Innovate Public Schools

Supplemental Technical Guide

"Broken Promises: The Children Left Behind in Silicon Valley Schools" Second Edition

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Purpose

The Second Edition of "Broken Promises: The Children Left Behind in Silicon Valley Schools" (referenced throughout this document as "Broken Promises") focuses on student achievement in Santa Clara and San Mateo counties. "Broken Promises" highlights how districts and schools in the region fare in preparing all students—particularly low-income, English Language Learner (ELL) and Latino students—for college and career.

The purpose of this technical guide is to provide a more detailed view of the analytical approaches and data used to examine the performance of public schools and districts in the Silicon Valley region. For further questions on any of the approaches or data used, please contact Jeimee Estrada, Director of Research and Policy, at jestrada@innovateschools.org.

Overview of Methodology and Data Used

"Broken Promises" uses information on school and district academic performance, focusing on important indicators that demonstrate whether districts or schools are preparing students to be ready for success in college and career. All data in the report were obtained from data files available to the public on the website of the California Department of Education (CDE) (see "List of Data Sources" on page five). The primary data elements we focus on are:

- Academic Performance Index (API), as it is the state's benchmark for school and district performance.
- Proficiency rates in Algebra 1 by the end of 8th grade, as this was the standard for years set by the state in order to prepare students for success in the high-level math sequence in high school that is required to enter state universities. This math sequence provides students with the option for college majors and careers in science, technology, engineering, and math.
- Percentage of 9th graders who graduate in four years and have passed the required courses for eligibility to enter a state college or university (CSU or UC).

Exclusions criteria: 1.) Schools or districts with fewer than 11 students contributing towards the subgroup API were excluded because the state does not provide data by subgroup for schools and districts with fewer than 11 students in a particular subgroup. 2) Schools with only one grade level of students (Grade 2 only) contributing towards the API score were also excluded

Grade-level inclusions: K-8 schools were included in our lists of top and lowest-scoring elementary and middle schools. We excluded K-12 schools from lists that ranked schools based on the API given the difference in how it is calculated for high schools in comparison to elementary and middle schools.

Algebra 1 7th and 8th Grade Participation and Proficiency Rate

Description: "Broken Promises" analyzes school and district data on the Algebra 1 California Standardized Test (CST). Given that algebra is such an important course for all students, we report the percentage of students who leave middle school proficient on the Algebra 1 CST. In some districts, many students do not take algebra in middle school, particularly low-income students, Latinos, African-Americans, and Pacific Islanders. They are instead placed in lower level math classes. Given this trend, we disaggregate these results by the following subgroups to explore how well districts and schools are preparing *all* students for high-level math: low-income students, ELLs (all ELLs and Spanish speakers), and all races/ethnicities reported by the state (Latino, African American, Asian, White, Pacific Islander, and Filipino).

Our proficiency rate is derived from combining the number of 7th grade students who tested proficient and above in 2012 and the total number of 8th grade students who tested proficient and above in 2013, out of the total number of 8th grade students participating in CST math tests (including CST General Math, CST Algebra 1 and CST Geometry) in 2013. This approach enables us to appropriately capture the total universe of students that participate and/or become proficient in Algebra 1 by the end of the 8th grade.

Limitations: Participation and proficiency rates could be under-reported if a student enrolls into 8th grade having already tested for Algebra in 7th grade at another school (unless they are replacing a student who tested in the 7th grade and left the school). It is also possible that the participation and proficiency rates could be over-reported if a student who tested for Algebra in 7th grade leaves the school (unless they are replaced by a similar student that tested in the 7th grade in another school). While these data limitations exist, they are only applicable when a school's 7th and 8th grade enrollment are vastly different or in schools that serve a small number of students.

4-Year Graduation and UC/CSU Eligibility

Description: CDE publicly reports data on many metrics for high schools, including:

- The percentage of 9th graders who graduate from high school in 4 years (also referred to as the "9th grade-adjusted cohort graduation rate"). This is an important metric because some

students drop out of high school or otherwise do not graduate.

- The percentage of high school graduates who have completed the courses required to enter a state university. This is an important metric because many high school students get a diploma but lack the credits to be eligible to enter a UC or CSU.

In order to get the most complete estimate of how well districts and schools prepare students for college, "Broken Promises" uses both metrics together in order to calculate the percentage of 9th graders who graduate in four years and are UC/CSU eligible. We multiply the 4-year cohort graduation rate by the percent of students UC/CSU eligible for districts and high schools in the Silicon Valley. If one only considers the students who graduate (as in the second metric noted above), students who drop out or otherwise do not graduate are unaccounted for. This approach helps make visible the too-often hidden children in our school system. Education Trust-West uses a similar methodology for their reports (http://reportcards.edtrustwest.org/about-this-data#readiness).

This metric is generated for all districts and individuals schools in the Silicon Valley—whether they are charter schools or in-district schools. Charter schools' data are excluded from the calculation of this metric for school districts. These results are disaggregated by races/ethnicities reported by the state (Latino, African American, Asian, White, Pacific Islander, and Filipino).

For example, Milpitas Unified School District's metric for their Latino student population is calculated in the following way:

Milpitas Unified School District's combined 4-year graduate rate and UC/CSU Eligibility *Latino students, 2011-2012*				
4-year cohort graduation rate for Latinos, Class of 2011-12[1]		**Percent of Latino graduates who are UC/CSU eligible, 2011-12[2]**		**Metric used in "Broken Promises"**
83.7%	X	23%	=	19.3%

In the case of Milpitas Unified, it is important to know that 23% of the Latino students who graduated were UC/CSU eligible. It is also important to understand that 19% of the Latino students in the Class of 2011-12 graduated in four years *and* were UC/CSU eligible. This appropriately accounts for the students (about 16%) who did not graduate.

[1] http://dq.cde.ca.gov/dataquest/CohortRates/GradRates.aspx?Agg=D&Topic=Graduates&TheYear=2011-12&cds=43696660000000&RC=District&SubGroup=Ethnic/Racial

[2] http://dq.cde.ca.gov/dataquest/Distgrad.asp?cChoice=DstGrdEth2&cYear=2011-12&cSelect=4373387--MILPITAS^UNIFIED^^^^^^^^^^^^^^&ProgramName=All&cTopic=Graduates&cLevel=District

Process for Identifying Top Schools

Description: "Broken Promises" identifies the top schools and districts in the region serving large numbers of under-served subgroups, including Latinos, ELLs, and low-income students by ranking them across three key data points: the API, percent proficient and above in Algebra by the end of 8th grade using results from the CSTs, and the combined 4-year graduation and UC/CSU eligibility rates. To be included in these "Top Schools" lists, schools must have at least the region (two-county) average percentage of that subgroup of students. With these analyses, the report is highlighting schools that are successful with each subgroup of students that have a large percentage of the subgroups included in our analyses. We apply this same criterion to district schools and charter schools, which thus excludes from these lists both district schools and charter schools that have a relatively small number of those particular subgroups. Across Santa Clara and San Mateo counties, the averages are:

Average Student Population Percentages Across Santa Clara and San Mateo Counties
2012-2013

Student Population	Two-County Average Percent of All Students
Latino	38%
English Language Learners (ELL), any home language for elementary schools	34
ELL, any home language for middle schools	23
ELL, Spanish-speaking for elementary schools	23
ELL, Spanish-speaking for middle schools	18
Low-income students	36

Process for Identifying Lowest-Performing Schools

Description: "Broken Promises" identifies the lowest-performing schools in the region based on the API and proficiency in Algebra 1 by the end of 8th grade across the three under-served subgroups listed above. In order to get a snapshot of student performance with these various subgroups of entire districts, we also list district-wide scores in ranked order (as in Figures 12, 13, 17, and 18).

Any school can be included in these lists, even if it has a very small percentage of the particular subgroup. It is important to highlight low-performance for schools with both small and large subgroup populations because there is so much hidden "failure" in this region with 54 school districts. Some districts and schools that are predominantly high-income are not doing well with these subgroups of students. Parents and the broader community need to know this information, even when the percentage of those subgroups of students is low. This is stated on the graphs themselves that the lists are "among all schools in San Mateo and Santa Clara counties," including both charter schools and district schools.

List of Data Sources

All data were obtained from CDE's website. Relevant research files downloaded for purposes of analyses included the 2011, 2012 and 2013 Standardized Testing and Reporting (STAR) data, 2013 Academic Performance Index (API), 2013 School Enrollment and English Language Learners, 2012 Graduate and Cohort Outcome data, and 2013 Student Poverty – free-or-reduced price meal data. All data files were downloaded from the CDE website and were accurate as of September 19, 2013.

1) Region-averages: Ed Data Website: http://www.ed-data.k12.ca.us/Pages/Home.aspx
2) STAR, Enrollment, Student Poverty-Free and Reduced Program (FRPM), Cohort Outcome Data, Graduate Data, English Learner Data: http://www.cde.ca.gov/ds/sd/sd/
3) STAR Testing Results Research Files for 2012 and 2013: http://star.cde.ca.gov/
4) API Data Files: http://www.cde.ca.gov/ta/ac/ap/apidatafiles.asp