

California Comprehensive Center (CA CC) High-Performing High-Need Schools Methodology

Prepared by CA CC partner, the American Institutes for Research
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Overview

The American Institutes for Research (AIR), as a partner in the California Comprehensive Center (CA CC), has developed a rigorous selection process to identify California schools that are demonstrating substantially higher academic outcomes than would be predicted by the demographics of their students. First, we use publicly available data to select schools that have produced higher than predicted levels of performance consistently over time, as calculated through regression analyses for all students as well as subgroup populations, and that meet additional performance criteria, such as passing state and federal accountability measures. Second, based on information obtained through additional sources such as website searches and initial principal phone interviews, we eliminate schools with clear selectivity in admissions.¹

We then visited selected schools, where we interviewed the principal, teachers, and students and observed classrooms to gather information on their successful strategies for improving student achievement. Because we are especially interested in high-performing sites serving relatively high-poverty student populations, we limited our visits to these schools. To guide the interviews, interview protocols were organized around a typology of elements (e.g., clear school vision, school staff capacity, systematic assessment and data use) from the effective schools literature (e.g., Fuller et al., 2007; Perez et al., 2007; Parrish et al., 2006; Darling-Hammond, 1996). However, discussions were not limited to these elements. Respondents were asked to describe the predominant factors and strategies that they believed had led to enhanced student achievement at their school. School profiles were then created that captured the most salient information. The following sections provide greater detail about the processes described above.

Data Sources

AIR has created a database of information on public elementary, middle, and high schools using publicly accessible data sources from the California Department of Education (<http://www.cde.ca.gov/ds/>). This includes student demographic and academic performance data from 2004-05 through 2007-08. Demographic data include the percentage of students eligible for free or reduced price lunch, percentages of different ethnicities/minorities, the percentage of English learners (ELs), and the percentage of students with disabilities. Academic performance measures include achievement data extracted from the Academic Performance Index (API), Adequate Yearly Progress (AYP), California High School Exit Examination (CAHSEE), and Standardized Testing and Reporting (STAR) databases. We used mean scale scores from the California Standards Tests (CST) in English/Language Arts (ELA) and mathematics, and CAHSEE in ELA and mathematics, as the primary academic performance measures for identifying high performance for each school overall, as well as for relevant student subgroup populations (African Americans, Hispanics, ELs, and students eligible for free or reduced price lunch).

Identification of High-Performing High-Need Schools

Elementary Schools: We ran regressions on the standardized CST ELA and mathematics mean scale scores for all students and the relevant subgroup populations mentioned above, controlling for the following school characteristics:

- Percentage of African American students
- Percentage of Asian students
- Percentage of ELs

¹ To identify possible school selectivity, we checked school websites for admission procedures and asked principals if the school had any selectivity in admissions. If the school website indicated selection on the basis of test scores/grades or the principal answered affirmatively, the school was not selected.

- Percentage of Hispanic students
- Percentage of students eligible for free or reduced price lunch
- Percentage of students with disabilities
- Percentage of students with parents who have a degree higher than a high school diploma

The difference between the actual and the predicted academic performance (i.e., as estimated by these regressions) of all students and relevant subgroups was then analyzed for each school from 2004-05 through 2006-07. Higher than predicted performance for elementary schools was defined as the standardized CST mean scale score being at least 0.75 standard deviations above the predicted performance (i.e., the regression line).

Middle Schools: We used the same regression model as for elementary schools. However, the criterion for being selected as a high-performing middle school was relaxed in order to identify more schools at this level, and was defined simply as actual performance being greater than predicted (i.e., simply being above the regression line).

High Schools: We used a similar regression model to that used for elementary and middle schools. Standardized CST ELA mean scale scores and 10th grade CAHSEE mean scale scores in ELA and mathematics were used as school-wide performance measures. CST mathematics mean scale scores were replaced by CAHSEE mathematics mean scale scores because there is no consistent CST mathematics exam that can be compared across all high schools. In addition, the parental education variable was not included in the regression model due to missing and unreliable data at the high school level. Similar to middle schools, the criterion for being noted as a high-performing high school was defined as having an actual performance greater than predicted (i.e., above the regression line).

Evaluation of Consistent Performance

All selected schools met all high performing criteria at least in 2006-07, the latest year for which we had data. In addition, we constructed a longitudinal measure to identify schools that consistently exhibited high performance over time. To accomplish this, we calculated a ratio of all relevant student populations (including numerically significant subgroups) meeting or exceeding the performance criteria in ELA and mathematics. At a minimum, schools that exhibited a high performing frequency of at least 80 percent for all relevant subgroup populations across all available years, as specified above, were selected for closer examination.

Screening and Selection of High-Performing High-Need Schools to Highlight

To highlight high-performing schools with relatively high-poverty populations, we limited the schools to those with a percentage of students eligible for free or reduced price lunch exceeding the state's school-level average. Additional selection filters were then applied to these schools, including that schools had to have met school-wide API growth targets and AYP criteria at least in 2007-08. The state's Similar Schools Rank from the API was also used as an indicator of school performance. Selected schools were required to have a Similar Schools Rank of 8 or above in 2007-08. In addition, it was required that these schools not be in Program Improvement status from 2004-05 through 2007-08. Finally, we excluded schools found to be selective in their admissions (see footnote on page 1). After applying these filters, we selected three traditional public and three charter schools in districts that were performing higher overall than others based on a value-added index (i.e., a measure of the overall value a district brings to its schools).

More Information

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