-year dropout rate in the 2006–07 school year was 5.5 percent, declining slightly to 5.3 percent in the 2007–08 school year, rising to 5.7 percent in the 2008–09 school year, dropping to 4.6 percent in the 2009–10 school year, and dropping further to 4.3 percent in the 2010–11 school year.

Table 5.3 disaggregates the single-year dropout rate by race/ethnicity and for economically disadvantaged students, limited English proficiency (LEP) students, and students with disabilities (SWD). The racial/ethnic groups are listed in descending order by dropout rate for the 2010–11 school year. The rightmost column indicates the change in dropout rate for the five-year period and reveals that the dropout rate for each racial/ethnic group is lower in the 2010–11 school year than in the 2006–07 school year, with the exception of LEP students. The table indicates that the most recent dropout rate for African American students is 7.9 percent—substantially higher than for all other groups, including students struggling with language challenges or disabilities. Rates for American Indian/Alaska Native, Hispanic, and Pacific Islander students, and LEP and economically disadvantaged students also exceed the rate for the state as a whole. Again, comparisons across a row should take into account the inclusion of the demographic groups “two or more races” starting in 2008–09 and “not reported” in 2009–10, in place of the single “multiple/no response” group.

The single-year dropout rate described in Table 5.3 does not distinguish the point within the high school years at which dropouts were increasing. In prior years, we aimed to investigate this by showing the number of students dropping out at each grade level for the classes of 2007 through 2010. Although comparable dropout counts by grade level were not available on the CDE Web site this year, we present the historical data to illustrate prior trends. As seen in Table 5.4, the number of students dropping out during grade twelve far exceeded the dropouts in earlier grades. Cells marked with a dagger (†) were calculated under the new rules implemented in 2006–07. Because the grade twelve dropouts for the Class of 2007 were the first in that class to be calculated under those rules, it is impossible to distinguish how much of the increase was due to the rule change. However, similar spikes in the numbers of students who dropped out during grade twelve compared to earlier grades were seen for the classes of 2008, 2009, and 2010, when the new rules were in effect earlier in the students’ high school years.

Table 5.3. CDE Single-Year Dropout Rates by Demographic Group

Demographic Group	Annual Adjusted Grade 9–12 Dropout Rate					Change in Dropout Rate From 2007 to 2011
	2006–07	2007–08	2008–09	2009–10	2010–11	
Race/Ethnicity						
None Reported	N/A	N/A	N/A	*6.4%	11.8%	N/A
African American (not Hispanic)	9.8%	9.0%	10.3%	*8.3%	7.9%	-1.9%
American Indian/Alaska Native, Not Hispanic[A]	7.6%	6.6%	8.3%	*6.4%	6.1%	-1.5%
Hispanic or Latino of Any Race[B]	6.7%	6.0%	7.0%	*5.6%	5.3%	-1.4%
Pacific Islander, not Hispanic[A]	6.7%	5.6%	6.9%	5.0%	5.0%	-1.7%
Two or More Races. Not Hispanic[A]	N/A	N/A	1.3%	*3.0%	3.2%	N/A
White, Not Hispanic[A]	3.5%	3.1%	3.7%	2.8%	2.5%	-1.0%
Filipino, Not Hispanic[A]	2.7%	2.2%	2.8%	*1.8%	1.6%	-1.1%
Asian, Not Hispanic[A]	2.3%	2.0%	2.5%	1.8%	1.6%	-0.7%
Multiple/No Response	7.2%	6.1%	N/A	N/A	N/A	N/A
Other Demographic Groups						
LEP†	5.7%	5.3%	6.7%	*5.7%	6.1%	+0.4%
Economically Disadvantaged	6.3%	5.8%	6.4%	*4.7%	4.7%	-1.6%
Special Education	7.2%	6.4%	7.5%	*3.9%	2.9%	-4.3%
State Total	5.5%	*4.9%	5.7%	4.6%	4.3%	-1.2%

Source: California Department of Education (CDE) DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 18, 2012).
[A] Subgroup names listed here are names as they are reported in DataQuest. Prior to 2008–09 these names did not include "Not Hispanic)"
[B]Prior to 2008–09 DataQuest reported this subgroup as "Hispanic."
† Limited English Proficient for federal reporting includes English learners and fluent-English proficient students that have not yet tested at the proficient or above level for three years on the California Standards Test (CST) English-language arts (ELA) test.
The * before a number represents an adjustment in data from the 2011 evaluation report due to an updating of the figures used.

Table 5.4 reports the number of students who dropped out at each grade as well as the percentage of grade nine enrollment represented by each number. For example, the 51,105 grade twelve dropouts in the Class of 2007 represent 9.7 percent of the grade nine enrollment for that class. This rate decreased to 7.7 percent for the Class of 2010.

Table 5.4. CDE Dropout Counts by Grade Level for Classes of 2007 Through 2010

Class of	Enrollment Grade 9	Number (Percentage of Grade 9 Enrollment)			
		Grade 9 Dropouts	Grade 10 Dropouts	Grade 11 Dropouts	Grade 12 Dropouts
2007	526,442	11,678 (2.2%)	10,458 (2.0%)	12,529 (2.4%)	51,105 (9.7%)†
2008	549,486	10,447 (1.9%)	10,177 (1.9%)	22,045 (4.0%)†	50,217 (9.1%)†
2009	547,014	10,643 (1.9%)	18,210 (3.3%)†	19,496 (3.6%)†	55,966 (10.2%)†
2010	545,040†	17,375 (3.2%)†	15,168 (2.8%)†	*23,395 (4.3%)†	*42,078 (7.7%)†

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed August 23, 2011).
Note. † Indicates dropout rate was calculated under new 2006–07 rule.
The * before a number represents an adjustment in data from the 2011 evaluation report due to an updating of the figures used.

Figure 5.1 is a graphical representation of the same information presented in Table 5.4. Although the dropout rate in grade twelve is larger than all other grades for every graduating class depicted, the Class of 2010 shows a slightly different pattern than the preceding classes. The Class of 2010 has a larger dropout rate at grade nine and a smaller dropout rate at grade twelve than previous classes. The classes of 2007 through 2009 had more dropouts in grade twelve than in the previous three grades, combined.

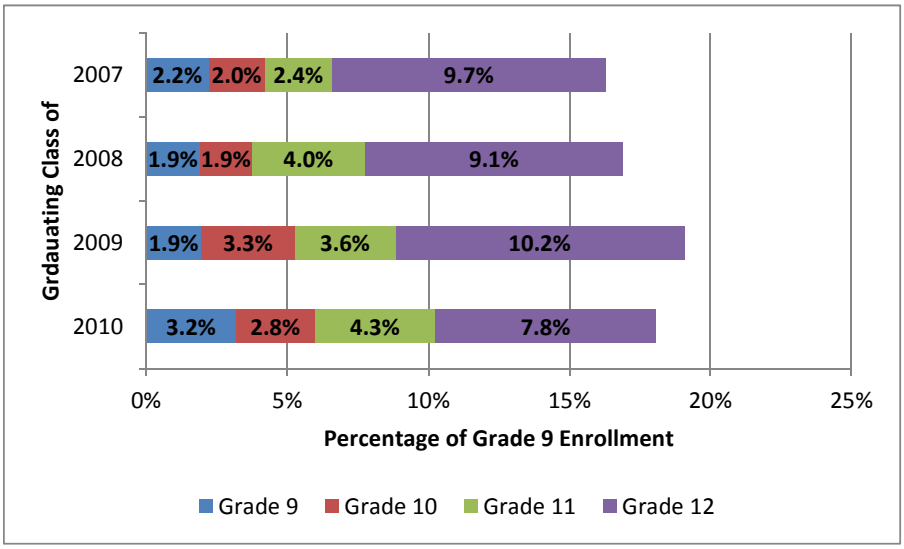


Figure 5.1. Dropout rates by grade level for classes of 2007 through 2010, based on percentage of grade nine enrollment.

CDE dropout rates by grade for demographic groups. To further examine whether student dropout rates by grade differ in any systematic ways, we investigated single-year dropout patterns by grade for demographic groups. Using adjusted dropout data[27] available on the CDE Web site, in Tables 5.5 and 5.6 we disaggregate the adjusted dropout counts and display two approaches to evaluating single-year 2010–2011 dropouts by grade; by race/ethnicity; and by other demographic factors, economic disadvantage, English proficiency, and special education program status.

We first looked at 2010–2011 dropouts based on enrollment to determine the patterns of dropouts as a function of the size of the underlying population. Table 5.5 orders demographic groups by descending grade nine through twelve enrollments, and it reveals some significant distinctions among the groups' dropouts. For example, 7,184 grade nine dropouts are Hispanic or Latino students, and they represent 0.7 percent of the 980,652 Hispanic students enrolled in grades nine through twelve. In contrast, although grade nine dropouts also make up 0.7 percent of the Pacific Islander grade nine through twelve enrollment, their total enrollment is much smaller (12,191) with 88

[27] The dropouts counts are adjusted (a) to exclude students who had been initially reported as dropouts but later found to be enrolled in a California public school, (b) to include students who were initially reported as having transferred to another California public school but were not found enrolled in one, and (c) to include students reported as exiting for the summer but not found to be enrolled in the fall.

grade nine dropouts in this group. For grade twelve, although the group with the highest dropout rate as a percentage of the group's grade nine through twelve enrollment is African American students (3.8 percent), the next highest rate of 2.7 percent for Hispanic or Latino students accounts for almost five times as many grade twelve dropouts as those in the African American group (26,210 compared to 5,570).

Table 5.5 also reveals a pattern across demographic groups with regard to when, during high school, students dropped out in the 2010–11 school year. For all demographic groups, the lowest dropout rate as a percentage of their grade nine through twelve enrollment was in grade nine, the grade ten and eleven dropout rates were each about the same or slightly higher, and the highest dropout rate was in grade twelve. The grade twelve dropout rate for almost every group was at least two times the group's grade eleven dropout rate, as seen in the Hispanic or Latino dropout rate of 1.0 percent in grade eleven and 2.7 percent in grade twelve. This pattern of the highest single-year dropout rate occurring in grade twelve is consistent with the pattern observed in statewide single-year dropout rates as a percentage of grade nine enrollments for the classes of 2007 through 2010.

Table 5.5. CDE 2010–11 School Year Adjusted Dropouts as Percentage of Grade 9–12 Enrollment, by Grade and Demographic Group

Demographic Group	Number (Percentage of Grade 9-12 Enrollment)				
	Grade 9 Dropouts	Grade 10 Dropouts	Grade 11 Dropouts	Grade 12 Dropouts	Grade 9-12 Enrollment
Hispanic or Latino	7,184 (0.7%)	7,996 (0.8%)	10,285 (1.0%)	26,210 (2.7%)	980,652
White	1,777 (0.3%)	2,135 (0.4%)	3,211 (0.6%)	6,998 (1.2%)	567,280
Asian American	289 (0.2%)	348 (0.2%)	474 (0.3%)	1,723 (1.0%)	175,527
African American (not Hispanic)	1,717 (1.2%)	1,846 (1.3%)	2,270 (1.6%)	5,570 (3.8%)	144,939
Filipino	83 (0.2%)	95 (0.2%)	171 (0.3%)	552 (1.0%)	55,284
Two or More Races (not Hispanic)	98 (0.3%)	151 (0.5%)	184 (0.6%)	509 (1.7%)	29,514
None Reported	450 (2.7%)	406 (2.4%)	431 (2.6%)	689 (11.7%)	16,826
American Indian/ Alaskan Native	154 (1.0%)	152 (1.0%)	221 (1.4%)	420 (2.7%)	15,663
Pacific Islander	88 (0.7%)	92 (0.8%)	136 (1.1%)	291 (2.4%)	12,191
Economically Disadvantaged	7,041 (0.7%)	7,571 (0.7%)	9,490 (0.9%)	24,294 (2.4%)	1,033,283
LEP†	3,733 (0.7%)	4,386 (0.9%)	5,921 (1.2%)	16,212 (3.3%)	498,491
Special Education ‡	606 (0.3%)	714 (0.4%)	1,100 (0.6%)	2,961 (1.6%)	188,972
State Total	11,840 (0.6%)	13,221(0.7%)	17,383 (0.9%)	42,962 (2.2%)	1,997,876

Source: California Department of Education (CDE) DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 18, 2012).
† Limited English Proficient for federal reporting includes English learners and fluent-English proficient students that have not yet tested at the proficient or above level for three years on the California Standards Test (CST) English-language arts (ELA) test.

We next looked at the demographic characteristics of dropouts at grades nine through twelve in the 2010–11 school year to see whether these distributions shifted across grade levels. Table 5.6 reveals that for most demographic groups, the percentage of each grade's adjusted dropouts is fairly consistent. For example, of the state's grade nine dropouts, 60.7 percent were Hispanic or Latino. In grade twelve the percentage of dropouts that were Hispanic or Latino increased by just 0.3 percent to 61.0 percent. The pattern of Asian American dropouts differs, with the percent of the state's dropouts in this group increasing from 2.4 percent in grade nine to 4 percent in grade twelve. Notable are the differences between the percentages of some groups' dropout rates relative to their percentage of the state's grade nine through twelve enrollment. For example, the African American dropout rates range from 14.5 percent in grade eleven to 13 percent in grade 12, although this group is only 7.3 percent of the state's grade nine through twelve enrollment. Similarly, the dropout rate of around 60 percent for Hispanic or Latino students in each grade exceeds by about 10 points this group's percentage of the state's grade nine through twelve enrollment. Several groups, including White, Asian, Filipino, and special education students, have lower dropout rates at every grade compared to their percentages of grade nine through twelve enrollment.

Table 5.6. CDE 2010–11 Adjusted Dropouts by Grade and Demographic Group, as Percentage of State Adjusted Dropouts by Grade

Demographic Group	Percentage of Adjusted Dropouts By Grade				Group's Percentage of Grade 9-12 Enrollment
	Grade 9	Grade 10	Grade 11	Grade 12	
American Indian/Alaskan Native	1.3%	1.1%	1.3%	1.0%	0.8%
Asian American	2.4%	2.6%	2.7%	4.0%	8.8%
Pacific Islander	0.7%	0.7%	0.80%	0.7%	0.6%
Filipino	0.7%	0.7%	1.0%	1.3%	2.8%
Hispanic or Latino	60.7%	60.5%	59.2%	61.0%	49.1%
African American (not Hispanic)	14.5%	14.0%	13.1%	13.0%	7.3%
White	15.0%	16.1%	18.5%	16.3%	28.4%
Two or More Races (not Hispanic)	0.8%	1.1%	1.1%	1.2%	1.5%
None Reported	3.8%	3.1%	2.5%	1.6%	0.8%
State Total	100.0%	100.0%	100.0%	100.0%	100.0%
Economically Disadvantaged	59.5%	57.3%	54.6%	56.5%	51.7%
LEP†	31.5%	33.2%	34.1%	37.7%	25.0%
Special Education ‡	5.1%	5.4%	6.3%	6.9%	9.5%

Source: California Department of Education (CDE) DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 18, 2012).
† Limited English Proficient for federal reporting includes English learners and fluent-English proficient students that have not yet tested at the proficient or above level for three years on the California Standards Test (CST) English-language arts (ELA) test.

Enrollment Trends

Enrollment counts are documented at the school 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 as an independent indicator of trends in retention or dropout rates. California's student-level data tracking system is still relatively new so we retain this independent measure of student persistence. 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 grade nine "bubble." That is, in any given year more students are enrolled in grade nine than in either grade eight or ten. One oft-theorized explanation is that some first-time grade nine students fail to earn sufficient credits to achieve grade ten status on time. Therefore in the fall of each year the grade nine population comprises the prior year's grade eight students plus some number of students who would have been grade ten students, 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 grade ten enrollment counts would be suppressed by exclusion of those same students. A second persistent enrollment pattern is a decrease in enrollment (drop-off) each year after grade nine. This decrease is generally considered to include high school dropouts.

The CDE Web site (http://www.cde.ca.gov/ds/) provides fall enrollment counts by grade level each year. To present enrollment trends in a manner that is comparable across years despite population growth or declines, we have converted these enrollment counts to percentages. Table 5.7 and Figure 5.2 show the decrease in enrollment from grade nine to ten 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 grade ten drop-off rate increased by 0.1 percent (5.6 to 5.7 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 grade nine students for more than a year. In the 2004–05 school year the drop-off rate declined back to 5.6 percent. This was followed by a substantial increase to 6.1 percent in 2005–06, an even more substantial decrease to 5.3 percent in 2006–07, then increases to 5.7, 6.0, and 6.1 percent in subsequent years. This upward trend reversed in the 2010–11 school year when the grade ten class was only 4.2 percent smaller than the previous year's grade nine class, and in the 2011–12 school year the grade ten class was only 3.8 percent smaller than the previous year's grade nine class. The possible explanation for the reduced enrollment decline from 2012 to 2013 has not yet been investigated.

Table 5.7. Enrollment Declines Between Grades Nine and Ten by High School Class

School Year	High School Class	Grade 10 Enrollment	Prior Year's Grade 9 Enrollment	Decrease	
				Number	Percent
1997–98	2000	423,865	450,820	26,955	6.0%
1998–99	2001	433,528	458,650	25,122	5.5%
1999–2000	2002	444,064	468,162	24,098	5.1%
2000–01	2003	455,134	482,270	27,136	5.6%
2001–02	2004	459,588	485,910	26,322	5.4%
2002–03	2005	471,726	499,505	27,779	5.6%
2003–04	2006	490,465	520,287	29,822	5.7%
2004–05	2007	497,203	526,442	29,239	5.6%
2005–06	2008	515,761	549,486	33,725	6.1%
2006–07	2009	517,873	547,014	29,141	5.3%
2007–08	2010	513,707	545,040	31,333	5.7%
2008–09	2011	509,157	541,650	32,622	6.0%
2009–10	2012	506,042	539,167	33,112	6.1%
2010–11	2013	*502,486	524,527	22,041	4.2%
2011–12	2014	494,739	514,491	19,752	3.8%

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed August 2, 2012).
The * before a number represents an adjustment in data from the 2011 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.

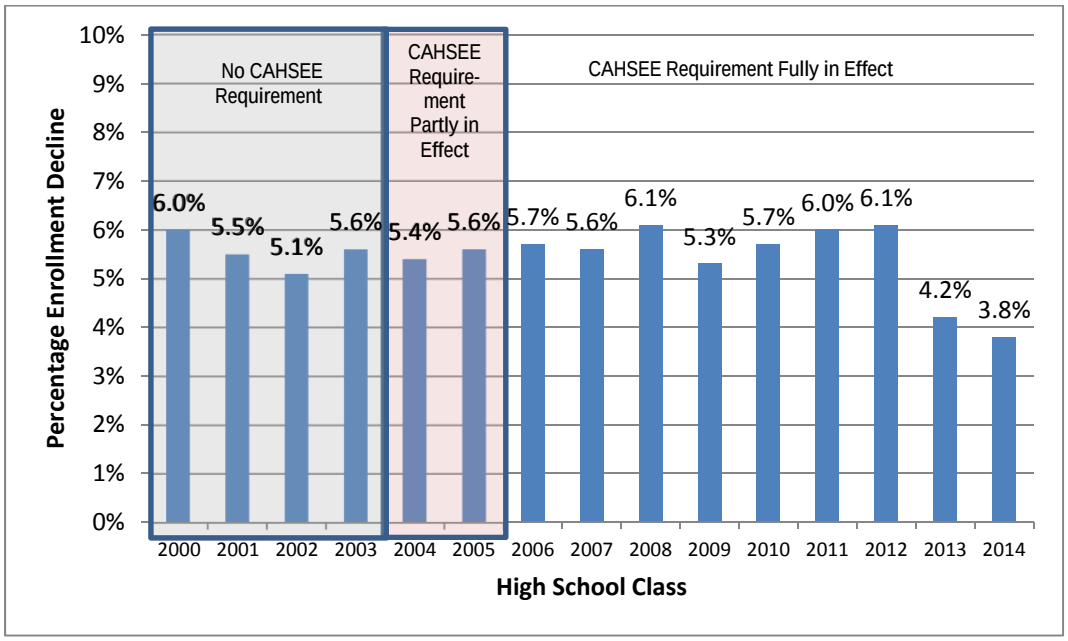


Figure 5.2. Enrollment declines between grades nine and ten by high school class.

Table 5.8 and Figure 5.3 show similar information for the drop-off between grade ten and eleven enrollments. Results show that the drop-off rate between grade ten and

eleven enrollments declined beginning with the Class of 2004. The rate declined fairly steadily from 6.4 percent for the Class of 2005 down to 3.1 percent for the Class of 2013.

Table 5.8. Enrollment Declines from Grade Ten to Grade Eleven

School Year	High School Class	Grade 11 Enrollment	Prior Year's Grade 10 Enrollment	Decrease	
				Number	Percent
1998–99	2000	390,742	423,865	33,123	7.8%
1999–2000	2001	401,246	433,528	32,282	7.4%
2000–01	2002	409,119	444,064	34,945	7.9%
2001–02	2003	420,295	455,134	34,839	7.7%
2002–03	2004	428,991	459,588	30,597	6.7%
2003–04	2005	441,316	471,726	30,410	6.4%
2004–05	2006	459,114	490,465	31,351	6.4%
2005–06	2007	467,304	497,203	29,899	6.0%
2006–07	2008	487,493	515,761	28,268	5.5%
2007–08	2009	488,227	517,873	28,646	5.5%
2008–09	2010	489,207	513,707	24,675	4.8%
2009–10	2011	487,505	509,157	21,523	4.2%
2010–11	2012	*488,348	506,042	17,694	3.5%
2011–12	2013	487,113	502,486	15,373	3.1%

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed August 2, 2012).
The * before a number represents an adjustment in data from the 2011 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.

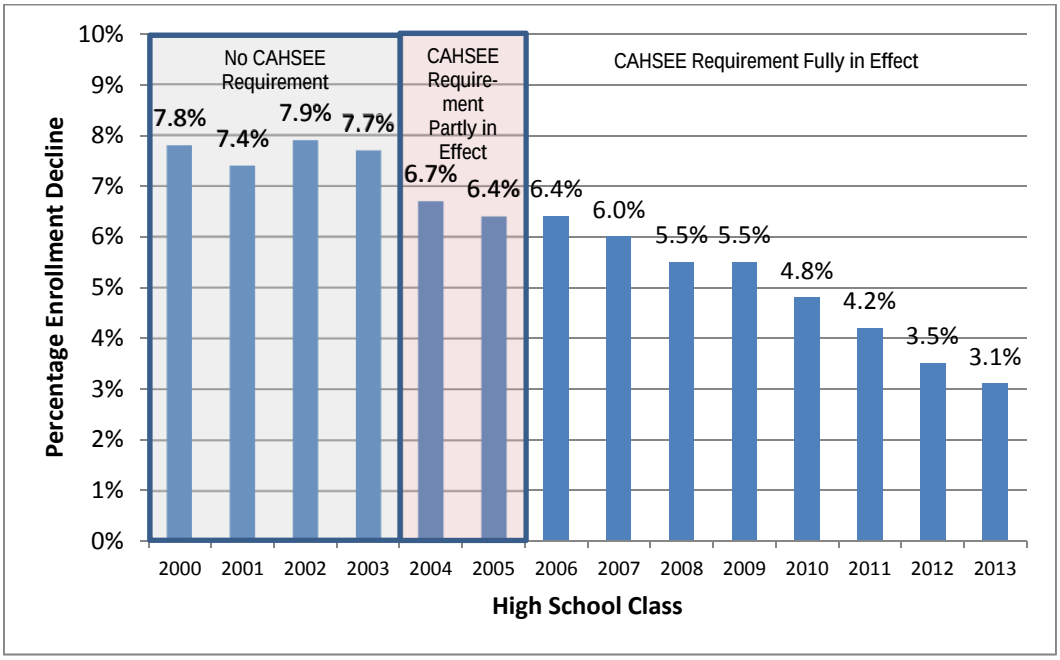


Figure 5.3. Enrollment declines from grade ten to grade eleven by high school class.

Table 5.9 and Figure 5.4 show similar information for the drop-off between grade eleven and twelve 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 grade eleven to grade twelve for the Class of 2011 actually reversed (negative 0.2 percentage points)—that is, more students were enrolled in the Class of 2011's senior class than had been enrolled at the start of the junior year. The Class of 2012 is showing a similar increase in Grade 12 enrollment. The new trend may in part be due to the continued enrollment of grade twelve repeat students who fail to graduate with their original graduating class.

Table 5.9. Enrollment Declines Between Grades Eleven and Twelve

School Year	High School Class	Grade 12 Enrollment	Prior Year's Grade 11 Enrollment	Decrease	
				Number	Percent
1999–00	2000	347,813	390,742	42,929	11.0%
1999–2000	2001	357,789	401,246	43,457	10.8%
2001–02	2002	365,907	409,119	43,212	10.6%
2002–03	2003	386,379	420,295	33,916	8.1%
2003–04	2004	396,272	428,991	32,719	7.6%
2004–05	2005	409,568	441,316	31,748	7.2%
2005–06	2006	423,241	459,114	35,873	7.8%
2006–07	2007	443,154	467,304	24,150	5.2%
2007–08	2008	468,281	487,493	19,212	3.9%
2008–09	2009	476,156	489,227	13,071	2.7%
2009–10	2010	477,885	489,032	11,147	2.3%
2010–11	2011	*488,388	487,505	*-883	-0.2%
2011–12	2012	494,144	488,348	-5,796	-1.2%

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 18, 2012).
The * before a number represents an adjustment in data from the 2011 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.

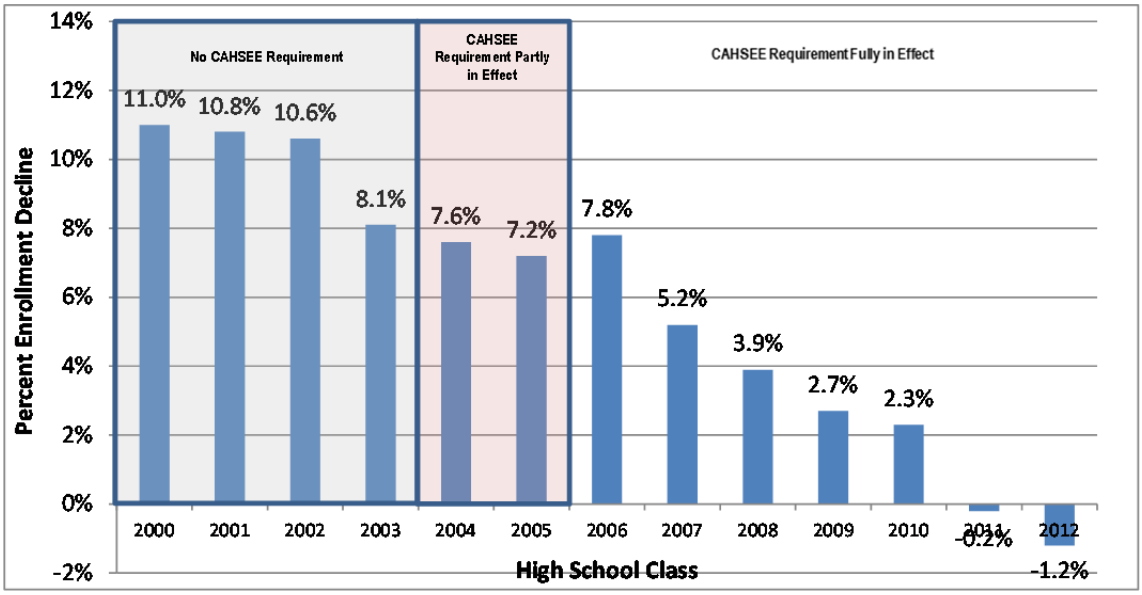


Figure 5.4. Enrollment declines from grade eleven to grade twelve by high school class.

Students Who Leave High School Prematurely: Summary

We examined four-year and single-year dropout rates among high school students in the classes of 2007 through 2011. We found that the dropout rates, while substantial, declined overall and for every demographic group except economically disadvantaged students. However, we found that both the four-year and one-year dropout rates among African American students exceeded those of every other racial/ethnic group, and that the rates were above the overall state rate for disadvantaged groups such as economically disadvantaged, limited English proficient (LEP), and special education students. As reported in previous annual evaluation reports, we found that the bulk of dropouts occur in grade twelve. We also found that demographic groups' percentages of the state's 2010–11 single-year dropouts were fairly consistent across the four high school grades. Additionally, African American, Hispanic, American Indian, economically disadvantaged, and LEP students made up a higher percentage of each grade's dropouts in comparison to the group's percentage of grade nine to twelve enrollment.

We analyzed enrollment trends by graduation class cohort from the Class of 2000 through the fall 2011 enrollment counts. The fall enrollment numbers for the 2011–12 school year reflect lower grade-by-grade reductions than for any year since 1997–98, including a gain in the number of grade twelve students in the Class of 2012.

Graduation Rates

Another indicator that could conceivably be affected by the CAHSEE requirement is the high school graduation rate. In California, high school graduates include students assigned any of the following exit codes by their high school:

- Graduated, standard high school diploma
- Graduated, CAHSEE modifications and waiver for special education
- Graduated, CAHSEE special education exemption
- Adult education high school diploma
- Passed California High School Proficiency Exam

CDE publicly reports the graduation rate in three ways. The following descriptions are taken directly from the CDE Web site.

Graduation Rate Required for ESEA Reporting, prior to 2011. The CDE cites the following rationale for how it arrives at this graduation rate: "This rate is the result of negotiations with the U.S. Department of Education and is required for NCLB 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." CDE discontinued use of this rate and began using the four-year adjusted cohort graduation rate as of the Class of 2011, in accordance with the 2008 amendments to

Title 1 Regulations. However, Equation 5.4 demonstrates the calculation of the Ninth Grade to Graduate Rate used through the Class of 2010.

Graduation Rate Required for ESEA Reporting for Class of 2010 =

Number of graduates from 2009–10 school year

divided by

Number of graduates from 2009–10 school year + grade 9 dropouts from 2007 + grade 10 dropouts from 2008 + grade 11 dropouts from 2009 + grade 12 dropouts from 2010

Equation 5.4

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest. (Retrieved on July 18, 2012).

Ninth Grade to Graduate Rate. The CDE cites the following rationale for how it arrives at this graduation 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 grade nine enrollment from four years prior. Equation 5.5 demonstrates the calculation of the Ninth Grade to Graduate Rate for the Class of 2011.

Ninth Grade to Graduate Rate for Class of 2011 =

Number of cohort members who earned a regular high school diploma by the end of the 2010–11 school year

divided by

Number of first-time grade 9 students in Fall 2007

Equation 5.5

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (retrieved on July 18, 2012).

Four-Year Adjusted Cohort Graduation Rate. This rate complies with the U.S. Department of Education's *High School Graduation Rate —Non-regulatory Guidance, December 22, 2008.*[28] CDE provides this graduation rate beginning with the Class of 2010 and cites the following rationale for how it arrives at this rate: "The four-year graduation rate is calculated by dividing the number of students in the four-year adjusted cohort who graduate in **four years or less** with either a traditional high school diploma, an adult education high school diploma, or have passed the California High School Proficiency Exam (CHSPE) by the number of students who form the adjusted cohort for that graduating class." Equation 5.6 depicts the calculation of the Four-Year Adjusted Cohort Graduation Rate for the Class of 2011.

[28] *See* http://www2.ed.gov/policy/elsec/guid/hsgrguidance.pdf.

Four-Year Adjusted Cohort Graduation Rate for Class of 2011 =

Number of cohort members who earned a regular high school diploma by the end of the 2010–11 school year

divided by

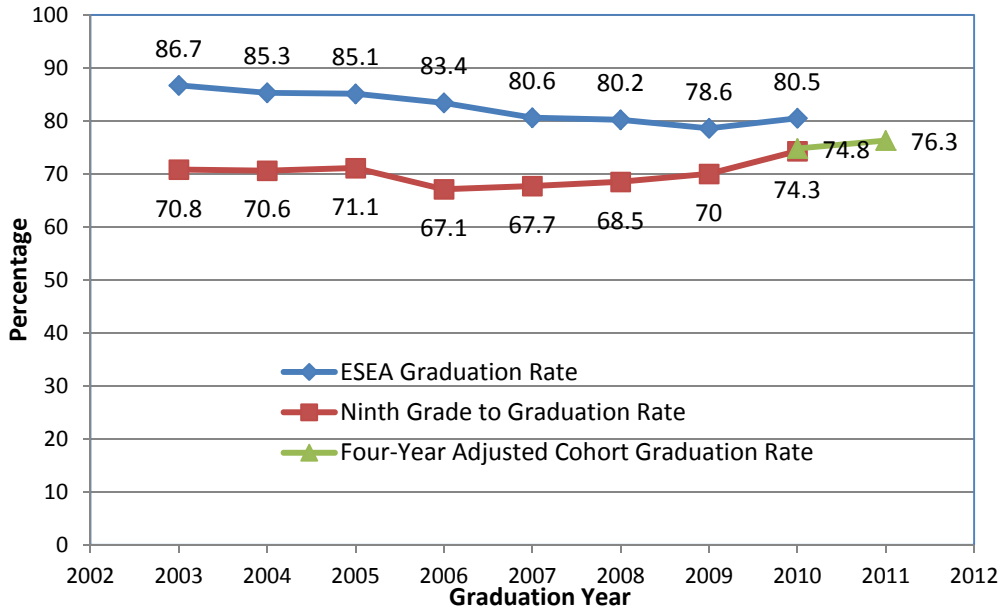
Number of first-time grade 9 students in Fall 2007 (starting cohort) plus students who transfer in, minus students who transfer out, emigrate, or die during school years 2007–08, 2008–09, 2009–10, and 2010–11

Equation 5.6

Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (retrieved on July 18, 2012).

The reader is cautioned that there are a number of types of high school completion that are categorized neither as graduating nor as dropping out, including completing the GED and enrolling in college or an adult education program.

Overall graduation rates. Inspection of Figure 5.5 reveals that the first two graduation rates dropped in 2006, the first year CAHSEE took effect. The percentage of graduates based on grade nine fall enrollment had increased slightly in previous years but dropped by 4.0 percentage points in 2006, to 67.1 percent. This rate increased in subsequent years to a peak of 74.3 percent in 2010. However, the statewide graduation rate used for ESEA reporting declined every year from 2003 (86.7 percent) to 2009 (78.6 percent), then rose slightly in 2010 (80.5 percent). Between 2003 and 2010, this graduation rate dropped by 6.2 percentage points. The adjusted cohort graduation rate increased by 1.5 percentage points from 2010 to 2011.



Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (data retrieved on July 25, 2012).

Figure 5.5. Trends in three graduation rates.

A careful reader may notice that the graduation rate from grade nine for a given class (depicted in Figure 5.5) and the four-year cohort dropout rate (reported in Table 5.2) do not total to 100 percent. The Class of 2010 had a 74.8 percent four-year cohort graduation rate and a 16.6 percent four-year cohort dropout rate, representing a gap of approximately 9 percent. Some of the unaccounted students may have left the state, completed high school without graduating, or continued on for a second year of grade twelve.

Graduation rates for demographic groups. Our next step was to examine graduation rates separately for various demographic groups. To allow comparison of the most recent available data, we used data from CDE's *Cohort Outcomes Summary* reports.

Table 5.10 shows the four-year adjusted cohort graduation rates by demographic group. These are presented in order of declining graduation rate for the Class of 2011. Although only two years of data are available, it is apparent that the overall graduation rate and the rate for each individual group increased from 2010 to 2011. Second, the graduation rates for four groups of students—Pacific Islander, Hispanic or Latino, American Indian/Alaska Native, and African American students—are lower than the overall graduation rates. The dashed horizontal line within Table 5.10 separates the racial/ethnic groups of students with graduation rates above and below the overall state rate of 76.3 percent.

Table 5.10. Four-Year Adjusted Cohort Graduation Rates by Demographic Group

Demographic Group	2010	2011	Change in Graduation Rate
Asian, Not Hispanic	89.0%	89.7%	0.7%
Filipino, Not Hispanic	87.4%	89.0%	1.6%
White, Not Hispanic	83.5%	85.5%	2.0%
Two or More Races, Not Hispanic	83.2%	81.5%	1.7%
Pacific Islander, Not Hispanic	72.1%	74.3%	2.2%
Hispanic or Latino of Any Race	68.2%	70.4%	2.2%
American Indian/Alaska Native	67.2%	68.0%	0.8%
African American, Not Hispanic	60.6%	62.9%	2.3%
Not Reported	53.8%	48.6%	5.2%
English Learners	56.5%	60.3%	3.8%
Economically Disadvantaged	68.1%	70.0%	0.9%
Special Education	56.8%	59.1%	2.3%
TOTAL	74.8%	76.3%	1.5%

Source: Derived from CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 18, 2012).

We noted earlier that the sum of graduation rates and dropout rates does not account for all students. We next explored whether the rates of students not included in either graduation or dropout rates varied by race/ethnicity. Table 5.11 combines the four-year cohort graduation rates in Table 5.10 with four-year adjusted cohort dropout rates in Table 5.2. The columns labeled "Rate Not Graduating or Dropping Out,"

indicate the percentage of students in each racial/ethnic group not included in the cohort graduation or cohort dropout rates in 2010 and 2011. This percentage varied by demographic group in 2010, from a low of 3.5 percent of Asian students to 10.7 percent of African American students. The percentages of students unaccounted for increased from 7.9 percent in 2010 to 9.3 percent in 2011, as seen in the column labeled "Improvement in Accounting for Students." However, the pattern for individual demographic groups varied. As mentioned earlier, outcomes such as passing the GED are not counted as either graduation or dropping out, so some modest discrepancy is to be expected.[29] The percentages of unaccounted-for African American and Hispanic students increased in 2011, and both rates remained substantial (at 12.4 percent and 11.9 percent, respectively). As mentioned earlier, the "not reported" and "two or more races" were a single combined group prior to the 2010–11 school year; volatility in use of the "not reported" category is apparent in Table 5.11 with the 15.6 percentage point change in accounting for students from the Class of 2010 to the Class of 2011.

Table 5.11. Combined Four-Year Cohort Dropout and Graduation Rates by Race/Ethnicity

Demographic Group	2011 Cohort Graduation Rate	2011 Cohort Dropout Rate	Sum of 2011 Graduates and Dropouts	Rate Not Graduating or Dropping Out: 2010	Rate Not Graduating or Dropping Out: 2011	Change in Accounting for Students (Percentage Points)[A]
Asian	89.7%	6.2%	95.9%	3.5%	4.1%	-0.6
Filipino	89.0%	6.7%	95.7%	5.2%	4.3%	0.9
White	85.5%	8.9%	94.4%	5.8%	5.6%	0.2
Two or More Races	81.5%	11.2%	92.7%	5.8%	7.3%	-1.5
Pacific Islander	74.3%	17.5%	91.8%	8.6%	8.2%	0.4
Hispanic or Latino Native	70.4%	17.7%	88.1%	10.3%	11.9%	-1.6
American Indian/Alaska	68.0%	20.7%	88.7%	9.1%	11.3%	-2.2
African American	62.9%	24.7%	87.6%	10.7%	12.4%	-1.7
Not Reported	48.6%	30.0%	78.6%	5.8%	21.4%	-15.6
TOTAL	76.3%	14.4%	90.7%	7.9%	9.3%	-1.4

Source: Table 5.2 and 5.10, this report for 2010 and 2011 rates.

[A] Negative numbers indicate a smaller percentage of students were accounted for in the graduation and dropout rates over time.

Graduation Rates: Summary

We examined three kinds of graduation rates: the graduation rate formerly 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 nine through twelve; the graduation rate based on grade nine enrollment; and the four-year adjusted cohort graduation rate required by the federal government to be reported beginning with the 2010–11 school year. We found that the graduation rate as a percentage of grade nine

[29] See HumRRO's 2009 annual report (Becker, Wise, and Watters, 2009) for a detailed mapping of student-level exit codes to categories such as graduation and dropout.

students increased each year from 2007 through 2010 while the former ESEA rate declined until 2010, when the rate recovered somewhat. Nearly three-quarters (76.3 percent) of the adjusted cohort of students who entered grade nine in the fall of 2007 graduated four years later.

Review of disaggregated four-year adjusted cohort graduation rates revealed that graduation rates for all demographic groups increased in 2011 from their 2010 levels. These graduation rates vary widely, from 62.9 percent among African American students to 89.7 percent for Asian students.

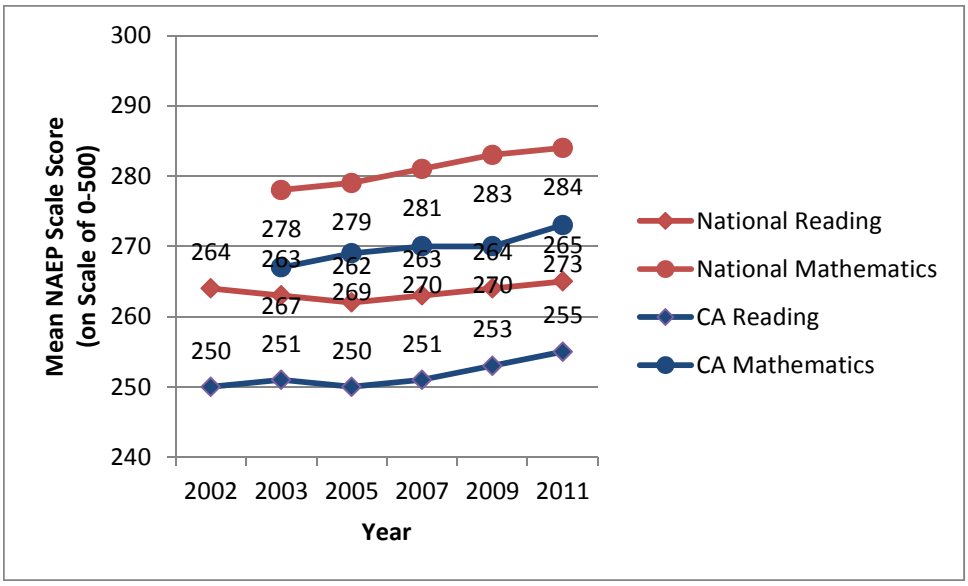
Performance on Other Assessments

The CAHSEE examination is part of a statewide testing program that is aligned to California's content standards for the knowledge and skills students are expected to learn. This is a high-stakes examination for students because passing the CAHSEE is one mandatory requirement to receive a high school diploma.

The National Assessment of Educational Progress (NAEP), also known as "the nation's report card," is overseen by the U.S. Department of Education. NAEP tracks the progress of U.S. students in key subjects at the national and state levels. The main NAEP assessment is administered every two years and includes national and state results in reading and mathematics. A sample of students from a sample of schools participates in the NAEP examination; meticulous sampling and weighting procedures ensure that the results represent all students in the state. Individual student scores are not reported.

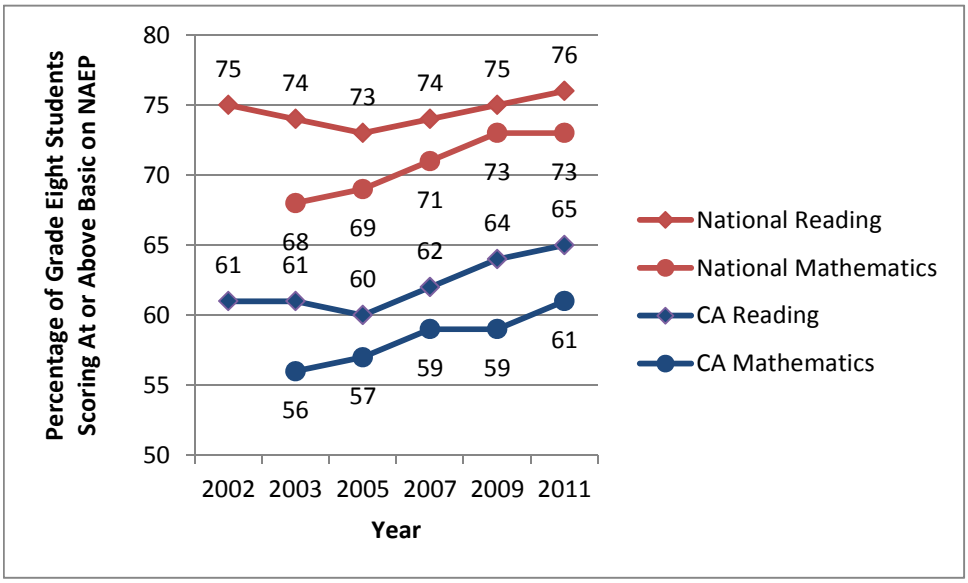
Examination of NAEP trends provides an independent view of student achievement over time that may confirm or disconfirm state-reported trends. Some cautions are in order, however. NAEP is not aligned with any individual state standards; therefore, gains or losses in unique areas of state standards may not be reflected. Unlike CAHSEE, NAEP is not a high stakes test for students, so student motivation is an ongoing concern. The achievement level cut points defining whether a score is below basic, basic, proficient, or advanced are commonly considered to be aspirational; that is, the NAEP achievement levels represent a higher level of achievement than similarly-named state achievement level standards. This last issue leads many researchers to compare state results at the proficient-and-above level to NAEP results at the basic-and-above level. Finally, for the purposes of this report, NAEP grade eight achievement is the most relevant to investigate implications of the CAHSEE. Although NAEP does include a grade twelve assessment, results for individual states are not included.

Figures 5.6 and 5.7 depict NAEP trends for California students and students in the nation as a whole. The red lines represent national trends and the blue lines reflect California trends. Lines marked with diamonds denote reading performance and lines marked with circles signify mathematics performance. The trend lines begin with school year 2001–02, when the graduation class of 2006—the first class for which CAHSEE was fully in effect as a graduation requirement—was in grade eight. Figure 5.6 shows mean scale scores and Figure 5.7 shows results in terms of percentage of students scoring at the Basic level or better.



Note. NAEP began reporting state-level results for Reading in 2002. In 2003 NAEP introduced state-level Mathematics results and commenced a cycle of reporting state-level results every odd year.

Figure 5.6. NAEP state and national trends for grade eight students: Mean scale scores.



Note. NAEP began reporting state-level results for Reading in 2002. In 2003 NAEP introduced state-level Mathematics results and commenced a cycle of reporting state-level results every odd year.

Figure 5.7. NAEP state and national trends for grade eight students: Percentage at or above Basic.

Inspection of Figure 5.6 reveals that the performance of California students was below that of the nation as a whole, but the pattern of gains and losses was very similar. Both California and the nation as a whole showed steady gains in Reading from 2006 through 2011, although California's gain over that time was larger than the nation's (5 percentage points versus 3 percentage points). The trend in mathematics was a bit

more complex. Both California and the nation generally trended upward from 2003 through 2011, although California showed no gain in 2009 and the nation showed no gain in 2011.

Table 5.12 shows the average NAEP Reading scale scores and standard errors for California students and the nation as a whole, disaggregated by demographic group. Table 5.13 presents NAEP Mathematics results. Inspection of the tables reveals that California students performed, on average, at a lower level than the nation, but the trends over time were similar.

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.

Percentage of Students Taking College Preparation Courses

One indicator of educational quality is the caliber of coursework completed. Two of California's statewide university systems, the University of California (UC) and the California State University (CSU), 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 5.14 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, for example, on grade nine enrollment, the rates would be considerably lower. Demographic groups are listed in order of percentage in 2010–11. Among graduates, the rate of completing A–G courses varies widely, from 27.4 percent among American Indian/Alaska Native students to 64.3 percent among Asian students. The rate of completion overall and for every group increased from 2004–05 to 2010–11, with the most substantial positive year-to-year change occurring from 2010 to 2011. About two-fifths (40.3 percent) of the Class of 2011 graduates completed the course requirements to enter a UC or CSU school.

Table 5.12. Trends on NAEP Reading Assessment by Demographic Group

Demographic Group		2002		2003		2005		2007		2009		2011	
		Avg SS	Std Err	Avg SS	Std Err	Avg SS	Std Err	Avg SS	Std Err	Avg SS	Std Err	Avg SS	Std Err
Overall	CA	250	1.8	251	1.3	250	0.6	251	0.8		1.2		1.0
	National	264	0.4		0.3		0.2		0.2		0.3		0.2
Male	CA	247	2.0		1.5		0.7		0.8	253	1.4	255	1.2
	National	260	0.5	263	0.3	262	0.2	263	0.3	264	0.3	265	0.3
Female	CA	255	1.9	247	1.5	246	0.6	246	1.0	248	1.5	249	1.3
	National	269	0.5	258	0.3	257	0.2	258	0.3	259	0.3	251	0.2
NSLP Eligible*	CA	240	2.8	255	1.8	255	0.8	257	1.0	257	1.1	261	0.9
	National	249	0.5	269	0.4	267	0.3	268	0.3	269	0.3	270	0.3
White	CA	265	2.1	237	1.7	239	0.9	239	0.9	241	1.6	244	2.1
	National	272	0.4	247	0.2	247	0.2	247	0.2	249	0.2	252	0.2
Black	CA	242	3.9	265	2.5	264	1.6	266	2.0	269	3.0	268	3.4
	National	245	0.7	272	0.5	271	0.4	272	0.4	273	0.4	274	0.5
Hispanic	CA	238	1.7	239	1.6	240	0.8	237	0.8	243	1.2	243	1.0
	National	247	0.8	244	0.7	243	0.4	245	0.4	246	0.6	249	0.5
Asian/ Pacific Islander	CA	257	3.9	237	2.4	239	1.6	239	3.2	241	2.6	245	2.5
				245		246		247		249		252	
	National	267	1.7	266	1.1	264	0.8	264	1.1	266	1.1	271	1.0
American Indian/ Alaska Native	CA	‡	‡		‡		‡	251	5.7		‡		‡
	National	250	3.5	270	3.0	271	1.4	271	1.2	274	1.2	275	1.2
Students with Disabilities	CA	†	†	‡	†	‡	†		†	‡	227 0.6	‡	229 0.6
				246		249		247		251		252	
	National	†	†		†		†		†		209 3.7		211 3.6
English Learners	CA	221	2.2		2.6		1.3		1.5		1.6		1.9
	National	224	1.4	†	1.5	†	0.9	†	1.1		1.0		1.0
				‡		‡		‡					
				221		222		219		215		220	
				222		224		223		219		224	

Source: http://nces.ed.gov/nationsreportcard/naepdata (Accessed August 24, 2012).

† Not applicable.

‡ Reporting standards not met.

*NSLP (National School Lunch Program) Eligible is comparable to Economically Disadvantaged

Table 5.13. Trends on NAEP Mathematics Assessment by Demographic Group

Demographic Group		2002		2003		2005		2007		2009		2011	
		Avg SS	Std Err	Avg SS	Std Err	Avg SS	Std Err	Avg SS	Std Err	Avg SS	Std Err	Avg SS	Std Err
Overall	CA	†	†		1.2		0.6		0.8		1.3		1.2
	National	†	†		0.3		0.2		0.3		0.3		0.2
Male	CA	†	†	267	1.5	269	0.9	270	0.9	270	1.5	273	1.5
	National	†	†	278	0.3	279	0.2	281	0.3	283	0.3	284	0.3
Female	CA	†	†	268	1.3	269	0.7	270	1.0	272	1.5	273	1.4
	National	†	†	278	0.3	280	0.2	282	0.3	284	0.4	284	0.2
NSLP Eligible*	CA	†	†	266	1.2	268	0.9	270	1.1	268	1.3	273	1.1
	National	†	†	277	0.4	278	0.3	280	0.3	282	0.3	283	0.3
White	CA	†	†	251	1.5	254	0.9	257	1.3	258	1.8	260	1.9
	National	†	†	259	0.3	262	0.2	265	0.3	266	0.3	269	0.2
Black	CA	†	†	283	2.3	284	1.6	287	2.1	289	2.4	290	3.2
	National	†	†	288	0.5	289	0.4	291	0.4	293	0.5	293	0.5
Hispanic	CA	†	†	246	1.4	248	0.7	253	0.9	250	1.1	254	1.0
	National	†	†	252	0.6	255	0.4	260	0.4	261	0.6	262	0.5
Asian/Pacific Islander	CA	†	†	250	3.8	254	1.7	256	2.1	256	3.1	260	2.7
				259		262		265		266		270	
	National	†	†	287	1.3	293	0.9	293	0.9	294	1.2	298	1.0
American Indian/ Alaska Native	CA	†	†		‡		‡	263	4.0		‡		‡
	National	†	†	291	1.8	295	0.9	297	1.2	301	1.1	303	0.9
Students with Disabilities	CA	†	†	‡	†	‡	†		†	‡	227 2.5	‡	230 3.0
				263		264		264		266		265	
	National	†	†		†		†		†		246 0.6		247 0.6
English Learners	CA	†	†		2.0		1.3		1.3		1.8		1.6
	National	†	†	†	1.0	†	0.8	†	0.8		0.9		1.0
				‡		‡		‡					
				239		241		241		237		234	
				242		244		246		243		244	

Source: http://nces.ed.gov/nationsreportcard/naepdata (Accessed August 24, 2012).

† Not applicable.

‡ Reporting standards not met.

* NSLP (National School Lunch Program) Eligible is comparable to Economically Disadvantaged

Table 5.14. Trends in Percentages of Graduates Completing Minimum Coursework (A–G courses) for Entry into UC or CSU systems

	School Year						
Ethnic Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Asian	58.7%	60.2%	59.8%	59.2%	59.3%	*61.4%	64.3%
Filipino	46.6%	45.4%	45.7%	44.8%	45.8%	*47.9%	53.4%
White	40.9%	40.5%	39.5%	39.8%	40.5%	*41.69%	44.8%
Two or More Races	N/A	N/A	N/A	N/A	40.1%	*42.3%	44.0%
None Reported	N/A	N/A	N/A	N/A	37.3%	*25.8%	39.6%
Pacific Islander	27.7%	28.9%	28.1%	27.4%	29.5%	*31.2%	34.0%
African American (not Hispanic)	25.2%	25.6%	26.5%	23.3%	26.8%	*28.3%	32.9%
Hispanic	24.1%	25.6%	25.2%	22.5%	25.5%	*27.3%	32.0%
American Indian/Alaska Native	23.0%	23.6%	23.6%	25.7%	23.8%	*25.5%	27.4%
Multiple/No Response	31.0%	32.7%	35.4%	32.4%	N/A	N/A	N/A
State Total	35.2%	36.1%	35.5%	33.9%	35.3%	*36.3%	40.3%

Source: Derived from CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 19, 2012).
The * before a number represents an adjustment in data from the 2011 evaluation report due to an updating of the figures used.

College Entrance Examination Participation and Performance

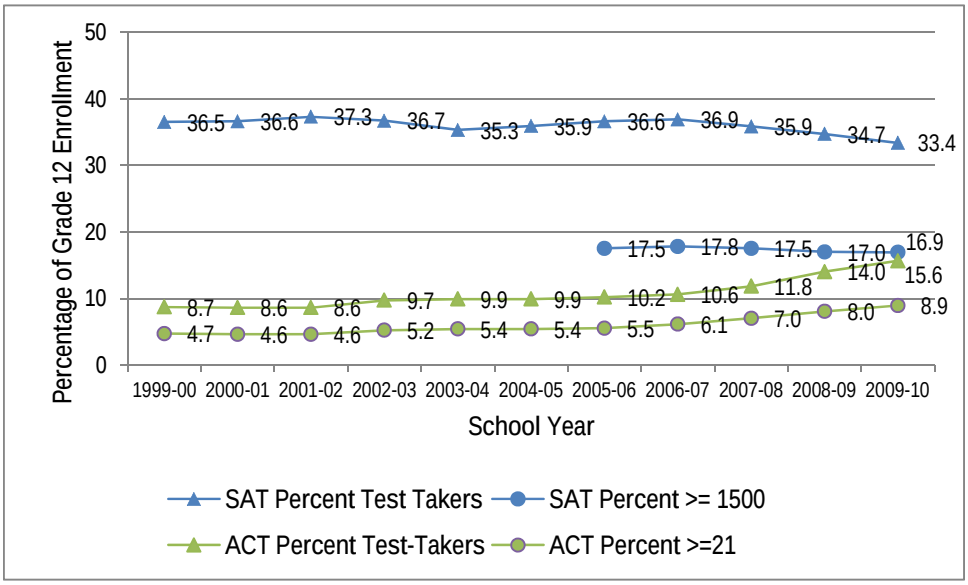
The level of student aspirations for education beyond high school is reflected in the proportion of students who sit for college entrance examinations. College readiness can also be examined by looking at the performance of students who take such tests. These two factors are confounded, in that higher participation may be related to lower scores overall. For example, if only a small, high performing proportion of a class takes an examination, 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. The most recent data available from the CDE Web site for the state's public school students taking either of these tests is for the Class of 2010. Consulting the College Board and ACT Web sites provides more recent data; however, the data include private school students in addition to public school students. For historical context, we include here the same figures that we included in our 2011 evaluation report based on CDE data through the Class of 2010. The additional information we provide based on data from the College Board and ACT Web sites needs to be interpreted with caution and evaluated in terms of the student test taking populations they represent.

Figure 5.8 indicates the percentage of California public school students participating in the SAT and ACT examination programs. The lines with triangle-shaped markers represent the proportion of each grade twelve class that took either the SAT or ACT. Approximately 33 percent of the Class of 2010 took the SAT and nearly 16 percent took the

ACT. This was a decrease in SAT participation and an increase in ACT participation relative to the previous year, continuing both trends from the previous two years.

Figure 5.8 also shows the percentage of California public school students who achieved a particular score on these two examinations, over time. The graph uses the same cut points used for reporting on the CDE Web site. The lines with circular pointers reflect the percentage of students **in the class** achieving a minimum combined score of 1500 (out of a possible maximum of 2400) on the SAT or 21 (out of a possible 36) on the ACT, respectively.[30] The percentage of students attaining the designated score on the SAT declined from a peak of 17.8 percent in 2007–08 to a low of 16.9 in 2009–10. Student ACT performance continued its upward trajectory to a peak of 8.9 percent of students in 2009–10 reaching an ACT score of at least 21.



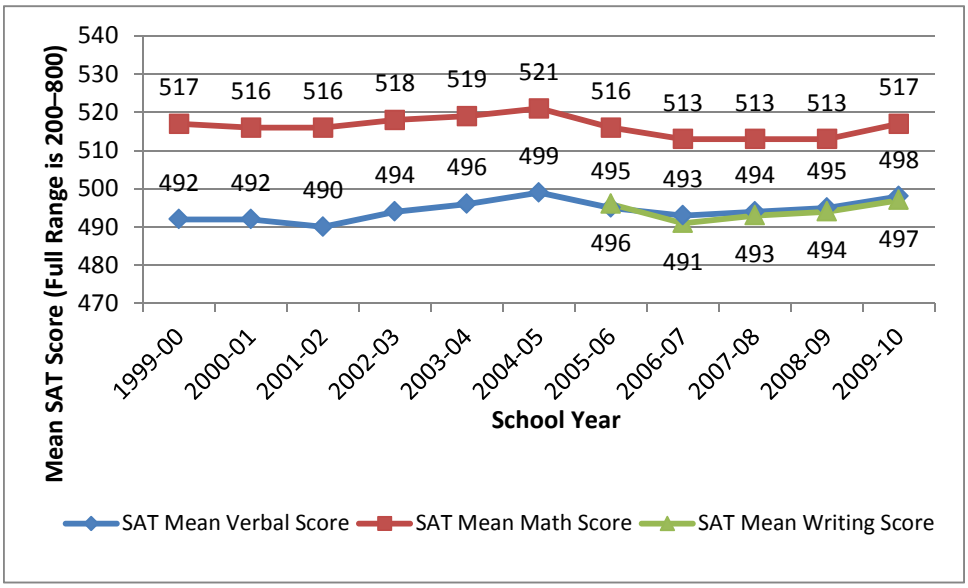
Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed August 24, 2011).
Note. Prior to 2005–06 CDE reported the percentage of students achieving a combined SAT Verbal and Mathematics score of 1,000. SAT Writing was introduced in 2006; in 2005–06 CDE changed its reporting to a combined Verbal, Mathematics, and Writing score. The latter metric is reported here.

Figure 5.8. 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 mathematics, verbal, and writing examinations are each scored on a range of 200–800. Figure 5.9 indicates that mean SAT mathematics 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). Verbal and writing scores increased in 2008 and 2009 while mathematics scores remained flat. In 2010 all three mean scores rose. 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

[30] The average national SAT scores for Reading, Mathematics, 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.

http://professionals.collegeboard.com/profdownload/Total_Group_Report.pdf). SAT writing was introduced in 2006.



Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed August 29, 2011).

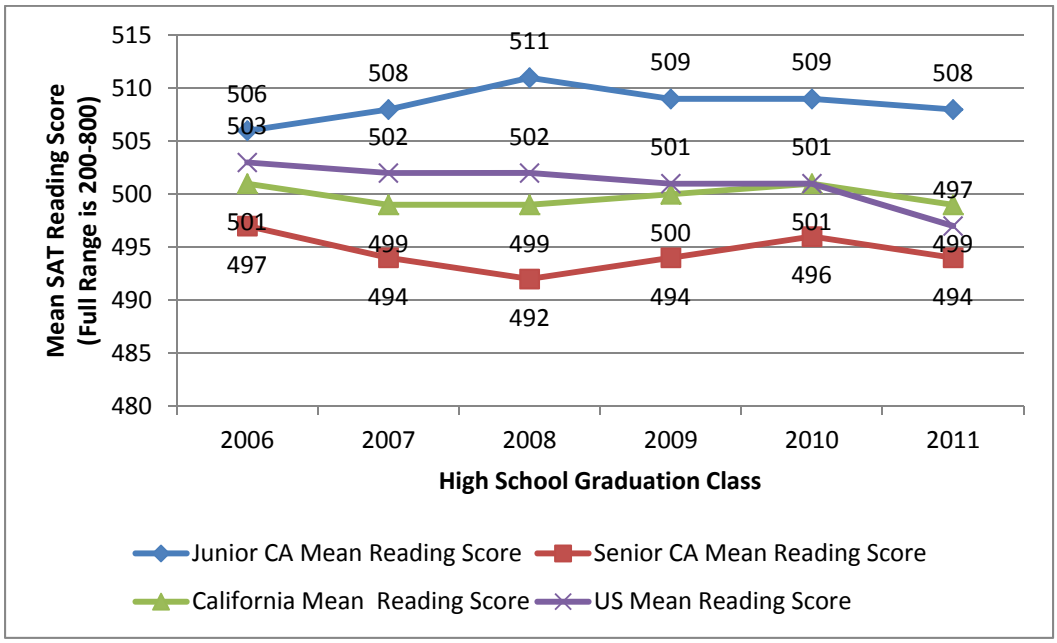
Figure 5.9. SAT mean math, verbal, and writing scores over time.

To help interpret the changing SAT scores over time and to examine the possible effects of taking the test at different grades in high school, we retrieved California and nationwide information from the College Board's Web site[31]. For the Class of 2011, according to self-reported data provided by student test takers to the College Board, the SAT participation rate by graduates from California public high schools was 48 percent, an increase of 6 percent from the Class of 2010. The mean scores of the Class of 2011 California public school students were 494 for critical reading, 513 for math, and 494 for writing.

Figures 5.9 through 5.11 represent high school graduates from across the United States and within all schools in California who took the SAT at any time from freshman year through March of their senior year. As a reminder, these data from the College Board are not entirely comparable to data from CDE's reports because they include students from private high schools.

Figure 5.10 illustrates differences between the mean SAT critical reading scores for all California junior test takers compared to all California senior test takers over time, with juniors maintaining a higher mean performance on the test for all the years shown (Class of 2006 through 2011). The greatest difference between mean SAT critical reading scores occurred in the Class of 2008, with junior test takers outscoring senior test takers by 19 points (511 vs 492, respectively). In 2011 the overall California mean SAT reading score (499) for the first time exceeds the national mean score (497).

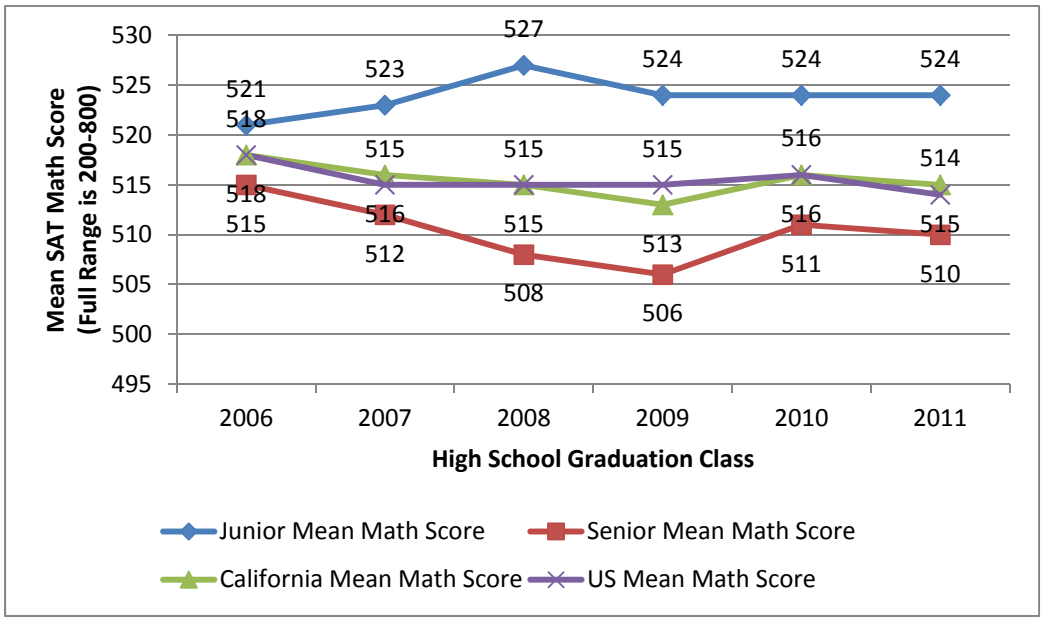
[31] *College-Bound Seniors State Profile* reports are available by year and state in SAT Data and Reports.



Source: CDE Source: http://professionals.collegeboard.com/data-reports-research/sat (accessed August 3, 2012).

Figure 5.10. SAT mean critical reading scores over time, by grade taken.

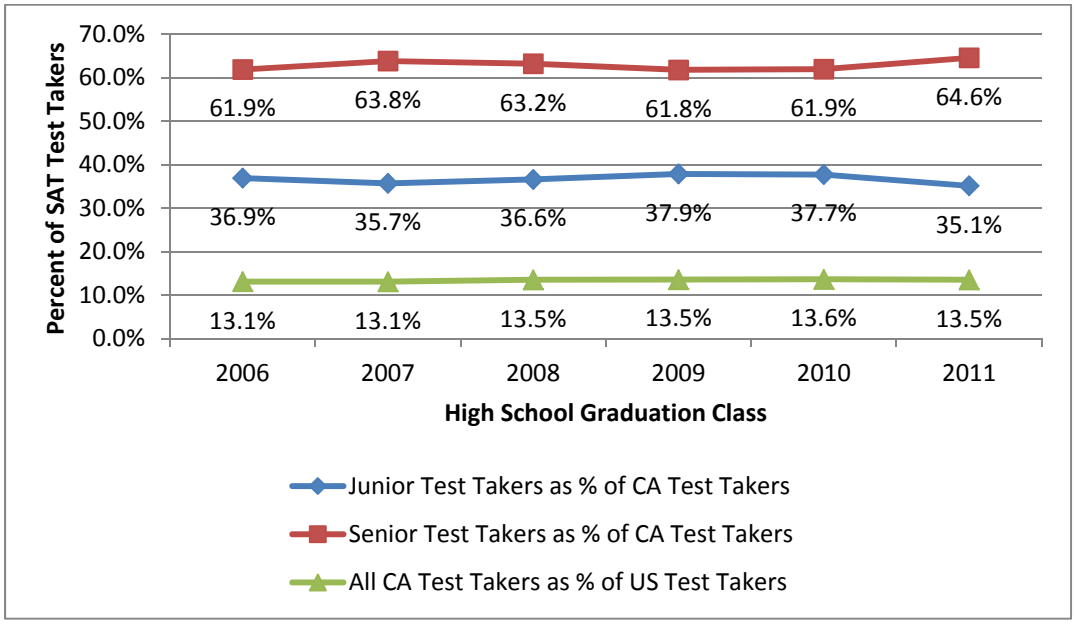
Figure 5.11 illustrates a similar comparison for mean SAT math scores, with juniors again scoring higher on the test than senior test takers for all classes shown. The overall California mean SAT reading score is within two points of the national mean score for all classes shown.



Source: http://professionals.collegeboard.com/data-reports-research/sat (accessed August 3, 2012).

Figure 5.11. SAT mean math scores over time, by grade taken.

Figure 5.12 presents the percentage of California students who took the SAT for the last time in their junior year or their senior year. The percentage of senior test takers hovers around almost two-thirds of each class (64.6 percent in 2011), and juniors account for slightly more than one-third of each class (35.1 percent in 2011). The total California population of SAT test takers has consistently accounted for about 13 percent of the national SAT test-taking population in the high school classes shown.



Source: http://professionals.collegeboard.com/data-reports-research/sat (accessed August 3, 2012).

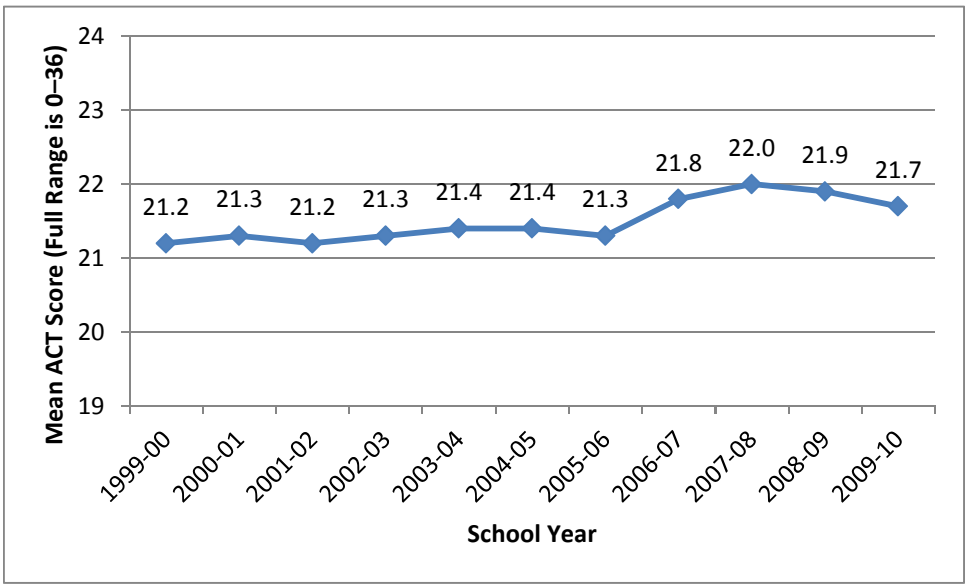
Figure 5.12. Percent of SAT test takers over time, by grade taken.

Turning to ACT scores, Figure 5.13 shows California public school students' mean scores on the ACT examination over the period of 1999 through 2010. Scores were highly consistent until 2006–07, when they increased from 21.3 to 21.8. The next three years stayed comparatively flat near this higher level of performance. ACT examinations are scored on a range of 1–36; a smaller range is depicted to make the trends more visible.

To help interpret the ACT scores in light of college readiness, we retrieved California and nationwide information from the ACT Web site[32]. For the Class of 2012, according to ACT, the ACT test participation rate by graduates from California high schools (public and private) was 25 percent, an increase of 1 percent from the Class of 2011 and 3 percent from the Class of 2010. California is one of 15 states classified by ACT as an "SAT" state, meaning the ratio of students taking the SAT to those taking the ACT is greater than 1.5 to 1, but less than 4 to 1. For the classes of 2010 through 2012, California ranked eleventh lowest in ACT participation compared to all other states. The mean ACT composite score of California high school graduates from the Class of 2012 and the Class of 2011 of was 22.1, a slight decrease from the Class of 2010 mean

[32] *Enrollment Management Trends Report 2012* , *The Condition of College and Career Readiness 2012* report, and ACT National and State Scores Web pages.

score of 22.2. Nationwide, 52 percent of all high school graduates in the Class of 2012 took the ACT, a participation increase of 3 percent from the Class of 2011 and 5 percent from the Class of 2010. The national mean composite high school graduate score on the ACT was 21.1 for the Class of 2012 and the Class of 2011, a slight increase from the mean of 21.0 for the Class of 2010.



Source: CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed August 29, 2011).

Figure 5.13. California students' mean ACT scores over time.

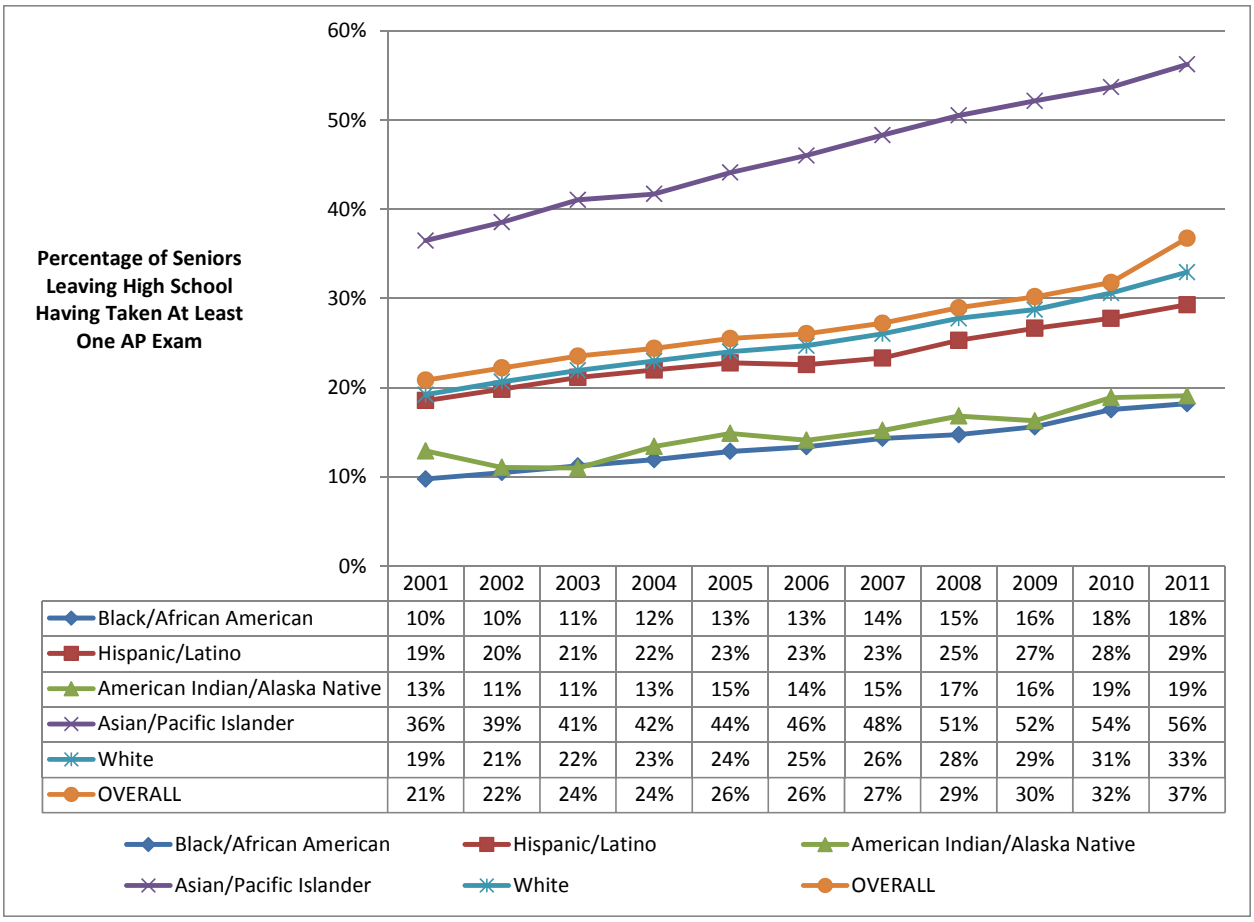
AP Test Achievement

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 examination 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 examinations, but not all courses are offered at all high schools.

In previous HumRRO annual reports, AP participation rates and performance were drawn from the CDE Web site. These data were difficult to interpret for the purposes of this report because they represented the number of examinations rather than the number of examinees. In other words, a high school student who completed five AP examinations was counted five times. In the current report, AP results were retrieved from the College Board Web site and represent the number of seniors in a given cohort leaving high school having taken an AP exam at any point in high school.

Figure 5.14 displays AP examination participation rates among California public and private school students over time. The orange line with the circular pointers shows

the percentage of seniors in each graduating class that participated in at least one AP examination by the end of senior year, rising steadily from 21 percent in the Class of 2001 to 37 percent in the Class of 2011. Each additional line represents a single racial/ethnic group. Every group increased participation over time.



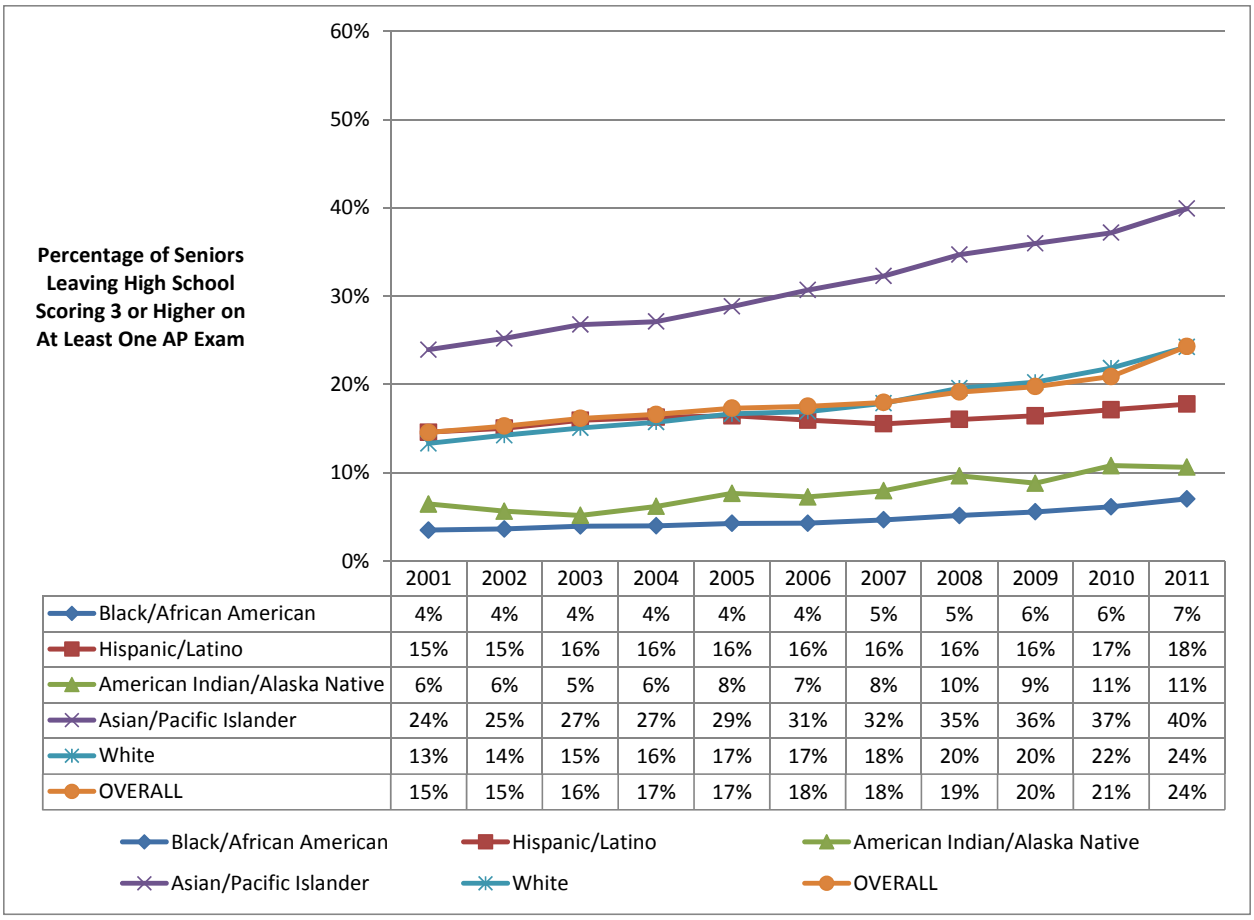
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Black/African American	10%	10%	11%	12%	13%	13%	14%	15%	16%	18%	18%
Hispanic/Latino	19%	20%	21%	22%	23%	23%	23%	25%	27%	28%	29%
American Indian/Alaska Native	13%	11%	11%	13%	15%	14%	15%	17%	16%	19%	19%
Asian/Pacific Islander	36%	39%	41%	42%	44%	46%	48%	51%	52%	54%	56%
White	19%	21%	22%	23%	24%	25%	26%	28%	29%	31%	33%
OVERALL	21%	22%	24%	24%	26%	26%	27%	29%	30%	32%	37%

Source: College Board Web site. http://apreport.collegeboard.org/report-downloads (accessed July 26, 2012).

Figure 5.14. AP participation rates over time, by race/ethnicity and overall.

Figure 5.15 provides a measure of success by reporting the percentage of seniors in each graduating class that earned a score of 3 or greater[33] on at least one AP examination by the end of senior year. The orange line with the circular pointers represents students overall and shows a slow but steady increase from 15 percent in 2001 to 24 percent in 2011. Each additional line represents a single racial/ethnic group. Results for every group increased over time. The greatest gains were made among Asian students, which climbed from 24 percent to 40 percent over eleven years.

[33] AP examination 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 examination.



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Black/African American	4%	4%	4%	4%	4%	4%	5%	5%	6%	6%	7%
Hispanic/Latino	15%	15%	16%	16%	16%	16%	16%	16%	16%	17%	18%
American Indian/Alaska Native	6%	6%	5%	6%	8%	7%	8%	10%	9%	11%	11%
Asian/Pacific Islander	24%	25%	27%	27%	29%	31%	32%	35%	36%	37%	40%
White	13%	14%	15%	16%	17%	17%	18%	20%	20%	22%	24%
OVERALL	15%	15%	16%	17%	17%	18%	18%	19%	20%	21%	24%

Source: College Board Web site. http://apreport.collegeboard.org/report-downloads (accessed August 30, 2011).

Figure 5.15. Percentage of seniors leaving high school after scoring 3 or higher on at least one AP examination by race/ethnicity and overall.

College Preparation: Summary

Among graduates, the rate of completing A–G courses varied widely in 2010–11, from 27.4 percent among American Indian/Alaska Native students to 64.3 percent among Asian students. The rate of completion overall, and for every racial/ethnic group, increased from 2003–04 to 2010–11. Over one-third of the Class of 2011 (40.3 percent) completed the course requirements to enter a UC or CSU school.

The percentage of California public high school seniors taking the SAT examination decreased in the most recent years for which CDE data are available, from 36.9 percent in 2006–07 to 33.4 percent in 2009–10. Over the same time period the percentage of students achieving a score of 1500 or better declined from 17.8 percent to 16.9 percent. On both the SAT and ACT, however, the trend in mean scores was the reverse of the analyses of percentages about the common cut points.

Participation and performance of students on the ACT, on the other hand, continued its steady climb over several years, in terms of percentage of students

scoring 21 or above. Between 2004–05 and 2009–10, the ACT participation rate increased from 9.9 percent to 15.6 percent and the percentage of students reaching a score of 21 or better rose from 5.4 percent to 8.9 percent.

A given student may take the SAT, the ACT, or both. We cannot determine the overlap between the SAT and ACT examinee groups.

Another indicator of the rigor of high school coursework is participation in, and success on, Advanced Placement examinations. The 2010–11 school year brought increased participation and increased achievement on these examinations by students from California schools (public and private combined). Participation and success for every racial/ethnic group increased steadily as a percentage of exiting seniors from 2001 through 2011. More than a third of the 2011 graduating class (37 percent) took at least one AP examination and nearly one-quarter (24 percent) achieved a score of 3 or better on at least one AP examination.

College Enrollment

The enrollment of California high school graduates in post-high school educational institutions was examined by CDE for the first time in 2011 in two new *Postsecondary Transitions* reports. CDE collected enrollment information for students in the Class of 2007 using the California Postsecondary Education Commission (CPEC) database, and for the Class of 2009 using the National Student Clearinghouse (NSC) database. At this time it is not known whether CDE will provide similar reports for other classes in future years.

Class of 2007 Enrollment in California Public Postsecondary Schools

Table 5.15 presents CDE's estimated numbers and percentages of students who graduated from California public schools between October 2006 and October 2007 and enrolled in the University of California (UC), California State University (CSU), or California Community Colleges (CCC). Limitations arising from the matching process (e.g., variations in spelling of student name), likely result in underestimations of enrollment. Also presented in Table 5.14 are CDE's estimated numbers and percentages of students who completed one year of credit at those institutions. While we do not have comparable nationwide data to give these data context, we believe there is value in presenting the available snapshot of post-high-school outcomes for this class of California public school graduates.

The percentage of graduates from the Class of 2007 graduates enrolling in California public colleges and universities varied by demographic group, with Asian students having the highest enrollment rate (67.1 percent) and SWD having the lowest rate (34.2 percent). Overall, slightly more than half the number of students who enrolled in college completed one year of credit within two years of high school graduation.

Table 5.15. Numbers and Percentages of Class of 2007 Graduates Enrolling and Completing Credit in California Public Postsecondary Institutions

Demographic Group	Number of High School Graduates	Number Enrolled*	Percentage Enrolled*	Number Completing 1 Year Credit**	Percentage Completing 1 Year Credit**
Asian, Not Hispanic	38,103	25,571	67.10%	19,723	51.8%
White, Not Hispanic	138,605	71,587	51.70%	41,891	30.2%
Two or More Races, Not Hispanic	8,730	4,284	49.10%	2,447	28.0%
African American,	25,736	11,653	45.30%	4,933	19.2%
Pacific Islander	2,385	1,177	49.40%	537	22.5%
American Indian/Alaska Native	2,867	1,206	42.10%	468	16.3%
Hispanic or Latino	128,466	59,956	46.70%	26,240	20.4%
Economically Disadvantaged	108,745	51,499	47.40%	24,516	22.5%
English Learner	78,776	38,234	48.50%	17,647	22.4%
Students with Disabilities	20,923	7,165	34.20%	1,466	7.0%
State Total	356,654	182,993	51.30%	100,913	28.3%

Source: Derived from CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 19, 2012).
*Within 16 months of high school graduation
**1 Year credit (within two years of postsecondary enrollment) is defined as completing either 24 units for UC or CSU students or achieving sophomore status for CCC students.

Class of 2009 Enrollment in Postsecondary Schools Nationwide

Table 5.16 presents CDE's estimated numbers and percentages of students who graduated from California public schools between August 2008 and August 2009 and enrolled in postsecondary institutions in the United States. Limitations arising from the matching process (e.g., variations in spelling of student name), the opting out of students from release of their information in accordance with the Family Educational Rights Privacy Act (FERPA), and the absence of some institutions in the NSC database, which includes 93 percent of such institutions, likely result in underestimations of enrollment.

The percentage of graduates from the Class of 2009 enrolling in postsecondary institutions nationwide varied by demographic group, with Asian students having the highest enrollment rate (85.7 percent) and English learners having the lowest rate (52.2 percent). Overall, approximately three-fourths of the Class of 2009 enrolled in a U.S. postsecondary institution within 16 months of high school graduation.

Table 5.16. CDE Numbers and Percentages of Class of 2009 Graduates Enrolling in Postsecondary Institutions Nationwide

Demographic Group	Number of High School Graduates	Number Enrolled in Postsecondary Institutions *	Percentage Enrolled in Postsecondary Institutions *
Asian, Not Hispanic	52,729	45,164	85.7%
White, Not Hispanic	135,901	107,500	79.1%
Two or More Races, Not Hispanic	2,517	1,984	78.8%
African American,	25,896	20,170	77.9%
Not Reported	3,280	2,499	76.0%
Pacific Islander	2,564	1,789	69.8%
American Indian/Alaska Native	2,877	1,969	68.5%
Hispanic or Latino	156,750	103,371	65.9%
Economically Disadvantaged	160,283	109,868	68.5%
English Learner	34,155	17,817	52.2%
Students with Disabilities	21,189	13,141	62.0%
State Total	382,514	284,446	74.4%

Source: Derived from CDE DataQuest. http://data1.cde.ca.gov/dataquest (accessed July 19, 2012).
*Within 16 months of high school graduation

To help interpret the state total postsecondary enrollment figure of 74.4 percent in Table 5.16, we retrieved college enrollment information from the College Board's Web site[34]. The numbers and percentages in Table 5.17 represent high school graduates from across the United States and within California who took at least one of the College Board tests (PSAT, SAT, or AP) and were matched to the NSC's database of postsecondary institution enrollment. Although not entirely comparable because it includes students from private high schools, the nationwide data do provide context to the data from CDE's reports. Among students in the Class of 2010 who took one of the College Board tests, California's public and private high school graduates are enrolling in postsecondary institutions at a slightly higher rate (72.0 percent) than all high school graduates in the United States (69.5 percent).

Table 5.17. High School Graduates from Classes of 2009 and 2010 Who Took PSAT, SAT, or AP Tests and Enrolled in Postsecondary Institutions

	High School Class of 2009			High School Class of 2010		
	Number of Graduates	Number Enrolled in Postsecondary Institutions*	Percentage Enrolled in Postsecondary Institutions *	Number of Graduates	Number Enrolled in Postsecondary Institutions *	Percentage Enrolled in Postsecondary Institutions *
California	337,503	243,797	72.2%	341,883	246,289	72.0%
United States	2,633,677	1,829,743	69.5%	2,681,663	1,862,434	69.5%

Source: College Board Web site. http://professionals.collegeboard.com/data-reports-research/sat/ (accessed August 3, 2012).
*Per National Student Clearinghouse database of more than 3,300 postsecondary institutions

[34] *College Attendance Patterns* reports are available in the archived section of SAT Data and Reports.

Summary Findings

Data sources outside the CAHSEE program provide indications of the state of education in California. The Class of 2006 was the first cohort required to pass both parts of the CAHSEE to receive a high school diploma, so trends from 2006 through 2012 are of particular import. Not all results for the Classes of 2011 and 2012 were available in time for this report.

One important indicator of the impact of the CAHSEE requirement is whether the proportion of students who leave high school without a diploma changes in some way. This seemingly straightforward question demands a multifaceted answer. In 2007, California made important improvements in its student-level data systems, facilitating more accurate dropout tallies. Therefore we report here trends from 2007 through 2011; the reader is referred to previous reports in this 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 four-year dropout rates decreased between 2007 and 2011 overall and for all ethnic categories. Both dropout metrics revealed that African American students drop out at a substantially higher rate than every other group, including groups such as economically disadvantaged, Limited English Proficient (LEP) and special education students. In addition, American Indian/Alaskan Native, 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 twelve.

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, juniors and seniors declined in fall 2011; in fact the number of grade twelve students in the Class of 2012 exceeded the number of juniors in that same class. This grade twelve phenomenon may be partly attributed to the continuation of students in a second senior year. In short, we found a trend toward more students persisting to the fall of their senior year, and more students dropping out during their senior year.

High school graduation rates can also be measured in multiple ways. We examined three measures: 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 nine through grade twelve years; the graduation rate as a percentage of grade nine enrollment four years earlier; and the graduation rate as defined by an adjusted cohort. We found that the graduation rate as a percentage of grade nine students increased each year from 2007 through 2010, when it reached 74.3 percent, while the ESEA rate declined until 2010, then recovered somewhat, to 80.5 percent. Slightly more

than three-quarters (76.3 percent) of the adjusted cohort of students who entered grade nine in the fall of 2007 graduated four years later.

Review of disaggregated grade nine to graduation rates revealed that graduation rates for all racial/ethnic groups increased from 2007 to 2011. Graduation rates vary widely, from 62.9 percent among African American students in 2011 to 89.7 percent for Asian students. We also note that CDE added disaggregated graduation rates for graduating cohorts starting in 2010, making this important educational indicator more transparent.

Data for college entrance examinations are not yet available from CDE for the Class of 2011. The 2009–10 school year saw the continuation of a three-year decline in participation in the SAT College entrance examination as well as in the percentage of students reaching a score of 1500 or higher, while participation and performance on the ACT increased for the fifth year in a row.

Over one-third of the graduates in the Class of 2011 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 (AP) examinations increased in 2011, as did measures of success on the AP. More than a third of the 2011 graduating class (37 percent) took at least one AP examination and nearly one-quarter (24percent) achieved a score of 3 or better on at least one AP examination.

Review of two new indicators of California high school graduates' transitions to postsecondary institutions revealed that about half the graduates from the Class of 2007 (51.3 percent) enrolled in UC, CSU, and CCC institutions. Almost half of the students who enrolled in higher education completed one year of credit (55 percent). Finally, graduates from the Class of 2009 enrolled in postsecondary institutions nationwide at an overall rate of 74.4 percent.

Chapter 6: Findings and Recommendations

Lauress L. Wise, Michele M. Hardoin, D.E. (Sunny) Becker

Background

As described in Chapter 1, an independent evaluation of the California High School Exit Examination (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 2011–12 evaluation activities included:

- Review of test administration and scoring (Chapter 2),
- Analyses of 2011–12 test results (Chapter 2),
- Analyses of student questionnaire responses (Chapter 3),
- Collaboration with volunteer Local Education Agencies (LEAs) to conduct a small scale research study to investigate the possible relationships between post high school outcomes (PHO) and CAHSEE performance (Chapter 4), and
- Examination of other indicators of student achievement and success (Chapter 5).

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 Administration, Scoring, and Results (Chapter 2)

HumRRO evaluation efforts found no significant problems with the processes used to develop, administer, and score the CAHSEE. Scoring consistency increased somewhat in 2012 compared to rates in 2011, as shown in Table 2.2. The test forms assembled by Educational Testing Service (ETS) had comparable difficulty, as shown in Tables 2.6 and 2.7.

CAHSEE test results show significant increases in students' competency in targeted skills since the implementation of the CAHSEE requirement. As shown in Table 2.18, overall grade twelve passing rates for seniors have increased steadily, from 91 percent for the Class of 2006 to 95 percent for this year's Class of 2012. Similarly, as shown in Table 2.31, overall passing rates for grade ten students taking the CAHSEE have increased steadily from 64 percent for the Class of 2006 (tested in 2004) to 75 percent for the Class of 2014 (tested last year). As shown in Table 2.31 and illustrated in Figure 2.4, initial passing rates have increased significantly for all demographic groups. That said, it should also be noted that passing rates for students with disabilities (SWD) are still unacceptably low and that passing rates for English learners are also

low and have increased only modestly since the CAHSEE requirement went into effect. Passing rates for economically disadvantaged (ED), Hispanic, and African American students also continue to be significantly lower than passing rates for white and Asian students at all grade levels.

Another encouraging finding is the large number of students who continue to try to pass the CAHSEE after their originally scheduled graduation date. Of the approximately 26,000 general education students in the Class of 2011 who did not complete the CAHSEE requirement by the end of grade twelve, more than 10,000 took the CAHSEE one or more times last year. More than 3,500 completed the CAHSEE requirement, as shown in Table 2.44. Also, nearly 3,600 general education students in the Class of 2010 who had not yet passed the CAHSEE continued to try to pass it last year and more than 1,000 did pass (Table 2.41). Finally, more than 1,800 general education students from the Class of 2009 took the CAHSEE last year, more than two years after their original graduation date, and more than 500 of them completed the CAHSEE requirement (Table 2.38).

An important finding highlights the fact that CAHSEE success rates for grade ten students reflect the cumulative impact of instruction at all prior grades. HumRRO explored the relationship between learning at prior grades and success on the CAHSEE by merging 2009 STAR data for grade seven students with 2012 CAHSEE data for grade ten students. We analyzed grade seven scores because much of the content covered by the CAHSEE has been introduced by this year, particularly in mathematics. Overall, we matched records for 86.9 percent of the students with STAR data in 2009 and 87.6 percent of the grade ten students with CAHSEE data in 2012. The correlations between grade seven and grade ten scores are quite high (Table 2.35). Nearly all students scoring at the top three achievement levels on the grade seven ELA and mathematics tests and virtually all the students taking the Algebra I test in grade seven passed the corresponding CAHSEE test on their first try in grade 10 (Table 2.36). Students scoring at the bottom two achievement levels in grade seven struggled with the CAHSEE in grade ten, with only 50 to 60 percent of students scoring at level two in grade seven and only 25 to 30 percent of the students at level one passing the CAHSEE on their first attempt (Table 2.36).

One other significant trend since the implementation of the CAHSEE requirement has been the proportion of students taking more advanced mathematics courses in high school. As shown in Table 2.32, the percentage of students taking mathematics courses beyond Algebra I by grade ten has increased from 60 percent for the Class of 2007 to 74 percent for this year's grade ten students in the Class of 2014. All demographic groups showed significant increases in the percentage of students taking more advanced courses over this period, including very significant gains—from 24 percent to 44 percent—for students in special education. Here too, however, significant gaps exist. Analyses show that fewer SWD (44%), English learners (EL) (54%), economically disadvantaged students (67%), Native American (64%), African American (68%), and Hispanic (69%) students are taking advanced mathematics courses by grade ten compared to white (78%) and Asian (91%) grade ten students.

Finally, the CAHSEE gains for students in special education programs have been mixed. As shown in Figure 2.1, cumulative grade twelve passing rates for students with disabilities increased significantly starting with the Class of 2008, whose members were required to pass. Passing rates dropped in 2010 when the exemption was reinstated, came back up in 2011, and then dropped again in 2012.

Student Questionnaire Responses (Chapter 3)

Comparisons of grade ten students' responses from 2005 through 2012 show several significant trends. As shown in Table 3.12, the percentage of grade ten students who plan to go to a four-year college has increased from roughly 56 percent in 2005 to over 63 percent in 2012. When community college is included, the total percentage expecting to go to college has increased from about 73 to about 82. For students still taking the CAHSEE in grade twelve in 2012, as shown in Table 3.33, over 70 percent of those who passed ELA or math, and more than 60 percent of those who did not pass, still expect to go to college. Comparing grade twelve students' 2012 responses to grade ten students' 2010 responses regarding plans after high school, a higher percentage of grade twelve students, regardless of their passing status, now expect to enroll in community college rather than a four-year college, the opposite of the pattern shown in their grade ten year.

Another significant finding is that most grade ten students report that the topics on the CAHSEE were covered in their courses and that the questions on the test were not more difficult than questions they encountered in class. As shown in Table 3.16, the percentage reporting most or all of the topics on the test for mathematics were covered in their classes rose from 92 percent in 2005 to 95 percent in 2012 for ELA and from 89 percent in 2005 to 92 percent in 2012. Over that same period, the percentage reporting that the questions on the test were more difficult than questions in their courses dropped from 17 percent to 12 percent for ELA and from 22 percent to 17 percent for mathematics, as shown in Table 3.20. Note, however, that in 2012 one fourth of the SWD and EL students and a third of the students who were classified as both SWD and EL reported that the questions on the test were generally more difficult than questions they saw in their courses, as shown in Table 3.28.

One other particularly significant finding was that the percentage of grade ten students who reported working harder in their courses because of the CAHSEE requirement rose from 33 percent in 2006 to 40 percent in 2012 for ELA, as shown in Table 3.24. The percentage of grade ten students who reported not having to work harder also has increased over that time period, from 35 percent to 50 percent. The impact of the CAHSEE on student effort was greater for students struggling to pass. As shown in Table 3.25, of the grade ten students who in 2012 passed one but not both of the CAHSEE tests, over 50 percent reported working harder in their classes. For grade ten students who did not pass either test, 12 percent reported taking additional courses and 14 percent reported getting help outside the classroom.

Post High School Outcomes Study (Chapter 4)

As a collaborative effort between HumRRO and volunteer LEAs, the PHO Study was largely successful. Lessons were learned about the process, and analytic findings are promising.

Four major lessons may be relevant to future similar efforts:

5. LEA recruitment is time-consuming and labor-intensive.
6. Clear specifications of expectations are important to facilitate full participation by the LEAs.
7. Allowing dedicated time for discussion of the study prior to launch was paramount to its success.
8. Some senior survey items were of limited value and might benefit from revision if a similar study were conducted in the future.

The PHO study was conducted on a small scale with volunteer LEAs, meaning that the study's student population is not representative of the state as a whole and the findings should be interpreted with caution. That said, some of the findings have potential as important areas of study.

Our analyses of student-level responses from six LEAs to senior survey items about intentions after graduation provide these interesting findings:

- More than half of students plan to continue their education after graduation (Table 4.10) and approximately 80 percent of those students plan to complete at least a bachelor's degree (Table 4.11).
- A large majority of seniors plan to attend California public colleges and universities (Table 4.13).
- The most common intended areas of college study are health/medicine/science, computer/engineering/math, and business/economics (Table 4.15).
- Health services and medical technology was by far the most frequently chosen long-term employment field, followed by arts/media/entertainment and engineering.

Our analyses of CAHSEE scores relative to senior survey responses from the six LEAs revealed these relationships:

- A strong positive relationship between academic achievement as measured by the CAHSEE and plans for higher education, including graduate degrees;

- A logical relationship between level of CAHSEE achievement and planned level of California public college (i.e., community college, California State University [CSU], University of California [UC]); and

- Students achieving at lower levels on CAHSEE were more likely to report plans to work after graduation in a job that requires previous work-related knowledge, skills, and experience and to see that job as a long term career goal.

We were unable to obtain PHO data for students who entered the world of work or the military after high school graduation. Student Tracker (ST) data provided actual postsecondary academic information for a sample of students from all participating LEAs. We analyzed ST data alone and then compared these responses to CAHSEE performance. Notable findings include:

- Approximately two-thirds of graduates enroll in postsecondary education within the year following high school graduation. After three years nearly 80 percent of graduates have enrolled at some point (Table 4.32);

- The college graduation rate after four years is approximately 18 percent (Table 4.35).

- Analysis of CAHSEE scores relative to Student Tracker data revealed a strong relationship between CAHSEE achievement and college enrollment (Tables 4.37 and 4.38; Figure 1), peaking at above 88 percent of Advanced students (Table 4.39); and, although limited graduation data were available, students earning Advanced CAHSEE status had much higher college graduation rates than their peers (Tables 4.37 and 4.42).

We compared senior survey responses to ST data to ascertain how accurately high school seniors predicted their PHO. We were unable to directly confirm plans to work or join the military, but investigated this indirectly through the absence of ST data for these students.

- A general senior survey question about plans after high school had limited accuracy (Table 4.48), however, survey questions about near-term plans for the fall season following high school graduation were quite accurate (Tables 4.49 through 4.52).

The PHO Study was able to establish links between CAHSEE performance and postsecondary academic pursuits through analysis of Student Tracker data. In addition, we established links between CAHSEE performance and future intentions of high school seniors. These intentions, in turn show some promise for accurately predicting behavior.

We found evidence that CAHSEE performance predicts near-term postsecondary academic pursuits with reasonable accuracy. We found some weaker evidence that

seniors planning to work or join the military may well have done so, based on the absence of evidence that these students pursued higher education. The relationship between CAHSEE scores and postsecondary enrollment was particularly noteworthy. We found a robust relationship between the 10 levels of CAHSEE achievement constructed for this study and postsecondary enrollment (Figure 4.1).

Most promising, we found that a collaborative effort between willing LEAs and a research firm is a very feasible approach for analyzing our research questions. We included lessons learned in this chapter to inform a future, more extensive effort, should that be pursued. HumRRO found that the data and insights provided by LEA staff were invaluable to a successful study. The LEAs, in turn, reported finding this study a worthwhile and informative effort that could improve counseling efforts and help school staff explain the importance of the CAHSEE to students, among other things. In fact, some LEAs now plan to administer senior surveys on a routine basis. CDE should consider providing a uniform questionnaire for LEA consideration.

Trends in Educational Achievement and Persistence (Chapter 5)

Data sources outside the CAHSEE program provide indications of the state of education in California. The Class of 2006 was the first cohort required to pass both parts of the CAHSEE to receive a high school diploma, so trends from 2006 through 2012 are of particular import. Not all results for the Classes of 2011 and 2012 were available in time for this report.

One important indicator of the impact of the CAHSEE requirement is whether the proportion of students who leave high school without a diploma changes in some way. This seemingly straightforward question demands a multifaceted answer. In 2007, California made important improvements in its student-level data systems, facilitating more accurate dropout tallies. Therefore we report here trends from 2007 through 2011; the reader is referred to previous reports in this series for earlier trends.

First, we found that official dropout rate calculations indicate that both single-year and four-year dropout rates decreased between 2007 and 2011, overall and for all ethnic categories. Both dropout metrics revealed that African American students drop out at a substantially higher rate than every other group, including groups such as economically disadvantaged, Limited English Proficient (LEP) and special education students. In addition, American Indian/Alaskan Native, 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 twelve. When 2010–2011 dropout rates by grade and demographic group are analyzed in comparison to enrollment, differing patterns in dropouts as a function of the size of the underlying population emerge. One significant distinction is that although the grade nine Hispanic or Latino dropouts are only 0.7 percent of Hispanic or Latino students enrolled in grades nine through twelve, they account for about 60 percent of the state's grade nine dropouts. For grade twelve, although the group with the highest dropout rate as a percentage of the group's grade nine through twelve enrollment is African American students (3.8 percent), the next

highest rate of 2.7 percent for Hispanic or Latino students accounts for almost five times as many grade twelve dropouts as those in the African American group (26,210 compared to 5,570).

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, juniors and seniors declined in fall 2011; in fact the number of grade twelve students in the Class of 2012 exceeded the number of juniors in that same class. This grade twelve phenomenon may be partly attributed to the continuation of students in a second senior year. In short, we found a trend toward more students persisting to the fall of their senior year, and more students dropping out during their senior year.

High school graduation rates can also be measured in multiple ways. We examined three measures: the graduation rate required by the Elementary and Secondary Education Act (ESEA), which is based upon the number of graduates in a given year and the number of dropouts in the relevant grade nine through grade twelve years; the graduation rate as a percentage of grade nine enrollment four years earlier; and the graduation rate as defined by an adjusted cohort. We found that the graduation rate as a percentage of grade nine students increased each year from 2007 through 2010, when it reached 74.3 percent, while the ESEA rate declined until 2010, then recovered somewhat, to 80.5 percent. Slightly more than three-quarters (76.3%) of the adjusted cohort of students who entered grade nine in the fall of 2007 graduated four years later.

Review of disaggregated grade nine to graduation rates revealed that graduation rates for all racial/ethnic groups increased from 2007 to 2011. Graduation rates vary widely, from 62.9 percent among African American students in 2011 to 89.7 percent for Asian students. We also note that CDE added disaggregated graduation rates for graduating cohorts starting in 2010, making this important educational indicator more transparent.

Data for college entrance examinations are not yet available from CDE for the Class of 2011. The 2009–10 school year saw the continuation of a three-year decline in participation in the SAT College entrance examination as well as in the percentage of students reaching a score of 1500 or higher, while participation and performance on the ACT increased for the fifth year in a row.

Over one-third of the graduates in the Class of 2011 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 examinations increased in 2011, as did measures of success on the AP. More than a third of the 2011 graduating class (37%) took at least one AP examination and nearly one-quarter (24%) achieved a score of 3 or better on at least one AP examination.

Review of two new indicators of California high school graduates' transitions to postsecondary institutions revealed that about half the graduates from the Class of 2007 (51.3%) enrolled in UC, CSU, and CCC institutions. Almost half of the students who enrolled in higher education completed one year of credit (55%). Finally, graduates from the Class of 2009 enrolled in postsecondary institutions nationwide at an overall rate of 74.4 percent.

Recommendations

As in past years, we offer a number of recommendations for improving the CAHSEE and its use. The state legislature, the State Board of Education, and the California Department of Education have introduced changes to the CAHSEE and its use based, in part, on prior recommendations from this evaluation. This year, we offer three recommendations for consideration by California policy makers. The first of these recommendations involves contemplation of options for a major revision of the current high school graduation requirement, passing the test called the CAHSEE. We draw upon our experience as the independent evaluator of the initial decade of the CAHSEE to identify critical steps in developing or revising requirements for a diploma. Our multi-part recommendation is intended to guide policy makers in addressing the potential challenges and obstacles systematically and proactively, applying lessons learned from the early and continuing CAHSEE years. We do not have further recommendations for fine-tuning the existing system at this time.

Systematic Review

General Recommendation 1: *The State Board of Education and the California Department of Education should systematically review the graduation requirement and propose alternatives for consideration by the Legislature and the Governor.*

California adopted the Common Core State Standards (CCSS) in August of 2010 and is participating as a governing state in the Smarter/Balanced Assessment Consortium (SBAC). The CCSS were developed to build student knowledge and skill toward a rigorous conception of college and career readiness by the end of high school. By the 2014–15 school year, a new set of assessments measuring school effectiveness in helping students achieve competency in the CCSS will be in place. These will be grade level or end-of-course assessments and will not be specifically linked to high school graduation requirements. In a parallel effort, in accordance with *California Education Code Section 60604.5*, the State Superintendent of Public Instruction is developing recommendations for the reauthorization of the statewide pupil assessment system. These recommendations will refine the entire assessment system, including the role of the exit examination. It is reasonable to ask whether the new content standards call for a new assessment that high school students must pass in order to earn a high school diploma – perhaps one that aligns to the CCSS – and whether alternative pathways to graduation need to be defined for students, such as

using portfolios of coursework or end-of-course projects, using scores from other assessments such as the AP, ACT, or SAT, or some combination of these.

1a: Policy makers should decide on the intended relationship of a California high school diploma to current emerging definitions of readiness for college and careers.

What is needed first in this systematic review is a clear statement of what California wants its diploma policy to mean with regard to readiness for post high school endeavors. According to a recent survey of state departments of education conducted by the Center for Educational Policy, almost half of the respondents with state exit exam policies indicated that the reason their state requires or will require students to *pass* (as opposed to just *take*) an exit exam is "to ensure students who receive a diploma are ready for college and/or career."[35] The CCSS offer one definition of readiness. The National Assessment Governing Board is conducting a multi-year investigation of levels of mathematics and reading skills that prepare students to take credit-bearing college courses and possibly prepare them to participate in training for a range of occupations that do not require a college degree. Can the CAHSEE be considered a measure of college or career readiness? As part of our evaluation activities for the past year, HumRRO worked with several districts to show a clear relationship between CAHSEE score levels and subsequent college attendance. However, the content standards measured by the CAHSEE have not been evaluated for alignment to current college and career readiness definitions. While not all students will go on to college, many policy makers believe that all students should be prepared to do so if they so choose. The policy decision about whether a diploma should be tied to current definitions of college and career readiness is critical to evaluating the role the current or any proposed exit examination should have in the future.

1b: Policy makers should consider alternatives for determining how the diploma requirement relates to grade level content standards for instruction.

According to the CDE Web site, "In proposing the CAHSEE, the Legislature's primary goal was to '...significantly improve pupil achievement in high school and to ensure that pupils who graduate from high school can demonstrate grade level competency in reading, writing, and mathematics...'"[36] Establishing the high school diploma requirement addressed the fact that, at the time the CAHSEE was conceived, local proficiency standards did not always align with the state's content standards nor were they comparable from district to district. Some local proficiency standards were below the high school level. For example, policy makers determined that CAHSEE should include basic Algebra I content, but at the time CAHSEE was introduced some school districts did not require their students to enroll in Algebra I at all. Secondarily, the CAHSEE was designed to help identify students who were not developing skills that are essential for life after high school.

[35] *State High School Exit Exams: A Policy in Transition,* Center on Educational Policy, September 2012, p. 25.
[36] http://www.cde.ca.gov/ta/tg/hs/overview.asp.

Currently, the CAHSEE covers content targeted for instruction in grades eight to ten for ELA and six to eight (some Algebra I) for mathematics. It has been twelve years since the content requirements for the CAHSEE were first adopted by the SBE. Over this time only one minor change in coverage of content standards was introduced, reducing slightly the scope of the mathematics test. Since then, instruction relative to the adopted content standards has improved, initial passing rates for grade ten students have increased, and the proportion of students passing by the end of grade twelve has increased steadily. It is reasonable to ask whether expectations for high school graduates should now be increased, and if so, what the basis for change should be.

As instruction is redirected toward the CCSS, a similar situation will exist as was present when CAHSEE first came to be. Policy makers will need to consider the need to ensure alignment of any type of exit examination or graduation requirement with the new standards for instruction. We emphasize that if an exit examination is part of the new policy, alignment provides the key evidence for the validity of the interpretation of the test scores as an indicator of competency in the required content.

Many states now include end-of-course exams among their graduation requirements (Zabala, Minnici, McMurrer & Briggs, 2008), tests that are closely aligned with the material taught in the course. In addition to demonstrating competency in core ELA and mathematics courses, students are often given options for demonstrating competencies in additional areas of study, such as science, social studies, foreign language, or even the arts. It is reasonable to ask whether competencies in subjects beyond ELA and mathematics should be required and whether students should be allowed to demonstrate these competencies whenever they complete the related course. The Smarter Balanced Assessment Consortium (Smarter Balanced) is developing software that will allow high school end-of-course assessments to be constructed by states, and such tests could also be considered as part or all of any revised graduation requirement. If an EOC test is used as a graduation requirement, policy makers will need to develop retesting and other alternatives for students who do not pass the EOC exam on their first try.

An alternative to EOC tests would be something like the current CAHSEE, an exit examination that is summative and includes content standards drawn from several different courses within a subject area. This approach would allow for demonstration of mastery of a broader range of knowledge and skills than any single EOC test. Also, students would be able to take, and retake, the exam as needed instead of being locked into end of course timing. The cost and effort required to develop and maintain such a comprehensive test may make this option less desirable.

In addition, policy makers might consider whether an exit examination needs to be included in the diploma requirement at all. If evidence from an instruction study were to indicate that the implementation of the CCSS at the local level was consistent and healthy across the state, perhaps passing required courses would provide sufficient evidence of mastery of essential skills.

1c: If the new graduation requirement includes a new exit examination, students should not be required to pass the examination until there is evidence that instruction has been fully realigned to cover the content standards measured by the assessment.

A lesson learned from initial implementation of the CAHSEE requirement was that time is needed before students can be held accountable for mastering new content standards. The CAHSEE requirement was deferred for two years to give students more time to benefit from improved instruction. Experience with the CAHSEE showed it is not sufficient merely to wait until changes to the high school curriculum are implemented. Students may need to experience revisions to the middle school curriculum to be ready to benefit from revisions to the high school curriculum. For example, it was not sufficient to simply require students to take Algebra I. Rather, the curriculum needs to be articulated across grades to ensure that students, particularly students in special education, enrolled in middle school courses aimed at preparing them to do well in an Algebra I course. Thus, we recommend that any new exit examination should not be fully implemented until the new content requirements have been in place for perhaps three or four years. This would allow students just entering grade seven when the new standards were adopted adequate time to prepare (by taking prerequisite courses) to meet the new high school requirement.

1d: The CDE should propose alternatives for helping students meet any increase in the scope and rigor of the graduation requirement.

In prior years, we estimated an increase of one to four percent in the number of grade twelve students who do not graduate on time due solely to the CAHSEE requirement. As many as half of these students do eventually pass the CAHSEE and (presumably) receive a diploma through additional years of schooling in regular or adult education programs. If the rigor of the graduation requirement is increased, more students will be denied diplomas unless additional help is given. Some options might include increased support (moral as well as financial) for a fifth year of high school for students who need it, or improvements in targeting and helping struggling students during middle school. (See Recommendation No. 3.)

1e: The existing requirement, passing the CAHSEE, should be left in place until a revised graduation requirement can be implemented.

Available evidence suggests that students have worked hard to meet the current CAHSEE requirement and that teachers have worked hard to help them do so. If the CAHSEE requirement were suspended for one or more years until a new requirement could be implemented, it is likely that students now struggling to meet the CAHSEE requirement would not work as hard to learn the essential skills covered by the CAHSEE and that teachers would not focus as intently on helping these struggling students. Evidence suggests that this may be the case for students with disabilities (SWD) when the exemption was reinstated.

Consistency for Students with Disabilities

The appropriateness of the CAHSEE requirement for SWD has been a continuing question over the past decade. Plans for revising the graduation requirement must take into account the needs and unique characteristics of SWD. The second general recommendation concerns the clarity of expectations for SWD. The need to develop and communicate a clear and consistent set of expectations for SWD is urgent and should be addressed now with the current CAHSEE.

> ***General Recommendation 2:*** *California should set and maintain consistent requirements for students with disabilities with respect to graduation requirements.*

As we noted in last year's report, the CAHSEE requirement was appropriately deferred for two years for all students, from 2004 to 2006, to allow time for instruction at earlier grades to prepare students to meet high school ELA and mathematics expectations. The requirement was deferred two additional years for SWD, from 2006 to 2008, while a law suit on behalf of these students was resolved. This extension of the second deferral provided additional time to adjust individual education programs (IEPs) at earlier grades to prepare students for the high school requirements. For the high school classes of 2008 and 2009, SWD had to meet the CAHSEE requirement to receive a diploma, although waivers were required (and granted) if students needed a testing modification to receive a passing score. During the period from 2004 through 2009, initial passing rates for SWD increased, reflecting more rigorous and effective instruction for SWD.

Under current law, the CAHSEE requirement has once again been deferred for SWD until 2015. Although teachers, parents, and students currently in grades ten through twelve know that eligible SWD do not need to pass the CAHSEE, they remain uncertain as to what is truly expected of them in high school. Issues leading to the current exemption should be resolved during development of the new graduation policy so that efforts to improve instruction for SWD will resume in full. Resolution of these issues will require agreement on appropriate alternative ways that SWD can demonstrate required knowledge and skills, and might include identifying appropriate goals for students who are not able to participate in regular academic instruction.

Middle School Intervention for At Risk Students

Our final recommendation is based on findings that students scoring below the basic level on grade seven ELA and mathematics tests are at significant risk of not passing the CAHSEE when they reach grade ten.

> ***General Recommendation 3:*** *Guidance and resources should be provided to middle schools to support intervention with students who have fallen behind in the development of basic ELA and mathematics skills required to pass the CAHSEE.*

As indicated in the findings from analyses described in Chapter 2 of this report, students who have fallen behind in ELA or mathematics by grade seven have a significant chance of not being able to pass the CAHSEE in grade ten. Although these students may not be facing an exit examination in their high school years, pending policy decisions and possible new legislation on graduation requirements, they are clearly at risk of struggling with ELA and mathematics curriculum in high school. In the coming year, HumRRO will begin a study of middle school practices, programs, and interventions that appear to be particularly effective at turning around low-performing grade seven students. We anticipate, however, that many programs we find to be effective may not be sustainable long term due to funding constraints. At the same time, some programs used by more effective schools may be no more costly, or even less costly, than programs still in place at less effective schools. A combination of identification and dissemination of effective programs with resources to implement these programs will be needed.

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.

American Institutes for Research (2010). *Independent evaluation study of certain students who used modifications and/or accommodations on the California High School Exit Examination (CAHSEE)*. Washington, DC: American Institutes for Research.

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 (2.3MB).

Becker, D.E., & Watters, 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 (5.7MB).

Becker, D.E., Wise, L.L., Mardoin, M.M., & Watters, C. (Eds.) (2011a) *Independent evaluation of the California High School Exit Examination (CAHSEE) 2011 evaluation report* (FR-11-51). Alexandria, VA: Human Resources Research Organization. [Online]. Available: http://www.cde.ca.gov/ta/tg/hs/documents/cahseeindevrp11.pdf (4MB).

Becker, D.E., Wise, L.L., Mardoin, M.M., & Watters, C. (Eds.) (2011b) *Independent evaluation of the California High School Exit Examination: 2012 biennial report* (FR-11-82). Alexandria, VA: Human Resources Research Organization.

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 (1.6MB).

Becker, D.E., Wise, L.L., & Watters, C. (Eds.) (2009) *Independent evaluation of the California High School Exit Exam (CAHSEE) 2009 evaluation report* (FR-09-65). Alexandria, VA: Human Resources Research Organization. [Online]. Available: http://www.cde.ca.gov/ta/tg/hs/documents/cahsee09evalrptv1.pdf (2MB).

Becker, D.E., Wise, L.L., & Watters, C. (Eds.) (2010a) *Independent evaluation of the California High School Exit Exam (CAHSEE) 2010 biennial report* (FR-10-01). Alexandria, VA: Human Resources Research Organization. [Online]. Available: http://www.cde.ca.gov/ta/tg/hs/documents/cahsee10biennlrpt.pdf (2.6MB)

Becker, D.E., Wise, L.L., & Watters, C. (Eds.) (2010b) *Independent evaluation of the California High School Exit Exam (CAHSEE) 2010 evaluation report, Volume 1* (FR-10-56). Alexandria, VA: Human Resources Research Organization. [Online]. Available: http://www.cde.ca.gov/ta/tg/hs/documents/cahsee10eval1.pdf (2MB).

Becker, D.E., Wise, L.L., & Watters, C. (Eds.) (2010c) *Independent evaluation of the California High School Exit Exam (CAHSEE) 2010 evaluation report, Volume 2: Appendices* (FR-10-56). Alexandria, VA: Human Resources Research Organization. [Online]. Available: http://www.cde.ca.gov/ta/tg/hs/documents/cahsee10eval2.pdf 5MB).

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.

Center on Education Policy (CEP). (2002). *State High School Exit Exams 2002 Annual Report.* Washington, DC: Author.

Center on Education Policy (CEP). (2011). *State High School Tests: Changes in State Policies and the Impact of the College and Career Readiness Movement.* Washington, DC: Author.

Center on Education Policy (CEP). (2012). *State High School Exit Exams: A Policy in Transition.* Washington, DC: Author.

Gwet, K. 2001 *Handbook of inter-rater reliability: How to estimate the level of agreement between two or multiple raters*. Gaithersburg, MD: STATAXIS.

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.

No Child Left Behind Act Regulation, Section 200.2(b)(2) (July 5, 2002).

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.

Shrout, P. E., and J. L. Fleiss. 1979. Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin, 86,* 420–428.

Shavelson, R. J., N. M. Webb, and G. L. Rowley. 1989. Generalizability theory. *American Psychologist, 44* (6), 922–932.

Thompson, S.J., C. J. Johnstone, and M. L. Thurlow. (2002). Universal Design principles applied to large-scale assessments (Synthesis Report 44). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes.

Tinsley, H. E. and D. J. Weiss. 1975. Interrater reliability and agreement of subjective judgments. *Journal of Counseling Psychology, 22*, 358–376.

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.

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 manua*l. 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.

Zabala, D., Minnici, A., McMurrer, J., Briggs, L. (2008). *State high school exit exams: Moving toward end-of-course exams.* Washington, DC: Center on Education Policy.

Zau, A. C. and Betts, J. R. (2008). *Predicting success, preventing failure: An investigation of the California High School Exit Exam*. San Francisco, CA: Public Policy Institute of California.

Glossary of Acronyms

Acronym	Gloss
ACT	American College Testing (former name, now just acronym)
AE	Adult Education
AVID	Advancement Via Individual Determination
AYP	Adequate Yearly Progress
CAHSEE	California High School Exit Examination
CALPADS	California Longitudinal Pupil Achievement Data System
CASEMIS	California Special Education Management Information System
CBEDS	California Basic Education Data System
CDE	California Department of Education
CHSPE	California High School Proficiency Examination
CPEC	California Postsecondary Education Commission
CST	California Standards Test
CSU	California State University
EAP	Early Assessment Program
ED	Economically Disadvantaged
EL	English Learners
ELA	English-language Arts
ELM	Entry Level Mathematics
EPT	English Placement Test
ESEA	Elementary and Secondary Education Act
ETS	Educational Testing Service
FERPA	Family Educational Rights Privacy Act

GATE	Gifted and Talented Education
GED	General Educational Development (Test)
GPA	Grade Point Average
HumRRO	Human Resources Research Organization
IEP	Individualized Education Program
LEA	Local Educational Agency
LEP	Limited English Proficiency
NAEP	National Assessment of Educational Progress
NCLB	No Child Left Behind (federal law)
NSC	National Student Clearinghouse
NSLP	National School Lunch Program
PHO	Post High School Outcomes
SAT	Scholastic Aptitude Test (former name, now just SAT)
SBE	State Board of Education
SDC	Special Day Class
SE	Special Education
SES	Supplemental Educational Services
SKE	Skills, Knowledge, and Experience
SSV	Senior Survey
ST	Student Tracker
STAR	Standardized Testing and Reporting (STAR)
SVP	Specific Vocational Preparation
SWD	Students with Disabilities
UC	University of California

Appendix A: Senior Survey Questions

The following senior survey questions are common items administered by multiple LEAs that are analyzed in this report. Some LEAs asked additional questions and some LEAs omitted select items included here.

Table A.1. Senior Survey Questions

Senior Survey Question
1. What do you plan to do after high school?
A Join the military
B Go to a community college
C Go to a 4 year college or university
D Go to a vocational, technical, or trade school
E Work full-time
F Do something else (besides school, work, or the military
G Work part-time
Z Undecided
MU Multiple selected, not specified
2. What is the highest level of education you plan to complete?
A High school
B One year vocational college
C Two years college
D Four years of college/BA
E Graduate degree (MA, Ph.D., law, medical, etc.)
F Undecided
MU Multiple selected, not specified
3. Fall 2011 College or School Plans:
A Full time (12 or more units of 3 or more classes)
B Part time (fewer than 12 units or 3 classes)
C No plans to attend college this fall

Senior Survey Question

4. Please indicate the college or school you will attend

OPEN

5. This is a:

A	Community college
B	California State University
C	University of California
D	Private California college/university
E	Out of state 2 year college
F	Out of state 4 year college/university
G	Trade school
H	Apprenticeship
I	Other
MU	Multiple, not specified
NA	Not applicable

6. Have you been accepted by this college or school?

Y	Yes
N	No
U	Still need to apply
MU	Multiple, not specified
NA	Not applicable

7. What BEST describes your intended area of college study?

A	Business/Economics
B	Agriculture/Forestry
C	Liberal Arts/Education
D	Health/Medicine/Science
E	English/Foreign Language
F	Computer/Engineering/Math
G	Visual/Performing Arts
H	Psychology/Sociology
I	History/Social Sciences
J	Law/Criminal Justice
K	Communications/Journalism
L	Undecided/Other
MU	Multiple-not specified

8. Other?

OPEN

Senior Survey Question

9. Fall 2011 Work Plans

A	Full-time (30 or more hours per week)
B	Part-time (16-30 hours per week)
BC	Part-time, not specified
C	Part-time (1-15 hours per week)
D	No plans to work this
E	Military
MU	Multiple, not specified

10. Consider your fall 2011 school or work plans, if you plan to be working which best describes the job you expect to have?

A	Zone 1: Little to no previous work-related knowledge, skills, and experience (KSE) needed
B	Zone 2: Some previous work-related KSE needed
C	Zone 3: Previous work-related KSE needed
D	Other
MU	Multiple-not specified

11. Other?

OPEN

12. If you expect to be working in the fall of 2011,is the description you selected above your long-term career goal?

N	No
Y	Yes

Senior Survey Question

13. What best describes your long-term employment area?

A	Agriculture and natural science
B	Arts/Media/Entertainment
C	Building trades/Construction
D	Education/child development/Family services
E	Energy & utilities
F	Engineering & design
G	Fashion & interior design
H	Finance & business
I	Health sciences & medical technology
J	Hospitality/Tourism & recreation
K	Information technology
L	Manufacturing & product development
M	Marketing/Sales & service
MU	Multiple-not specified
N	Public Services
O	Transportation
P	U.S. Army
Q	U.S. Navy
R	U.S. Air Force
S	U.S. Marine Corp
T	Other

14. Other?

OPEN

Appendix B:
Relationships Between CAHSEE Math and Senior Survey Intentions

*Table B.1. Post High School Plans by CAHSEE Mathematics Achievement Level**

What do you plan to do after high school?		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Military	Count	8	162	178	81	429
	% within Math	3.3%	3.5%	3.0%	2.2%	3.0%
Community/2-year college	Count	73	1258	1307	422	3060
	% within Math	29.8%	27.1%	22.3%	11.5%	21.2%
4 year college/university	Count	41	986	1640	1775	4442
	% within Math	16.7%	21.2%	27.9%	48.6%	30.8%
Vocational/tech/trade school	Count	3	114	105	21	243
	% within Math	1.2%	2.5%	1.8%	.6%	1.7%
Work FT	Count	46	509	500	163	1218
	% within Math	18.8%	11.0%	8.5%	4.5%	8.4%
Do something else (besides school, work, military)	Count	7	78	49	13	147
	% within Math	2.9%	1.7%	.8%	.4%	1.0%
Work PT	Count	52	1365	1949	1140	4506
	% within Math	21.2%	29.4%	33.2%	31.2%	31.3%
Multiple-unspecified	Count	15	173	145	39	372
	% within Math	6.1%	3.7%	2.5%	1.1%	2.6%
Total	Count	245	4645	5873	3654	14417
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table B.2. Highest Planned Education Level by CAHSEE Mathematics Achievement Level**

Highest level of education you plan to complete?		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
High School	Count	56	237	120	21	434
	% within Math	25.8%	5.7%	2.3%	.7%	3.4%
One year vocational school	Count	8	67	42	5	122
	% within Math	3.7%	1.6%	.8%	.2%	1.0%
Two years of college	Count	41	345	192	24	602
	% within Math	18.9%	8.3%	3.7%	.8%	4.7%
Four years of college/Bachelor's	Count	53	1,820	2,289	1,011	5,173
	% within Math	24.4%	43.8%	44.1%	32.1%	40.7%
Graduate degree	Count	27	1,155	2,014	1,828	5,024
	% within Math	12.4%	27.8%	38.8%	58.0%	39.5%
Undecided	Count	32	526	536	264	1,358
	% within Math	14.7%	12.7%	10.3%	8.4%	10.7%
Multiple-unspecified	Count	0	6	2	0	8
	% within Math	.0%	.1%	.0%	.0%	.1%
Total	Count	217	4,156	5,195	3,153	12,721
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table B.3. Fall School Plans by CAHSEE Mathematics Achievement Level**

Fall college or school plans		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
FT-12 or more units or 3 or more classes	Count	74	2,473	3,935	2,856	9,338
	% within Math	34.9%	60.4%	76.5%	91.0%	74.2%
PT-Fewer than 12 units or 3 classes	Count	106	1,268	886	184	2,444
	% within Math	50.0%	30.9%	17.2%	5.9%	19.4%
No plans to attend college this fall	Count	32	356	321	99	808
	% within Math	15.1%	8.7%	6.2%	3.2%	6.4%
Total	Count	212	4,097	5,142	3,139	12,590
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table B.4. Type of School by CAHSEE Mathematics Achievement Level**

The type of school you will attend?		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Community college	Count	158	2813	2772	909	6652
	% within Math	78.6%	71.8%	55.4%	29.4%	54.5%
Cal State University	Count	6	447	1236	784	2473
	% within Math	3.0%	11.4%	24.7%	25.4%	20.3%
UC	Count	5	58	313	874	1250
	% within Math	2.5%	1.5%	6.3%	28.3%	10.2%
Private CA college/university	Count	2	74	140	186	402
	% within Math	1.0%	1.9%	2.8%	6.0%	3.3%
Out of state 2 year college	Count	2	30	35	4	71
	% within Math	1.0%	.8%	.7%	.1%	.6%
Out of state 4 year college/university	Count	4	107	187	247	545
	% within Math	2.0%	2.7%	3.7%	8.0%	4.5%
Trade school	Count	5	129	116	23	273
	% within Math	2.5%	3.3%	2.3%	.7%	2.2%
Apprenticeship	Count	1	8	3	0	12
	% within Math	.5%	.2%	.1%	.0%	.1%
Other	Count	16	229	172	61	478
	% within Math	8.0%	5.8%	3.4%	2.0%	3.9%
Multiple-not specified	Count	0	5	16	1	22
	% within Math	.0%	.1%	.3%	.0%	.2%
NA	Count	2	16	14	0	32
	% within Math	1.0%	.4%	.3%	.0%	.3%
Total	Count	201	3916	5004	3089	12210
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table B.5. Whether Accepted by CAHSEE Mathematics Achievement Level**

Have you been accepted by this college or school?		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Yes	Count	77	2301	3657	2643	8678
	% within Math	41.8%	60.6%	75.1%	87.7%	73.2%
No	Count	25	237	167	48	477
	% within Math	13.6%	6.2%	3.4%	1.6%	4.0%
I still need to apply	Count	82	1249	1044	321	2696
	% within Math	44.6%	32.9%	21.4%	10.7%	22.7%
Multiple-not specified	Count	0	7	4	0	11
	% within Math	.0%	.2%	.1%	.0%	.1%
Total	Count	184	3794	4872	3012	11862
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table B.6. Intended Area of College Study by CAHSEE Mathematics Achievement Level**

What best describes your intended area of college study?		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Business/Economics	Count	17	446	597	361	1421
	% within Math	8.3%	11.1%	11.7%	11.6%	11.4%
Agriculture/Forestry	Count	1	66	63	34	164
	% within Math	.5%	1.6%	1.2%	1.1%	1.3%
Liberal Arts/Education	Count	13	138	169	76	396
	% within Math	6.3%	3.4%	3.3%	2.4%	3.2%
Health/Medicine/ Science	Count	46	1137	1450	1011	3644
	% within Math	22.3%	28.2%	28.5%	32.5%	29.3%
English/Foreign Language	Count	17	64	87	60	228
	% within Math	8.3%	1.6%	1.7%	1.9%	1.8%
Computer/ Engineering/ Math	Count	10	290	623	654	1577
	% within Math	4.9%	7.2%	12.2%	21.0%	12.7%
Visual/Performing Arts	Count	17	312	311	131	771
	% within Math	8.3%	7.7%	6.1%	4.2%	6.2%
Psychology/ Sociology	Count	4	259	327	138	728
	% within Math	1.9%	6.4%	6.4%	4.4%	5.8%
History/Social Sciences	Count	4	62	76	78	220
	% within Math	1.9%	1.5%	1.5%	2.5%	1.8%
Law/Criminal Justice	Count	29	421	405	108	963
	% within Math	14.1%	10.4%	8.0%	3.5%	7.7%
Communications /Journalism	Count	4	77	125	58	264
	% within Math	1.9%	1.9%	2.5%	1.9%	2.1%
Undecided/Other	Count	44	748	838	399	2029
	% within Math	21.4%	18.5%	16.5%	12.8%	16.3%
Multiple-not specified	Count	0	16	22	5	43
	% within Math	.0%	.4%	.4%	.2%	.3%
Total	Count	206	4036	5093	3113	12448
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table B.7. Fall Work Plans by CAHSEE Mathematics Achievement Level**

Fall work plans		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Full-time (30+ hours)	Count	54	765	743	238	1800
	% within Math	30.0%	21.4%	15.7%	7.7%	15.5%
Part-time	Count	96	2204	3043	1945	7288
	% within Math	53.3%	61.7%	64.1%	63.1%	62.9%
No plans to work this fall	Count	26	463	794	814	2097
	% within Math	14.4%	13.0%	16.7%	26.4%	18.1%
Military	Count	4	137	159	81	381
	% within Math	2.2%	3.8%	3.4%	2.6%	3.3%
Multiple-not specified	Count	0	3	7	3	13
	% within Math	.0%	.1%	.1%	.1%	.1%
Total	Count	180	3572	4746	3081	11579
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table B.8. Expected Fall Job by CAHSEE Mathematics Achievement Level**

Consider your fall school or work plans, if you plan to be working which best describes the job you expect to have?		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Zone 1: Little to no previous work-related KSE needed	Count	25	540	833	667	2065
	% within Math	23.1%	38.1%	52.2%	65.5%	49.9%
Zone 2: Some previous work-related KSE needed	Count	34	459	443	209	1145
	% within Math	31.5%	32.4%	27.8%	20.5%	27.7%
Zone 3: Previous work-related KSE needed	Count	25	264	214	64	567
	% within Math	23.1%	18.6%	13.4%	6.3%	13.7%
Other - see q11_ssvr	Count	24	150	98	78	350
	% within Math	22.2%	10.6%	6.1%	7.7%	8.5%
Multiple-not specified	Count	0	3	8	0	11
	% within Math	.0%	.2%	.5%	.0%	.3%
Total	Count	108	1416	1596	1018	4138
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table B.9. Fall Job as Career Goal by CAHSEE Mathematics Achievement Level**

If you expect to be working in the fall, is the description you selected above your long-term career goal?		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Multiple-not specified	Count	0	1	0	0	1
	% within Math	.0%	.1%	.0%	.0%	.0%
No	Count	60	1089	1480	988	3617
	% within Math	49.6%	65.0%	78.6%	88.7%	75.5%
Yes	Count	61	585	402	126	1174
	% within Math	50.4%	34.9%	21.4%	11.3%	24.5%
Total	Count	121	1675	1882	1114	4792
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.

*Table B.10. Long-term Employment Area by CAHSEE Mathematics Achievement Level**

What best describes your long-term employment area?		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Agriculture and natural sciences	Count	3	70	81	50	204
	% within Math	2.0%	2.7%	2.4%	2.3%	2.5%
Arts/media/entertainment	Count	22	309	364	192	887
	% within Math	14.8%	11.8%	11.0%	8.8%	10.7%
Building trades/construction	Count	3	50	32	12	97
	% within Math	2.0%	1.9%	1.0%	.5%	1.2%
Education/child development/family services	Count	16	212	246	115	589
	% within Math	10.7%	8.1%	7.4%	5.3%	7.1%
Energy & utilities	Count	1	6	7	4	18
	% within Math	.7%	.2%	.2%	.2%	.2%
Engineering & design	Count	4	112	293	328	737
	% within Math	2.7%	4.3%	8.9%	15.0%	8.9%
Fashion & interior design	Count	14	90	61	16	181
	% within Math	9.4%	3.4%	1.8%	.7%	2.2%
Finance & business	Count	5	148	243	203	599
	% within Math	3.4%	5.7%	7.3%	9.3%	7.3%

Table B.10. (Continued)

What best describes your long-term employment area?		Math Achievement Level				
		Below Basic	Basic	Proficient	Advanced	Total
Health Science & medical technology	Count	26	635	895	733	2289
	% within Math	17.4%	24.3%	27.1%	33.5%	27.7%
Hospitality/tourism & recreation	Count	7	68	54	21	150
	% within Math	4.7%	2.6%	1.6%	1.0%	1.8%
Information technology	Count	2	44	61	53	160
	% within Math	1.3%	1.7%	1.8%	2.4%	1.9%
Manufacturing & prod development	Count	0	11	16	8	35
	% within Math	.0%	.4%	.5%	.4%	.4%
Marketing/sales & service	Count	3	84	122	54	263
	% within Math	2.0%	3.2%	3.7%	2.5%	3.2%
Multiple responses	Count	1	33	27	10	71
	% within Math	.7%	1.3%	.8%	.5%	.9%
Public Services	Count	8	129	199	105	441
	% within Math	5.4%	4.9%	6.0%	4.8%	5.3%
Transportation	Count	2	34	31	13	80
	% within Math	1.3%	1.3%	.9%	.6%	1.0%
U.S. Army	Count	1	11	1	11	24
	% within Math	.7%	.4%	.0%	.5%	.3%
U.S. Navy	Count	1	12	11	1	25
	% within Math	.7%	.5%	.3%	.0%	.3%
U.S. Air Force	Count	2	12	5	5	24
	% within Math	1.3%	.5%	.2%	.2%	.3%
U.S. Marine Corp	Count	3	22	24	7	56
	% within Math	2.0%	.8%	.7%	.3%	.7%
other	Count	25	497	516	237	1275
	% within Math	16.8%	19.0%	15.6%	10.8%	15.4%
None	Count	0	24	19	12	55
	% within Math	.0%	.9%	.6%	.5%	.7%
Total	Count	149	2613	3308	2190	8260
	% within Math	100.0%	100.0%	100.0%	100.0%	100.0%

* Table includes only students who answered this survey question **and** for whom we found CAHSEE scores.