

# Methodology

## Data Sources

- 2015-16 and 2014-15 California Assessment of Student Performance and Progress (CAASPP) English language arts/literacy (English) and mathematics results (data retrieved on March 28, 2017). 2016-17 CAASPP data was retrieved on September 27, 2017.
- California Department of Education (CDE) cohort graduation rate data files, class of 2015-16, 2010-11, 2011-12, and 2012-13 California Standards Test (CST) English and mathematics results (data retrieved in 2014). Test data was not publicly available in 2013-14.
- The CDE's Public School Directory database.
- Student enrollment in school years 2016-17, 2015-16 and 2014-15 through the CDE's website.
- Student enrollment breakdown by racial/ethnic group and economic status for school year 2015-16. This information was obtained through a data request to the CDE. This data is not publicly reported and therefore not available for the 2016-17 school year. The entire report uses the most recent year of data (enrollment breakdown by racial/ethnic group and economic status data) available to us: 2015-16.
- 2017-18 Average private school tuition cost from the Private School Review (data retrieved on September 15, 2017).
- 2014 Median Yearly Earnings by Educational Attainment in the United States from the Bureau of Labor Statistics, U.S. Department of Labor, The Economics Daily (data retrieved on February 22, 2017).

## Low-income Student Subgroup Definition

“Low-income” in the context of this report is defined by whether students are classified as “economically disadvantaged” according to the CDE. Economically disadvantaged students include students who are eligible for the free- or reduced-price lunch program, foster youth, homeless students, migrant students, and students for whom neither parent is a high school graduate. This is a strong proxy variable for low-income students in the state, as it mostly consists of students who qualify for free- or reduced-price lunch at school. However, the variable also includes foster youth, homeless students, migrant

students, and students for whom neither parent is a high school graduate who do not qualify for free or reduced lunch.

### **Similar Unified Districts Ranking and District-level Analysis**

School districts were selected based on having similar student enrollment as San Francisco Unified based on: total enrollment, percent of economically disadvantaged students, and percent of African American or Latino students. A total of 945 unified, elementary, and high school districts with enrollment during the 2016-17 school year were included in the sample from which districts comparable to San Francisco Unified were identified. Elementary and high school districts were excluded from all district-level analysis. Students attending all schools in a given district, excluding direct-funded charter schools, were included in the district enrollment.

To be considered comparable to San Francisco Unified, districts needed to meet the enrollment, percent economically disadvantaged and percent ethnicity enrollment criteria detailed below. All districts in the sample needed to have at least 30 or more students tested for the specific subgroup included in the analysis for each year the analysis was run (the California state legislature set this subgroup size as the minimum cut off for accountability purposes in 2013 under the Local Control Funding Formula and Local Control and Accountability plans). In 2016-17, for the African American subgroup, 16 school districts met the criteria outlined in this section and had CAASPP results available. In the same year, for the Latino subgroup, 15 comparable school districts met the criteria outlined in this section and had CAASPP results available.

### ***Inclusion Criteria Details***

Districts met the total enrollment criteria if their enrollment was within one standard deviation of San Francisco Unified's total student enrollment in 2016-17, which is at least 26,533 students or no more than 79,598 students compared to SFUSD's total enrollment of 53,065. Thirty one districts met this total enrollment criterion.

The percent economically disadvantaged cut-off criterion was within one standard deviation of San Francisco Unified's percentage of 59.114%

socioeconomically disadvantaged students in 2015-16. We used 2015-16 socioeconomically disadvantaged enrollment data because it is publicly available and consistent with the data used for the low-income African American and low-income Latino subgroups. Six hundred seven districts met the criteria with economically disadvantaged enrollment between 32.7848% and 85.4287%.

Districts with a similar percentage of African American enrollment had to be within one standard deviation of San Francisco Unified's 7.421% African American enrollment. Five hundred fifty three districts met the criterion with African American enrollment between 0.674% and 14.106%.

Districts with similar percent Latino enrollment had to be within one standard deviation of San Francisco Unified's 27.039% Latino enrollment. Six hundred fifty districts met the criterion with Latino enrollment between 0% and 60.439%.

### ***Analysis***

The following analysis was applied to school districts that met the inclusion criteria above and had CAASPP performance data available for low-income African American and low-income Latino students. English and math proficiency levels were calculated with CAASPP data in 2016-17, 2015-16 and 2014-15. The number of students who met or were above the English or math standard and the number of students with test scores were summed for each district. The percentage of students who met or were above the standard was then calculated, called percent proficient or proficiency rates throughout the report.

### ***Ranking***

All districts were ranked based on their percent proficiency for each of the two subgroups, with those districts with highest proficiency levels at the top and those with the lowest proficiency levels at the bottom. District rates were rounded to one decimal point. In 2016-17, no districts across all four ranked lists had the same proficiency rate as another district out to two decimals. Two decimal points is what is provided by the CDE for percent proficiency in English and math. Given that no two districts had the same unrounded proficiency rates, no tie-breaking policies are needed.

Tie breaking was needed for all other years (see appendix for all the years in the analysis). If districts had the same proficiency rate rounded to the nearest whole number, all districts with the same rate are given the same ranking. Subsequent districts on the ranked list are given their absolute ranking out of the total number of districts on each list.

### ***All California Unified District Analyses***

To evaluate how San Francisco Unified compared to all unified districts serving low-income African American and low-income Latino students throughout the state, we also compared SFUSD to all California school districts (regardless of total enrollment and total size of low-income student population). English and math proficiency levels were calculated with CAASPP data in 2016-17, 2015-16 and 2014-15, and with data from the CST from 2010-11, 2011-12, and 2012-13, incorporating all available data from 2010-11 through 2016-17 school years. The number of students who met or were above the English or math standard and the number of students with test scores were summed for each district. Percent proficiency levels and percentile ranks based on this information were calculated. All of those results are included in the Appendix and throughout the report.

### **All School-Level Analyses**

#### ***Inclusion Criteria***

All schools whose school-level, individual data is presented in the report needed to have at least 20 or more students tested for the specific subgroup highlighted. Only traditional district and charter schools are included in the report. That includes the following school types located within the San Francisco Unified/ County: 1) non-charter schools and locally-funded charter schools, and 2) direct-funded charter schools. Traditional schools included elementary, intermediate/middle, junior, high or K-12 schools offering a traditional educational option. Within San Francisco Unified/ County, there were 95 non-charter schools, one locally funded charter, and 10 direct-funded charters (with publicly available test data for at least one subgroup). All schools with 11 or more students tested and with scores have publicly available performance data and are included in any aggregate analysis in the report (e.g., charter school versus San Francisco Unified graphic).

### ***Analysis***

Performance on the 2015-16 and 2016-17 CAASPP in English and math across all ethnicities and for African American, Asian, Latino, and White students, overall and by economically disadvantaged status, were calculated. The number of students who met or were above the English or math standard and the number of students with test scores were summed across all schools in each school group. The percentage of students who met or were above the standard (i.e., proficiency rate) was then calculated for each school.

### **Charter School v. District Performance Analysis**

All the specifications in the “All School-Level Analysis” apply to the charter school analysis. Charter school proficiency levels in English and math were calculated using 2015-16 data and compared to the district proficiency level for low-income African American and low-income Latino students.

### **School Achievement Gap Analysis**

All the specifications in the “All School-Level Analysis” apply to this analysis as well. The goal of this analysis is to highlight the gaps in performance in English and math between the most advantaged and most disadvantaged subgroups in San Francisco Unified. The highest-performing subgroup in San Francisco Unified is White students who are not economically disadvantaged, called non-low-income White throughout the report. The lowest-performing subgroups in the district are African American and Latino students who are economically disadvantaged, called low-income African American and low-income Latino throughout the report.

The differences in the percentage of non-low-income White students and low-income African American students and Latino students meeting or exceeding standards in ELA and math the 2016-17 and 2015-16 CAASPP were calculated. Differences were only calculated for traditional schools, defined as elementary, intermediate/middle, junior, high or K-12 public schools offering a traditional educational option. All traditional schools in San Francisco with performance data for non-low-income White students and African American students or Latino students were averaged (with a weight assigned to number of student scores in each year) across the two years, 2015-16 and 2016-17; and then

ranked from the largest to smallest difference in students meeting or exceeding standards. Only schools with two-year averaged percent proficiency gaps of 40 points or larger were included in the report.

### **GreatSchools Test Score Rating<sup>1</sup>**

GreatSchools Test Score ratings were used for the following student groups in maps and in searchable data sets on our website: all students, White, African American, Latino, and Asian students. This GreatSchools subrating is composed of test score data. Test score data include the percent of students who have reached proficiency by grade and subject, including all tested grades across English, math, and science. These scores reflect rates of student grade-level proficiency, but they are limited in their ability to hone in on school quality. Subgroup ratings, which are ratings for a specific subgroup, are composed the same way. A noted limitation is that test score proficiency is strongly correlated with non-school factors, such as poverty levels and demographics. A school serving disadvantaged students could be doing a great job helping students learn, but if they start at a low level, that improvement might not show up on proficiency measures. In California, the GreatSchools Test Score Rating is calculated using student performance data from the CAASPP and the CSTs. Proficiency standards are set for each subject and grade level, and students are assessed by comparing their performance to proficiency standards. The 2015-16 test score data used in this report is available publicly on the CDE website.

<sup>1</sup>All information in this category is gathered from the GreatSchools website and "Searching for Opportunity: Examining Racial Gaps in Access to Quality Schools in California and a List of Spotlight Schools."