

This document contains *Chapter 4: How Instruction Has Improved* from the Third Biennial Report, California High School Exit Examination (CAHSEE) published on February 1, 2006, by the California Department of Education. The entire report is available at <http://www.cde.ca.gov/ta/tg/hs/thirdbiennial.asp>.

## Chapter 4: How Instruction Has Improved

### *Introduction*

As presented in Chapter 3, the passing rates on the CAHSEE provide the clearest evidence of the effectiveness of instruction in the standards covered by the CAHSEE. Test results show which students are adequately prepared and pass the high school exit examination and which groups have lower passing rates. Chapter 4 presents additional information gathered through surveys and site visits regarding the state of instruction and its direction over time.

HumRRO identified a stratified representative sample of districts, high schools, and feeder schools to receive surveys. Surveyors visited a subsample of these schools in person for a series of one-on-one interviews. The topics of surveys and site visits overlapped heavily. The surveys provided a cost-effective means to gather data from a large representative sample of schools, while the site visits facilitated collection of richer information in a form that allowed follow-up clarification as necessary.

### *Survey and Interview Response Samples*

HumRRO's Year 6 Evaluation Report provides details that are summarized here. Sample selection, substitution policy, and data collection issues are provided in Volume 2, Appendix A. Volume 2, Appendix B contains the survey instruments. Comprehensive lists of survey and interview responses, organized by respondent group, are included in Volume 3, Appendix E, which contains the frequency tables for the survey responses and Appendix F, which contains the interview protocols. Complete details of the characteristics of the response sample are provided in Volume 1, Chapter 4 of the Year 6 Evaluation Report. All of these items are available at <http://www.cde.ca.gov/ta/tg/hs/evaluations.asp>). The following is a brief summary of salient points.

### *Surveys*

Table 4.1 presents the response rates for each survey activity. This includes the requests for executive summaries to be written by district superintendents, as this activity was conducted in conjunction with the surveys. A description of response rates and the representativeness of each of the responders follows the table.

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**Table 4.1. Survey and Executive Summary Response Rates**

Data Collection Instrument	Target Sample Size	Number of Respondents	Survey Response Rate/Other Notes
<b>Districts</b>	<b>467</b>	<b>123</b>	<b>26%</b>
Executive Summary		101	
ELA Curriculum Head		113	
Math Curriculum Head		114	
<b>High Schools</b>	<b>400</b>	<b>227</b>	<b>57%</b>
Principal		220	
ELA Curriculum Head		201	
Math Curriculum Head		211	
ELA Teacher		1,118	1–11 ELA teacher surveys per school
Math Teacher		1,129	1–12 Math teacher surveys per school
<b>Feeder Schools</b>	<b>97*</b>	<b>39</b>	<b>40%</b>
Principal		37	
ELA Curriculum Head		33	
Math Curriculum Head		37	
ELA Teacher		196	1–10 ELA teacher surveys per school
Math Teacher		177	1–11 Math teacher surveys per school

\*Note. Original middle school target was 200 schools but only 97 feeder schools were identified.

**Districts.** We provided two surveys to all 467 California school districts that include grade 10: one for an ELA curriculum head and one for a mathematics curriculum head. In addition, we asked the district superintendent to write a brief executive summary describing the district’s efforts to ensure student and parent awareness of the CAHSEE requirement, curricular validity, instructional validity, and remediation. Twenty-six percent of the districts returned at least one survey and 22 percent of the districts provided an executive summary.

A comparison of the characteristics of the responding districts to those eligible revealed close similarities, with only one statistically significant difference between the two groups. About 9 percent of high school students in the state were identified as special education students, compared with approximately 12 percent of students in the responding sample. Some other differences were not large enough to achieve statistical significance.

**Schools.** HumRRO selected a sample of 400 high schools to represent all the public high schools in California. The sampling design assured that the sample would match overall state distributions for academic performance (based on results from the 2004 10th Grade STAR ELA assessment), school size, and the percentage of English learners (EL). Of the 400 high schools (after substitutions), 227 responded (57%). Principals, ELA department chairs and teachers, and mathematics department chairs and teachers received surveys.

High schools that provided at least one completed survey were counted as respondents for this analysis. The only statistically significant difference between the target and responding populations was a slightly inflated percentage of economically

disadvantaged students who passed CAHSEE Math (65.64% among responding schools versus 62.75% across the state). As with the district surveys, the high school survey respondents were representative of the state as a whole.

The study design called for surveys of one feeder school for each of 200 of the high schools in the sample, but the project encountered difficulties in identifying appropriate feeder schools. In the end, we issued surveys to 97 middle schools, 39 of which returned them, a response rate of 40 percent. Survey distribution was the same as at the high school level: principal, ELA department head/lead teacher, mathematics department head/lead teacher, and multiple ELA and mathematics teachers. According to the comparisons, the responding feeder schools sent their students to high schools with student populations that mirrored the state as a whole.

### ***Site Visit Interviews***

Interviewers conducted site visits at 47 high schools and 17 middle-grade feeder schools, resulting in 533 total interviews. In a comparison of how representative these participating site-visit high schools and feeder middle schools were, we found that, in both cases, we had conducted site visits in school systems that enrolled, on average, a larger percentage of African American students than the statewide average. Aside from this disparity, the characteristics of the schools that were visited were representative of the entire state's high school population.

We conducted a total of 533 interviews, varying in number at individual schools from as few as three to as many as 19. The variance in number of interviews was largely based on the size of the school. In some cases we conducted interviews with more than one teacher present. We counted these as single interviews.

### ***Combining Survey and Interview Data with School Characteristics***

Each high school within the sample was classified by several characteristics of its student population:

- Number of Students in Class of 2006
- Percentage of EL Students
- Percentage of Students with Disabilities (SD)
- Percentage of Economically Disadvantaged Students
- Percentage of Hispanic Students
- Percentage of African American Students

Each characteristic was divided empirically into three ordinal groupings and each high school was subsequently assigned to one and only one category for each characteristic. Each characteristic was divided into three categories such that approximately 25 percent of schools were categorized as small, 50 percent medium, and 25 percent large. We used these groupings to compare survey and interview responses across different types of schools.

## ***Factors that Affect the Effectiveness of Current Instruction***

### ***Student Preparation—Surveys***

The teacher survey asked teachers to respond for a specific course or instructional program that the department chair or lead teacher had identified as having content related to curriculum standards covered on the CAHSEE. Teachers were asked how they would describe the preparation of students who were taking this course or instructional program. Math teachers indicated less student preparedness than did ELA teachers. Only 10 percent of math teachers and 20 percent of ELA teachers judged that almost all students are well prepared to succeed. Approximately 50 percent of ELA and math teachers responded that some students do not yet have prerequisite skills. Nearly 40 percent of math teachers responded that most students do not yet have prerequisite skills (compared to 28 percent of ELA teachers).

We also analyzed this question separately for schools with high concentrations of at-risk students, as defined by the student characteristic groupings described earlier. Since multiple teachers returned surveys for each school, we averaged teacher estimates so that each school was counted only once in this analysis. Table 4.2 details teacher ratings of student preparedness. Percentages indicate the percentage of schools in which the average teacher response indicated some or most students have the prerequisite skills.

Inspection of Table 4.2 indicates some perceived discrepancies between schools with relatively large proportions of at-risk students. For example, ELA teachers in 74.5 percent of schools with high concentrations of EL students rated some/most students as prepared, as compared to 90.1 percent of teachers in schools without high concentrations of EL students. In ELA, teachers rated students as less prepared in schools with high concentrations of EL, economically disadvantaged, and Hispanic students, but more prepared in schools with high concentrations of African American students. In math, teachers rated students as less prepared in schools with high concentrations of EL, economically disadvantaged, Hispanic, and African American students. In both ELA and math, teachers rated students as more prepared in schools with high concentrations of SD students.

**Table 4.2. Ratings of Student Preparedness in Schools with High Concentrations of At-risk Students, According to Teachers**

Student Demographic Subgroup	School Group	Number of Responding Schools in High/Not High Group	Percentage of Schools in Which Some/Almost All Students Have Prerequisite Skills
<b>ELA</b>			
EL Students	Not High	152	90.1%
	High (> 27%)	47	74.5%
SD Students	Not High	138	85.5%
	High (>10%)	61	88.5%
Economically Disadvantaged Students	Not High	152	90.8%
	High (>60%)	47	72.3%
Hispanic Students	Not High	147	92.5%
	High (>60%)	52	69.2%
African American Students	Not High	163	85.9%
	High (>12%)	36	88.9%
<b>Math</b>			
EL Students	Not High	150	76.7%
	High (> 27%)	46	69.6%
SD Students	Not High	137	73.7%
	High (>10%)	59	78.0%
Economically Disadvantaged Students	Not High	151	79.5%
	High (>60%)	45	60.0%
Hispanic Students	Not High	144	78.5%
	High (>60%)	52	65.4%
African American Students	Not High	159	77.4%
	High (>12%)	37	64.9%

The teacher survey also asked what proportion of their students achieved at least *Basic* performance on the previous year's corresponding Standardized Testing and Reporting (STAR) California Standards Test (CST). Over a third of teachers do not know their students' incoming performance and only a small percentage indicate that most students achieved at least *Basic* performance.

### **Student Preparation—Site Visits**

Interviewers asked a series of questions about current preparation of incoming students compared to two years ago. Four of the five interview protocols contained these questions; they were omitted from the special courses protocol.

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Three-fourths of administrators reported that their schools currently rated at the high end of implementation to support student success on the CAHSEE. No administrators reported a decline in implementation over the 2-year period.

Compared to two years ago, a fourth of the general education English-language arts and mathematics teachers reported seeing better student preparation; about 13 percent reported students being less prepared. (This question was omitted if interviewers used the short interview form, thus accounting for a large number of blank responses, about 49 percent of the total.) Almost a third of the special education teachers indicated that the incoming students were better prepared, due in part to improved skills from better preparation in earlier grades. On the other hand, 15 percent of the teachers stated incoming students were less prepared than two years ago because their disabilities were of a wider scope and severity. On the other hand, EL teachers were evenly split between students being more, or less, prepared. Again, those who felt they were better prepared indicated that improved skill development in earlier grades could be a factor. Interestingly, a few comments were received from teachers indicating that of the students who were less prepared, the teachers observed that new students (immigrants) were better prepared than incoming students from feeder schools. Other respondents, however, stated that they felt that the incoming immigrant students were less educated than those from previous years.

Respondents were asked for two ratings of incoming student preparation using a Likert-type scale (1 represented “very poorly prepared” and 5 represented “very well prepared”). The first asked for the current year’s incoming students, and the second asked them to think back two years ago for incoming student preparation. Generally they believe student preparation has increased slightly.

### ***Teacher Qualifications and Experience—Surveys***

High School ELA and mathematics department heads were asked to characterize the credential status of teachers in their departments. In both subject areas, approximately three-quarters of schools are operating with nearly all appropriately credentialed teachers, but 12 percent of responding ELA departments and 8 percent of responding mathematics departments are operating with more than 25 percent teachers who do not have appropriate credentials. We compared these responses to the proportions of various categories of at-risk student populations to assess how teacher credentialing might differ systematically across schools. Respondents for schools with high concentrations of Hispanic, African American, economically disadvantaged, EL, and SD students indicated that at least three-quarters of their ELA and mathematics teachers were certified in their subject area.

ELA credentialing is higher in schools with high concentrations of EL, SD, economically disadvantaged, and Hispanic students than in schools without such high concentrations of at-risk students. The exception is schools with relatively high (12% or more) concentrations of African American students, where about three-fourths of the department heads reported that most teachers hold ELA credentials, compared to

almost 90 percent reported this at schools with smaller proportions of African American students.

Math credentialing follows a different pattern. Schools serving more than 10 percent of students with disabilities (i.e., the highest 25% of schools along this dimension), report that almost 95 percent of their math teachers hold subject-area credentials, compared to just over 90 percent at schools with smaller proportions of SD students. However, when the at-risk factors considered are high concentrations of EL, economically disadvantaged, Hispanic, and African American students, lower percentages of schools report math teachers with appropriate subject-area credentials than do schools without such high concentrations of at-risk students.

On the teacher survey—which was administered to a subset of teachers within each school—we also asked each teacher to write in his or her specific teaching credential(s). The majority of the teachers have a Single Subject Credential in either English-language Arts or Mathematics. Non-credentialed teachers accounted for less than one percent of the respondent teacher population.

High school department heads indicated that over 90 percent of ELA and math departments had only a few (or no) cases of emergency credentials. ELA credentialing was more variable than mathematics among the surveyed schools. While 62 percent of department heads reported that none of their ELA teachers had emergency credentials, two percent indicated that nearly all teachers did. No math departments reported more than 75 percent emergency credentials. We compared these responses to the proportions of various categories of at-risk student populations to assess how teacher credentialing might differ systematically across schools. We examined responses separately for schools with high concentrations of Hispanic, African American, economically disadvantaged, EL, and SD students. In every case, a larger percentage of schools with high concentrations of at-risk students employ some teachers with emergency credentials or interns.

The surveys asked District ELA and mathematics curriculum heads to estimate the percentage of grade 6–10 students in various categories who receive instruction from teachers with an appropriate credential. The first pattern noted in their responses was that more students receive ELA instruction from credentialed teachers than math instruction. Second, EL students are assigned to credentialed teachers at about the same rate as the student population as a whole. Third, students with disabilities, whether characterized as receiving special education services or as having an Individualized Education Program (IEP), are more likely than the general population to receive ELA and math instruction from a teacher who does not hold an appropriate subject-specific credential.

In estimating the experience levels of teachers responsible for primary/supplemental courses versus basic/intervention programs, high school department heads in both subject areas indicated that less-experienced teachers were teaching basic and intervention courses. When these same responses were broken down

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separately for schools with high and moderate/low concentrations of at-risk students, in both ELA and mathematics, and for both primary/supplemental and basic/intervention courses, a smaller percentage of schools with relatively high concentrations of at-risk students report most teachers have at least five years of experience.

### ***Teacher Qualifications and Experience—Site Visits***

Although the interview protocols did not specifically address the issue of teacher qualifications and experience, they did address the issue of professional development. Two questions on the general education math and English protocols asked how often general education math and English teachers are required to take professional development training related to the needs of special education and EL students, respectively. Related questions on the special education and EL protocols also asked those teachers how often general education teachers had to take training on the needs of special education and EL students.

In the general education responses, most answers were clustered among four categories: (a) they did not know of any professional development requirement related to the populations in question, (b) such training was not required, (c) it was covered through the teacher certification process, or (d) such training was required annually. Even though some respondents stated that such training was not required, they said it was nonetheless covered in staff meetings or through collegial conversations.

The rather large difference between percentages of teachers who stated that special education training is covered in the certification process (17%) versus those who stated that EL training is covered during certification (31%) can at least partially be explained by the fact that CLAD (Cross-cultural Language and Academic Development) training is required in many districts and schools, especially among newer teachers. In fact, 78 of 270 general education teachers mentioned CLAD training, although they were not specifically asked about it.

These findings were echoed in the special education and EL teacher interviews. In general, teachers involved with special education students or EL students are credentialed. Most, however, were unsure about any mandated professional development for regular education teachers other than the certification process. It should be noted that nearly half of the special education teachers are involved, in some way, with the professional development sessions on special education that are presented to general education teachers. Often, the type of involvement is informal, such as presenting information at staff meetings; however, several respondents stated they organize (obtain guest speakers or form parent/teacher panels) segments on special education issues at school professional development or in-service training sessions. About a quarter of the EL teachers reported that they are involved in the professional development sessions for the general education teachers.

### ***Student Motivation—Surveys***

Teachers were asked to indicate on a 5-point scale the extent to which various factors limit the effectiveness of their courses. Teachers cited low student motivation as the greatest impediment, followed by low parental support and low student attendance. Fewer teachers noted a lack of materials/resources, or their own difficulty in engaging students or their own lack of knowledge or experience.

In order to determine whether these problems were more prevalent in some courses than others, we disaggregated these same responses by type of course (e.g., primary course, elective course targeted to remediation). Teachers indicated that remedial courses face the greatest limitations. In particular, teacher ratings of problems with student motivation, parental support, and student attendance are higher for remedial courses than for other courses. Low parental support is rated as a greater problem for required supplemental courses targeted to remediation than for any other course type.

We also broke down the three most frequently cited factors—student motivation, low parental support, and low student attendance—separately for schools with high and moderate/low concentrations of at-risk students. Survey responses indicated that in every student demographic category, for all three factors, a larger percentage of teachers in schools with relatively high concentrations of at-risk students rated these factors as impediments. The largest differences between schools with high and moderate/low concentrations of at-risk students are for parental support. (Charts and tables illustrating these results can be viewed in Chapter 4 of HumRRO’s Year 6 Evaluation Report.)

### ***Student Motivation—Site Visits***

Two series of questions on the general education math and English-language arts protocol asked teachers about student motivation. The first question asked teachers to predict whether the implementation of the CAHSEE graduation requirement will have an impact on general education students and student subpopulations. For the general student population, 37 percent of teachers predicted that student motivation would change, compared to 33 percent of teachers answering for the student subpopulations at their school. Negative responses were even closer, with 11 percent of teachers responding that no changes in motivation would be seen among the general student population and 10 percent predicting no change among the student subpopulations.

Interviewers asked those who predicted a change to describe the anticipated changes. Researchers discovered a continuum of responses ranging from positive (trying harder or more focused) to negative (increased anxiety or dropping out). Sixty-six percent of teachers responding predicted positive changes for the general student population, compared with 54 percent predicting positive responses from the student subpopulation. A total of 26 percent of teachers thought the general population would

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respond negatively while 33 percent predicted that motivation among student subpopulations would change in negative ways. An interesting category included in the positive responses was one called “motivation by example.” Respondents stated that younger students would see older students not passing the CAHSEE and not earning a diploma; these younger students would see that CAHSEE was to be taken seriously and would be more motivated to pass it. This category accounted for 10 percent of responses for general student population and 9 percent of responses for subpopulations.

We also asked administrators and special courses teachers to predict whether or not there would be a change in student motivation based on the implementation of CAHSEE as a graduation requirement. Of the 33 percent of administrators who responded to this question, 58 percent saw positive change. Thirty-one percent of administrators saw no change, and 31 percent of that group felt that student motivation and attitude were positive and therefore required no change. Administrators were closely split when asked to predict whether CAHSEE implementation would affect student motivation in their subpopulations; 38 percent said yes, while 27 percent said no. Of those who said yes, 10 percent predicted positive change and 14 percent predicted negative change. When special courses instructors were asked, 66 percent predicted changes. Of that group, 54 percent foresaw positive change, 23 percent reported neutral change, and another 23 percent reported negative change.

Of the 70 special education teachers who responded to this question, 58 stated they felt student motivation or attitudes would change; only 21 stated that change would be positive (e.g., students would try harder, be more serious). More than 50 percent of the teachers (40) stated that the change would be negative in nature or that students would just give up or quit. Often teachers stated that the students should be allowed the same type of accommodations they usually have, as stated in their IEP. One teacher stated that there is frustration because CAHSEE does not measure other areas of giftedness, such as mechanical skill; that their students will not graduate because they struggle in either math or English and that just doesn't feel right. Teachers stated that schools might be able to respond to these attitudinal changes by implementing new classes focused on the remediation of special education students, increasing parental involvement through special programs and classes, and reducing class size.

EL teachers were more in line with the general math and English teachers and administrators with nearly two-thirds of the teachers indicating there would be a change in student motivation and attitude and two-thirds of those predicting that change would be positive. Many comments indicated that students would be more serious and give more effort to passing the test. The most common teacher recommendations for providing more assistance to students were the addition of more classes and tutoring opportunities, more incentive programs, and greater parental involvement.

### ***Parental Support—Site Visits***

Parental support developed as a theme during the interviews. We did not ask specific questions about this topic, but it nonetheless arose in responses to several questions in the five educator protocols. (Parents were not interviewed.) The teachers and administrators interviewed made numerous references, in all interview types, about parents and their involvement with their children's education. Respondents often suggested that parental support is too low or that involvement could be improved in some specific way.

The most common theme from all interview types was the need to increase parental involvement; to help parents better understand issues that can impact their children's education (e.g., CAHSEE requirement, the availability of community outreach programs), be involved in decision-making through various parent organizations, or help the children with homework and test preparation. Often teachers would indicate that the schools are making efforts to help parents by offering classes in language or parenting, making home visits to the parent, or providing translators for meetings and programs but that parents still do not get involved. This problem was noted for the EL population significantly more often than for other subpopulations. It is not evident from the comments whether this is a cultural issue or if it stems more from the language barrier; parents who have a difficult time communicating effectively may simply avoid contact. Also, parents who work several jobs may find it difficult to find the time for involvement.

The types of things that schools are doing to increase parental support range from increasing parent/teacher conversations to college preparation classes. These programs include, but are not limited to:

- phone calls or letters requesting parent/teacher conferences;
- invitations to IEP meetings with teachers, students, and parents;
- special parent nights for parents to visit the school and teachers, sometimes held shortly before tests to help parents understand how best to prepare their children;
- workshops and panels to provide information on specific topics;
- parent institute after school with Spanish-speaking sections to gain comfort with all aspects of school life;
- parent clubs that raise money to support after-school tutoring opportunities;
- school-level (often bilingual) parent advisory committees to work on various issues impacting the schools and parents;
- district-level councils to discuss more global educational issues;
- classes for parents in language, math, parenting, and special education issues; and
- college or university preparation classes for credit.

## ***Effectiveness of Remediation***

### ***Effectiveness of Remediation—Surveys***

The survey asked District ELA and mathematics curriculum heads about student participation in, and effectiveness of, remediation courses. Specifically, we asked what proportion of students who did not pass the ELA or math portion of the CAHSEE by spring 2004 subsequently enrolled in a remedial summer course. The survey then asked what proportion of students in the summer school course passed the ELA or math portion of the CAHSEE in July or September 2004. These were both closed-ended items with response categories capturing broad percentage ranges.

A substantial proportion of curriculum heads (12% ELA, 15% math) indicated that the information regarding summer school enrollment is not readily available at the school level. A larger proportion (23% in each case) indicated that the subsequent CAHSEE performance of summer school enrollees is not readily available. Among those who were able to respond meaningfully to both survey questions, the most common responses were that “some” students (25–74%) enrolled in a summer school remedial class, and “some” students (25–74%) subsequently passed the CAHSEE.

### ***Effectiveness of Remediation—Site Visits***

During the site visit interviews, we asked administrators and special courses instructors whether or not the remediation programs at their schools seemed to be doing what they were designed to do. About half of the administrators answered this question; of these, 18 percent reported that the program was meeting expectations, while 6 percent gave mixed responses, meaning that the program was meeting the needs of some students but not others. Only 4 percent said that the program was not meeting expectations. Finally, 14 percent reported that they did not know whether the program was working, usually citing that the school had not yet received data to answer the question.

Teachers of special courses reported a more positive outlook on CAHSEE remediation classes. They said courses were meeting expectations 73 percent of the time. Only 9 percent said the classes did not meet expectations, 6 percent gave mixed responses and 6 percent reported that they were waiting for data they could analyze to determine the effectiveness of the programs.

When teachers and administrators said the programs were not doing what they were designed to do, or were meeting the needs of only some students, they reported many reasons for the mixed success. Respondents reported that remediation classes are typically set up to serve the needs of all students; therefore, they were not necessarily as effective for individual children. Teachers noted several groups who do not seem to benefit as much as others from the current programs, among them transient or migrant populations, students coming to high school with no previous

education, English learners, students with low academic skills, students in foster care, and children with sensory deficits and other special needs.

Interviewers also asked some respondents for recommendations to improve the level of CAHSEE support both for the general population and subpopulations. The responses of general education math and ELA teachers focused on two main areas: (a) the need for more remediation or preparation courses to help prepare students for CAHSEE, and (b) the need for increased support and involvement from parents. These two areas were the same for the general population and for subpopulations, with only slight differences in the frequency of responses. Approximately a fourth of the general population and subpopulations stated that more courses were needed. For the general population, 11 percent of responses stated that more parental involvement was needed, compared to 15 percent of responses related to subpopulations.

About a third of the special education teachers suggested the addition of new courses, stating there was a need to provide classes geared specifically to CAHSEE remediation, additional periods of English or math, tutoring opportunities, and various workshops. Some also expressed concerns that more accommodations (to match students' IEPs) should be provided for the CAHSEE requirement. A few additional single suggestions were to provide more student data to the teachers, initiate a peer-mentoring program, and obtain more administrative support.

The responses of EL teachers were similar to those of the special education teachers. About one-third of EL teachers also suggested the addition of new courses, stating that there was a need to provide classes geared specifically to CAHSEE remediation, additional periods of English or math, tutoring opportunities, and various workshops. A few additional suggestions were to provide more student data to the teachers, to reduce class size, and to improve placement of students.

### ***Factors Related to Test Score Performance***

One goal of this evaluation was to identify factors that might contribute to (or hamper) student performance on the CAHSEE. To this end, survey and interview responses were correlated with school characteristics in order to facilitate a deeper interpretation of those responses. This allowed, for example, responses to a particular survey item to be analyzed to see whether they were related to school size (small, medium, or large) or to ELA gain scores between 2004 and 2005 (small, moderate, or large).

### ***Combining Survey and Interview Data with School-Level CAHSEE Achievement Characteristics***

As with the demographic categorization of schools described earlier in this chapter, each high school within the sample was classified by performance of its students on the CAHSEE in 2005:

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- Percentage in School Passing ELA or Math
- Percentage African American in School Passing ELA or Math
- Percentage Hispanic in School Passing ELA or Math
- Percentage Economically Disadvantaged in School Passing ELA or Math
- Percentage EL in School Passing ELA or Math
- Percentage SD in School Passing ELA or Math
- Average School ELA or Math Gain (in scale score points)
- Average School ELA or Math Gain—African American Students
- Average School ELA or Math Gain—Hispanic Students
- Average School ELA or Math Gain—Economically Disadvantaged Students
- Average School ELA or Math Gain—EL Students
- Average School ELA or Math Gain—SD Students

Pass rates describe students in the Class of 2007 taking the test as 10<sup>th</sup> graders in 2004–2005. Gain scores describe gains among students in the Class of 2006 who took the test as 10<sup>th</sup> graders in 2003–2004 and retested as 11<sup>th</sup> graders in 2004–2005. Gain scores were divided into three categories such that approximately 25 percent of schools were categorized as small, 50 percent medium, and 25 percent large. However, the categorizations of demographic groups passing either the ELA or math portion of the CAHSEE were divided into four (4) categories in order to be consistent with previous reports.

### ***Relationship of Survey Responses to Test Score Gains***

Statistical analyses compared various survey responses to the CAHSEE performance categories just described to determine whether school-reported activities were related to increased student performance.

***Teacher Qualification and CAHSEE Performance.*** Ratings of teacher qualification, including the prevalence of subject-area credentials and years of teaching experience were compared to test performance. The results of several analyses of variance (ANOVA) conducted to compare the proportion of credentialed teachers and years of experience to classifications of percentages of students passing ELA and math indicated a statistically significant relationship in which schools with a higher proportion of math-certified teachers had higher CAHSEE math pass rates. While schools with a higher proportion of ELA-certified teachers tended to have higher CAHSEE ELA pass rates, the test achieved only marginal statistical significance. The results were less clear-cut regarding years of teaching experience. While a statistically significant relationship was found in that schools with a higher proportion of teachers with five or more years experience had higher ELA pass rates, that relationship was not found for math teaching experience and CAHSEE math pass rates.

***Articulation and CAHSEE Performance.*** The surveys asked principals to rate the importance of regular articulation meetings with their feeder middle schools in preparing students for success on the CAHSEE, using a five-point Likert scale ranging

from “Very unimportant” to “Very important.” Eighty-five percent of respondents rated these meetings as “Important” or “Very important.” Despite these uniformly high ratings, analyses indicated that principals of small schools rated articulation meetings as less important than did principals of medium and large schools.

The prevalence of regular articulation meetings between high school and feeder school staff was related to school-level pass rates in both ELA and mathematics. On average, high schools that reported holding regular articulation meetings with all their feeder schools achieved higher ELA and math pass rates. Analysis of open-ended responses revealed that curriculum and academic placements are the most discussed issues for high schools during articulation meetings.

In a similar vein, the survey asked principals the degree to which coordination was developed among specific pairs of groups (i.e., middle school and high school, special education and general education, English language development and general education, alternative [continuation] and general education). Two of these relationship pairs were associated with higher pass rates for both ELA and mathematics. In both ELA and math, higher coordination was associated with higher pass rates. There was a similar view of the coordination between special education and general education within the high school. In this case, both ELA and mathematics pass rates were significantly related to the reported level of coordination. In both cases, higher coordination was associated with higher pass rates.

We asked middle school principals to describe the topics discussed during their articulation meetings with their feeder elementary schools as well as articulation meetings with their receiving high schools. Analysis of open-ended responses revealed that the most common topics discussed with elementary school representatives were academic placement and curriculum.

### ***Interview Responses to Articulation within School Groups and Across School Levels***

During the site visits, interviewers inquired about articulation within school groups and across school levels. Several protocols asked about the frequency of meetings between general education teachers and special education or EL teachers to discuss a student’s needs or to collaborate on instruction. General education math and ELA teachers reported more frequent contact with special education teachers than with EL teachers, probably because they had fewer EL students in class to begin with. For example, 28 percent of general education teachers reported very frequent contact (defined as contact occurring daily to every couple of weeks) with special education teachers. Only 11 percent of general education teachers reported very frequent contact with EL teachers, however. A higher percentage (49%) of general education teachers reported no contact with EL teachers than reported no contact with special education teachers (27%). The “no contact” category was derived by combining two categories: “never” and “not applicable,” which was associated with responses indicating that general education teachers did not have these students in class.

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Nearly three quarters of the special education teachers indicated that they work with general education teachers on a frequent or moderately frequent basis, monitoring student progress and helping those who are having difficulty. Most of those teachers indicated that they team teach and collaborate regularly with the general education teachers. Several teachers who indicated they meet infrequently with general education teachers wished they could meet more often. These teachers cited limited time and large caseloads as impediments.

Just over half of EL teachers (more than general education teachers, fewer than special education teachers) stated that they work with general education teachers on a frequent or moderately frequent basis. Their involvement with delivering content in the classroom appears to be a little less than special education teachers and their involvement focuses a little more on planning and advising. The teachers who indicated they meet infrequently with general education teachers did not elaborate enough to suggest any particular reason.

Researchers also conducted text searches for the term *articulation* in interviews. Among the 15 mentions of articulation in the general education math and ELA interviews, 8 respondents described generally positive examples of articulation, either within the school or across school levels. Interestingly, 7 respondents described articulation in terms of needing more or better articulation, particularly across school levels; of those interviews, 6 were from feeder school respondents who wanted more contact with their high schools. In one instance, the feeder school respondent reported wanting more contact with both the elementary and high schools.

Only four special education teachers mentioned articulation. Three stated there was a lot of communication regarding standards or IEPs while the fourth comment involved using a questionnaire to determine if middle or elementary schools modify the standards for their special education students. There were only two responses from the EL teachers; one stated there was regular (monthly) communication with the middle schools; the other comment was regarding working with feeder schools on student placement in high school.

Researchers also searched for the term “communication” and found one feeder school respondent who stated there was no communication between the elementary and feeder school. Similarly for the EL and special education teachers, only one comment was found that was geared to articulation by a high school, stating there was little or no communication with the middle school.

## ***Findings at the School Level***

### ***Increasing Coverage of the California Academic Content Standards—Surveys***

High school principals indicated how completely their school covered the California Content Standards contained in the blueprints adopted for CAHSEE, for school years 2004–2005, 2003–2004, 2002–2003, and prior to 2002.

For ELA and mathematics, approximately half of principals reported complete coverage in the 2004–2005 school year, and an additional 47 percent for ELA and 43 percent for math indicated “most” standards were covered in that same year, for a total of nearly 95 percent reporting at least “most” coverage. Inspection of the responses across years indicates a steady increase in coverage in ELA and mathematics content. Seven percent of principals indicated that ELA content was completely covered prior to 2002; 16 percent reported that ELA content was completely covered in the 2002–2003 school year; 28 percent in 2003–2004; and 47 percent predict complete coverage in 2004–2005. Only 5 percent of principals indicated partial or little ELA coverage, and 7 percent reported partial or little mathematics coverage, in 2004–2005.

This question was analyzed separately for schools with high concentrations of at-risk students (as described earlier) and the results indicate that a slightly smaller proportion of principals in schools with high concentrations of at-risk students report that the California Content Standards contained in the CAHSEE ELA and math blueprints are mostly (61–95%) or completely (96–100%) covered. The only exception was math coverage in schools with a high concentration of EL students (93.6%) compared to schools with a low or moderate concentration of EL students (90.6%).

A recurring issue raised by high school staff is that feeder middle schools do not sufficiently prepare students for high school instruction. Given this concern, coupled with the fact that many CAHSEE standards are targeted at the middle school level, this investigation sought to shed light on trends in the preparation provided in middle school. Thus, middle school principals were asked a similar question regarding content coverage over time. Similar to their high school counterparts, middle school principals indicated a steady increase in coverage in ELA and mathematics content coverage, respectively. However, the reported coverage in middle school consistently lags behind that of high school. Unlike the high school principals, approximately six percent of middle school principals report they do not know the degree of content coverage in the current school year. This last point is perhaps not surprising, given that middle schools may not routinely receive direct feedback on how their former students fare on the high school exam.

### ***Standards Implementation—Site Visits***

Interviewers asked respondents to indicate on a 1-to-5-point Likert-type scale, at what point in the process of implementing instruction based on the California Content Standards their department is. They were also asked to think back to two years ago and

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give a rating that would reflect implementation at that time. Results showed that respondents believe the implementation of standards has increased, when asked to compare current implementation to implementation in effect two years ago.

This question also was asked of some respondents on the previous AB 1609 study. There were only slight differences between current ratings provided by general education teachers on the AB 1609 study and those given for this study, with high school teachers this year rating implementation very near a 4 for high school ELA teachers and just over a 4 for high school math teachers on the AB 1609 study. Feeder school ratings this year also showed similarities when asked to estimate current implementation, with a rating of 4.4 given by feeder school ELA teachers and 4.9 given by feeder school math teachers. Administrators on the previous study gave somewhat lower ratings to this question, with high school administrators giving an average rating of 3.6 and feeder school administrators giving an average rating of 3.7.

### ***Consistency of Standards-Based Education—Site Visits***

General education ELA and math teachers were asked what ensures that the California Content Standards are being taught to the same level by all teachers of a particular course; in other words, whether *mastery* means the same thing to all teachers. Respondents were free to give multiple responses, and we found that about 29 percent indicated no formal process or definition of mastery. This indicates that schools still have a considerable amount of work to do in developing a common definition in order for all teachers to teach to the same depth of understanding. Other responses indicated the use of common exams (38%), as well as discussing mastery in meetings or professional development (18%), the use of documents such as curriculum maps or pacing guides to help ensure mastery (also 18%), and the use of common materials, rubrics, or grading systems (17%).

Special courses instructors most frequently (36%) responded that no formal process or consistent definition of mastery was used in their school. The next most frequent response (15%) reported the use of department or staff meetings or professional development, and 12 percent reported that observations or evaluations by administrators or peers were used to monitor this issue.

Administrators were also asked this question, and many (37%) said they used staff or department meetings, or professional development to address the issue. Common exams or benchmark testing at the department, school, or district level were reported 11 percent of the time. Use of the same materials, grading systems or common rubrics was reported 7 percent of the time, and 6 percent reported that observations or evaluations by administrators or peers monitored teacher efficacy. Another 6 percent said no formal process or consistent definition of mastery was used in their schools.

Unlike the general ELA and math teachers, the number of special education teachers who stated there was no formal process or consistent definition of mastery was significantly less (10% of the respondents compared to 29%). Numerous

respondents indicated that IEPs play a significant role in defining, as well as assessing, mastery for special education students. The process appears to be similar for general education with regard to the process that ensures the standards are being taught at the appropriate instructional level or grade level to assure student mastery of material (i.e., benchmarks, collaboration, curriculum calibration, data analysis). However, defining mastery or how it applies to special education students is not so clear. The reason appears to be rooted in the definition or distinction between accommodation and modification. The 68 respondents who stated that there were differences in how the standards are being applied to special education students indicated that those differences were with regard to depth, time, quantity, and grading. A discussion of what types of accommodations or modifications are appropriate or acceptable is not in the purview of this analysis.

Less than 15 percent of EL teacher respondents stated that there was no formal process or consistent definition of mastery. EL teachers indicated that standards are being taught at the appropriate grade level because of the use of materials/textbooks aligned with standards and additional testing for student placement. Like special education teachers, 58 of 67 EL teacher respondents noted that there were differences in how the standards were being applied to EL students with regard to depth, time, quantity, and grading.

Of 270 possible general education teacher respondents, 111 (41 %) said their special education or EL students were held to the same standards and definition of mastery as regular students. However, they typically stated that special education students could receive accommodations in the classroom per the student's Individualized Education Program (IEP). One of the most commonly mentioned accommodations was giving the student extra time to complete assignments, or the reduction of the amount of work required (in effect, giving the student more time). Time management becomes even more important as teachers must deal with students who are mastering material at different speeds, often within the same class. Some teachers expressed their frustration at what they see as too many standards to teach to mastery. Special education and EL teachers responded similarly with regard to accommodations for time and reduced assignments.

EL teachers were asked an additional question to determine if the process in which student mastery is monitored was modified for EL students, and if so, in what ways. Of the 62 who responded to this question, 37 stated that the process was the same and 20 said the process was modified. Over half of these respondents (12) stated that EL students have to take additional tests such as the California English Language Development Test (CELDT), HighPoint, transition tests, or benchmark tests.

### ***Experience in Teaching California Content Standards—Surveys***

High school ELA and math department chairs were asked to rate the extent to which their departments' teachers were experienced in teaching the California Content

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Standards associated with the CAHSEE. Using a scale of 1–5, ratings were generally high for both ELA and mathematics departments.

We analyzed these responses separately for schools with high concentrations of at-risk students to determine whether teacher experience teaching California Content Standards varied in any systematic way with student populations. In both ELA and math, department chairs in schools with high concentrations of SD students rated a higher level of standards-based teaching experience than in schools with a low or moderate concentration of SD students. Schools with high concentrations of Hispanic or economically disadvantaged students received lower ratings in both ELA and math departments. Among schools with relatively high concentrations of African American students, ELA department chairs provided lower ratings than in schools with low/moderate concentrations of African American students, while math departments provided similar ratings regardless of student population.

### ***Professional Development—Surveys***

The surveys asked high school and feeder school principals to indicate what proportion of ELA and mathematics teachers participated in content-related professional development to help them teach the content standards associated with CAHSEE. Middle school teachers undertake more professional development activities than high school teachers. Less than a third of high school principals reported that nearly all teachers participated in this sort of professional development, as compared to well over 40 percent of middle school principals.

We analyzed high school professional development separately for schools with high concentrations of at-risk students. A larger proportion of principals in schools with high concentrations of EL, SD, economically disadvantaged, and Hispanic students reported that most or nearly all (at least 75%) of their ELA and math teachers participated in subject-related professional development designed to help them teach the California Content Standards associated with CAHSEE. On the other hand, 10–11 percent fewer schools with high concentrations of African American students reported this professional development, compared to schools with low or moderate African American student populations.

The surveys asked how districts, schools, and/or teachers monitor and report student proficiency levels on content standards. Respondents were permitted to indicate multiple systems. Both high schools and feeder schools rely most heavily upon district-based tracking systems. In high schools, a school-based tracking system ranked second, while tracking by individual teachers was more prevalent in feeder schools. Only two percent of high school respondents (and no feeder school respondents) indicated that no tracking system was in place. In the five percent of cases where high school principals indicated an “other” system was used to track student proficiency in content standards, the most frequent response was use of tests and assessments.

Middle school principals were asked to estimate the percentage of 8th grade students, who have, over time, completed various levels of math courses. Their responses indicate that a greater proportion of middle school students are taking algebra than in previous years.

### ***Demanding Courses—Surveys***

High school department chairs used a 5-point scale ranging from “not at all” to a “very great extent” to rate their course offerings as being demanding courses for students. Overall, math department chairs rated courses as more demanding than ELA department chairs, but for both groups a majority indicated their courses were (very) greatly demanding.

We analyzed these responses separately for schools with high concentrations of at-risk students to determine whether the demanding nature of courses varied in any systematic way with student populations. In most cases, ELA and math department heads rated courses as more demanding in schools with low or moderate concentrations of at-risk students. The lone exception was that a slightly higher percentage of math courses in schools with relatively high concentrations of African American students were rated as demanding.

Each teacher survey provided information regarding a specific course. Courses were classified by subject (i.e., ELA or mathematics) and by course type (i.e., primary course taken by most students, a required alternative to the primary course targeted to a certain audience, a required supplemental course targeted to remediation, an elective course open to all students, an elective course targeted to remediation, or other). We also looked at whether the course was provided primarily to special education students, English learners, or students in general. Approximately 75 percent of courses overall enrolled a general population of students; 20 percent, mostly EL students; and under 5 percent, mostly students receiving special education services.

### ***Teacher Assignments by Course Type—Surveys***

High school teachers were asked to report their highest level of education and total years of experience. We analyzed these responses by the type of courses the teachers taught to determine whether they were differentially assigned to courses. About one percent of the ELA and math teachers who responded to surveys hold a doctoral degree; nearly 45 percent have a master’s degree; almost 35 percent have some graduate school, and around 20 percent have a bachelor’s degree. Among ELA courses described in the survey responses, a greater proportion of teachers of remedial elective courses have advanced degrees. Among mathematics courses, the distribution of teacher education in supplemental remediation courses closely parallels that of primary courses.

We examined the assignment of teachers to course type as a function of years of teaching experience. Twenty-three percent of the teachers who responded to surveys

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for an ELA or math supplemental remediation course have more than 20 years of experience; approximately 45 percent have at least eleven years of experience (i.e., combining the categories of “over 20 years” plus “11–20 years”).

### ***Course Timing and Duration—Surveys***

The teachers responding to the survey indicated when the course/program was offered. The vast majority of courses were offered during normal school hours, although a substantial percentage of primary, alternative, and supplemental remedial courses were also offered during the summer. Remedial courses—both supplemental and elective—were also prominently offered before or after regular school hours.

We analyzed before/after school programs and summer school offerings (i.e., courses and programs, combined) separately for schools with high concentrations of at-risk students. The reader should keep in mind that these results should be interpreted with caution, because multiple courses are offered within individual schools and these surveys do not represent all courses. Generally, the rates of before/after school and summer school courses were close regardless of student population. However, some differences existed. In schools with high concentrations of EL, economically disadvantaged, Hispanic, and African American students, a slightly lower percentage of ELA and math courses were offered during summer school. In schools with high concentrations of SD students, more ELA summer school courses were offered but math courses were available at virtually the same rate in both kinds of schools.

Teachers also indicated that the duration of the course described in their survey responses were usually for a full school year. Over a quarter of remedial elective courses were one semester in length, as were nearly a fifth of supplemental remedial courses.

### ***Student Populations within Courses—Surveys***

Teachers indicated that freshmen and sophomores represent the majority of most course enrollments, with the exception of juniors/seniors in general electives (which accounted for only 42 of the 2,307 courses). This pattern held for both primary and remedial courses.

### ***Course Materials—Surveys***

Teachers indicated that the bulk of textbooks currently in use (37 percent) were adopted before 2002, with a steady addition of 12–14 percent new books each subsequent year. Over a third of the remedial courses—both supplemental and elective—do not use a textbook for instruction.

When asked about the frequency with which they use any supplemental materials (i.e., other texts, commercially-prepared materials, and computer-based programs) in the course or instructional program, teachers' responses reveal a number

of patterns. Two-thirds of ELA courses routinely use texts in addition to the course textbook, across all course types, while mathematics courses use them less frequently. ELA remedial courses—whether supplemental or elective—make higher use of commercially prepared materials than do primary and alternative courses. Commercially prepared materials are somewhat less prevalent in remedial math courses than in remedial ELA courses. In both ELA and mathematics, computer-based programs are used more frequently in remedial courses.

Teachers who reported use of supplemental materials were asked to write in descriptions of the materials and the reason they used them. Almost a third of the high school teachers and over half of the middle school teachers use the materials because they believe that it will improve student performance. The teachers use diversity in teaching styles, modified assignments, and additional practice problems to make improvements to student learning. The teachers also use scaffolding, analysis, and reinforcement skills to enable students to better comprehend and understand the lesson. Textbook supplements, such as novels, magazines, and newspapers are also used. Some high school teachers use supplemental materials as aids for national, state, and district level assessments. Some middle school teachers are their own source for materials, by creating or purchasing them with their personal funds. Teachers cited multiple possible reasons for using supplemental materials.

### ***Coverage of Targeted Standards—Site Visits***

Researchers indirectly addressed this topic during site visit interviews, using discussion of the use of district pacing guides, curriculum maps, or common exams as evidence that schools and teachers are covering certain standards. The general education ELA and math respondents were asked whether the California Content Standards are written into the curriculum and what ensures that those standards are actually being taught. Only 26 of 270 (10%) indicated that the standards were not written into their curriculum, with the remaining 244 indicating various “yes, written into curriculum” responses.

General education teachers discussed a variety of methods that ensured they were covering the targeted standards. The most frequently mentioned topics were the use of common exams (50%), observations by administrators or department heads (44%), use of aligned texts or pacing guides (21%), and department meetings at which standards are discussed (18%).

Nearly every special education teacher (41 of 45 who responded to the question) stated that standards were written into the curriculum. As with general education, the teacher’s most common response was some type of document that links the curriculum to a standard, such as a curriculum map or pacing guide. However, it is important to note that most of the respondents also provided a caveat that the standards are in some way different for special education or that the students are not at grade level.

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EL teachers responded similarly to the special education teachers, stating that the standards were written into the curriculum. Additionally, several EL teachers provided a similar caveat that there are different standards for EL students; however, additional information as to how they differ was not provided.

All of the 47 schools visited indicated that students were being taught the standards. Interviewees admitted varying levels of implementation at the school level, with some schools only recently beginning their efforts to align to the standards. Eight schools (17%) stated that their focus on the standards was initiated 2–3 years ago, roughly at the same time as when a formal discussion of the 2006 CAHSEE requirement began. Other schools mentioned standards alignment in different areas, including curriculum, instruction, and materials. For example, a given school that had not yet reached full implementation of the standards may have acquired and distributed standards-aligned materials, but still not have begun a coordinated effort to align instruction and/or curriculum. School-wide methods used to ensure student exposure to the standards included the posting of the standards in classrooms, daily school-wide standards-driven activities (e.g., “block days”), and the use of benchmark tests and pacing guides to direct and monitor student progress on the standards. Other responses focused on schools’ efforts to increase staff awareness of the standards. Examples of this ongoing emphasis on the standards included regular in-service meetings related to the standards, weekly/monthly teacher collaboration on the standards, daily monitoring of standards-based instruction by administrative staff, horizontal/vertical alignment of the standards, and the backward mapping of existing materials to the standards.

### ***Remediation Programs Targeted to the CAHSEE—Site Visits***

In interviews with 80 administrators and 33 teachers of CAHSEE remediation or prep classes, often referred to in this report as special courses, we asked a series of questions about changes to the school’s curriculum that are attributable to CAHSEE becoming a requirement for graduation. The following analysis is based on their responses:

Over half (52%) of administrators said they have implemented CAHSEE prep or remediation classes or tutoring for students who have previously not passed or have been determined to be at risk of not passing CAHSEE. We asked the administrators about the demographic makeup of these classes. Answers varied greatly depending on the demographic makeup of the school; however, the major groups mentioned were EL, SD (special education), African American, Hispanic/Latino, and Asian student populations, as well as students with low socioeconomic status.

The classes are offered at different times in different schools, from during school to before and after school, and on Saturdays in some cases. Funding for these remediation and prep classes came from a variety of sources, such as local and state funding and Federal sources like Title 1 and No Child Left Behind (NCLB) grants. We asked whether students receive credit for remediation and prep classes. Over half of teachers (52%) did not respond to this question. Of the teachers who did respond,

nearly all (94%) said that students did receive either math or English credit, or an elective credit.

Administrators and teachers of special courses agreed that demand is the same as last year, or has increased. A few schools reported that they have been able to reduce the number of sections of remediation or prep classes being taught because of higher CAHSEE pass rates; however, this was not typical. The curriculum for the class was chosen at either the school or district level. Curricula were either off-the-shelf or locally developed. Teachers usually received some training on the curriculum being used. Materials used in the classes were often the CAHSEE study guides. If another source was used for materials it was either off-the-shelf or teacher-made. Teachers typically volunteered, or were drafted to teach remediation or prep classes. Those who teach in the before- and after-school and Saturday programs often receive no extra pay. Some schools used a grant to pay teachers for their work in these programs.

We asked whether the special courses were doing what they were designed to do. According to administrators, they typically have not received data yet to determine gains being made. Anecdotally, they feel that the classes are helping students, but note that EL and SD students still struggle.

### ***Targeted Programs for Students with Disabilities and English Learners—Site Visits***

Both special education and EL teachers stated that the need is great for new and continued support classes, such as CAHSEE remediation, test preparation, and tutoring classes before and after school hours, including Saturdays. They further stated that those support classes should also be specifically geared to the special education or EL students. However, many did not specify exactly what those needs would be. A few teachers stated that the students need help with skills in general, or that they need additional help with math or reading, or a tailored curriculum for CAHSEE preparation.

Several teachers mentioned particular programs (off the shelf) or described some of the types of activities they are doing for their students. The following lists describe the activities for special education, followed by those geared to the EL student.

#### **Special education:**

- Several schools mentioned using “L!” (Language!) and “Read180” by Scholastic. One school mentioned that they used the “Language” program in the feeder schools, which has made a slight positive difference.
- There is a district-wide program (it wasn’t clear if it is only for special education) to help students who are below level reach basic level. In each class, teachers target for very close monitoring 1-3 students who are having difficulty. Teachers chart their work and scores and collaborate with other faculty in meetings to help the students progress. They are seeing positive results from this effort.

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- Several schools mentioned the need to widen their vocational tracks for those students who are not going to be able to pass the CAHSEE requirement.
- One school offered after-school tutoring and the SYLVAN program, but attendance was minimal.
- An after-school homework program was offered.
- One school allowed special education students to join the ESL classes because those teachers had expertise in language development.
- One teacher mentioned that, in addition to providing after-school tutoring, schools should provide funding for buses to transport students attending the tutoring.

### **EL:**

- One school stated that it offers cultural diversity training and career night programs for parents and students.
- One school mentioned that it focuses on literacy by using the Special Review Assessment (SRA) corrective reading program.
- Two schools are providing newcomer programs for new immigrant students to help them adjust to life here, understand school programs and processes, learn what standardized tests are (some don't know how to bubble-in answers), and to have access to translator services.
- Several schools stated they offered classes in subjects such as English and parenting.
- Several schools have college preparation programs to help parents as well as students.
- One school has collaborated with a community college to provide tutors for EL students.
- A school tries to help students through peer counseling, referring current students who are having difficulty to work with other students who are succeeding.

### ***School Staff Conclusions about the Class of 2006—Site Visits***

Near the end of each interview during on-site school visits, researchers asked teachers and administrators the following question: "In your opinion, are students in the class of 2006 ready to be held accountable to the CAHSEE graduation requirement?" The interviewees responded to the question in two slightly different ways. First, some interviewees responded to whether or not the students "should" be held accountable. The second way interviewees responded was to whether or not the students were "ready to pass" the CAHSEE. Some interviewees provided their opinions on both alternatives. The following analysis focuses on whether the Class of 2006 "should" be ready to be held accountable to the CAHSEE graduation requirement.

For analysis, the interview schools were formed into four groups based on interview type and what percentage of the interviewees stated that the Class of 2006 should be held accountable to the CAHSEE graduation requirement ("most"—more than

50%, “split”—50%-50%, or few—less than 50%). Schools were then separated into four groups based on the CAHSEE pass rate for sophomores for that school for spring 2005. The four groups were “very low” (schools where 50 % or less of sophomores passed the test); “low,” (schools where 51 to 75% passed the CAHSEE); “moderate,” where 76 to 90 % passed the CAHSEE; and “high,” where more than 90 percent passed the CAHSEE. These are the same categories used previously in this report.

Of the 47 high schools visited, 39 were categorized in the same scoring category for both the ELA and math sections of the CAHSEE. For the other eight high schools, three high schools had a mix of “high” and “moderate” pass rates. These three schools were categorized with a “high” pass rate for our analyses. Two high schools were categorized with a “moderate” pass rate on one section and a “low” pass rate on the other section. These two high schools were categorized with a “low” pass rate for our analyses. Three high schools were categorized with a “low” pass rate on one section and a “very low” pass rate on the other section. These three high schools were categorized with a “very low” pass rate for our analyses. As a result, there were six high schools categorized with a “very low” pass rate, 21 high schools categorized with a “low” pass rate, 10 high schools categorized with a “moderate” pass rate, and 10 high schools categorized with a “high” pass rate.

The results for each high school group are described in the following sections. Because there were some schools in each category where administrators or teachers did not respond to this question, the number of respondents in each group in each category may not sum to the total number of high schools in the category.

**High schools with “very low” CAHSEE pass rates.** Of the six high schools in this category, we received responses from administrators at four schools, ELA teachers at six schools, math teachers at five schools, EL teachers at three schools, and special education teachers at five schools.

At three of the four responding high schools, most administrators indicated that the students had been given the opportunity to learn what was being tested on the CAHSEE, had been given the opportunity for and had received remedial assistance, and should be held accountable. However, many of these administrators believe that many students at their school would not pass the CAHSEE. Despite these beliefs, most administrators at these schools said not to delay/cancel CAHSEE. They stated that once it was implemented there would be improvement. If the implementation were delayed, on the other hand, administrators are concerned that parents and students would lose the motivation that is being generated by CAHSEE. The school where most administrators did not think the Class of 2006 should be held accountable stated that school personnel did not look forward to students not graduating because they did not pass CAHSEE and that the CAHSEE is too challenging.

Most ELA teachers at five of the six high schools (the ELA teachers at the other school were split), and most general math teachers (including those teaching the remedial and CAHSEE preparation classes) at the five high schools where they

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responded indicated that students in the Class of 2006 should be held accountable for the CAHSEE as a graduation requirement. Generally, teachers commented that students have been given adequate notice, had every opportunity to prepare themselves, and have been given additional assistance. Teachers, like their administrators, believed that there would be students who would not pass the CAHSEE. Teachers tended to echo the administrators in that there would be issues for the first class held accountable for passing the CAHSEE. However, there would be improvement and increased motivation for future classes.

The majority of EL teachers at two of three of the “very low” pass rate high schools indicated that some or many of their students do not have the language fluency to pass the CAHSEE and should not be held accountable for passing CAHSEE as a graduation requirement.

Most special education teachers at three of the five high schools indicated that only some of their students should be held accountable. These students are the ones with the ability to perform to the CAHSEE-required proficiency level on the California content standards. Most special education teachers generally commented that a portion of their students would never be able to attain the level of proficiency required to pass CAHSEE. The special education teachers stated that some alternative should be provided for those students. The general education teachers and administrators echoed the special education teachers’ beliefs that some students with disabilities should be held accountable and that some alternative should be provided for the students who do not have the ability to attain the required level of proficiency because of their disabilities.

**High schools with “low” CAHSEE pass rates.** From the 21 high schools in this category, we received responses from administrators at 14 schools, ELA teachers at 20 schools, math teachers at 21 schools, EL teachers at 21 high schools, and special education teachers at 20 schools.

Generally, administrators stated that students had been informed of the requirement far enough in advance and had been provided instruction and remediation on the standards as necessary to be able to pass the CAHSEE. Most ELA teachers at 15 of 20 high schools, and most math teachers at 20 of the 21 high schools stated that the Class of 2006 should be held accountable for CAHSEE. However, at only 10 of 21 high schools did most EL teachers consider their EL students ready to be held accountable. EL teachers at 5 high schools were split. Many EL teachers stated that their students did not have the English language proficiency necessary to pass the ELA or math portions of CAHSEE. EL teachers were split on whether their EL students should be held accountable for passing the CAHSEE. EL teachers stated that many EL students had not been in the United States long enough to become proficient in English. At only 4 of 20 high schools did most special education teachers believe that their special education students should be held accountable for passing CAHSEE. At 8 of the 20 high schools, the special education teachers were split on whether their students should be held accountable for passing CAHSEE. Many times this split centered on the

higher performing resource students; many special education teachers stated that accountability should be dependent on an individual student's ability.

**High schools with “moderate” CAHSEE pass rates.** Of the 10 high schools in this category, there were responses from administrators at 7 schools, ELA teachers at 9 schools, math teachers at 10 schools, EL teachers at 6 schools, and special education teachers at 9 schools.

Administrators and ELA and math teachers who were interviewed at almost every high school in this group stated that the general education students at their school were prepared to be accountable for the CAHSEE as a graduation requirement. Most EL teachers interviewed at 4 of 6 high schools stated that EL students at their high school were prepared to be accountable for CAHSEE. However, many EL teachers and other teachers and administrators at these high schools indicated that some EL students (especially the newer arrivals from outside the United States) had not attained an English language proficiency that would enable them to pass the CAHSEE. Most special education teachers interviewed at 6 of 9 high schools stated that their students were prepared to be accountable for the CAHSEE. But many special education teachers, administrators, and general education teachers expressed concern that some resource students and almost all special day students would not be able to pass the CAHSEE.

**High schools with “high” CAHSEE pass rates.** Of the 10 high schools in this category, there were responses from administrators at 9 schools, ELA teachers at 9 schools, math teachers at 10 schools, EL teachers at 7 schools, and special education teachers at 7 schools.

Most administrators, ELA teachers, and math teachers at “high” CAHSEE pass-rate high schools stated the Class of 2006 should be held accountable. Administrators and math and ELA teachers stated that students generally arrive at the high school having mastered while in middle school most if not all the standards assessed on the CAHSEE. Staff and faculty at these schools stated that they generally provide the refinement of those skills rather than helping the students to acquire the skills. Most, if not all, students who did not pass on their first attempt passed on their next attempt. The schools generally have “low” percentages of EL students and students with disabilities. Most EL students are also at the higher levels of English-language proficiency within the EL program. All staff and faculty reported that their students were prepared to be held accountable for the CAHSEE as a graduation requirement. Special education teachers did report that while most or all of their resource students were able to pass the CAHSEE in the Class of 2006, subsequent students and the special day students may not be able to pass the CAHSEE because of their disabilities.

### ***Exemplary Programs***

One site visit goal was identification of exemplary programs—programs with which some schools have experienced academic success. While interviewers could not

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determine the degree to which these programs were properly implemented within a given school, they did find that all visited schools reported offering programs designed to meet the needs of students who had either been identified as at-risk or who had not passed the CAHSEE during previous administrations.

Interviewers obtained broad descriptions of the various strategies for addressing student achievement on CAHSEE, which ranged from formal school-wide programs to in-class strategies specific to the teacher. Interview protocols were designed to obtain general information about any formal programs. Obtaining complete information through these protocols was limited by the fact that interviewees were selected by the school and were not always the most knowledgeable about program specifics. Additionally, interviewers had a limited amount of time with teachers and a lengthy interview protocol. What can be concluded from the information collected is that schools, regardless of student performance levels on CAHSEE, are adding programs to address students' needs relative to CAHSEE. The types of programs discussed are similar in name, but are clearly being administered within widely different school environments, and with widely different results.

Evidence provides support for the premise that programs characterized as exemplary models for addressing student success on the CAHSEE have had an impact on recent CAHSEE scores. Schools that have experienced gains among 11<sup>th</sup> grade students (class of 2006) who had previously not passed the exam presumably have instituted remediation programs that work. Likewise, schools with high pass rates among current sophomores (Class of 2007) are expected to have implemented high quality primary or core educational programs. In an effort to identify exemplary programs, we analyzed gain scores and pass rates of schools we visited. As described earlier in this chapter, schools showing an average school-level gain of more than 13 scale score points in Math or 17 scale score points in English-language arts were classified as large gain schools. Schools showing an average school-level gain of 8 or fewer scale score points in Math or 11 scale score points in English-language arts were classified as small gain schools. Schools with "very low" pass rates are those schools with 50 percent or fewer students receiving a passing score. A "low pass" rate is more than 50 percent to 75 percent, "moderate" is more than 75 to 90 percent and a "high" pass rate is one in which more than 90 percent of tested students receive a passing score.

Schools exhibiting large gains in both English-language arts and mathematics overall, as well as across the various NCLB-identified subpopulations, reported a strong focus on the standards and the regular use of benchmark tests to monitor student progress. Intervention strategies targeting students identified as at-risk or in need of remediation at these schools included tutoring, summer classes, mandatory placement in special courses, slower paced courses, and additional subject-specific courses for students struggling in a specific area. These schools also reported improved preparation by their feeder schools. Schools posting small gains reported varying levels of standards implementation and student preparation, but described intervention strategies similar to those reported by the large gain schools. In addition to those

strategies listed above, preparation and remediation courses offered during school hours and Saturday CAHSEE reviews were mentioned.

All schools, regardless of their level of gain on CAHSEE scores, reported taking measures to improve student achievement on CAHSEE. With limited understanding of actual program implementation, we analyzed demographic information for high-gain and low-gain schools to explore differences in the school environments into which programs are being introduced. Though variation exists among the group of high-gain schools, all have small to medium populations of the various student subpopulations deemed at risk. All low-gain schools, regardless of school size, have large populations of at least three of the identified subgroups. Schools' efforts to address students' needs may be limited by their higher proportions of students requiring intervention, resulting in lower overall gains on CAHSEE.

Schools categorized as "very low" in terms of their pass rate for the class of 2007 ( $\leq 50\%$ ) reported implementing numerous programs designed to meet the needs of students at risk or requiring remediation. CAHSEE-specific and/or general remedial courses are offered during regular school hours, as well as after school and on weekends. In addition, they mentioned offering Special Review Assessment (SRA) programs targeted to special education students and tutoring programs. Most of these schools reported using the CAHSEE study guide to prepare and remediate students. Schools with "high" pass rates ( $>90\%$ ) also reported providing numerous programs, including after-school and summer programs and individual tutoring.

A specific program mentioned among high pass rate schools was the Advancement via Individual Determination (AVID) program. Though the AVID program is being implemented in many schools, it is interesting to note its absence from the visited schools with the lowest CAHSEE pass rates. The AVID program, which by design places academically average students, who desire to attend college and are willing to work hard, into a course that focuses on study skills and academic assistance, depends on student motivation for its success. Schools with very low pass rates commonly reported low levels of student motivation, preparedness and ability, suggesting that AVID would have limited success with students targeted as at risk of not passing CAHSEE. Students with such a low level of achievement and who lack a desire to achieve might not be well served by a program such as AVID.

Another mentioned program was the Student Success Team (SST), formerly known as the Student Study Team. Unlike AVID, SSTs target students who are struggling academically. The SST is an intervention strategy that draws on teachers, the student, his/her parents, and other school staff to meet as a team to identify and address an individual student's strengths and weaknesses and then develop a plan to assist the student in working through obstacles to that student's educational success. The SST strategy has been implemented as part of the larger SB 65 Motivation and Maintenance (M & M) program, but may also exist on a more informal level at schools that are not receiving M & M funds.

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Three schools (two high schools and one feeder middle school) mentioned implementing the SST program. Both high schools had student populations of fewer than 700 students, moderate or high pass rates, and small-to-medium percentages of at-risk student populations. Because SST programs require relatively high levels of staff involvement, implementation at schools with large numbers of at-risk students and/or large student populations may be challenging. Additionally, SST programs require parental involvement while low-pass rate schools generally complain about a lack of parental involvement, especially with the students who have not passed the CAHSEE.

Similarities and differences exist in the strategies being implemented at schools on either end of the gain-score and pass-rate spectrums, but it would be difficult to attribute student success to any specific program or cluster of programs. Similar programs may have very different outcomes when administered by and for different groups of people. According to Michael Fullan in his discussion of difficulties in replicating models of educational reform, "...successful reforms in one place are partly a function of good ideas, and largely a function of the conditions under which the ideas flourished" (Fullan, 1999, p.64). This sentiment holds true for the schools visited where similar types of programs, when implemented in different school settings, were not having similar effects on students' CAHSEE performance. The degree to which these similar programs are comparable is not knowable at present, and would require more extensive evaluation of the specifics of each program. What is discernible from the evidence gathered is that schools report offering comparable, if only in name, services to their students.

Program quality and proper implementation along with the motivation of targeted populations, rather than the quantity and type of programs offered, may account for the difference between schools with high or low rates of student success on CAHSEE. High quality programs, when administered by a team of highly qualified and motivated educators to a population of motivated students with a desire to succeed, should have minimal chances of failure. Exemplary programs are those that meet students' needs and create positive change in a school's culture, ultimately leading to improved student outcomes. Such programs are not clearly identifiable at present. To distinguish them from other programs would require a thorough, formalized program evaluation.

### ***Summary Findings***

#### ***Students***

High school ELA teachers, and to a greater extent, math teachers, continue to report that students come to high school unprepared for their courses. Both ELA and math teacher ratings were less optimistic in schools with high concentrations of EL, economically disadvantaged, and Hispanic students, as well as math ratings in schools with high concentrations of African American students. In both ELA and math, teachers rated students as more prepared in schools with high concentrations of SD students.

More than half of surveyed high school teachers cited student motivation as an important factor limiting the effectiveness of the courses they teach. Over a third of

teachers noted low parental support and low student attendance as impediments. Teacher ratings of these three problem areas were higher for remedial courses than for other courses. Parental support was rated as a greater problem for required supplemental courses targeted to remediation than for any other course type.

### ***Teachers***

While three-quarters of high schools reported that nearly all their teachers hold appropriate credentials, in other schools at least a quarter of the teaching staff remains uncredentialed. Over half of schools report using some mathematics teachers with emergency credentials and a third of schools have some ELA teachers with emergency credentials. While EL students receive instruction from credentialed teachers at nearly the same rate as all students, students with disabilities, whether defined as students receiving special education services or students with IEPs, are more likely to receive both ELA and mathematics instruction from a teacher who does not hold a subject-area credential.

A comparison of teacher credentialing and years of experience to within-school student demographics revealed that ELA credentialing is lower in schools with high concentrations of African American students. Lower percentages of schools with high concentrations of EL, economically disadvantaged, Hispanic, and African American students report math teachers with subject-area credentials than do schools without such high concentrations of at-risk students.

This study determined that, overall, teachers with greater experience tend to teach primary and supplemental courses, as compared to teachers of basic or intervention programs. In every analyzed student demographic category (i.e., EL, SD, economically disadvantaged, Hispanic, African American), in both ELA and mathematics, and for both primary/supplemental and basic/intervention courses, a smaller percentage of schools with relatively high concentrations of at-risk students report most teachers have at least five years of experience.

### ***Factors Impacting CAHSEE Performance***

HumRRO tested numerous survey items to determine whether they were related to school-level CAHSEE performance. CAHSEE performance was measured in multiple ways: average test scores in the 2004–2005 school year, average test score gains among students who tested for the first time in 2003–2004 and subsequently retested in 2004–2005, and these scores and gains for various population subgroups. Few survey questions proved reliably predictive of CAHSEE success.

The survey showed teacher qualification to be related to CAHSEE performance. Specifically, higher reported proportions of teachers holding subject-area credentials were related to higher ELA and math CAHSEE test performance by 10<sup>th</sup> graders in 2004–2005. In addition, schools with a higher proportion of ELA teachers with five or

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more years experience had higher ELA pass rates; that relationship was not found for math teaching experience and CAHSEE math pass rates.

Articulation/coordination also was found to be related to CAHSEE performance—articulation between the feeder middle school and the high school as well as coordination between special education and general education staff. The greater the articulation and coordination between schools and teaching populations, the higher the ELA and mathematics test performance.

### ***Opinion as to Class of 2006's Readiness to be Held Accountable to CAHSEE Graduation Requirement—Site Visits***

The majority of general education ELA and math teachers at both high school and feeder school levels stated that the Class of 2006 was ready to be held accountable to the CAHSEE graduation requirement, with 20 percent stating that these students were not ready and 14 percent giving a “mixed” response. Mixed responses were those that typically stated that while most students are ready to be held accountable, a certain segment (usually special education or EL students) is not.

Interestingly, researchers found differences in the way high school and feeder school teachers viewed CAHSEE readiness for the Class of 2006. A higher percentage of high school teachers responded that the Class of 2006 is ready, compared to feeder school teachers (67% to 36%, respectively). Feeder school teachers were more likely to report that students were not yet ready (33% feeder school vs. 16% high school). Feeder-school teachers have reported being less familiar with what is on the CAHSEE, and this unfamiliarity may be supported by these responses. If teachers do not know what is on the CAHSEE, they will be less ready to state that students should be held accountable for the CAHSEE graduation requirement.

More than half of the special education teachers indicated that they do not believe special education students are ready to pass the CAHSEE; a little over a quarter stated that students were ready.

The EL teachers' opinions were very similar to those of special education teachers, with nearly half believing that EL students are not ready to pass the CAHSEE, and a little over a quarter of the respondents (18) stating that students were ready.

The most frequent responses of general education teachers to explain their answers that the Class of 2006 is ready centered on three topics: students are generally ready (49%), students need accountability (15%), and CAHSEE is not overly challenging to students (12%). Topics shifted when researchers examined the explanations of teachers who stated that the Class of 2006 is not ready: 34 percent stated that students are still academically weak and 17 percent stated that there is a concern with materials, such as not having aligned textbooks. Two responses were tied at 13 percent: students need to be held accountable and students have a poor attitude. The greatest areas of concern for those giving mixed responses were students who are

academically weak (19%), blank responses (19%), students are generally ready (16%), and a concern for special education students (16%).

We found that over half of the special education teachers felt students were not ready because the students were weak academically, needed improved materials and curriculum, and needed more accommodations. The most common responses for the respondents indicating students were ready for the CAHSEE requirement were that the students have had ample time to prepare and have received adequate support (classes, materials) to be successful. The mixed responses for the most part indicated a concern that lower level special education students will not be prepared for the requirement.

Nearly half of EL teachers felt students were not ready because students needed more time or were weak academically. The most common responses for the respondents indicating students were ready for the CAHSEE requirement were that the students have received adequate support (classes, materials) to be successful and their expectations were high. The mixed responses for the most part indicated a concern that lower level EL students will not be prepared for the requirement.

Clearly, the introduction of the CAHSEE has had a far-reaching effect on education in California. The survey and interview responses gathered during this evaluation cycle shed light on several aspects of education:

- Alignment of instruction to California content standards has increased steadily over the past several years at both the high school and middle school levels.
- The majority of visited schools identified efforts to ensure that the level to which content standards are being taught is consistent across teachers.
- High school department heads generally indicated their courses were demanding for students, although some differences were noted in schools with high concentrations of at-risk students.
- A majority of high school and middle school teachers have received content-related professional development.
- Nearly all high school and middle school respondents identified one or more systems used to track student proficiency in the content standards.
- Assignment of high school teachers to teach remedial courses closely paralleled—and in some cases, exceeded—the education level and years of experience of teachers in primary courses.
- Some exemplary programs (e.g., AVID, SST) were identified through site visit interviews. These may warrant further targeted evaluation to determine whether they would be effective in additional schools.