

California Comprehensive Center High Performing Schools Selection Criteria
Prepared by The American Institutes for Research
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The American Institutes for Research (AIR), as partners in the California Comprehensive Center (CA CC), developed a rigorous selection process to identify California schools that are demonstrating substantially higher academic outcomes than expected given the demographic composition of their students. This selection process, known as a “beating-the-odds” (BTO) analysis, utilizes extant statewide data to identify schools where the overall student, as well as subgroup, populations are outperforming their peers in terms of academic achievement over time. AIR used publicly available data sources to analyze school performance with the selection of BTO schools based on two-layers of scrutiny: 1) the identification of BTO elementary, middle and high schools using regression analysis and 2) further screening of BTO schools using additional demographic and performance indicators (e.g. high poverty and passing marks on state and federal accountability measures). Initial calls were then made to selected BTO elementary, middle, and high schools to screen for criteria not always evident from the data, (e.g. no selective admissions) prior to scheduling interviews. After schools were screened, interviews were conducted with school principals to gather information on the strategies implemented towards the improvement and sustenance of student achievement at their schools.

Data Sources

AIR compiled a school-specific database of public elementary, middle, and high schools using publicly accessible data sources from California’s Department of Education (<http://www.cde.ca.gov/ds/>) listed below. Data on student demographics and academic performance measures were collected from 2003 through 2007 for the identification of consistently high performing schools. Demographic data of particular interest are the percentage of students eligible for the free-or-reduced price lunch program, percentages by ethnic composition, percentage of English learners, and the percentage of students with disabilities. Academic performance measures include achievement data extracted from the Academic Performance Index (API), Adequate Yearly Progress (AYP) and Standardized Testing and Reporting (STAR) databases. Mean scale scores from the standardized California Standards Tests (CST) and California High School Exit Examination (CAHSEE) in English/Language Arts (ELA) and mathematics were used as the primary academic performance measures for identifying high performance across years and student subgroups. A table of data sources and relevant variables are included as Table 1.

Analysis of School-Level Data

AIR analyzed school-level performance using both quantitative and qualitative methods. For each year, regression analyses of performance measures on student characteristics were used to identify schools that were demonstrating significantly higher academic performance than expected given the demographic composition of their students. To identify consistently high performing schools, AIR constructed a longitudinal measure of BTO status for all students and subgroups and the pool of schools was restricted to those demonstrating BTO performance from 2003 through 2007. AIR selected schools for inclusion in the qualitative interview process based on additional screening using demographic and academic performance measures.

Identification of BTO Schools using Regression Analysis

For elementary and middle schools, regressions on the standardized CST ELA and mathematics mean scale scores were run controlling for the following indicators:

- 1) percentage of students eligible for free-or-reduced price lunch
- 2) percentage of English learners (EL)
- 3) percentage of students with disabilities
- 4) percentage of African American students
- 5) percentage of Hispanic students
- 6) percentage of students having parents with a degree higher than a high school diploma

Regressions were conducted on all students and on subgroup populations in the following categories:

- 1) students eligible for free-or-reduced price lunch
- 2) EL students
- 3) African American students
- 4) Hispanic students

The residual, the difference between the actual and expected standardized CST mean scale score for each of these student populations as estimated by the regression, was used to identify whether all students on average as well as

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their subgroup populations were “beating-the-odds” for a given year. “Beating-the-odds” performance was defined as the standardized CST mean scale scores being at least 0.75 standard deviations above expected performance.

For high schools, a similar regression model was applied with the exception that 1) parental education was not included and 2) standardized CST ELA mean scale scores and 10th grade CAHSEE mean scale scores in ELA and mathematics were used as school wide performance measures. Parent education data were not included in the high school regression due to missing and seemingly unreliable data. CST mathematics mean scales scores were replaced by CAHSEE mean scale scores because high school students take the mathematics test corresponding to the math course they are enrolled in (for example, geometry or algebra) and as such, there is no consistent CST mathematics test that can be compared between all high schools. The criteria for being noted as a “beating-the-odds” high school is defined by actual performance exceeding expected performance.

Evaluation of Consistent Performance

AIR constructed a longitudinal measure of BTO performance to identify schools that consistently exhibited high performance across all relevant student populations. In addition to the total enrollment of students at a school meeting BTO criteria across all years, a ratio of numerically significant subgroups meeting or exceeding the performance criteria was calculated. Elementary, middle, and high schools that exhibited at least an 80% frequency of all student populations meeting the defined performance criteria across all available years were selected for closer examination.

Screening and Selection of BTO Schools to Highlight

As a decision was made to initially highlight high performing schools with relatively high poverty populations, AIR selected only elementary and middle schools with 75% or more students eligible for free-or-reduced price lunch and high schools with 50% or more students eligible for free-or-reduced price lunch for the further screening process described below.

These high poverty BTO schools were further analyzed using additional demographic and performance measures. Schools were considered not to be of interest for further highlighting if found to be selective in their admissions (e.g. application process, pre-testing of students, interviews with parents, dismissal of students not reaching a specified academic standard). Furthermore, schools must have met school-wide API growth targets as well as API growth targets for all significant subgroups at least in the current year, though schools that have met targets across all years were prioritized. The Similar Schools Rank from the API was also used as an indicator of school performance as compared with other schools of similar demographic characteristics. Selected BTO schools were required to have a Similar Schools Rank of 8 or above in order to be highlighted. Additionally, AYP data such as school-wide proficiency rates in ELA and math were examined. Schools that did not meet all AYP/API criteria or were categorized in Program Improvement status were not considered for nomination at least in the current year, though schools that have met targets across all years were prioritized. School characteristics such total school size, location, and ethnic composition were also considered in the selection of “beating-the-odds” schools to be highlighted.

Qualitative Interviews of Selected Schools

AIR interviewed principals from the selected schools in order to obtain qualitative information on what strategies have been implemented towards improving and sustaining student achievement, especially in comparison to other schools with similar student populations. A phone interview was conducted to discuss the instructional and management practices associated with high student performance. The interview protocol was organized around a typology of elements from the effective schools literature to guide the discussion. However, discussion was not limited to the elements as respondents were asked to outline contributing factors to student achievement at their school without any suggestion of the elements.

Creation of School Profiles

School profiles were created consolidating the most salient quantitative and qualitative information. These profiles are being disseminated to practitioners, researchers, and stakeholders. Examples of design, delivery, and management of school practices and services in effective schools are showcased in the profiles with the purpose of providing real examples with which other schools can identify and relate and with hopes of creating a dialogue of the critical factors that these schools have used to improve academic achievement for all students

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Table 1. Data Sources and Relevant Variables

Variables of Interest	Link	Full Description
<ul style="list-style-type: none"> • School type/name • District type/name • County name • Charter status 	http://www.cde.ca.gov/ds/si/ds/pubschls.asp	List of California public schools and districts
<ul style="list-style-type: none"> • Percent of students eligible for free or reduced price meal programs 	http://www.cde.ca.gov/ds/sh/cw/filesafdc.asp	The Free and Reduced Price Meals Program (FRPM) and California Work Opportunity (CalWORKS) data file includes public school enrollment, number and percent of students eligible for CalWORKS and free or reduced price meal programs.
<ul style="list-style-type: none"> • API Base scores • Statewide rank • Similar schools rank • Subgroup significance • Percent of ethnicity • Percentage of students tested who are participants in the free or reduced price meals program • Percent of English learners • Parent education levels • Class size 	http://www.cde.ca.gov/ta/ac/ap/apidatafiles.asp	The Academic Performance Index (API) database includes measures of academic performance and growth of schools.
<ul style="list-style-type: none"> • Satisfaction of AYP criteria • Schoolwide percent of students scoring proficient or above in English language arts and in mathematics • Enrollment of students with disabilities • Graduation rates 	http://www.cde.ca.gov/ta/ac/ay/aypdatafiles.asp	The Adequate Yearly Progress (AYP) database includes measures of performance in schools and districts as required by the federal No Child Left Behind Act.
<ul style="list-style-type: none"> • School enrollment counts by grade, ethnicity and gender 	http://dq.cde.ca.gov/DataQuest/downloads/sif enr.asp	The Student Information Form (SIF) Section B database from the California Basic Educational Data System (CBEDS) includes school enrollment by grade, ethnicity and gender.
<ul style="list-style-type: none"> • Dropout counts 	http://dq.cde.ca.gov/DataQuest/downloads/sifdrops.asp	The SIF Section F database from CBEDS includes dropout counts in grades seven through twelve by grade, ethnicity and gender.
<ul style="list-style-type: none"> • Graduation counts 	http://dq.cde.ca.gov/DataQuest/downloads/sifgrads.asp	The SIF Section C database from CBEDS includes counts of twelfth-grade graduates by ethnicity and gender.
<ul style="list-style-type: none"> • Program Improvement (PI) status • Prior placement under No Child Left Behind (NCLB) • Year in which the school exited from PI • Satisfaction of AYP criteria 	http://www.cde.ca.gov/ta/ac/ay/tidatafiles.asp	The Title I Program Improvement (PI) Status database includes information on the PI status of schools based on Adequate Yearly Progress (AYP).
<ul style="list-style-type: none"> • CST mean scale score for English language arts and mathematics • CST/CAPA Percentage At or above Proficient in English language arts and mathematics 	http://star.cde.ca.gov/	The Standardized Testing and Reporting (STAR) database includes test results for schools, counties, districts, and the state for California Standards Tests (CST), California Alternate Performance Assessment (CAPA), California Achievement Tests and other standards-based tests.
<ul style="list-style-type: none"> • CAHSEE mean scale score for English language arts and mathematics 	http://cahsee.cde.ca.gov/datafiles.asp	The California High School Exit Examination (CAHSEE) database includes measure of student performance based on state content standards required for high school graduation.

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