

WHAT DO THE 2000 API RESULTS TELL US ABOUT CALIFORNIA'S SCHOOLS?

In October 2000, the California Department of Education (CDE) began releasing the 2000 Academic Performance Index (API). The CDE published the financial award eligibility status of California schools in addition to a wide array of other information, including the racial, ethnic, and socioeconomic background of students; the education level of the students' parents; and teacher qualifications. In January 2001, the CDE released the amount schools will receive in the first round of the Governor's Performance Awards Program. Together, these data provide a unique opportunity to examine relationships between school characteristics, API scores, and the distribution of award money.¹

WHAT IS THE ACADEMIC PERFORMANCE INDEX?

The API is one of three components mandated by the 1999 Public Schools Accountability Act (Chapter 3, Statutes of 1999), enacted to measure progress on education reform efforts. The API, the foundation of the state's accountability system, is a numeric index used to measure school academic performance with possible scores between 200 and 1000. When completely developed, the API will include various indicators such as standardized test scores, high school exit exam scores, dropout and graduation rates, and student attendance data.

The other two components of California's accountability system are the Immediate Intervention/Underperforming Schools Program (II/USP) and the Governor's Performance Awards Program (GPA). The first program offers financial support to selected low-performing schools and the second provides rewards to all schools demonstrating strong improvement or high achievement on the API.² It is important to note that, while the Governor's Performance Awards Program allows the Legislature to provide funding for financial awards of up to \$150 per pupil, it does not require that the awards be monetary.

It is too early to make a determination about the success or failure of California's new accountability system. One reason is that the API's only measure of school performance is the Stanford 9, a nationally-normed standardized achievement test administered annually to California students in grades 2 through 11. Standardized tests are, at best, an incomplete measure of either a student's academic ability or a school's effectiveness. Moreover, researchers have raised serious questions of cultural, racial, and gender bias in tests like the Stanford 9.³ The Stanford 9 has drawn additional criticism with respect to its use as an appropriate measure for the API because the test is not currently aligned to California's curriculum standards.⁴

HOW MUCH MONEY IS APPROPRIATED BASED ON THE API?

The state's recent attempts to boost student achievement include funding for awards for schools that meet performance targets and funds aimed at helping schools do better. The new incentives can be

divided into two categories. The first includes those programs that award funds to low-performing schools, without regard to improvements in performance on the API, to support student academic achievement. These programs can be thought of as Pre-Assessment Programs. The second category includes programs that award funds based on improvements in API scores. Some of these programs are available to all schools, while others are restricted to low-performing schools. These programs can be thought of as Post-Assessment Programs, since they are based on the results of schools' performance on the API.

Pre-Assessment Programs

In 2000-01, the state allocated \$213.3 million to provide support for low-performing schools, consisting of the:

- ***Teaching As A Priority (TAP) Block Grant:*** provides \$118.7 million for block grants to assist low-performing schools in recruiting and retaining fully credentialed teachers. The block grants are allocated on a per pupil basis with schools in the lowest three deciles receiving one and one-half times the amount per pupil as those in deciles four and five.
- ***Immediate Intervention/Underperforming Schools Program (II/USP):*** allocates \$71.7 million, including \$21.5 million for planning grants for a second cohort of low-performing schools and \$50.1 million for implementation grants for the first cohort of low-performing schools. A school must both score in the bottom 50 percent of schools on the API and miss its growth target to be eligible for the II/USP.
- ***National Board Certification:*** provides \$10 million for awards of \$20,000 for teachers who earn National Board of Professional Teaching Standards certification and also agree to teach in a low-performing school for four years.
- ***Teacher Recruitment Incentive Program (TRIP):*** includes \$9.4 million to establish six regional teacher recruitment centers that will focus on recruiting fully credentialed teachers to teach in low-performing schools.
- ***Governor's Teaching Fellowships:*** includes \$3.5 million for merit grants of up to \$20,000 for college graduates who agree to teach four years in a low-performing school (to cover the cost of obtaining a teaching credential).⁵

Post-Assessment Programs

In 2000-01, a total of \$677.4 million in state funds are available for financial awards for schools that demonstrated improvement or high achievement on the 2000 API:

- ***Governor's Performance Awards:*** provides \$227.4 million in 2001 for awards of up to \$150 per pupil enrolled to schools that met or exceeded their API growth targets for 2000. The per pupil funding level for 2000-01 is \$63.⁶
- ***School Site Employee Performance Bonuses:*** allocates \$350 million for one-time bonuses for all employees and matching school site funds at schools that met or exceeded their performance targets for 2000.
- ***Certificated Staff Performance Awards:*** provides \$100 million for awards of up to \$25,000 to certificated staff in low-performing schools that made the most progress beyond their API growth target.

The remainder of this report examines the characteristics of schools that did and did not qualify for funding under two of the Post-Assessment awards programs in 2000, the GPA and the School Site Employee Performance Bonus Programs.

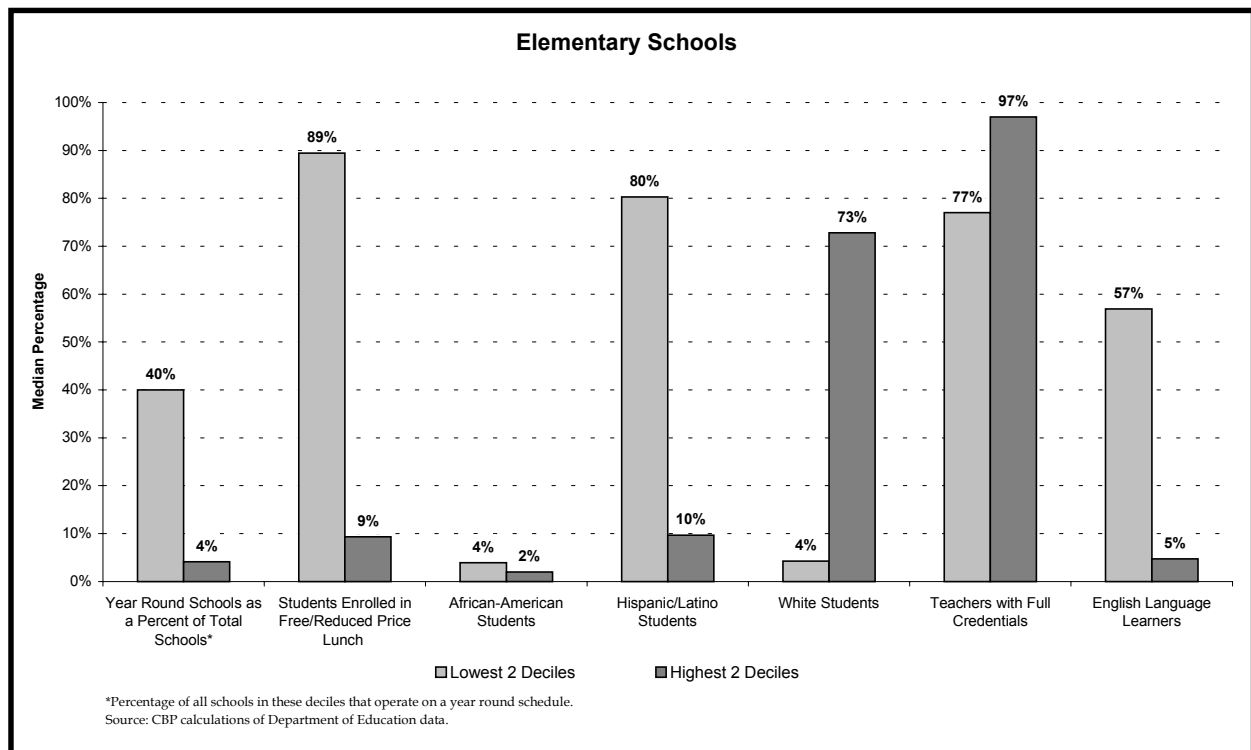
HOW DO SCHOOLS QUALIFY FOR FINANCIAL AWARDS?

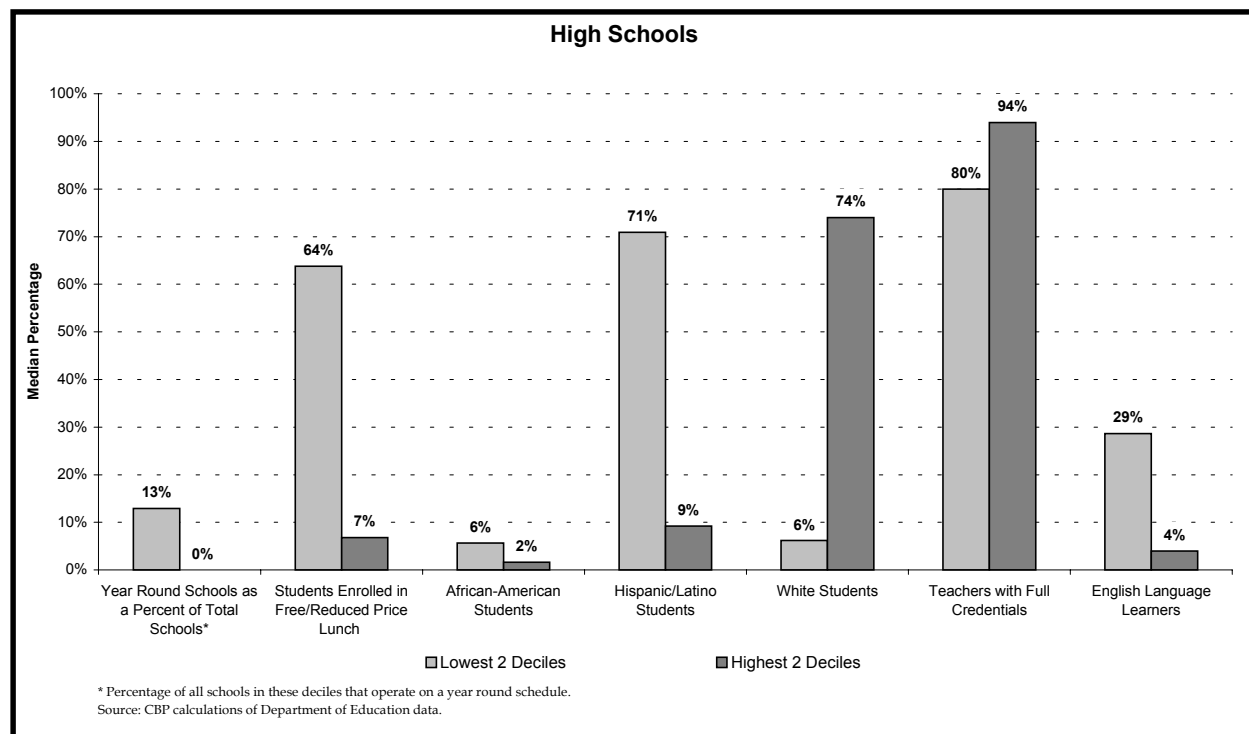
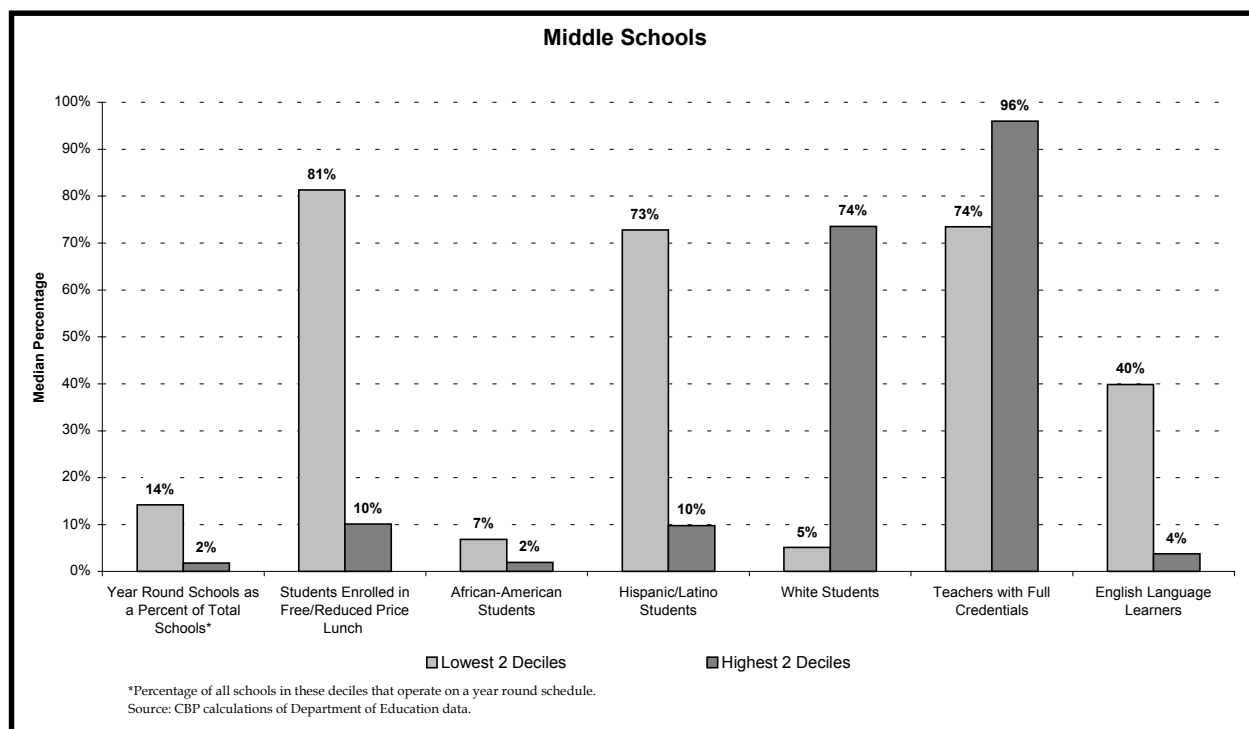
In order to be eligible for GPA and School Site Employee Performance Bonus awards, the following criteria must be met:

- Elementary and middle schools must have a 95 percent participation rate and high schools must have a 90 percent participation rate on the Stanford 9 test.⁷
- A school must meet an annual growth target based on its 1999 API performance. The target is generally set at 5 percent of the difference between the school's 1999 API score and the statewide target of 800. For example, a school that scored 600 in 1999 would have a growth target of 5 percent of 200, or 30 points. Schools with 1999 API scores at or above the statewide performance target of 800 must have a gain of at least one point in their 2000 score.
- All of the numerically significant subgroups at the school must meet specified improvement targets, which are set at 80 percent of the school-wide growth target in most, but not all, cases.⁸

DO SCHOOLS WITH DIFFERENT TEST SCORES ALSO HAVE DIFFERENT CHARACTERISTICS?

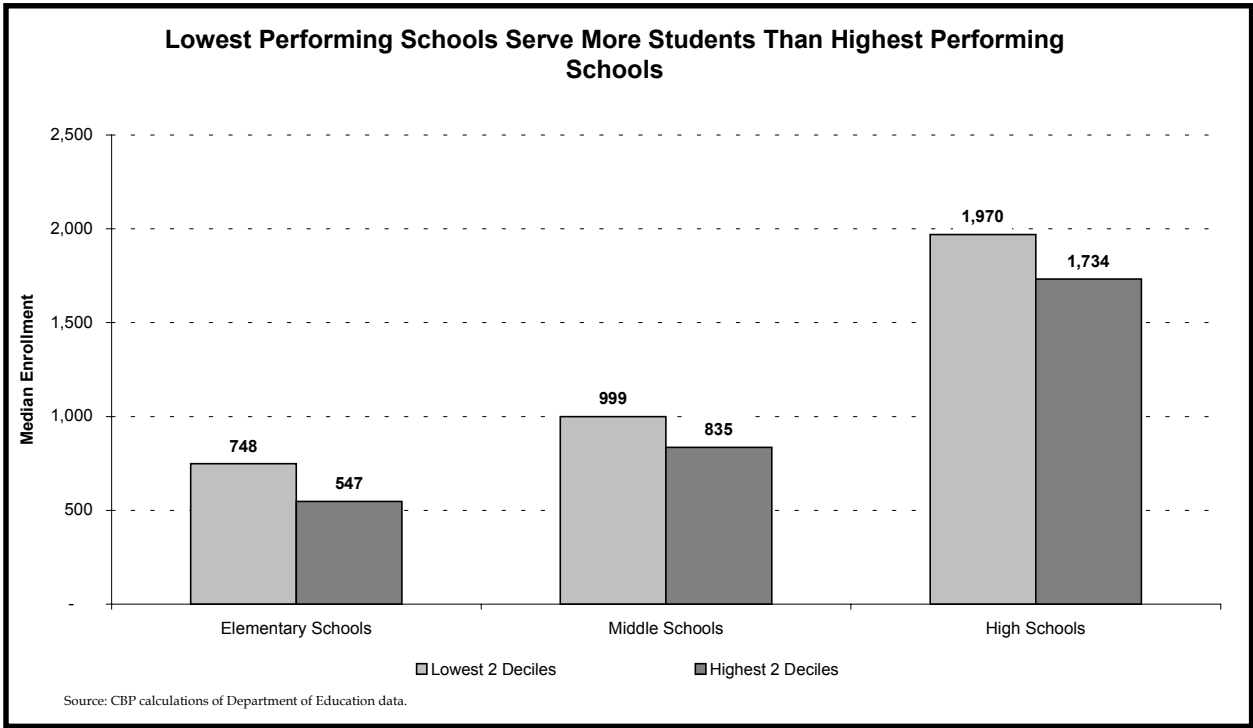
In addition to API scores, the 1999-2000 API Growth Report provides the public with detailed information about California's schools, which allows for an analysis of the forces at play in the state's new accountability system. The CBP examined the data in order to assess the relationship between 2000 API scores and a number of characteristics of schools and students. This analysis used statistical techniques to explore how variations in scores are related to the racial and economic diversity of a school's students, the education level of the students' parents, school size, and whether or not teachers have full or emergency credentials.⁹ This type of analysis does not identify any characteristics as the *cause* of higher or lower scores, but it does identify which characteristics are strongly associated with schools' scores.





CBP's analysis found that over 80 percent of the variation in schools' 2000 API scores can be explained by the social and economic characteristics of a school's students, the size of the school, and the quality of its teachers. Indeed, the share of students who were enrolled in free lunch programs, school size, and the percentage of Latino enrollment can explain 75 percent of the variation in schools' test scores. School enrollment was strongly and negatively correlated with API scores, meaning that as school size increases API scores decrease. The same was true with teacher qualifications; the fewer teachers with full credentials and the more with emergency credentials the lower a school's API score. Another

interesting variable associated with lower API scores was year round school operations. These findings are particularly important because school size, year round operations, and teacher qualifications are directly influenced by public policy decisions.



DOES EVERY SCHOOL HAVE THE SAME CHANCE TO WIN AWARDS?

In December 2000, 68.8 percent of participating California schools, representing 60.6 percent of total enrollment, met eligibility requirements for Governor’s Performance Awards and School Site Employee Performance Bonuses. Since API scores determine eligibility for financial awards, CBP examined whether award eligibility is associated with the same characteristics of schools and students as variations in 2000 scores.¹⁰

Table 1: What Can We Say About Schools That Did and Did Not Qualify for Awards?	
Schools Eligible for Awards	Schools Not Eligible for Awards
Lower total enrollment.	Higher total enrollment.
Lower percentage of African-American or Hispanic/Latino students enrolled.	Higher percentage of African-American or Hispanic/Latino students enrolled.
Higher percentage of white students enrolled.	Lower percentage of white students enrolled.
Higher percentage of teachers with full credentials.	Lower percentage of teachers with full credentials.
Lower percentage of teachers with emergency credentials.	Higher percentage of teachers with emergency credentials.
Lower percentage of students enrolled who are in free/reduced priced lunch programs.	Higher percentage of students enrolled who are in free/reduced priced lunch programs.
Lower percentage of students tested whose parents have limited education levels.	Higher percentage of students tested whose parents have limited education levels.
Higher percentage of students tested whose parents have at least a college degree.	Lower percentage of students tested whose parents have at least a college degree.

These results indicate that the GPA and School Site Employee Performance Bonus programs may suffer from an unintended bias, due to the associations between student and school characteristics and test scores. The publication of the first apportionment of the GPA funds allows for examination of the distribution of award money between high- and low-performing schools. Using these data, CBP found that:

- As of January 31, 2001, \$109.6 million (53 percent) has been apportioned to schools in the top five deciles compared to \$97.7 million (47 percent) to low-performing schools. However, because schools with higher test scores tend to have fewer students, schools in the top five deciles represent only 46 percent of the state's total enrollment. In other words, schools representing 46 percent of the state's total enrollment received 53 percent of GPA dollars.
- Low- and very low-performing schools had greater growth in their API scores than their high performing counterparts between 1999 and 2000, a median growth of 46.5 and 44.0 points respectively. This compares to the median growth of 34.0 points for schools in the highest five deciles and 27.0 points for schools in the top two deciles.
- Since GPA funds are apportioned on a per pupil basis rather than on a growth point basis, schools in the lower deciles did not receive greater awards in recognition of their greater score growth. In fact, schools receiving awards in the top five deciles received \$1,126 per point improvement as compared to \$973 for low-performing schools. This difference is even greater between the top two and bottom two deciles, \$1,423 per growth point for the top two deciles compared to \$1,141 for very low-performing schools.

Deciles	GPA Award (Millions)	Percent of Total Award Funds	Enrollment as Percent of Total State Enrollment	Median API Score Growth 1999- 2000 for GPA Winning Schools (in Points)	Award per Point of Total 1999- 2000 API Growth for GPA Winning Schools
Highest 2	\$48.9	24%	19%	27.0	\$1,423
Lowest 2	\$38.9	19%	24%	44.0	\$1,141
Highest 5	\$109.6	53%	46%	34.0	\$1,126
Lowest 5	\$97.7	47%	54%	46.5	\$973

ARE POST-ASSESSMENT AWARDS AN EFFECTIVE INCENTIVE?

California's new accountability system strives to provide schools and teachers with an incentive to improve the academic performance of their students. In order for financial awards to be an effective incentive for improving performance, schools must have all of the necessary resources to generate improvement, including qualified teachers, textbooks and other instructional materials, and adequate facilities. If that is not the case, offering a financial award is like offering running shoes as the prize for the top finishers in a race in which many of the runners are barefoot. Without the shoes it is almost impossible to finish in the top, but you can only get the shoes by finishing in the top.

One way to evaluate the effectiveness of awards is to look at the distribution of awards between low-performing schools, where the need for improvement is greatest, and high-performing schools. A high share of award-eligible schools that had low API scores in 1999 would indicate that the awards were

effective at encouraging improvement. However, low-performing schools based on the 1999 API accounted for fewer than half (47.4 percent) of the total number of schools eligible for awards in 2000.¹¹

This does not mean that the majority of schools that were eligible for awards in 2000 were high performing schools with no need for additional resources, although 14.2 percent of the award-eligible schools scored at least 800 on the 1999 API.¹² It does, however, indicate a need for the state to better target resources to those schools that are identified as the most vulnerable and to re-evaluate the efficacy of providing resources after assessment takes place rather than preparing students to do well on appropriate measures of academic performance.

There is also a question of whether post-assessment awards are the most efficient use of limited state education resources. The efficiency question centers on whether you are providing money to encourage a result that would have occurred without the incentive. This question is particularly relevant when looking at the award funds appropriated to schools in the highest deciles, which, as demonstrated previously, tend to be smaller schools, have fewer poor and non-white students, and have higher percentages of credentialed teachers. These schools generally had higher 1999 API scores. For example, schools in the highest two deciles that were awarded GPA funds had a median 1999 score of 810, indicating that it is likely that they would have maintained their higher rankings in the 2000 API without the award incentive.

POLICY RECOMMENDATIONS

The overall goal of the Public Schools Accountability Act is to improve the academic performance of California's students. Analysis of the 2000 API awards data suggests that the current system of providing financial awards for high or greatly improved test scores may not be the most effective approach for boosting performance at those schools most in need of assistance. Among the strategies that should be considered to help improve California's low-performing schools are the following:

- Target resources toward low-performing schools. Consideration should be given to further target resources to those schools in the lowest one or two deciles. One approach would be to adopt the Legislative Analyst's Office suggestion to replace the Governor's proposal to expand the school year for all middle school students with a \$500 million block grant that would provide resources to districts with the lowest API scores and/or the highest concentrations of low income students. Districts could use the additional resources to fund a range of options to improve student performance.
- Expand the II/USP to include more low-performing schools. In 1999-00, funding was provided for 430 schools; however, 1,419 eligible schools applied for the program. In 2000-01, funding was again limited to 430 schools even though 532 eligible schools applied.¹³ There were fewer applicants in 2000-01, in part, because eligibility was limited to low-performing schools that missed their growth targets beginning in September 2000. The program could be expanded and better targeted by eliminating the requirement that schools miss their growth targets and by funding all low-performing schools in the lowest two deciles first and then, funding permitting, giving awards to schools in the remaining three deciles from lowest to highest.
- Expand upon efforts to provide incentives to attract the most experienced and qualified teachers to the lowest performing schools.
- Expedite efforts to include other indicators in the API, in addition to the Stanford 9, in order to provide for an accountability system that more accurately measures achievement of the state's educational goals. Part of this will include alignment of the API assessment test to the state's adopted standards. Until this occurs, testing will neither accurately measure students' progress toward learning the state's standards-based curriculum nor provide an incentive to schools to

effectively teach the curriculum.

- Make adequate resources available to align curricula to the standards, train teachers to effectively teach the standards-based curriculum, and provide students instructional materials, including textbooks, that are aligned to the standards.
- Investigate the connection between large and year round schools and low performance on the API. It is not clear whether large and year round schools have lower API scores due to their size or the year round schedule or because these schools tend to house a greater share of low income or otherwise disadvantaged students. However, the finding that these schools are concentrated in the lowest performance deciles bears further examination into the potentially negative effect of these factors on student performance.

ENDNOTES

¹ In addition to the 1999-2000 API Growth data and the GPA Recipient Schools data, this analysis used demographic data from the California Basic Education Data System (CBEDS).

² This report defines low-performing schools as those with scores in the bottom five deciles of the API percentile rankings and very low-performing schools as those with scores in the bottom two deciles. Deciles separate data into 10 groups of the same size. In the case of API percentile rankings, a school in decile five is one with a score in the bottom half of schools. Similarly, a school in decile two has a score in the lowest 20 percent of schools.

³ National Commission on Testing and Public Policy, *From Gatekeeper to Gateway: Transforming Testing in America*, 1990.

⁴ Joan L. Herman et al., *Student Assessment and Student Achievement in the California Public School System*, CSE Technical Report 519, (Los Angeles: University of California, April 2000).

⁵ If a school is designated as a low-performing school when a teacher is hired, then continued employment at that school for four years will fulfill the Governor's Fellowship program requirement, even if the school improves its API rank and no longer meets the criteria of a low-performing school.

⁶ California Department of Education, *Questions and Answers about the Governor's Performance Awards Amounts*, downloaded on 2/21/01 from www.cde.ca.gov/psaa/awards/gpahome.htm.

⁷ The participation rate is determined by dividing the number of students tested by the school's enrollment on the first day of testing minus any students exempt from taking the test. Students may be exempted at the request of their parents or guardian or with Special Education Individual Education Program exemptions.

⁸ Numerically significant subgroups are defined in the Public Schools Accountability Act as socioeconomically disadvantaged or ethnic groups that constitute at least 15 percent and at least 30 pupils of a school's student population, or a group of at least 100 students at large schools.

⁹ Regression analysis is used to assess the strength and nature of the relationship between the values of different variables. The results of the regression analysis are significant with $p \leq .01$. This means that the likelihood of the associations occurring by chance is less than or equal to 1 percent.

¹⁰ These results were statistically significant with $p \leq .05$.

¹¹ In 1999, schools scoring 629 or lower were in the bottom half of all schools participating in the API.

¹² The statewide API target is 800.

¹³ Legislative Analyst's Office, *2001-02 Analysis* (February 2001), pp. E-100 to E-101.