CHAPTER 6: FINDINGS AND RECOMMENDATIONS

General Findings

The main questions for our evaluation, as specified in the enabling legislation and in our contract with the California Department of Education (CDE), concern the impact of the new graduation requirement on students. Specifically, we were asked to look at changes in graduation and dropout rates and in other important student outcomes, such as college attendance rates for all students and for specified subpopulations of students. It will be at least another year, however, before we can begin to report information relevant to these outcomes. At that time students who have completed the curriculum through the 10th grade will have taken the test and received their results.

To this point, we have focused on the development of the exam and on what schools and districts are doing in anticipation of the new requirement. In our earlier reports, we expressed concern with the time line for implementing the new graduation requirement. Our concern was based on two key questions:

(1) Would the exam be ready for the students?

(2) Would students be ready for the exam?

The first question was asked with regard to the risk of problems in the assembling and printing of test forms, with the administration of the test, and with the reporting of results. Based on evaluation activities to date, we offer the following general findings:

General Finding 1: Progress in developing the exam has been noteworthy. We found no significant problems with the exams administered in March and May 2001 or with the scoring of these exams.

Given low initial passing rates, there may be a tendency to question the validity of the exam. Our analyses of data from the Spring 2001 administration, however, showed that all test questions performed as expected. The operational test forms were printed correctly and on time and delivered to districts with few difficulties. Administration of the exam presented a number of significant challenges to schools in finding times and spaces in which to schedule students to take the exam. Even though the Spring administration was not a practice test, as it appeared for awhile that it might be, it provided a good opportunity to identify logistical and administrative issues to be addressed further in future administrations. The 2002 administrations will be the first time students who have completed much of the 10th grade curriculum will take the exam. Lessons learned from the 2001 administrations should be helpful in improving the process for 2002.

General Finding 2: The process used to establish minimum passing scores was well designed and executed and the resulting passing standards appear reasonable.

There was some concern that the passing scores for the two exams could not be set until data from a census testing of 10th graders were available. With the failure of the urgency legislation (SB 84), the State Board of Education (SBE) was required to set minimum passing scores without normative information on 10th graders. Many experts disagree with the use of normative information and, where it is used, it rarely has much impact on the recommendations of the standard-setting process. CDE and American Institutes for Research (AIR) used a systematic process for identifying panels of teachers and others who were very familiar with California standards and students and were broadly representative of the state. The SBE appropriately considered the passing standards as provisional, recognizing a concern that results for students completing the 10th grade curriculum are not yet available.

General Finding 3: Administrative and reporting procedures could be strengthened in several areas in future administrations of the CAHSEE.

Schools and districts faced difficult logistical challenges in scheduling and locating the testing and in planning activities for other students who were not scheduled to take the test. Uncertainty, up to the last minute, as to whether the test would count added to planning difficulties. For the most part, administration was handled remarkably well and we are not aware of significant administration problems. Nonetheless, procedures could be improved for future administrations in a number of areas, such as decisions about appropriate accommodations for students with disabilities.

Two issues in reporting also should be more fully addressed in future administrations. Given the necessity of switching to operational reporting on short notice, there was not adequate time for a comprehensive public review of reporting plans, a situation that will be remedied in the future.

The first reporting issue is the need to communicate, in some form, the degree of error or uncertainty in the test scores as required under the *AERA/APA/NCME* standards test (AERA, APA, NCME, 1999, Standard 5.10, page 65). We assume that information on score precision will be provided in technical documentation, which we have not yet had an opportunity to review. The standards, however, require that this information be communicated to parents, students, and teachers along with the test results. Public opinion surveys now routinely report "margin of error" information. The public should be prepared for similar information in conjunction with this important test, even if only in footnotes to the score reports.

The second reporting issue is that results for English learners reported on the CDE's Web site are incorrect due to problems in coding the language fluency of many of the students who took the exam. (See Chapter 5 above for a more complete discussion.) CDE and the development contractor are working to correct this problem

Overall, the risks associated with an aggressive schedule for CAHSEE test development and administration did not result in significant errors. At present, the pool of test questions

that have been reviewed and field-tested is sufficient to support the development of test forms for the 2002 administration.

More significant attention continues to be focused on our second question, whether students will be ready for the exam. Our general finding with respect to this question is:

General Finding 4: Progress on providing all students adequate opportunity to learn the material covered by the CAHSEE has been good, but it is too soon to tell whether there will be significant problems in preparing all students in the Class of 2004 to pass the exam.

Since our earlier reports expressed concern as to whether all schools could provide the Class of 2004 adequate opportunity to master the standards tested by the CAHSEE, a number of changes have occurred:

1. Beginning with the Class of 2004, algebra will be a statewide requirement for high school graduation.

2. Survey results indicate that schools are taking the content standards seriously and have progressed in plans to provide students opportunities to learn these standards, but a substantial minority of teachers indicate that the current curriculum covers less than half of the targeted content standards.

3. Principals and teachers report that students and parents have a greater awareness of the CAHSEE than they did a year ago.

4. SBE plans are in place for adoption of K–8 textbooks aligned to the content standards and to incorporate results of standards-based tests into the Academic Performance Index (API).

5. CDE has launched a campaign for disseminating information about the CAHSEE and the content standards that it covers to districts and schools.

The fact that significant numbers of 9th graders have not yet mastered the standards covered by the CAHSEE is not surprising. Results from our Spring 2001 survey suggest that many of the standards are addressed by courses most students do not take until the 10th grade. Our analyses of passing rates suggest two important steps in preparing students to pass the exam:

1. For the mathematics tet, it is important for students to have completed an algebra course prior to taking the exam; most students who had completed algebra and were enrolled in geometry passed the exam, while most students who had not taken algebra did not. Although algebra is now required for graduation, many students in the Class of 2004 did not take it as 9th graders. Note, however, that to benefit from an algebra course students must have mastered essential pre-requisite skills.

2. For the ELA test, it is important that students achieve English language proficiency prior to taking the exam; passing rates were quite low for English learners, but much higher for students who had been redesignated as proficient in English.

By 10th grade, more students will have completed Algebra and current EL students will have had more time to attain English proficiency.

Members of the standard-setting panels were generally optimistic about schools' capacity for bringing students up to standard. Results from the 2002 administration of the CAHSEE to 10th graders will begin to tell us whether this optimism is justified.

Recommendations

Based on information available to date, as summarized in our four general findings, we offer two main recommendations at this time:

General Recommendation 1: Stay the course. The legislature and Board should continue to require students in the Class of 2004 to pass the exam, but monitor schools' progress in helping most or all of their students to master the required standards.

Notwithstanding earlier recommendations, we think it best not to alter the current schedule for implementing the CAHSEE requirements at this time. As expected, initial passing rates are low, indicating that many 9th grade students have not yet had the opportunity to learn the material covered by the CAHSEE, either because they have not taken the requisite courses, or the courses taken in earlier grades covering prerequisite skills were not yet aligned to the California content standards. Continuing with the current requirement means demanding that schools, teachers, and even parents not give up on the Class of 2004 just because their education to this point may not have been as comprehensive as we would like it to be. Most educators with whom we have spoken are optimistic regarding the potential for most students to master the required content standards given more years of instruction and targeted assistance. Schools and districts have expended considerable effort in improving the curriculum to increase coverage of the state content standards, particularly those covered by the CAHSEE. A decision to delay the requirement at this point could be seen as undercutting these efforts.

While we think the state should continue to move ahead, we continue to have concerns, as expressed in our earlier reports, as to whether all students in the Class of 2004 will have adequate opportunity to learn the material covered by the CAHSEE by the time they complete the 12th grade. A new bill (AB 1609) passed this year calls for further investigation of the extent to which schools are providing sufficient opportunity to learn the material covered by the CAHSEE. It requires an evaluation with a recommendation to the State Board by May 2003 as to whether the requirement to pass the exam should be delayed and authorizes the SBE to make such a decision by August 2003.

There is not, however, a clear consensus in either the educational or legal communities as to what constitutes adequate opportunity to learn. Many would argue that analysis of the

current curriculum alone is insufficient. The quality of instruction, as defined by teacher qualification and effectiveness, is also an issue. Further, the quality of the curriculum and instruction with which prerequisite skills were taught in earlier grades remains an issue. While we strongly support research on opportunities to learn the material covered by the CAHSEE, we are concerned that such research will not result in the conclusive evidence needed to support a decision on continuing the CAHSEE requirement for the Class of 2004.

We suggest that ***the best evidence that a school system is providing its students adequate opportunity to learn the required material is whether most students do, in fact, learn the material.*** Our evaluation will continue to monitor passing rates by school as an indicator of the extent to which students in these schools have had effective opportunities to learn the required knowledge and skills. Schools where most students pass the CAHSEE will have demonstrated their ability to provide sufficient opportunity to learn the required material. Where significant numbers of students cannot pass, issues of opportunities to learn the required material will remain. A critical factor will be whether schools with the most difficult challenges, as evidenced by low initial passing rates, will be given the guidance and resources needed to bring their students up to required levels.

Whether the requirement is ultimately deferred or not, it will be very important to give the CAHSEE time to work. The history of state assessment programs shows a lack of stability over any prolonged period of time. For students to achieve the skills embedded in California's content standards, a sustained effort over an extended period of time will be required. California should "stay the course" to allow this to happen.

Passing rates by school will provide an important indicator of whether students, in general, have adequate opportunity to learn the material on which they are tested. We continue to be particularly concerned, however, with students who face the most difficult challenges. Based on this concern, we offer a second general recommendation:

General Recommendation 2: The legislature and Board should continue to consider options for students with disabilities and for English learners.

There is significant tension between the desire to have high expectations for all students, including students with disabilities and English learners, and the need to be realistic about what some students can accomplish. Initial low passing rates for both students with disabilities and English learners suggest particular concern with the time it may take to help these students master the required standards. Options to be considered range from more liberal use of accommodations to some form of alternative diploma for students who are physically unable to develop or demonstrate the required skills or alternate means of demonstrating competency for students who are still learning English, and also to deferring implementation of the graduation requirement for these students (i.e., to a later class).

Since the 2001 administration, a great deal of attention has been focused on appropriate test accommodations for students with disabilities. CDE has developed extensive and specific instructions for testing coordinators and other school personnel on procedures for identifying appropriate accommodations for students who require them. The SBE has reviewed several versions of regulations regarding CAHSEE testing accommodations, approving revised

regulations at their November 2001 meeting. Schools are left with some discretion, although they must now request approval for accommodations not on the list of those specifically allowed. We will monitor how new procedures are followed in the 2002 administrations.

Other Specific Findings and Recommendations

Based on activities and findings from the first two years of the evaluation, we offer a number of other, more specific recommendations for improving the quality of the exam. These include:

Specific Recommendation 1: More technical oversight is needed.

Because of the rapid pace of implementation, a number of decisions have been made without technical review of the consequences. Examples are the decision to shorten the tests without public consideration of consequences for test score accuracy and the lack of independent review of plans for equating scores from the different test forms used in March and May.

In response to a prior recommendation for more technical oversight, CDE engaged independent technical expertise and is in the process of transforming its Technical Studies Group to provide specific and timely advice on psychometric issues with the CAHSEE and other state assessment programs. CDE and the SBE have engaged an additional panel of experts to address technical and coordination issues across state assessment programs. To date, however, this panel has not had time to address the range of specific technical issues requiring immediate attention.

Specific Recommendation 2: For future classes, testing should be delayed until the 10th grade.

The initial CAHSEE legislation required that the test be offered to 9th graders. Attempts to amend this legislation (SB 84 and AB 1609) to defer initial testing until the 10th grade are based on concerns that 9th graders have not all had opportunities to learn some of the material covered by the CAHSEE. Our analyses support this position. Many students do not receive instruction in important content standards until the 10th grade. For mathematics, results from the March 2001 administration showed a close link between passing rates and the mathematics courses students had completed. Results from the field tests showed that more students were able to answer the mathematics questions correctly at the end of the 10th grade in comparison to students at the beginning of the 10th grade. For ELA, teachers reported that several of the more difficult standards were most fully covered in 10th grade English courses. Substantial percentages of 9th grade examinees reported that they had never been taught some of the math concepts included in the math exam.

Specific Recommendation 3: A practice test of released CAHSEE items should be constructed and given to districts and schools to use with 9th graders to identify students at risk of failing the CAHSEE.

While it may be unfair to administer the CAHSEE to 9th graders when many have not yet completed essential courses, some means of identifying 9th grade students at risk of failing would be useful. Schools and the at-risk students themselves could then put additional efforts into mastering the required material, while freeing other students to work on more advanced skills. A practice test, with scoring instructions included, so that teachers and students can gauge how much additional effort might be needed to reach passing levels, should be developed, and should include as much diagnostic information as possible. Such a practice test should, of course, be accompanied by guidance to prevent an undesirable narrowing of instruction or inappropriate "teaching to the test." In addition, research linking the 8th and 9th grade California Standards Test used for school accountability to future CAHSEE administrations could also provide a means of identifying students who will need additional help to pass the CAHSEE. However, as noted under specific recommendation 5 below, privacy concerns create a significant barrier to conducting such research.

Specific Recommendation 4: More extensive monitoring of test administration and a system for identifying and resolving issues is needed.

Observation of the initial administration revealed some concern about describing and enforcing procedures for test session breaks so as to maintain test security. In addition, procedures for determining appropriate testing accommodations may need further clarification and reinforcement. CDE and its contractor for test administration should continue to summarize lessons learned from the 2001 CAHSEE administrations and provide improved specifications and mandatory training for test coordinators prior to the 2002 administrations. Plans to do so are now in place.

Specific Recommendation 5: The state needs a more comprehensive information system that will allow it to monitor individual student progress.

Privacy concerns currently prohibit the state from maintaining databases that include both test scores and identifying information for individual students. Third party evaluators have difficulty, or may even be prevented from, obtaining such information. In the present evaluation, for example, we cannot link student's CAHSEE scores with scores from the STAR assessment because we do not have access to STAR results for individual students. It is not clear that school and district information systems will necessarily support data requirements associated with the CAHSEE. How will information on whether students have taken and passed part or all of the CAHSEE be maintained for students who transfer between districts? Will schools and districts be able to enforce the requirement that, in 2002, all 10th graders who have not passed the CAHSEE take the exam? CDE does not have access to the information necessary to identify students who fail to test and cannot, therefore, help in monitoring this requirement.

In addition, information on cumulative passing rates for each high school class is needed to answer important policy questions, including whether to defer the initial CAHSEE requirement. The state will not have information on score gains for individual students if results cannot be linked across testing years. A mechanism for creating cumulative databases without infringing on student privacy concerns is clearly needed. Further, as suggested above, research data on the relationship between scores from other state-mandated

assessments and scores on the CAHSEE exams would provide useful information for improving assessment policies. Examples include whether scores from tests in the Golden State Exam could or should be counted in allowing students to meet the CAHSEE requirements (in lieu of taking the CAHSEE) and whether scores on the 8th, 9th, and even 10th grade standards tests are useful in identifying students at risk of failing the CAHSEE.

Specific Recommendation 6: The Superintendent, SBE, and legislature should specify in more detail how students in special circumstances will be treated by the CAHSEE requirements.

A number of students may not have the full range of opportunities to take the CAHSEE. These include students who transfer into the state in the 12th grade; students in the Class of 2003 who, through illness or other unforeseen circumstance, fail to graduate on time and will then be subjected to requirements for the Class of 2004; and English learners who may be exempted from taking the CAHSEE until late in their high school years. Such students would miss out on several opportunities to pass the CAHSEE and end up with at most 3 or 4 chances to pass the test rather than the 8 chances most students would have.

The current legislation does not specify a process for waivers and exceptions for special circumstances, as is the case with graduation examinations in many other states. Section 60856 of the Education Code does require the Superintendent and SBE to "study the appropriateness of other criteria by which high school pupils who are regarded as highly proficient but unable to pass the high school exit examination may demonstrate their competency and receive a high school diploma." The Superintendent and SBE are required to forward recommendations to the legislature for enactment. To date, much of the discussion about this provision assumes that "highly proficient" means well above the minimum criteria as evidenced, for example, by passing scores on the Golden State Exam for advanced courses. Now that initial administration of the CAHSEE has been completed, we recommend that broad consideration be given to all of the circumstances under which students with the required proficiency may not be able to pass the exam in a timely manner.

In making each of the above recommendations, we recognize the provisional nature of the data available at this time. We also commend CDE for the extensive efforts that have already been made to improve the program in response to these and earlier suggestions.