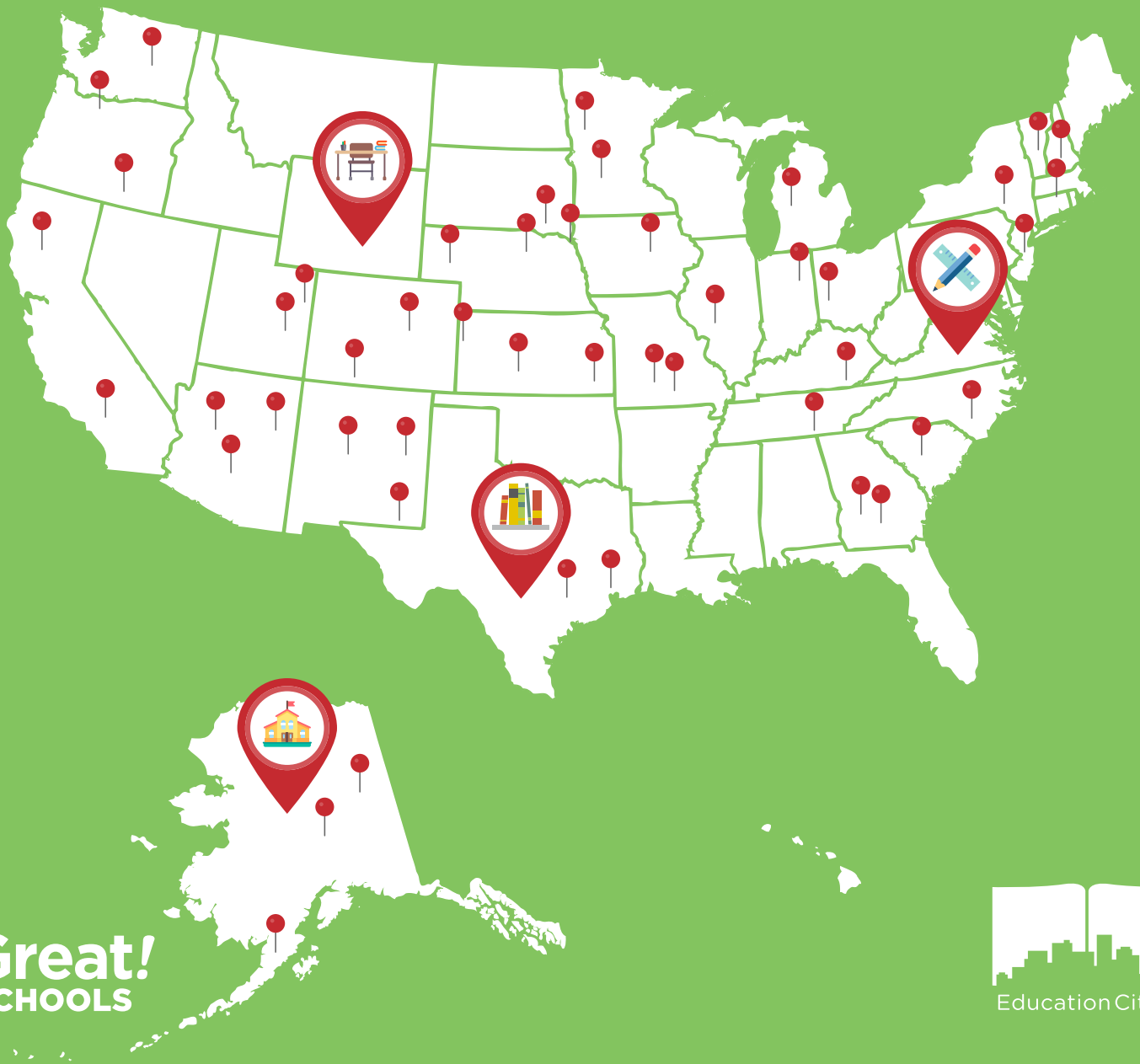
EDUCATION EQUALITY INDEX

Measuring the Performance of Students from Low-Income Families in Schools and Cities Across the Country



Great! SCHOOLS

Education Cities™

Authors:
Luke Dauter, Ph.D., Director of Data Science, GreatSchools
Samantha Olivieri, VP, Growth & Strategy, GreatSchools

EEI Project Director:
Carrie Douglass, Managing Partner, Education Cities

Technical Advisory Panel, who advised on the methodology of the EEI:
Matthew Chingos, Urban Institute
Betheny Gross, Center on Reinventing Public Education at the University of Washington Bothell
Bruce Fuller, University of California, Berkeley
Doug Lauen, University of North Carolina
George Prevelige, Michael and Susan Dell Foundation
Jake Vigdor, University of Washington

Acknowledgements:
Many people contributed to the the development of the Education Equality Index and this report. We'd like to thank our colleagues at Education Cities & GreatSchools - Dan Tesfay, Jennifer Calloway, Ethan Gray, Carrie Goux and Matthew Nelson - for their leadership, close partnership, and careful edits to this report, and Nancy Chen Que for her contributions to the report. We would like to thank the Michael and Susan Dell Foundation for their generous support of this project, as well as the more than 25 organizations from cities and states across the country who reviewed and provided feedback throughout the project. We are particularly grateful for the members of our Technical Advisory Panel who lent wise counsel and expertise to help guide the development of the EEI methodology. Finally, we would like to thank the U.S. Department of Commerce and the U.S. Department of Education for the opportunity to develop and share early versions of this project in conjunction with The Opportunity Project.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

As a society, we have a fundamental obligation to provide all children, regardless of their background, with an education that can help them achieve a bright future. However, lack of comparable data across states makes it difficult to measure how the American education system is living up to that promise. The **Education Equality Index (EEI)**, created through a collaboration of GreatSchools and Education Cities, helps to address this problem by creating the first nationally comparative measure of academic performance of students from low-income families in schools and cities. The EEI enables researchers, advocates, and educators to:

- Highlight schools and cities across the country with the highest performance by low-income students,
- Track how cities and schools progress over time in performance by low-income students, relative to low-income students across the country, and
- Identify cities and schools for further investigation based how students from low-income families are performing.

The EEI taps GreatSchools' national school information database and includes data on the academic performance of low-income students as reported by state departments of education, spanning the years of 2011 to 2015. Additional details on the data used are as follows:

- We were able to collect grade/subject level data on low-income student performance by school from 45 states in 2015, resulting in a dataset spanning over 55,000 public schools.
- Through the website, www.EducationEqualityIndex.org, we released the results for the 300 largest cities in America based on school-age population, with available data, as well as the schools within those cities.
- We excluded scores in places where data on low-income student performance was suspect due to a school's adoption of the Community Eligibility Option through the National School Lunch Program. We also excluded city-level scores in places where fewer than 75% of eligible schools had complete data, leading to a list of 213 cities with complete data for 2015. We included scores for all schools with eligible data in the largest 300 cities, even if their city did not receive a score.

The EEI methodology, which was developed in conjunction with a panel of technical advisors, includes two basic steps, resulting in two distinct measures:

- We use the National Assessment of Educational Progress (NAEP) to adjust scores, taking into account the level of rigor of each state's test, creating a nationally comparative measure for each school. We look at how low-income students in a given school or city perform relative to low-income and non-low-income students across the country. This is called the ***Low-Income Achievement Category.***
- We further adjust scores based on the concentration of poverty at a school or city and calculate an index score on a 1-100 scale, summarizing how a school or city's performance for low-income students compares to other schools and cities across the country. This is called the ***EEI Score***.

Looking at the results for schools and cities in the largest 300 cities with available data, we found both sobering outcomes as well as bright spots worthy of further exploration:

Texas cities dominate top large cities in the U.S. for high achievement for low-income students. The Math scores, in particular, are driving these strong results. Eight of the top ten large cities based on their 2015

EEI Score are in Texas. The majority of these cities serve a large number of students from low-income families and a student population that is almost entirely Latino. Forty-three percent of low-income students in top performing cities attend schools where the average low-income student performance in math exceeds the national average for all students, compared to 16% of low-income students nationally.

Six of the top ten most improved large cities based on EEI Score between 2011 and 2015 are in California. Low-income student performance in these California cities went from "Below Average" range to performing closer to the national average.

Among large cities, we found 500 schools where the low-income student achievement exceeded the national average for non-low-income students. These bright spots, however, only make up 4% of schools in these large cities. the average low income student at 83% of schools in large cities performed below the national average for all students. We also highlight 400 schools in large cities where the performance of low-income students is in the top 1% of schools nationally based on EEI Score. Eight U.S. cities account for 50% of these schools.

It is our hope that a wide range of stakeholders — policymakers, advocacy groups, researchers, journalists, foundations, district and school leaders, and parents — will use the EEI as a catalyst to more deeply understand the endemic equity gaps in our nation's education system and to celebrate successes where progress is being made. By using this report and the website, the EEI can be used to start conversations, make comparisons, and ultimately we hope that the insights it produces can lead to fundamental improvement of our schools so that we can finally fulfill our obligation to all our children.

INTRODUCTION

One of the great promises of the American Dream is that our public education system gives all people, regardless of background, income, or race, an equal shot at success. But, by many measures we are falling short of this promise. Consistently, children from low-income families do not have access to the same educational opportunities, perform at lower student achievement rates, and are less likely to graduate from high school or college than their peers from higher income families. Even more worrisome, this achievement gap between students from high-income and low-income families has increased by 40% over the last three decades.[1] Increasing inequality in our education system, compounded by rising income inequality and residential segregation, threatens the very foundation of our nation's values.

Despite these trends, there are countless examples of American public education that defy these statistics. Schools all over the country are demonstrating that all children can achieve at high levels, regardless of their background. District and charter schools alike have committed to confronting educational inequity and some have shown significant progress in increasing educational outcomes for traditionally underserved students.

Unfortunately, these bright spots too often go unnoticed. Most efforts to track student achievement disparities rely on aggregate data at the national or state level, which impedes our ability to identify schools and systems where students from low-income families are achieving at high levels. Furthermore, aggregate data is rarely used to influence policy, since most decisions about our education system, such as how to allocate resources and support schools, are made at the local level. To learn from our successes and failures, we need more granular data.

On the other hand, local school systems are awash in data about their schools, but often they lack the data that allows them to compare their results to other school systems in similar conditions. Without the resources to make sense of their data and learn from other school systems, educators cannot be expected to use data to drive effective decision-making.

GreatSchools, a national nonprofit, has been collecting and publishing data about school performance for all public schools in the country for over 15 years. While parents use this information to help understand local school quality, we can also analyze it through a national lens to inform policy decisions and support advocates working at the community level to expand access to high-quality schools.

GreatSchools and Education Cities, a nonprofit network of city-based organizations working to dramatically increase the number of great public schools across the country, have partnered to create the ***Education Equality Index (EEI)***, a national measure of how well students from low-income families are performing within schools and across cities.

The EEI addresses critical gaps in information in several key ways, by:

- Providing a nationally-comparable measure that takes into account differences in state standards and assessments and concentration of poverty
- Offering school-level data collected from state education agencies, making it more complete and recent than federal sources of data
- Focusing specifically on the academic performance of students from low-income families, rather than all students in a school
- Aggregating data at the city level, thereby including all eligible public schools – not just district or just charter schools
- Showing data on an annual basis over five years to track how schools and cities have changed over time relative to other schools and cities

Our aim is that the EEI can be used as a starting point for conversations, to make connections across work that is happening in cities around the country, and to celebrate schools and systems wheremaking the most progress. Importantly, the EEI does not tell us *why* or *how* schools or systems are struggling or making progress in serving students from low-income families. We hope that it is used to spur further research and exploration.

In this paper, we describe the methodology of the EEI, outline key findings, and provide suggestions of how in can be used in different contexts to drive conversations and further research.

THE EDUCATION EQUALITY INDEX

The Education Equality Index (EEI) is a nationally comparable measure developed with the goal of identifying schools and cities across the country with the highest performance for students from low-income families. The EEI Score, on a 0-100 scale, with 100 being the highest, reflects the performance of low-income students[2] at a particular school, district, or city, taking multiple factors into account. Our analysis also provides comparative information that shows how the performance of low-income students in a particular school or city compares to the performance of low-income, non-low-income, and all students nationally.

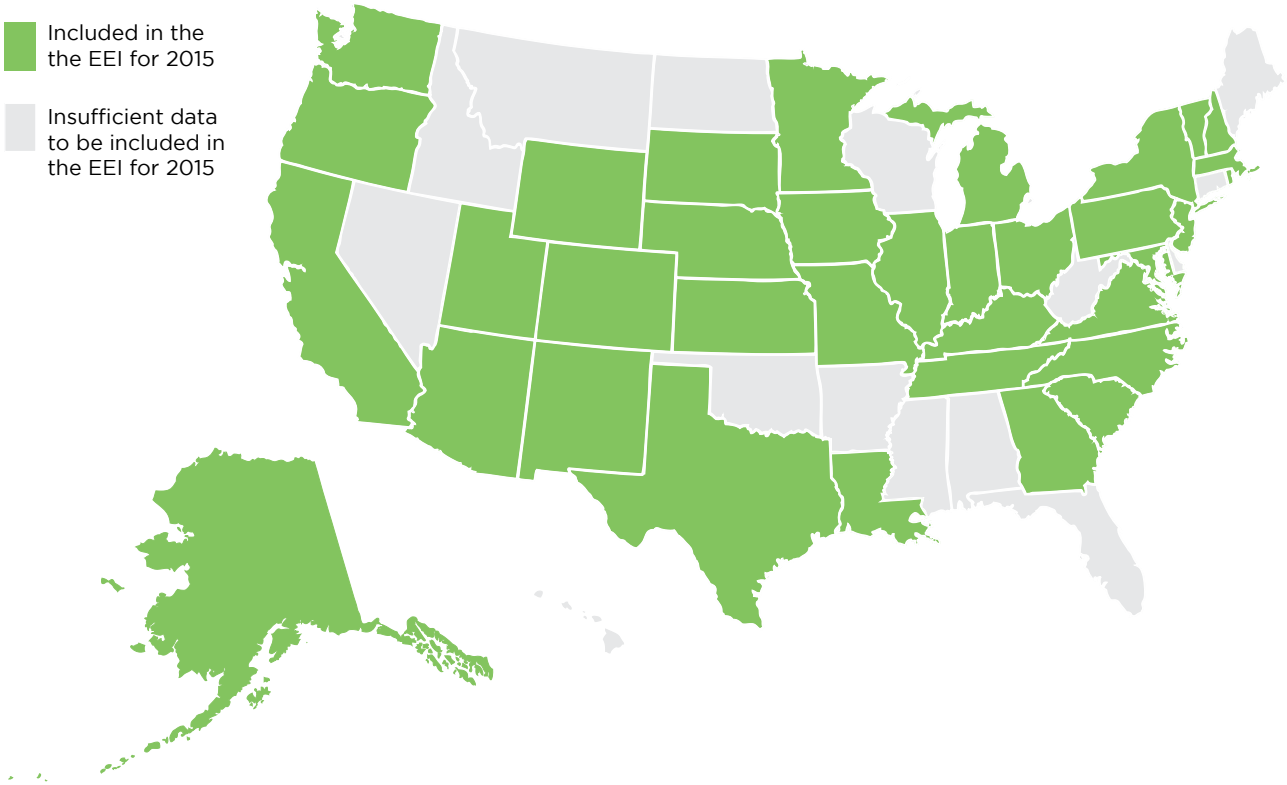
DATA USED

The EEI calculations use state standardized test scores for tested students who are identified as eligible for free or reduced-price lunch (FRL) through the National School Lunch Program (NSLP), which is collected from each state's Department of Education in order to measure the performance of students from low-income families.

We collected data from all states that were able to provide this data for the school years from 2010-2011 through 2014-2015. We collected data on the percent of students scoring at or above proficient on their state assessments at the school/grade/subject/subgroup level, as well as the number of students tested where possible. As states differ in the grades and subjects in which these tests are administered, we used data for all grades available in the broad subject categories of Math and Reading. We only used tests that are associated with specific grades (not end-of-course exams, for example).

This resulted in a large data set which currently spans 45 states and over 55,000 schools each year. Figure 1.1 shows a map of the states included in the 2015 dataset, and Appendix A shows a complete table of the data included for each state for each year. If a state is not included for a particular year, it is because we were unable to gather that year's data for the FRL subgroup at the school and grade level from the state.[3]

FIGURE 1.1: MAP OF STATES INCLUDED IN 2015



While we use all available data from all schools in the country to build the EEI, we are releasing the data for the 300 largest cities in the country, as well as all schools within those cities. In this report, we include the data from all schools in order to explain how we developed the measures, but the findings focus on the results for the largest 300 cities and all schools within those cities.

MEASURING THE PERFORMANCE OF STUDENTS IN POVERTY

Student poverty is difficult to measure at the national level, as there is no good source of family income data for individual students. This means research on educational outcomes for low-income students typically relies on the National School Lunch Program (NSLP), which uses eligibility for free or reduced-price lunch (FRL) as an indicator of low-income status, as students are required to be at or below 185% of the federally established poverty line in order to receive a free or reduced-price lunch.

While this proxy for family income has been used in the education research community for many years, the recent introduction of the "community eligibility" option (CEO) to NSLP participation has posed difficulties for researchers. The CEO attempts to reduce administrative burdens on schools and districts by allowing schools, groups of schools, or local education agencies with more than 40% of students qualifying for "direct certification" of FRL eligibility to provide free meals to their entire student body, rather than identifying students by their family income status for meal eligibility. This means that for schools reaching the 40% threshold for application under the CEO, on paper they may look as though their entire student body is composed of low-income students.

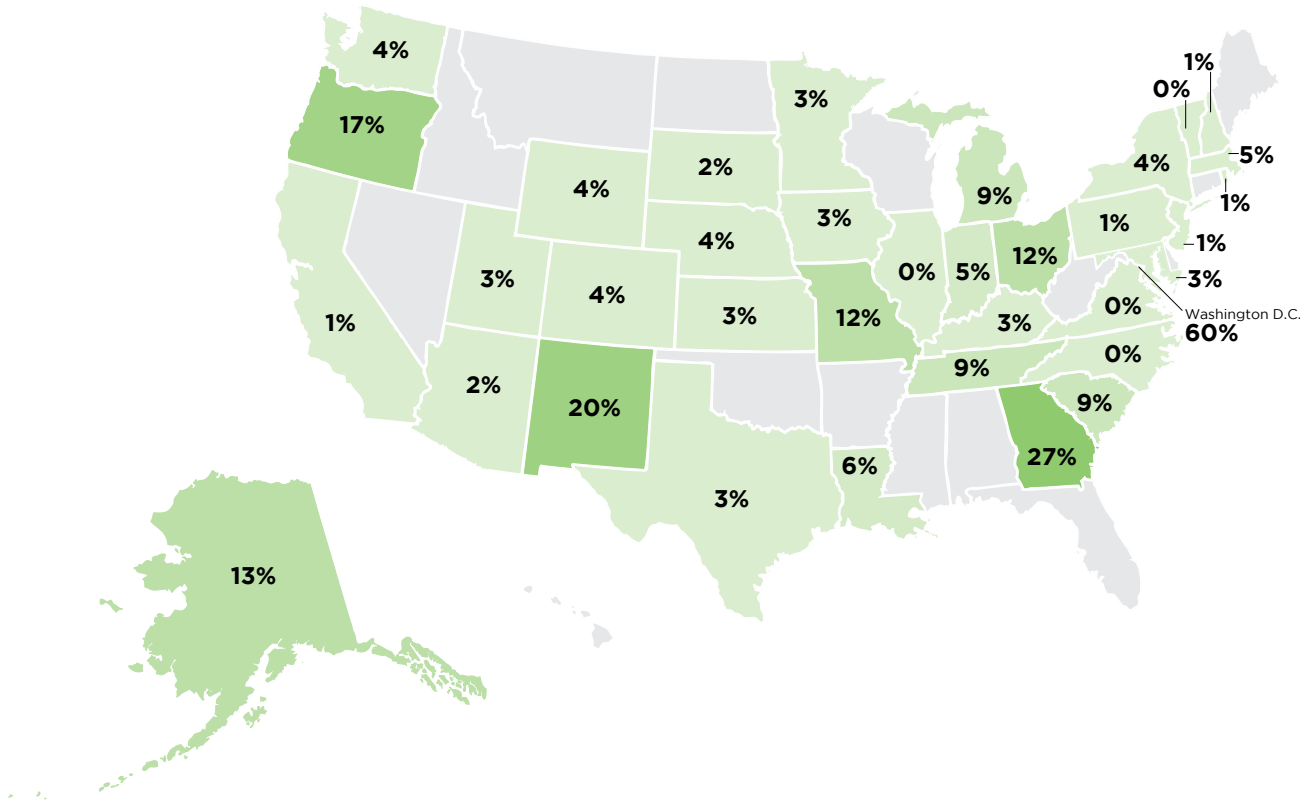
Some states still require schools and districts to report results of state assessments disaggregated by student-level FRL eligibility, even if a school elects to apply for the NSLP via the CEO. Further complicating the issue is the fact that the CEO was rolled out to different states at different times, and that the National Center for Education Statistics (NCES) didn't collect data on how a school applied to the NSLP until several years after the CEO became available in some states. As such, there is no universal way to tell if FRL data is reliable for schools that have opted into the CEO.

In order to deal with the complications introduced by CEO, we created a set of rules for exclusion of suspicious results. First, using data from NCES on the rollout of the CEO across states over time, we identify schools that applied to the NSLP via the CEO. Then we check to see if, in the same year as its CEO application, the recorded "percent FRL" at a school increased more than .5 standard deviations more than the mean year-over-year increase in FRL eligibility across the state, *and* that it increased to over 90% FRL. If all of these conditions are met, the data for that school-year is flagged and data from that school is not used for that year and subsequent years. This flag is removed only if the NCES reports this school as having applied to the NSLP under a method other than the CEO. Taking this approach, around 5% of school-year observations nationally were flagged for removal.

IMPACT OF "COMMUNITY ELIGIBILITY" ON DATA FOR STUDENTS FROM LOW-INCOME FAMILIES

While the Community Eligibility program has introduced important efficiencies within the National School Lunch Program, it has also had the unintended byproduct of eliminating good data on the performance of students from low-income families in many locales. It's important to note that in many cases, schools and LEA's can both opt into the CEO *and* still report reliable data disaggregated by family income status. Indeed, the majority of schools that have opted in to this program have done so. However, the fact that some schools are no longer disaggregating data for FRL-eligible students after opting in to the CEO creates a significant challenge for researchers and policymakers aiming to help improve student performance. Even though we've only identified 5% of schools nationally in this situation, in certain states and cities, the rates are more concentrated. For example, in six states in our 2015 dataset (Alaska, Georgia, Missouri, New Mexico, Ohio, and Oregon), over 10% of schools had their data flagged due to unreliable FRL data associated with the CEO adoption. In Washington, DC, over *half* of all schools had their FRL data flagged due to this issue. Amongst the top 300 largest cities in the U.S., 20 of them had 25% or more of their schools flagged for unreliable FRL data associated with the CEO adoption. As a result, we have decided not to publish EEI Scores for these 20 cities.

FIGURE 1.2: PERCENT OF SCHOOLS FLAGGED FOR COMMUNITY ELIGIBILITY BY STATE - 2015



This is a significant concern that deserves attention and policy solutions; the provision of affordable meals for children should not impede our ability to measure the educational progress of students in poverty. We encourage all schools and districts opting in to the CEO to continue reporting data disaggregated by FRL-eligibility, and hope to see this number increase over time.

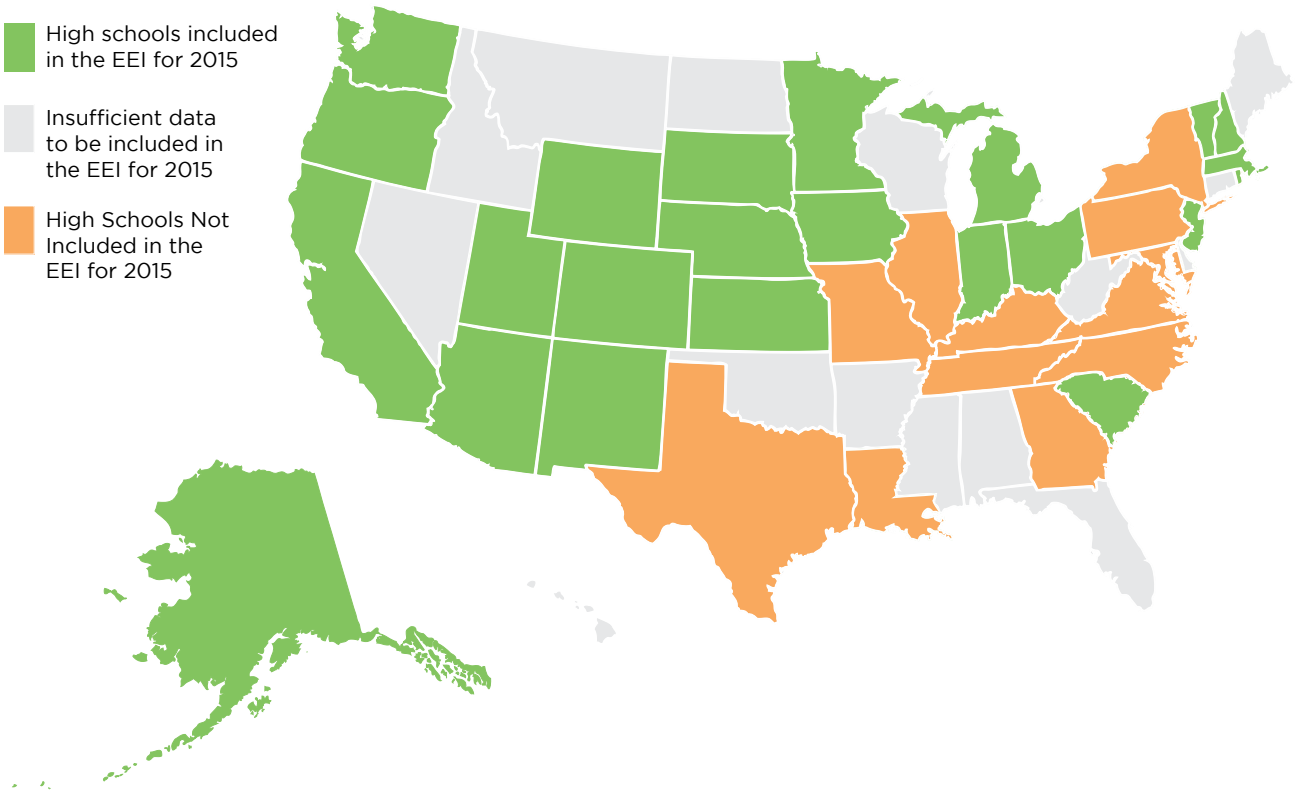
OTHER SOURCES OF MISSING DATA

In addition to the CEO, there were two other factors that led to missing data. First, in some states, high opt-out rates or suppression led to many schools not reporting performance data for FRL students. Second, if we were unable to compute the percentage of the student body at a school that is FRL-eligible, either from assessment data reported by states, or from the National Center for Education Statistics' Common Core of Data, we are unable to create an EEI Score. Due to these limitations, when reporting results for cities, we do not report results for any city in which missing data problems in any of these areas lead to fewer than 75% of the tested schools receiving EEI Scores. Amongst the top 300 cities in the US by school aged population, 45 cities did not make 2015 assessment data available by subgroup including low-income student performance data. In the remaining 255 cities, 42 were excluded due to coverage issues.

ADDITIONAL DATA LIMITATIONS

There are several key limitations to the dataset that are worth noting at the outset. . First, we can only use data from tests that are associated with a specific grade level, because the EEI uses an adjustment based on the National Assessment of Educational Progress (NAEP), which is limited to English and Math scores that are associated with specific grades (see page 18 for more information). As a result, we are not able to include results for high schools that only use end-of-course exams. In 2015, this was the case in 13 states (see Figure 1.3). Even though different grade levels are included in different states, the overall EEI is still comparable across all states because it is calculated by comparing school performance within a grade level (see page 15 for more information).

FIGURE 1.3: MAP OF STATES INCLUDED IN 2015, NOTING INCLUSION OF HIGH SCHOOL DATA



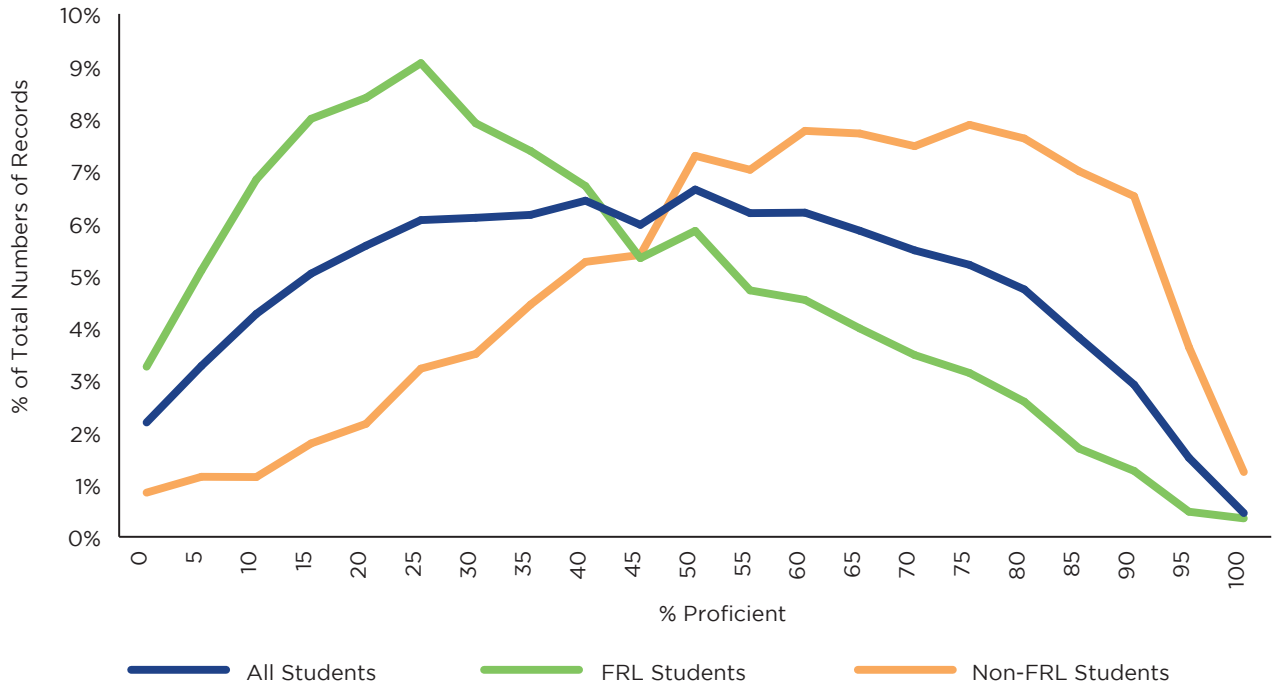
Second, it's important to acknowledge that there is significant variation within the category of FRL-eligibility. Nearly half of all public school students in the U.S. are FRL-eligible, a category that includes many levels of family income, ranging from families living well under the poverty line to families living at 185% of the poverty line. In addition, there are many other demographic factors that influence student experience, such as race, language, and migrant status, for example, which are not captured by the relatively coarse category of FRL-eligibility (see page 10 for more details.)

Third, we want to make it clear that the EEI is not a holistic measure of school quality. In developing the EEI, we had a very specific goal: identify schools and cities across the country with the highest performance by students from low-income families. Because we were focused on national-comparability, we limited our data to that which is broadly available across states. This is meant to complement, but not replace, other school quality measures that include multiple factors, such as student growth rates.

COMPARING THE PERFORMANCE OF LOW-INCOME STUDENTS ACROSS STATES

Students from low-income families, by and large, perform well below their peers from higher income backgrounds, a pattern which holds across states and over time. Figure 2.1 shows the distribution of the percent of students scoring proficient or above in Math and Reading across all available grades in the year 2012. As the figure shows, the median FRL student percent proficient was 60% while the same figure for non-FRL students was 83%.

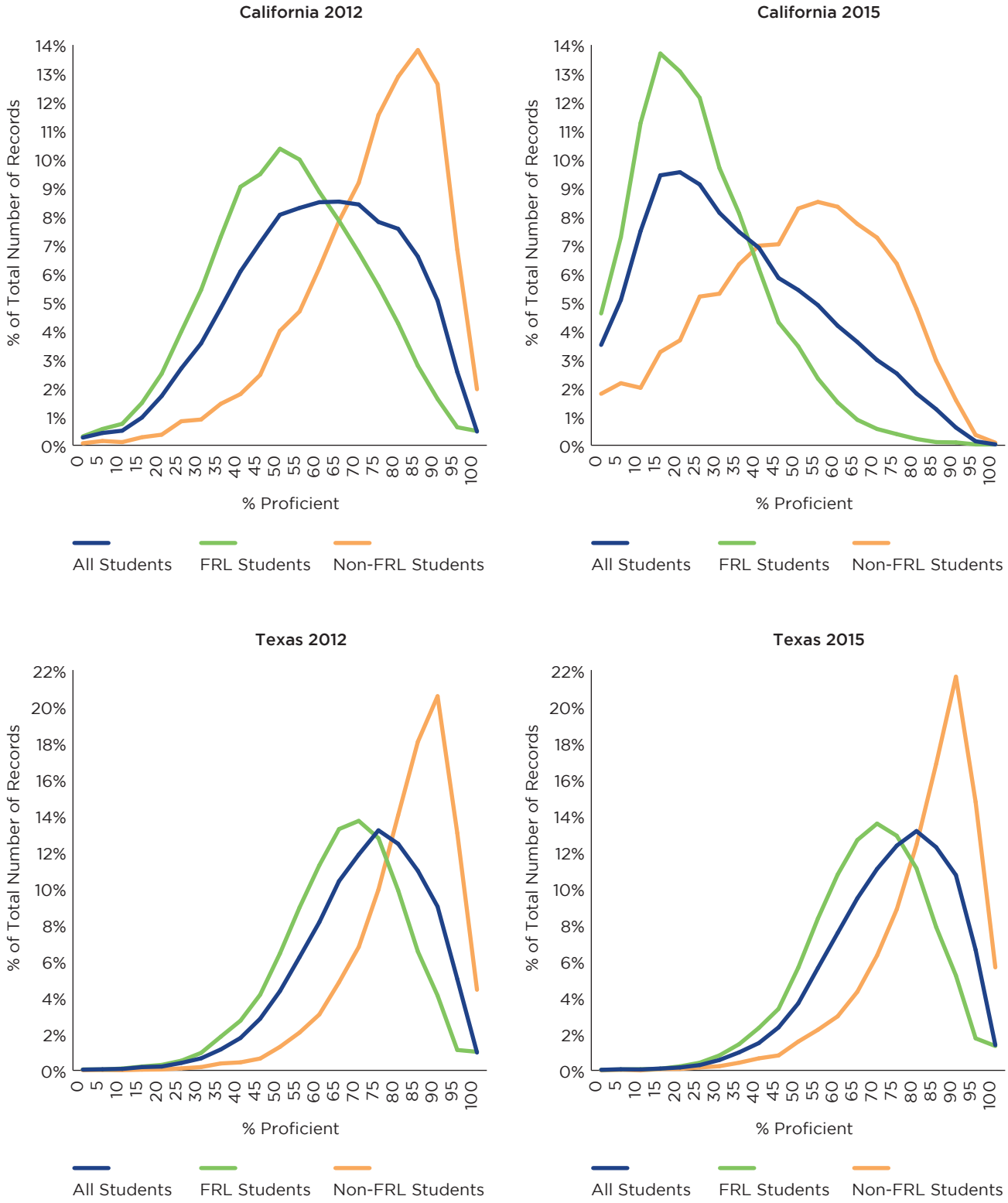
FIGURE 2.1: DISTRIBUTION OF PROFICIENCY RATES BY FRL-ELIGIBILITY NATIONALLY IN 2015



These national figures hide considerable differences between states. For example, in California in 2015 the median percent proficient was 25% for FRL students and 53% for non-FRL students. In comparison, those figures in Texas were 71% and 87% respectively. These distributions are shown in Figure 2.2. These rates might differ for a variety of reasons, including differences in the assessments being given across states (tests and standards are easier in some states than others and states have different thresholds for determining "proficiency"), differences in levels of poverty within FRL-eligible students, or differences in school quality.

The performance of students from low-income families also varies over time. The implementation of new standards and assessment regimes and tests in the years between 2012 and 2015 was one key driver of these changes. Figure 2.2 also shows these same distributions for California and Texas in the year 2012. As these figures show, there were dramatic shifts downwards in these distributions between 2012 and 2015 in California, but much less so in Texas.

FIGURE 2.2: DIFFERENCES IN DISTRIBUTION OF PROFICIENCY BY FRL-ELIGIBILITY FOR CA AND TX, 2012 AND 2015



NAEP ADJUSTMENT

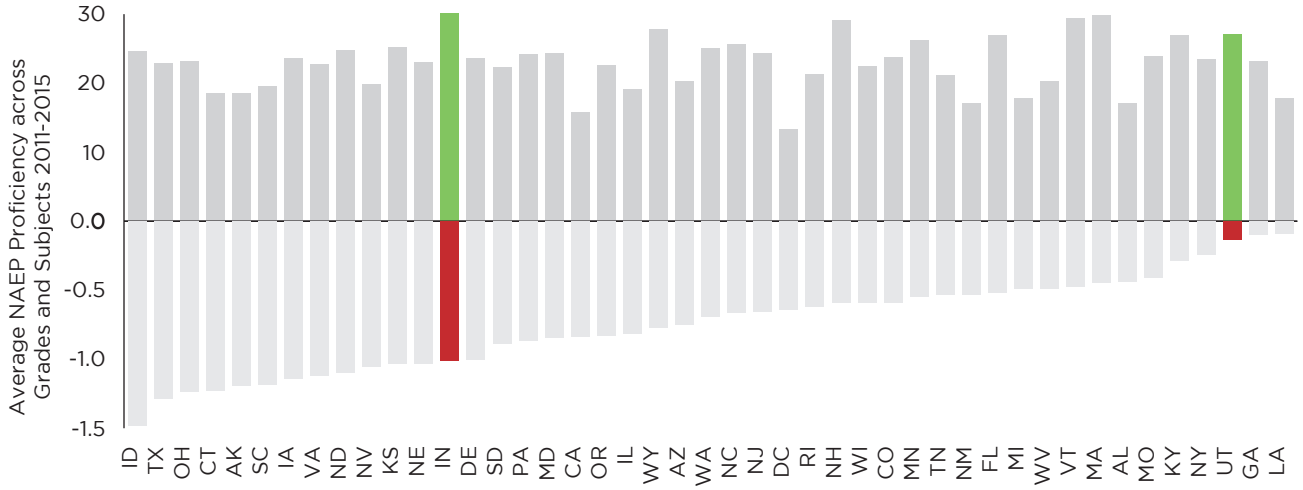
Because states use different assessments based on different standards, and have different thresholds for categorizing a student as proficient or above, the percentage of FRL students scoring proficient or above is not directly comparable across state lines. As a result, we adjust for differences in testing across states using the National Assessment of Educational Progress. The NAEP is a federal assessment administered to a randomly-selected set of students across the country. Since the NAEP is a single assessment with common standards and proficiency cut points across states, we can use NAEP performance to adjust state assessments in order to make results comparable.

To illustrate how this process works, Figure 3.1 shows the average performance of FRL-eligible students from 2011 through 2015 in both Math and Reading for each state. The x-axis represents proficiency rates on state assessments while the y-axis represents proficiency rates on NAEP. The dotted line represents equal performance on NAEP and state assessments for FRL-eligible students. This plot shows there is much greater variance in performance on state assessments than on the NAEP, with most states showing much better performance on state assessments than on NAEP, implying that state assessments have less rigorous and more variable standards.

FIGURE 3.1: COMPARING PROFICIENCY ON STATE AND NAEP ASSESSMENTS

For the purposes of this report, a state's absolute performance on NAEP is less important than the difference between FRL student performance on NAEP and FRL student performance on state assessments. Using NAEP to adjust performance on state assessments, we apply a downward adjustment to states with assessments that show a lower level of performance on the NAEP than on their state test results. For example, Figure 3.2 highlights the performance of FRL students in Indiana and Utah. The average proficiency of FRL students on state assessments in Utah is similar to their average proficiency on NAEP, while in Indiana, FRL students have much higher proficiency rates on their state assessments than they do on NAEP. This results in Indiana scores receiving a larger negative adjustment than those in Utah. The five states with the smallest average adjustment factor are Louisiana, Georgia, Utah, New York, and Kentucky while the five states with the largest adjustment factors are Alaska, Connecticut, Ohio, Texas, and Idaho.

FIGURE 3.2: COMPARING FRL STUDENT PROFICIENCY ON STATE AND NAEP ASSESSMENTS: INDIANA VS. UTAH



LOW-INCOME ACHIEVEMENT CATEGORIES

After applying the NAEP adjustment, we create a measure that is an estimate of the "percent proficient" that each school would have received on the NAEP in each grade and subject tested. We then categorize these estimates based on how their proficiency level compares to the average proficiency levels for all FRL students, all students, and all non-FRL students nationally in the same grade and subject. This creates four ***Low-Income Achievement Categories***[4] that can be rolled up to the school and city levels:

1. ***Red*** - *The average low-income student in this school or city is performing below the average of all low-income students nationally: About 29% of cities and 36% of schools fall into this category; 45% of FRL students nationwide attend schools in this category. This compares to 2% of cities, 7% of schools, and 3% of non-FRL students nationwide that attend schools where on average non-FRL students perform worse than FRL students nationally.*

2. ***Orange*** - *The average low-income student in this school or city is performing above the national average for low-income students, but below the average of all students nationally: About 53% of cities and 42% of schools fall in this category; 40% of FRL students nationwide attend schools in this category. This compares to 14% of cities, 17% of schools, and 9% of non-FRL students nationwide that attend schools where on average non-FRL students perform better than FRL students nationally, but worse than the average for all students nationally.*

3. ***Yellow*** - *The average low-income student in this school or city is performing above the average of all students nationally but below the national average for non-low-income students: About 17% of cities and 18% of schools fall into this category; 12% of FRL students nationwide attend schools in this category. This compares to 46% of cities, 34% of schools, and 30% of non-FRL students nationwide that attend schools where on average non-FRL students perform better than the average of all students nationally, but worse than the average for non-FRL students nationally.*

4. ***Green*** - *The average low-income student in this school or city is exceeding the national average performance for non-low-income students: About 1% of cities and 4% of schools fall in this category; 2% of FRL students nationwide attend schools with no achievement gaps. This compares to 38% of cities, 42% of schools, and 58% of non-FRL students nationwide that attend schools where on average non-FRL students perform better than the average of non-FRL students nationally.*

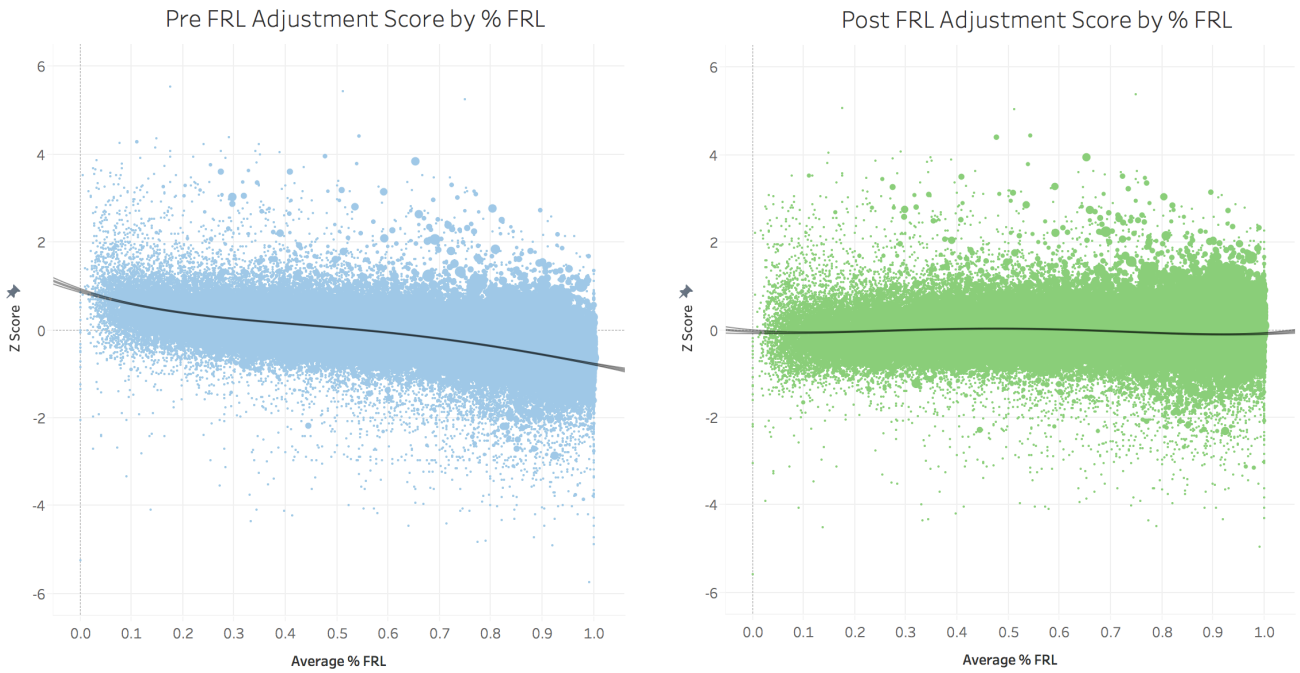
At the city level, we also look at the distribution of students that are in schools based on this categorization approach. Thus, we can look at what percent of FRL-eligible students in a city are in which category, and how this changes over time.

It's important to note that the Low-Income Achievement Categories do not measure the distance between FRL and non-FRL students within a particular school or city; they measure how well a school or city has done in raising the level of FRL student performance relative to student performance *nationally*. This allows us to hold the same national bar for FRL students across the country.

ADJUSTING FOR CONCENTRATED POVERTY

While adjusting the results from state assessments using NAEP data allows us to compare results across state lines, we also know that there is a relationship between low-income student performance and the density of low-income students at a school. This may be due to peer effects in the classroom[5], and/or lack of precision of FRL-eligibility as an indicator of poverty. In either case, schools serving high concentrations of students from low-income families face a more difficult task in raising low-income student achievement.

FIGURE 4: COMPARISON OF PERCENT FRL WITH SCORE, PRE- AND POST-ADJUSTMENT



This trend is displayed on the left-hand side of Figure 4. In order to recognize schools doing well under more difficult circumstances, we adjust for this trend using a regression-based approach. We predict performance using the percent of FRL students, and compute the observed difference from this performance. This allows us to tell if schools are doing better or worse than we would predict after taking into account the concentration of poverty in their student body. The right-hand side of Figure 4 shows the relationship after we compute this adjustment, with low poverty schools being adjusted slightly down, and high poverty schools being adjusted slightly up.

EEI SCORES

In order to create an index score that is comparable across schools, we standardize the adjusted scores nationally by year-grade-subject, addressing the fact that schools differ in grade structures. This scaling results in a score that represents the position of each school-year-grade-subject in the national distribution of adjusted performance for FRL students. These standardized scores are then converted to a scale of 0 to 100. Averages, weighted by the number of students tested, are computed to create scores for schools and cities.

This is the ***EEI Score***, a nationally comparable measure of FRL performance adjusting for concentration of poverty. The EEI Score is the average percentile of FRL students in a given school or city in the national distribution of test scores, correcting for differences in standards and assessments across states as well as for concentration of poverty.

An EEI Score of 50 means that the school or city is at the national average in terms of FRL student performance, with scores above 50 being higher than the national average and scores below 50 being below the national average. We set benchmarks on either end of the distribution to identify schools and cities that are *significantly* above or below average on this measure. We set these cut-points at the top and bottom 30th percentile in the distribution.

TABLE 1: ABOVE AND BELOW AVERAGE CATEGORIES FOR EEI SCORES

Category	EEI Score cut-points	Percent of cities, schools, and FRL students represented[6]
Far Below Average	1-10	1% of cities, 2% of schools, 1% of FRL students
Below Average	11-30	9% of cities, 14% of schools, 12% of FRL students
Middle	31-69	79% of cities, 69% of schools, 70% of FRL students
Above Average	70-89	10% of cities, 14% of schools, 15% of FRL students
Far Above Average	90-100	1% of cities, 2% of schools, 2% of FRL students

INTERPRETING LOW-INCOME ACHIEVEMENT CATEGORIES AND EEI SCORES

Taken together, the Low-Income Achievement Categories and the EEI Score provide a picture of FRL student performance for schools and cities on a nationally-comparable scale. The Low-Income Achievement Categories show how FRL students are performing relative to the distribution of all students nationally. The EEI Score is a single index score calculated on an annual basis that can be used to make comparisons across cities and schools, and takes into account both the rigor of state standards and concentration of poverty. The EEI Score on a 1-100 scale can be compared within a given year, and the EEI Categories are designed primarily to identify schools and cities at either end of the distribution. Increases in EEI Score over time signify that a school or city has improved its relative position within the national distribution across years.

KEY FINDINGS

We took a deeper dive into EEI results for the 300 largest cities in the country based on school-age population that also had sufficient data coverage to be included in our analysis. This results in a list of 213 cities, each of which have a school-age population of at least 16,742. We will refer to this group as "large cities" going forward.

WHICH CITIES ARE THE HIGHEST PERFORMING FOR LOW-INCOME STUDENTS BASED ON EEI SCORE?

In 2015, among large cities, four had an EEI Score above 70.[7] The top ten large cities based on EEI Score in 2015 are listed in Table 6.1, along with the cities' demographic breakdowns.

The top performing large cities based on EEI Score are heavily concentrated in Texas, particularly along the Texas/Mexico border. ***Eight of the top ten large cities based on their 2015 EEI Score are in Texas.*** This includes several medium-sized cities in the Rio Grande Valley, as well as the large city of El Paso on the West Texas/Mexico border. Each of these cities includes a large proportion of schools with EEI Scores above 70. While 18% of all schools in large cities have an EEI

Eight of the top ten large cities based on their 2015 EEI Score are in Texas.

TABLE 2: TOP TEN LARGE CITIES BASED ON 2015 EEI SCORE AND STUDENT DEMOGRAPHICS

City	EEI Score	Enrollment	Avg. % FRL	Avg. % African American	Avg. % Latino	Avg. % White	Avg. % Asian	% of Schools with Above Averge EEI
Brownsville, TX	79.9	36,614	94%	0%	99%	1%	0%	85%
Dearborn, MI	72.1	23,106	73%	12%	4%	83%	1%	47%
McAllen, TX	71.6	18,911	77%	0%	94%	4%	1%	50%
El Paso, TX	71.4	104,947	75%	3%	88%	7%	1%	67%
Garden Grove, CA	67.7	36,175	75%	1%	55%	10%	32%	45%
Amarillo, TX	67.7	30,234	66%	8%	43%	41%	5%	39%
Mesquite, TX	67.4	25,456	75%	24%	55%	17%	2%	49%
Richardson, TX	66.6	11,649	47%	15%	34%	33%	14%	48%
Pasadena, TX	66.5	25,812	79%	3%	85%	10%	1%	50%
Laredo, TX	66.4	48,838	85%	0%	99%	1%	0%	48%
Large Cities	**49.2**	**44,107**	**59%**	**17%**	**39%**	**31%**	**7%**	**18%**
National	**50**	**2,708**	**49%**	**7%**	**15%**	**71%**	**2%**	**15%**

above 70, 56% of schools in these top ten large cities have an EEI above 70, ranging from 85% of schools in Brownsville, TX to 39% of schools in Amarillo, TX.

Forty-three percent of low-income students in the top ten large cities attend schools where the average low-income student performance in Math exceeds the national average for all students, compared to only 16% of low-income students nationally.

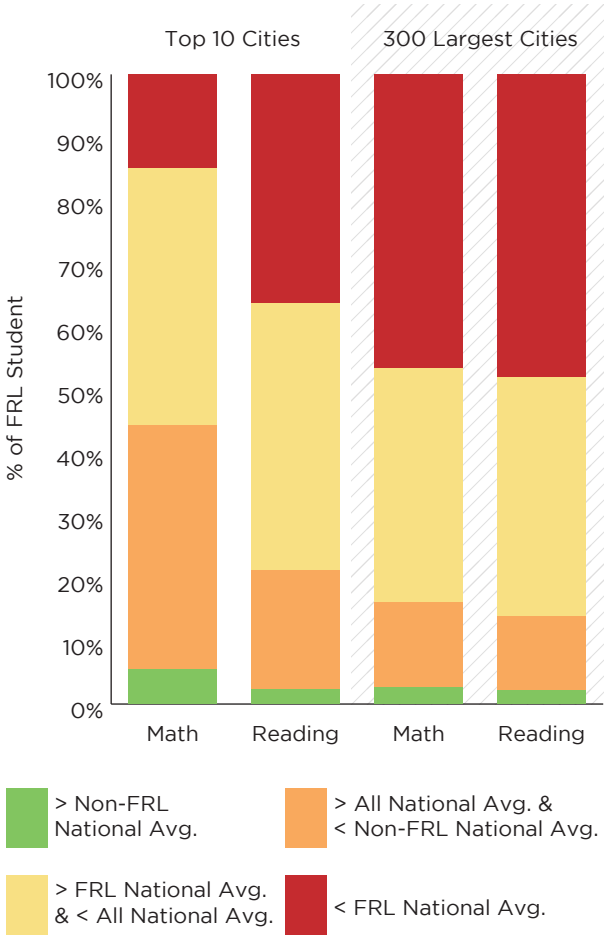
The majority of these cities serve a large number of students from low-income families and a student population that is almost entirely Latino. Compared to the national average, these cities serve greater proportions of low-income students, and fewer proportions of African American students. These cities tend to have a lower percentage of white students (with the exception of Dearborn, MI, and Amarillo, TX) and a lower percentage of Asian students (with the exception of Garden Grove, CA, and Richardson, TX).

Low-income students in these top ten cities perform particularly highly in Math. Figure 5 shows how the performance of FRL students in these top 10 cities compares to the national distribution. ***Forty-three percent of low-income students in the top ten large cities attend schools where the average low-income student performance in Math exceeds the national average for all students, compared to 16% of low-income students nationally.*** These students are exceeding national trends in Reading as well, but not by as great of a margin; 20% of low-income students in the top ten large cities attend schools where the average low-income student performance exceeds the national average for all students in Reading, compared to 14% of low-income students nationally.

These cities deserve recognition and further study, as they are reversing national trends and demonstrating higher levels of academic achievement for large numbers of low-income students across their communities.

Among large cities, eight cities account for 50% of top schools based on the EEI.

FIGURE 5: PERCENT OF FRL STUDENTS IN TOP TEN LARGE CITIES BY LOW-INCOME ACHIEVEMENT CATEGORIES



A full list of large cities and their EEI Score can be found in Appendix C.

WHERE ARE THE HIGHEST PERFORMING SCHOOLS FOR LOW-INCOME STUDENTS BASED ON EEI SCORE?

Among large cities, there are 400 schools with "far above average" EEI Scores, meaning they are in the top 1% of schools in the country for FRL student performance. These schools are concentrated in a number of large cities: ***eight cities account for 50% of top schools based on the EEI***. The large cities with the highest number of schools with "far above average" EEI Scores in 2015 are listed in Table 3.

TABLE 3: LARGE CITIES WITH HIGHEST NUMBERS OF SCHOOLS WITH "FAR ABOVE AVERAGE" EEI SCORES, 2015

City and State	Total Number of "Far Above Average" Schools based on 2015 EEI Score	Total School-Age Population*
New York, NY	95	1,308,212
Houston, TX	24	408,728
Chicago, IL	19	440,728
Brownsville, TX	15	45,972
Los Angeles, CA	14	655,361
Dallas, TX	13	232,716
San Francisco, CA	11	77,833
El Paso, TX	10	144,398

*Source: 2015 School-aged population estimate, U.S. Census

We want to spotlight and celebrate these schools as places to study in order to better understand what these schools are doing to help students from low-income families reach their highest potential.

While most of these cities with large numbers of high-performing schools for low-income students are also among the largest in our dataset, Brownsville is a notable exception. Among our analysis of EEI Scores for the 300 largest cities, Brownsville has the most high-performing schools per number of school-age children living in the city.

The full list of top schools for students from low-income families can be found in Appendix D.

WHICH CITIES HAVE SHOWN THE MOST IMPROVEMENT OVER TIME BASED ON EEI SCORE?

We calculated a cumulative average year-over-year percentage change in EEI Score between 2011 and 2015, including cities for which we have at least three years of data. The EEI is a distribution-relative measure, so change over time must be interpreted carefully[8], but this suggests that the performance of low-income students in these cities have improved over the last five years relative to the performance of low-income students across the country.[9] ***Six of the top ten most improved large cities based on EEI Score are in California.*** While these cities were performing close to the national average in 2015, they had been performing closer to the "Below Average" range in 2011.

Six of the top ten most improved large cities based on EEI Score are in California.

Most of these cities are small or medium-sized cities that serve lower proportions of low-income students, Latino students, and African American students, and higher proportions of White and Asian students than the national average. Notable exceptions include Yakima, WA, which is a medium-sized city serving a high percentage of students from low-income families, and Memphis, TN, a large city serving a very high percentage of students from low-income families.

Looking at change over time in this way is indicative of directional improvement in relative FRL student performance, and the presence of so many California schools on this list is intriguing. While our calculation accounts for missing years of data, the fact that California chose not to release test data for 2014 during the first year of transition to a new assessment suggests the need for further exploration of the impact of the assessment transition on low-income student performance in these cities.

The average change over time on EEI Score for all large cities is included in Appendix C.

TABLE 4.1: MOST IMPROVED LARGE CITIES BASED ON AVERAGE YEAR-OVER-YEAR CHANGE IN EEI SCORE, 2011 TO 2015

City - State	EEI 2011	EEI 2012	EEI 2013	EEI 2014	EEI 2015	Averge Change Over Time
Clarksville, TN	36	42.5	47.5	45.8	62.9	15.9%
Santa Clarita, CA	26.4	35.8	35.5		43.9	14.7%
El Cajon, CA	32.1	39.3	37.5		52.7	14.5%
Memphis, TN	28	32.7	32.8	37.8	46.8	14.1%
Carlsbad, CA	28	30	35.1		46	13.8%
Irvine, CA	36.8	33.8	37.2		55.6	12.8%
Naperville, IL	34.3	30.3	31.9	38.3	52.4	12.6%
Elk Grove, CA	37.8	40.9	42.3		57.9	12.1%
Fremont, CA	30.4	31.6	33.8		45.4	11.3%
Yakima, WA	37.9		54.1	54.5	54.7	11.0%

TABLE 4.2: STUDENT DEMOGRAPHICS OF MOST IMPROVED LARGE CITIES BASED ON AVERAGE YEAR-OVER-YEAR CHANGE IN EEI SCORE, 2011 TO 2015

City - State	Averge Change Over Time	Enrollment	Avg. % FRL	Avg. % African American	Avg. % Latino	Avg. % White	Avg. % Asian
Clarksville, TN	15.9%	20,720	49%	23%	13%	53%	1%
Santa Clarita, CA	14.7%	9,709	35%	8%	41%	32%	14%
El Cajon, CA	14.5%	26,079	62%	6%	33%	50%	4%
Memphis, TN	14.1%	81,856	85%	94%	4%	1%	0%
Carlsbad, CA	13.8%	14,932	17%	2%	23%	62%	8%
Irvine, CA	12.8%	36,792	15%	2%	12%	32%	48%
Naperville, IL	12.6%	21,288	17%	6%	9%	58%	22%
Elk Grove, CA	12.1%	38,400	43%	13%	22%	27%	28%
Fremont, CA	11.3%	34,547	18%	3%	16%	14%	63%
Yakima, WA	11.0%	22,946	71%	1%	63%	32%	1%
Large Cities	**2.1%**	**44,107**	**59%**	**17%**	**39%**	**31%**	**7%**
National	**0.0%**	**2,708**	**49%**	**7%**	**15%**	**71%**	**2%**

WHICH CITIES ARE PERFORMING HIGHEST ON THE EEI, WHEN COMPARED TO CITIES OF SIMILAR SIZE AND CONCENTRATION OF POVERTY?

In order to provide a more nuanced comparison, we also segment our analysis into cities based on size and poverty level. We created three categories of size based on student enrollment: Large (enrollment > 45,000), Medium (Enrollment <= 45,000 and > 21,000) and Small (Enrollment <= 21,000) and three categories of poverty level: High Poverty (More than 70% FRL), Medium Poverty (Less than 70% FRL and more than 45% FRL), and Low Poverty (Less than 45% FRL).[10] Table 5.1 shows the top 10 cities in each of these 9 categories by EEI Score.

Cities in Texas appear often on these lists. Some of this is due to the fact that Texas has a higher share of large cities than many other states: nearly 14% of large cities are located in Texas.[11] However, California is home to 26% of large cities, and they do not appear as frequently on lists of top cities based on 2015 EEI Score. As such, the concentration of schools in Texas can't be explained by the density of cities alone; the repeated presence of cities on the Texas/Mexico border at the top of these EEI lists is striking.

This same segmentation is useful to look at change in EEI Scores over time as well. Table 6.6 shows the top 5 cities by average year-over-year percentage change in EEI Scores by city segment:

Using a view of change over time, we see that many California cities have had the highest rates of progress between 2011 and 2015 based on EEI Score, particularly among large, high poverty cities, among medium-sized cities, and among small, low poverty cities. We encourage readers to not just look at simple rankings of cities based on EEI results, but also to look at how cities compare to others that share similar characteristics.

TABLE 5.1: TOP LARGE CITIES ON 2015 EEI SCORE, SEGMENTED BY CITY SIZE AND POVERTY LEVEL

	Large Size (Enrollment > 45,000)	**Medium Size (Enrollment <= 45,000 & >21,000)**	**Small Size (Enrollment <= 21,000)**
High Poverty (%FRL > 70)	El Paso, TX - 71.4 Laredo, TX - 66.4 New York, NY - 62.2 Houston, TX - 59.9 Chicago, IL - 58.6 Dallas, TX - 56.1 Anaheim, CA - 52.0 Santa Ana, CA - 52.0 Los Angeles, CA - 48.1 Fontana, CA - 47.1	Brownsville, TX - 79.9 Dearborn, MI - 72.1 Garden Grove, CA - 67.7 Mesquite, TX - 67.4 Pasadena, TX - 66.5 El Monte, CA - 65.8 Grand Prairie, TX - 62.8 Jersey City, NJ - 57.6 Irving, TX - 57.0 Springfield, MA - 54.9	McAllen, TX - 71.6 Joliet, IL - 65.7 Lowell, MA - 57.8 South Gate, CA - 54.5 Macon, GA - 53.6 Elgin, IL - 52.9 Rockford, IL - 52.5 Tyler, TX - 51.4 Norwalk, CA - 50.7 Waco, TX - 50.6
Medium Poverty (%FRL < 70 & > 45)	San Francisco, CA - 65.3 Indianapolis, IN - 61.0 Spokane, WA - 60.3 Austin, TX - 60.1 Glendale, CA - 58.9 San Antonio, TX - 58.5 Tucson, AZ - 57.7 Chula Vista, CA - 57.2 Boston, MA - 56.7 Arlington, TX - 56.0	Amarillo, TX - 67.7 Salem, OR - 64.4 Garland, TX - 63.4 Fayetteville, NC - 60.7 Downey, CA - 59.6 Tacoma, WA - 59.6 Everett, WA - 59.5 Fort Wayne, IN - 58.0 Killeen, TX - 57.4 Evansville, IL - 55.8	Richardson, TX - 66.6 Glendale, CA - 65.8 Carrollton, TX - 65.4 West Covina, CA - 64.7 Clarksville, TN - 62.9 Independence, MO - 57.2 Abilene, TX - 55.5 Kent, WA - 54.2 Hampton, VA - 54.0 Allentown, PA - 52.7
Low Poverty (%FRL < 45)	Chandler, AZ - 61.6[12] Seattle, WA - 60.1 Virginia Beach, VA - 59.6 Mesa, AZ - 54.8 Raleigh, NC - 42.1 Buffalo, NY - 31.7	Plano, TX - 62.5 Clovis, CA - 59.5 Lincoln, NE - 58.5 Surprise, AZ - 58.1 Eugene, OR - 58.0 Elk Grove, CA - 57.9 Round Rock, TX - 56.3 Irvine, CA - 55.6 Frisco, TX - 53.9 Naperville, IL - 52.4	Pearland, TX - 62.6 Allen, TX - 59.5 Orem, UT - 57.7 Murfreesboro, TN - 57.4 Overland Park, KS - 53.0 Sandy, UT - 52.3 Cary, NC - 51.5 Rancho Cucamonga, CA - 51.0 San Marcos, CA - 48.6 Roswell, GA - 46.4

TABLE 5.2: TOP LARGE CITIES ON CUMULATIVE AVERAGE YEAR-OVER-YEAR EEI CHANGE, SEGMENTED BY CITY SIZE AND POVERTY LEVEL

	Large Size (Enrollment > 45,000)	Medium Size (Enrollment <= 45,000 & >21,000)	Small Size (Enrollment <= 21,000)
High Poverty (%FRL > 70)	Memphis, TN - 14.1% Stockton, CA - 5.7% Anaheim, CA - 5.1% San Bernardino, CA - 4.6% Laredo, TX - 3.1%	Yakima, WA - 11.0% Dearborn, MI - 10.2% Shreveport, LA - 8.8% Hayward, CA - 7.4% Des Moines, IA - 7.2%	Joliet, IL - 9.6% Rockford, IL - 7.9% Yonkers, NY - 5.8% McAllen, TX - 5.7% Elgin, IL - 5.4%
Medium Poverty (%FRL < 70 & > 45)	San Francisco, CA - 9.5% Louisville, KY - 7.8% Riverside, CA - 4.8% San Jose, CA - 4.8% Omaha, NE - 4.7%	El Cajon, CA - 14.5% Escondido, CA - 8.4% Norfolk, VA - 8.2% Evansville, IN - 7.8% Downey, CA - 7.2%	Clarksville, TN - 15.9% Kent, WA - 10.1% Fairfield, CA - 9.4% Glendale, CA - 9.2% Costa Mesa, CA - 8.5%
Low Poverty (%FRL < 45)	Virginia Beach, VA - 9.9%[13] Raleigh, NC - 7.3% Seattle, WA - 5.3%	Irvine, CA - 12.8% Naperville, IL - 12.6% Elk Grove, CA - 12.1% Fremont, CA - 11.3% Temecula, CA - 10.1%	Santa Clarita, CA - 14.7% Carlsbad, CA - 13.8% San Marcos, CA - 9.8% Thousand Oaks, CA - 8.7% Cary, NC - 8.1%

WHAT DOES OUR ANALYSIS SHOW ABOUT THE PERFORMANCE OF LOW-INCOME STUDENTS OVERALL COMPARED TO THE NATIONAL DISTRIBUTION?

While there are many bright spots of both cities and schools whose students are performing highly on a national scale, our analysis reveals that, overall, the performance of low-income students at most schools still lags far behind their advantaged peers. In 2015, amongst large cities, ***the average low income student at 83% of schools performed below the national average for all students, while at only 4% of schools did the average low-income student perform above the national average for non-low-income students.***

Our dataset of large cities represents almost 6 million low-income students nationally, and about 5 million of them are in schools where the low-income student performance lags below the national average.

We found 500 schools in these cities (almost 4% of schools in our analysis), where the average low-income student performance exceeded the national average of non-low-income students. These schools are more likely to serve fewer low-income students on average.

This underscores the fact that, while many spotlights of success exist in schools across the nation, we have a long way to go to provide equitable access to high-performing schools for students from low-income families.

TABLE 6: DISTRIBUTION OF SCHOOLS AND FRL STUDENTS IN LARGE CITIES BASED ON LOW-INCOME ACHIEVEMENT CATEGORIES

FRL Performance Category	% of Schools	Count of Schools	% of FRL Students	Count of FRL Students	Avg. Enrollment	Avg. % FRL
< FRL National Avg.	48%	6,576	53%	3,058,829	613	78%
> FRL National Avg. & < All National Avg.	35%	4,819	35%	2,010,978	713	61%
> All National Avg. & < Non-FRL National Avg.	13%	1,801	10%	589,036	753	46%
> Non-FRL National Avg.	4%	500	2%	132,704	737	39%
Grand Total	100%	13,696	100%	5,791,547	671	66%

FURTHER EXPLORATION WITH THE EEI

A LOOK AT TEXAS

Of the top 10 cities with the highest EEI Scores, eight are in Texas, and the top three Texas cities are located along the Rio Grande River, from ***El Paso*** (#4) on the far western tip of south Texas to ***Brownsville*** (#1) and ***McAllen*** (#3) in the Rio Grande Valley (***Laredo***, ranked #10, also lies along the river). In its winding path through the deserts of south Texas, the river serves multiple purposes, at times a recreational attraction, a geological boundary between Mexico and the United States, and an important water source for the agricultural region near the Gulf of Mexico. The educational ecosystem in these three cities includes a mix of school districts, charter schools, and postsecondary institutions. In each city, over 80% of the student population is Hispanic, and at least 70% of students qualify for free or reduced-price lunch. Over one-quarter of students are English language learners, and the student mobility rate hovers around 16%. EEI Scores for these three Texas cities range from 71 to 79, putting them at the top of the 300 largest cities included in the analysis.

The distribution of low-income students in these three cities across Low-Income Achievement Categories highlights just how well students in these communities are doing relative to students in the rest of the country. Nationally, only 15% of FRL students attend schools in which FRL students perform better than the average of all students nationally in math, compared to 54% for Brownsville, McAllen, and El Paso. Results on reading assessments are slightly weaker but still better than the national average, with 25% of FRL students in the three cities attending schools in which FRL students outperform national NAEP-adjusted average proficiency rates for all students, compared to 14% of FRL students in the U.S. overall. Further research is needed to understand whether the difference between subjects may be explained in part by the large ELL student populations that these cities serve.

Two caveats are important to keep in mind when evaluating the EEI results for these Texas cities. First, due to their high concentrations of poverty, these cities receive a relatively large positive adjustment on the EEI Score. However, the Low-Income Achievement Categories, as described above, demonstrate that, even without the adjustment for concentration of poverty, the results for low-income students in these cities is very strong. Second, high school results are not included for Texas schools, because, instead of grade-level exams for high schools, they use end-of-course exams, which can't be incorporated in the NAEP adjustment.

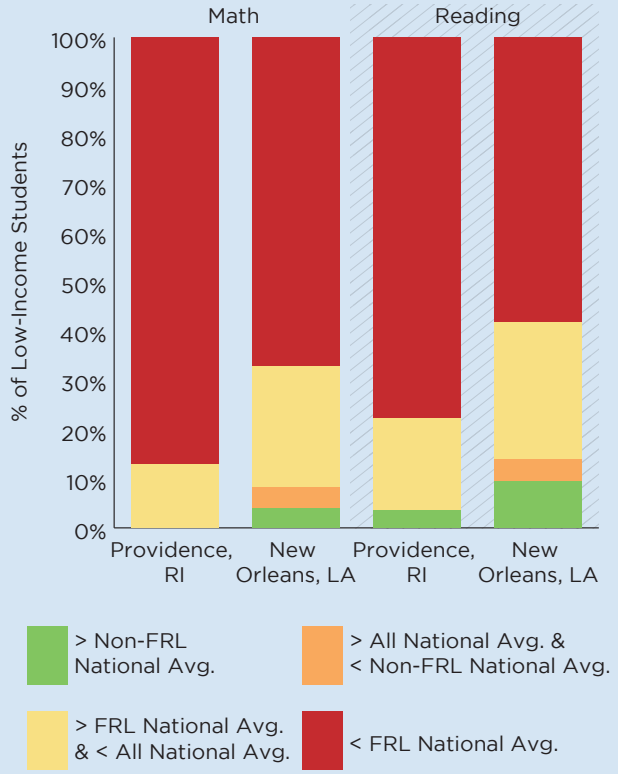
That said, the results for these Texas cities are particularly impressive, considering that Texas proficiency rates experienced a sizable *negative* adjustment to create a NAEP-equivalent value. The average negative adjustment for schools in Texas was 1.3 standard deviations, the second largest among the 45 states included in the analysis.

The EEI does not explain why students from low-income families in these schools and cities are doing better than their peers – including non-FRL peers in some cases – in the rest of the country. Local education leaders offer a few theories. Persistently high poverty rates have required deep, region-wide collaborations that recognize the importance of long-term partnerships. "There is a history of not having resources in the border area. Local leaders have had to mobilize through authentic partnerships to ensure that our students have the resources they need to be successful," says Dr. Luzelma Canales, Executive Director of RGV Focus, a collective impact initiative that focuses its work on the four counties in the Valley. In El Paso, pre-kindergarten and Head Start educators participate in shared, rigorous professional development offered by Education Service Center-Region 19 (ESC-Region 19), a regional partner that provides and coordinates supports to schools and districts, in order to build continuity for students between the early childhood experience and the PK-K classroom. In addition, because low-income students constitute a majority of the student body in these cities, instructional strategies, wraparound programs, social-emotional learning approaches, and community partnerships are all aligned explicitly to support low-income students and their learning needs. Leaders believe deeply in the benefit of having "homegrown" educators who understand the nuances of the cultural and language difficulties that students face, and who see biliteracy and biculturalism from a strengths-based perspective. Also, the Rio Grande Valley has the highest concentration of Early College High Schools in the state. The purposeful alignment of the K-to-16 trajectory can increase academic rigor, even in primary grades. Finally, parent advocacy and support is deeply valued and cultivated. As Dr. Armando Aguirre, Executive Director of ESC-Region 19, describes, "We focus on the importance of the parent. Parents feel empowered, even if they are first generation and of low socioeconomic status. We make it a point to focus on those [families] to make it clear their involvement is key."

The insights of local leaders, taken in the context of the EEI results and methodology, represent an opportunity to conduct further research so educators and policymakers can understand the key levers that yield the best outcomes for low-income students. For example, do cities with "homegrown" educators have an advantage in raising low-income student achievement compared to cities or school systems that recruit nationally? Can strategies designed in these cities for low-income students be successfully replicated in other communities with a high-density of FRL students? What is the relationship between EEI Scores and college readiness or postsecondary success among low-income students? We hope the EEI can be a starting point for additional inquiries and not an ending point in the national dialogue about schools and cities that are helping students from low-income families succeed.

COMPARING TWO CITIES

FIGURE 6.1: PERCENT OF FRL STUDENTS IN TOP TEN LARGE CITIES BY LOW-INCOME ACHIEVEMENT CATEGORIES COMPARED TO NATIONAL AVERAGE

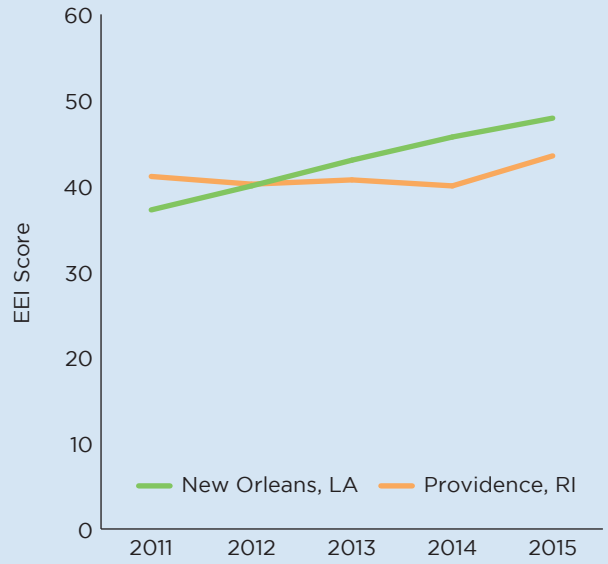


The Education Equality Index (EEI) was structured to create measures that are user-friendly for comparison purposes, but it is important to remember that the EEI is a *summary* of multiple points of data. Therefore, interpretation of the EEI benefits from a closer look at the underlying results rather than drawing conclusions based on the EEI Score alone.

For example, consider two cities: New Orleans, Louisiana, and Providence, Rhode Island. These two cities are similar in size (between 24,000-28,000 students) and both serve high percentages of FRL students (at least 70%).

The educational system in ***New Orleans*** has received much national attention after it experienced a re-set in 2005 due to the devastating effects of Hurricane Katrina, with new governance structures replacing existing models of school operations and oversight. Forty-four schools fall within the city's footprint, 91% of which are charter schools. Eighty-three percent of the city's students are African-American and 8% are white. The largest city in Rhode Island, ***Providence,*** also has a history of embracing education improvement efforts, such as a pilot pre-K program, blended learning, and P-TECH programs in high school. Twelve-percent of the 41 schools in Providence are charter schools, and 63% of students in Providence schools are Hispanic, 18% are African-American, and 10% are white.

FIGURE 6.2: EEI TRENDS 2011-2015



As Figure 6.2 shows, in New Orleans, 8% of low-income students attend schools in which FRL students perform better than the average of all students nationally in Math, compared to 0% for Providence. Results for both cities are slightly better in reading: 13% of low-income students in New Orleans and 4% of low-income students in Providence attend schools in which FRL students outperform the average of all students nationally. These distributions raise important questions for further study. For example, why does New Orleans have examples of schools that perform higher for FRL students in both Math and Reading, while Providence only has examples of schools performing higher for FRL students in Reading, but not Math? What strategies or factors may account for these differences by subject in these two cities? (Nationally, the low-income achievement gap category distribution across subjects is nearly identical.) Which schools fall into which categories? Are there schools that do well in both subjects?

New Orleans' EEI Score is higher than Providence's (48 vs. 43), but the difference is relatively modest. However, the trajectory of each city's EEI Score may also highlight differences in each city's experience. New Orleans has shown improvement in its EEI Score since 2011, increasing steadily from 37 in 2011 to 48 in 2015, averaging about 3 EEI points of growth per year. Providence, on the other hand, has remained largely flat from 2011 to 2014, but experienced a 3-point increase in its EEI Score in 2015. It's worth exploring what factors in New Orleans might account for this consistent growth relative to other cities in the nation. Have there been changes in policy, student demographics, school support resources, or instructional strategies that may have contributed to the recent increase shown in Providence's EEI Score?

It's also worth looking more closely at school-level EEI Scores within these cities. Are schools with similar EEI Scores clustered geographically? Or is there an equitable distribution of school quality across the city? In Providence, for example, schools with average EEI Scores are dispersed city-wide, but there is a notable clustering of schools with below average EEI Scores in the Lower South Providence neighborhood. In New Orleans, two schools – Miller-McCoy Academy and Robert Russa Moton Charter School – are roughly one mile apart, but Miller-McCoy is rated Far Below Average while Robert Russa Moton is rated Above Average. While these schools differ in terms of FRL percentages and grade spans, are there lessons that can be shared between these schools?

It's also important to look at how EEI Scores compare for schools with similar levels of poverty concentration. For example, New Orleans and Providence each had three schools with at least 75% of students qualifying for free or reduced-price lunch that scored at least 70 (above average) on the EEI. Do these schools share similar approaches to teaching and learning? Are there commonalities in operating environments, school type, or governance arrangements that might help explain their EEI Scores?

As these research questions show, the EEI and Low-Income Achievement Categories help facilitate a conversation about which schools and cities have concentrations of students from low-income families that are overcoming systemic barriers to success, and where these students are lagging farthest behind. Exploring the underlying patterns and results for each individual city, including school-level and subject-level results, is a critical element to fully leverage the usefulness of the EEI.

USE CASES FOR THE EEI

We hope that the EEI is used by researchers, advocates, and education stakeholders to identify schools and cities where students from low-income families are achieving strong results relative to their peers. While the EEI cannot be used to tell us why schools or cities have different results, it can be used at the national, state, or local levels as a spotlight to identify areas for further exploration and research. Following are suggestions for how to use the EEI in various contexts and the limits to what the EEI can provide in these contexts.

HOW TO INTERPRET THE EEI

When using the EEI at the school- or city-level, there are two main components to look at:

The ***Low-Income Achievement Category*** shows a distribution of how FRL students in that city or school perform relative to all students in the country, on a common national scale. The benefit of this approach is that it provides a fuller distribution that reflects the performance outcomes of FRL students, with clear and understandable common, national benchmarks. However, a key limitation is that it does not include an adjustment for concentrated poverty. The Low-Income Achievement Category does not include an adjustment for concentration of poverty at the school- or city-level because it is meant to compare the performance of low-income students at that school or city to the performance of low-income, non-low-income, and all students nationally based on a single standard.

To address this, the ***EEI Score*** provides a single index score that summarizes the performance of FRL students in a given city or school, while taking into account the concentration of poverty in that city or school. The benefit of this approach is that it creates a single score that facilitates comparison across cities and across years, while accounting for concentrated poverty. A key limitation is that, because of the adjustment factor, it is harder to interpret the meaning behind an index score.

The EEI does:

- Highlight schools and cities across the country with stronger performance for low-income students as well as places where low-income students are struggling the most.
- Track how cities and schools progress over time in the performance of FRL students, relative to other FRL students across the country.
- Identify cities and schools across the country for further investigation based on the performance of low-income students.

The EEI does not:

- Provide an absolute measure of performance of FRL students in a given city or school. Because it is a relative measure, improvement on the EEI does not mean that the school or city has necessarily improved on an absolute basis, but that it has improved relative to all other cities/schools in the country.
- Explain why low-income students in a particular school or city are doing well or not so well.
- Analyze the gap between low-income and high-income students within a particular school or city. For our purposes, we focused on low-income students and how they perform against a national benchmark, rather than focusing on within-school or within-city differences.

USING THE EEI AT A NATIONAL LEVEL

At a national level, the EEI can shed light on differences across cities and states in the performance of FRL students. Here are a few examples:

- National advocacy groups can use EEI data to evaluate how FRL students are performing within public schools, make comparisons across different cities, shine a spotlight on success, and support calls for improvement.
- Journalists can explore the EEI data on www.EducationEqualityIndex.org, and dig into trends within cities of interest, identifying schools where low-incomes students are doing the best.
- Funders can use the EEI as an additional data point to track the academic progress of efforts in cities across the country, compared to national averages.
- Researchers can download a .csv file of the complete set of EEI results for the 300 most populous cities in America, including both city-level and school-level data, at www.EducationEqualityIndex.org to explore further research (see below for suggestions). Researchers can also reach out to GreatSchools at data@greatschools.org to explore deeper data sharing partnerships.

USING THE EEI AT THE STATE LEVEL

- State education agencies can use the EEI to identify cities in their state where low-income students are making the most progress, and compare their own state-level data and accountability systems with these results on a national scale. State leaders can reach out to educators working in schools where low-incomes students are doing the best and support policies that are likely to expand that success.
- Governors and Mayors can share EEI results to celebrate schools in their state and city that are demonstrating high achievement for low-income students.
- State advocacy groups can celebrate schools where low-income students are successful and use the data to support the case for more equitable access to quality schools for low-income students.

USING THE EEI AT THE LOCAL LEVEL

- School boards and school district staff can use the EEI to understand the performance of FRL students at schools within their jurisdiction, within a national context that takes into account the level of rigor of state assessments. They can easily identify schools where students from low-income families are making the most progress in academic achievement.
- School operators can understand their own FRL student performance on a national scale and connect to other schools across the country that may be facing similar challenges but have FRL students achieving higher results.
- Local advocacy groups can use the EEI data to make the case for needed reforms that better address the learning needs of students in poverty, and to celebrate schools in their community where students are beating the odds.
- Parents can evaluate how students from low-income families are performing in their child's school, identify the highest performing schools in their community from this perspective, and encourage their own child's school to focus on the needs of students in poverty.

SUGGESTIONS FOR FURTHER RESEARCH

The EEI is a purely descriptive measure, but as a national measure that disaggregates down to the school level, it can be leveraged in a variety of research contexts to explore further into what could be causing a particular outcome for low-income students. For example, the EEI could be combined with other data sets to explore connections between FRL student performance on a national scale and:

- School governance models. Are some governance models associated with better or worse low-income student performance? How does this vary across states and over time?
- School funding. States differ dramatically in their school funding policy contexts. How are funding resources related to low-income student performance?
- School choice conditions. There are also large differences across states in their school choice policies. Is the availability of various forms of school choice related to the performance of low income students?
- Diversity and integration. Diversity and integration at the school level have been core policy topics in education. How are school diversity and integration related to the performance of low-income students?
- City demographics other than income, such as racial composition, language, etc. We also know there are systematic differences in student performance along other demographic dimensions. How are city-level differences in these other factors related to the performance of low-income students?

Finally, we urge states to continue to invest in ways to report student outcome data for students from low-income families. First, states, districts, and schools that opt into the Community Eligibility Option with the National School Lunch Program should ensure that student performance data remains disaggregated by FRL-eligibility. Second, states should work together to find new ways of identifying, and reporting disaggregated data for, students in poverty.

APPENDICES

APPENDIX A: LIST OF GRADES AND SUBJECTS INCLUDED BY STATE, BY YEAR

Year	State	Math									Reading								
2011	AK	3	4	5	6	7	8	9	10	11	3	4	5	6	7	8	9	10	11
	CA	3	4	5	6	7			10		3	4	5	6	7	8	9	10	
	CO	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10	
	CT	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	DC	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	FL	3	4	5	6	7	8												
	ID	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10	
	IL	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	KS	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	LA	3	4	5	6	7	8				3	4	5	6	7	8			
	MA	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	MD	3	4	5	6	7	8				3	4	5	6	7	8			
	MI	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	MN	3	4	5	6	7	8			11	3	4	5	6	7	8		10	
	MO	3	4	5	6	7	8				3	4	5	6	7	8			
	NC	3	4	5	6	7	8				3	4	5	6	7	8			
	ND	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NE	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NH	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NJ	3	4	5	6	7	8			11	3	4	5	6	7	8			
	NM	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NV	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NY	3	4	5	6	7	8				3	4	5	6	7	8			
	OH	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	OR	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	PA	3	4	5	6	7	8			11	3	4	5	6	7	8			11

Year	State	Math									Reading								
2011	RI	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	SC	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	SD	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	TN	3	4	5	6	7	8				3	4	5	6	7	8			
	TX	3	4	5	6	7	8	9	10	11	3	4	5	6	7	8	9	10	11
	VA	3	4	5	6	7	8				3	4	5	6	7	8			
	VT	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	WA	3	4	5	6	7	8	9			3	4	5	6	7	8		10	
	WI	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	WV	3	4	5	6	7	8	9	10	11	3	4	5	6	7	8	9	10	11
	WY	3	4	5	6	7	8			11	3	4	5	6	7	8			11
2012	AK	3	4	5	6	7	8	9	10	11	3	4	5	6	7	8	9	10	11
	CA	3	4	5	6	7			10		3	4	5	6	7	8	9	10	
	CO	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10	
	CT	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	DE	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10	
	FL	3	4	5	6	7	8				3	4	5	6	7	8	9	10	
	IA	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	ID	3	4	5	6	7	8	9	10	11	3	4	5	6	7	8	9	10	11
	IL	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	IN	3	4	5	6	7	8				3	4	5	6	7	8			
	KS	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	KY	3	4	5	6	7	8				3	4	5	6	7	8			
	LA	3	4	5	6	7	8				3	4	5	6	7	8			
	MA	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	MI	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	MN	3	4	5	6	7	8			11	3	4	5	6	7	8		10	
	MO	3	4	5	6	7	8				3	4	5	6	7	8			
	NC	3	4	5	6	7	8				3	4	5	6	7	8			
	ND	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NE	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NH	3	4	5	6	7	8			11	3	4	5	6	7	8			11

Year	State	Math									Reading									
2012	NJ	3	4	5	6	7	8			11	3	4	5	6	7	8				
	NM	3	4	5	6	7	8		10	11	3	4	5	6	7	8		10	11	
	NV	3	4	5	6	7	8			11	3	4	5	6	7	8			11	
	NY	3	4	5	6	7	8				3	4	5	6	7	8				
	OH	3	4	5	6	7	8		10		3	4	5	6	7	8		10		
	OR	3	4	5	6	7	8			11	3	4	5	6	7	8			11	
	PA	3	4	5	6	7	8			11	3	4	5	6	7	8			11	
	RI	3	4	5	6	7	8			11	3	4	5	6	7	8			11	
	SC	3	4	5	6	7	8		10		3	4	5	6	7	8		10		
	SD	3	4	5	6	7	8			11	3	4	5	6	7	8			11	
	TN	3	4	5	6	7	8				3	4	5	6	7	8				
	TX	3	4	5	6	7	8				3	4	5	6	7	8				
	VA	3	4	5	6	7	8				3	4	5	6	7	8				
	VT	3	4	5	6	7	8			11	3	4	5	6	7	8			11	
	WI	3	4	5	6	7	8		10		3	4	5	6	7	8		10		
	WV	3	4	5	6	7	8	9	10	11	3	4	5	6	7	8	9	10	11	
	WY	3	4	5	6	7	8			11	3	4	5	6	7	8			11	
2013	AK	3	4	5	6	7	8	9	10	11	3	4	5	6	7	8	9	10	11	
	CA	3	4	5	6	7			10		3	4	5	6	7	8	9	10		
	CO	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10		
	CT	3	4	5	6	7	8		10		3	4	5	6	7	8		10		
	DC	3	4	5	6	7	8		10		3	4	5	6	7	8		10		
	DE	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10		
	FL	3	4	5	6	7	8				3	4	5	6	7	8	9	10		
	IA	3	4	5	6	7	8			11	3	4	5	6	7	8			11	
	ID	3	4	5	6	7	8	9	10	11	3	4	5	6	7	8	9	10	11	
	IL	3	4	5	6	7	8			11	3	4	5	6	7	8			11	
	IN	3	4	5	6	7	8				3	4	5	6	7	8				
	KY	3	4	5	6	7	8				3	4	5	6	7	8				
	LA	3	4	5	6	7	8				3	4	5	6	7	8				
	MA	3	4	5	6	7	8		10		3	4	5	6	7	8		10		
	MI	3	4	5	6	7	8			11	3	4	5	6	7	8			11	

Year	State	Math									Reading								
2013	MN	3	4	5	6	7	8			11	3	4	5	6	7	8		10	
	MO	3	4	5	6	7	8				3	4	5	6	7	8			
	NC	3	4	5	6	7	8				3	4	5	6	7	8			
	ND	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NE	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NH	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NJ	3	4	5	6	7	8			11	3	4	5	6	7	8			
	NM	3	4	5	6	7	8		10	11	3	4	5	6	7	8		10	11
	NV	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NY	3	4	5	6	7	8				3	4	5	6	7	8			
	OH	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	OR	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	PA	3	4	5	6	7	8				3	4	5	6	7	8			
	RI	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	SC	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	SD	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	TN	3	4	5	6	7	8				3	4	5	6	7	8			
	TX	3	4	5	6	7	8				3	4	5	6	7	8			
	VA	3	4	5	6	7	8				3	4	5	6	7	8			
	VT	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	WA	3	4	5	6	7	8	9			3	4	5	6	7	8		10	
	WI	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	WY	3	4	5	6	7	8			11	3	4	5	6	7	8			11

Year	State	Math									Reading								
2014	AK	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10	
	AL	3	4	5	6	7	8				3	4	5	6	7	8			
	AZ		4	5	6	7	8		10		3	4	5	6	7	8		10	
	CO	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10	
	DC	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	DE	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10	
	FL	3	4	5	6	7	8				3	4	5	6	7	8	9	10	
	IA	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	ID								10	11								10	11
	IL	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	IN	3	4	5	6	7	8	9			3	4	5	6	7	8	9		
	KY	3	4	5	6	7	8				3	4	5	6	7	8			
	LA	3	4	5	6	7	8				3	4	5	6	7	8			
	MA	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	MI	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	MN	3	4	5	6	7	8			11	3	4	5	6	7	8		10	
	MO	3	4	5	6	7	8				3	4	5	6	7	8			
	NC	3	4	5	6	7	8				3	4	5	6	7	8			
	ND	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NE	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NH	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NJ	3	4	5	6	7	8			11	3	4	5	6	7	8			
	NM	3	4	5	6	7	8		10	11	3	4	5	6	7	8		10	11
	NV	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NY	3	4	5	6	7	8				3	4	5	6	7	8			
	OH	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	OR	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	PA	3	4	5	6	7	8				3	4	5	6	7	8			
	RI	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	SC	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	TN	3	4	5	6	7	8				3	4	5	6	7	8			
	TX	3	4	5	6	7	8				3	4	5	6	7	8			

Year	State	Math									Reading								
2014	UT	3	4	5	6	7	8				3	4	5	6	7	8	9	10	11
	VA	3	4	5	6	7	8				3	4	5	6	7	8			
	VT	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	WA	3	4	5	6	7	8	9			3	4	5	6	7	8		10	
	WI	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	WY	3	4	5	6	7	8			11	3	4	5	6	7	8			11
2015	AK	3	4	5	6	7	8	9	10										
	AZ	3	4	5	6	7	8				3	4	5	6	7	8	9	10	11
	CA	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	CO	3	4	5	6	7	8				3	4	5	6	7	8	9	10	11
	DC	3	4	5	6	7	8				3	4	5	6	7	8			
	GA	3	4	5	6	7	8				3	4	5	6	7	8			
	IA	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	IL	3	4	5	6	7	8				3	4	5	6	7	8			
	IN	3	4	5	6	7	8	9	10		3	4	5	6	7	8	9	10	
	KS	3	4	5	6	7	8		10		3	4	5	6	7	8		10	
	KY	3	4	5	6	7	8				3	4	5	6	7	8			
	LA	3	4	5	6	7	8				3	4	5	6	7	8			
	MA	3	4	5	6	7	8		10		3	4	5	6	7	8	9	10	11
	MD	3	4	5	6	7	8												
	MI	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	MN	3	4	5	6	7	8			11	3	4	5	6	7	8		10	
	MO	3	4	5	6	7	8				3	4	5	6	7	8			
	NC	3	4	5	6	7	8				3	4	5	6	7	8			
	NE	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NH	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	NJ	3	4	5	6	7	8				3	4	5	6	7	8	9	10	11
	NM	3	4	5	6	7	8	9	10	11	3	4	5	6	7	8	9	10	11
	NY	3	4	5	6	7	8				3	4	5	6	7	8			
	OH	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	OR	3	4	5	6	7	8			11	3	4	5	6	7	8			11
	PA	3	4	5	6	7	8												

Year	State	Math							Reading								
2015	RI	3	4	5	6	7	8		3	4	5	6	7	8	9	10	
	SC	3	4	5	6	7	8		3	4	5	6	7	8			
	SD	3	4	5	6	7	8	11	3	4	5	6	7	8			11
	TN	3	4	5	6	7	8		3	4	5	6	7	8			
	TX	3	4	5	6	7	8		3	4	5	6	7	8			
	UT	3	4	5	6	7	8		3	4	5	6	7	8	9	10	11
	VA	3	4	5	6	7	8		3	4	5	6	7	8			
	VT	3	4	5	6	7	8	11	3	4	5	6	7	8			11
	WA	3	4	5	6	7	8	11	3	4	5	6	7	8			11
	WY	3	4	5	6	7	8	11	3	4	5	6	7	8			11

APPENDIX B: NAEP LOW-INCOME ACHIEVEMENT CATEGORY CUT POINTS BY YEAR, GRADE, AND SUBJECT

			Grade								
Year	**Subject**	**Nslp**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
2011	Math	FRL	25.34	24.03	22.71	21.4	20.09	18.77	17.46	16.14	14.83
		All Students	41.21	39.68	38.15	36.61	35.08	33.54	32.01	30.48	28.94
		non-FRL	59.4	56.95	54.51	52.07	49.62	47.18	44.73	42.29	39.85
	Reading	FRL	18.2	18.18	18.15	18.13	18.1	18.07	18.05	18.02	18
		All Students	32.6	32.4	32.21	32.01	31.81	31.62	31.42	31.22	31.03
		non-FRL	48.99	47.99	46.98	45.98	44.98	43.97	42.97	41.96	40.96
2012	Math	FRL	26.25	24.84	23.42	22.01	20.59	19.18	17.76	16.34	14.93
		All Students	42.13	40.51	38.88	37.25	35.62	33.99	32.36	30.74	29.11
		non-FRL	60.82	58.28	55.75	53.21	50.68	48.15	45.61	43.08	40.54
	Reading	FRL	18.84	18.89	18.95	19	19.05	19.11	19.16	19.22	19.27
		All Students	33.28	33.21	33.14	33.07	33	32.93	32.86	32.79	32.72
		non-FRL	50.19	49.35	48.51	47.68	46.84	46	45.16	44.32	43.48
2013	Math	FRL	27.17	25.65	24.13	22.61	21.1	19.58	18.06	16.54	15.03
		All Students	43.05	41.33	39.61	37.89	36.16	34.44	32.72	31	29.27
		non-FRL	62.24	59.62	56.99	54.36	51.74	49.11	46.49	43.86	41.24
	Reading	FRL	19.47	19.6	19.74	19.87	20.01	20.15	20.28	20.42	20.55
		All Students	33.97	34.02	34.08	34.14	34.19	34.25	34.31	34.36	34.42
		non-FRL	51.39	50.72	50.05	49.37	48.7	48.03	47.35	46.68	46.01
2014	Math	FRL	26.59	25.03	23.47	21.9	20.34	18.78	17.22	15.66	14.09
		All Students	42.12	40.36	38.59	36.82	35.05	33.29	31.52	29.75	27.98
		non-FRL	61.54	58.9	56.25	53.61	50.96	48.32	45.67	43.03	40.39
	Reading	FRL	20.59	20.47	20.35	20.23	20.11	19.99	19.87	19.75	19.64
		All Students	34.68	34.43	34.19	33.95	33.7	33.46	33.22	32.98	32.73
		non-FRL	52.27	51.27	50.27	49.27	48.27	47.27	46.26	45.26	44.26
2015	Math	FRL	26.01	24.41	22.8	21.19	19.59	17.98	16.37	14.77	13.16
		All Students	41.2	39.38	37.57	35.76	33.95	32.13	30.32	28.51	26.7
		non-FRL	60.84	58.17	55.51	52.85	50.19	47.52	44.86	42.2	39.53
	Reading	FRL	21.7	21.33	20.96	20.59	20.21	19.84	19.47	19.09	18.72
		All Students	35.39	34.84	34.3	33.76	33.22	32.67	32.13	31.59	31.04
		non-FRL	53.15	51.83	50.5	49.17	47.84	46.51	45.18	43.85	42.52

APPENDIX C: FULL LIST OF LARGE CITIES (SCHOOL-AGE POPULATION >= 16,742) WITH SUFFICIENT DATA, BASED ON EEI SCORE.

City - State	School Aged Rank	2015 School Aged Population Estimate	Avg. FRLPCT city	EEI 2015	Average Chage Over Time
Abilene, TX	256	19,354	62%	55.5	0.1%
Albuquerque, NM	26	95,051	58%	45.3	2.4%
Allen, TX	195	23,849	16%	59.5	-2.1%
Allentown, PA	219	21,998	57%	52.7	0.3%
Amarillo, TX	100	38,140	66%	67.7	2.2%
Anaheim, CA	48	68,745	74%	52.0	5.1%
Anchorage, AK	62	55,259	49%	41.5	-0.6%
Antioch, CA	198	23,214	67%	29.3	5.8%
Arlington, TX	38	78,013	68%	56.0	1.4%
Aurora, IL	83	45,149	61%	41.0	7.0%
Austin, TX	16	138,843	52%	60.1	1.0%
Bakersfield, CA	33	84,069	68%	41.2	2.5%
Baltimore, MD	28	92,656	73%	35.7	
Baton Rouge, LA	107	36,346	58%	38.1	5.1%
Beaumont, TX	238	20,554	73%	42.5	-8.3%
Boston, MA	40	77,388	68%	56.7	-2.5%
Brockton, MA	288	17,538	83%	47.8	-2.9%
Brownsville, TX	81	45,972	94%	79.9	1.3%
Buffalo, NY	85	43,614	29%	31.7	-6.8%
Carlsbad, CA	239	20,535	17%	46.0	13.8%
Carrollton, TX	180	25,701	53%	65.4	0.3%
Carson, CA	295	17,070	69%	39.9	1.6%
Cary, NC	132	33,072	22%	51.5	8.1%
Cedar Rapids, IA	220	21,908	44%	39.2	1.0%
Chandler, AZ	67	52,166	28%	61.6	
Charlotte, NC	14	145,569	67%	49.1	-0.7%
Chesapeake, VA	82	45,673	36%	51.2	1.6%
Chicago, IL	3	440,728	86%	58.6	1.1%
Chula Vista, CA	63	55,012	46%	57.2	4.0%
Cincinnati, OH	84	43,887	47%	53.4	1.7%

City - State	School Aged Rank	2015 School Aged Population Estimate	Avg. FRLPCT city	EEI 2015	Average Chage Over Time
Clarksville, TN	167	28,045	49%	62.9	15.9%
Clovis, CA	225	21,774	38%	59.5	3.9%
Compton, CA	196	23,532	76%	38.9	0.5%
Concord, CA	234	20,715	62%	33.9	5.8%
Corona, CA	103	37,115	48%	49.5	5.9%
Corpus Christi, TX	55	60,602	65%	51.7	-1.8%
Costa Mesa, CA	297	16,981	65%	47.2	6.4%
Dallas, TX	8	232,716	81%	56.1	-2.9%
Dearborn, MI	236	20,652	73%	72.1	10.2%
Denton, TX	269	18,870	59%	52.5	-0.5%
Des Moines, IA	113	35,546	71%	46.4	7.2%
Downey, CA	204	22,615	65%	59.6	7.2%
Durham, NC	97	38,645	63%	38.3	2.6%
El Cajon, CA	272	18,766	62%	52.7	14.5%
El Monte, CA	192	23,930	93%	65.8	6.3%
El Paso, TX	15	144,398	75%	71.4	1.4%
Elgin, IL	218	22,086	74%	52.9	5.4%
Elk Grove, CA	98	38,223	43%	57.9	12.1%
Escondido, CA	153	29,533	64%	42.4	8.4%
Eugene, OR	226	21,740	44%	58.0	2.8%
Evansville, IN	276	18,351	61%	55.8	7.8%
Everett, WA	300	16,742	55%	59.5	2.5%
Fairfield, CA	213	22,255	52%	41.6	7.0%
Fayetteville, NC	115	34,940	66%	60.7	7.0%
Federal Way, WA	287	17,607	60%	46.2	-3.2%
Fontana, CA	70	50,413	79%	47.1	0.0%
Fort Wayne, IN	74	48,941	51%	58.0	1.2%
Fort Worth, TX	11	169,997	66%	52.2	-0.4%
Fremont, CA	91	41,333	18%	45.4	11.3%
Fresno, CA	23	110,251	74%	39.9	-1.7%
Frisco, TX	105	36,594	12%	53.9	-4.9%

City - State	School Aged Rank	2015 School Aged Population Estimate	Avg. FRLPCT city	EEI 2015	Average Chage Over Time
Fullerton, CA	188	24,507	43%	46.9	2.5%
Garden Grove, CA	131	33,149	75%	67.7	5.4%
Garland, TX	71	49,511	69%	63.4	-1.0%
Glendale, AZ	73	48,986	54%	58.9	
Glendale, CA	172	27,741	62%	65.8	6.9%
Grand Prairie, TX	89	42,069	71%	62.8	0.3%
Greensboro, NC	79	46,225	69%	43.6	-3.9%
Hampton, VA	214	22,242	60%	54.0	7.7%
Hayward, CA	176	26,909	74%	37.4	7.4%
Hesperia, CA	211	22,298	73%	32.1	-4.1%
High Point, NC	249	19,959	71%	45.3	-0.4%
Houston, TX	4	408,728	74%	59.9	-2.3%
Huntington Beach, CA	142	31,294	26%	51.8	8.0%
Independence, MO	264	18,995	67%	57.2	4.6%
Indianapolis, IN	12	148,452	67%	61.0	4.2%
Inglewood, CA	228	21,663	80%	44.0	-3.4%
Irvine, CA	93	40,594	15%	55.6	12.8%
Irving, TX	88	42,353	72%	57.0	-0.6%
Jersey City, NJ	104	37,001	76%	57.6	0.8%
Joliet, IL	137	32,382	83%	65.7	9.6%
Jurupa Valley, CA	255	19,361	73%	43.3	0.8%
Kansas City, KS	151	29,656	84%	44.9	-7.8%
Kent, WA	199	23,105	61%	54.2	7.6%
Killeen, TX	171	27,880	64%	57.4	3.8%
Knoxville, TN	194	23,903	41%	37.5	1.9%
Lafayette, LA	247	20,042	66%	47.7	4.6%
Lancaster, CA	111	35,604	75%	32.7	6.2%
Lansing, MI	265	18,984	60%	33.8	1.1%
Laredo, TX	52	64,635	85%	66.4	3.1%
Las Cruces, NM	290	17,483	61%	34.6	4.0%
League City, TX	242	20,351	22%	41.1	-6.7%

City - State	School Aged Rank	2015 School Aged Population Estimate	Avg. FRLPCT city	EEI 2015	Average Chage Over Time
Lee's Summit, MO	246	20,065	23%	45.5	6.3%
Lewisville, TX	280	18,103	54%	44.4	-6.9%
Lexington, KY	78	46,230	52%	53.6	3.8%
Lincoln, NE	87	42,989	44%	58.5	0.8%
Long Beach, CA	32	84,871	68%	51.0	4.3%
Los Angeles, CA	2	655,361	79%	48.1	2.7%
Louisville, KY	24	103,997	62%	54.1	7.8%
Lowell, MA	279	18,155	71%	57.8	-1.2%
Lubbock, TX	94	40,345	66%	52.7	2.3%
Macon, GA	164	28,400	97%	53.6	
Mcallen, TX	145	30,859	77%	71.6	5.7%
Mckinney, TX	101	37,629	27%	52.2	2.9%
Memphis, TN	19	81,856	85%	46.8	14.1%
Mesa, AZ	29	87,759	45%	54.8	
Mesquite, TX	141	31,853	75%	67.4	0.5%
Midland, TX	184	25,261	46%	25.7	-10.6%
Minneapolis, MN	65	54,655	67%	42.9	4.3%
Mission Viejo, CA	291	17,391	23%	33.4	4.2%
Modesto, CA	92	40,986	69%	39.0	0.4%
Moreno Valley, CA	75	48,803	80%	45.7	2.3%
Murfreesboro, TN	235	20,683	38%	57.4	6.8%
Murrieta, CA	181	25,700	31%	48.1	6.5%
Naperville, IL	126	33,686	17%	52.4	12.6%
Newark, NJ	69	45,205		54.9	-0.6%
New Orleans, LA	59	58,053	70%	47.9	6.5%
New York, NY	1	1,308,212	72%	62.2	-2.2%
Newport News, VA	146	30,823	65%	44.9	1.3%
Norfolk, VA	118	34,495	66%	52.0	8.2%
North Charleston, SC	281	18,087	68%	41.1	0.8%
Norwalk, CA	190	23,999	80%	50.7	2.4%
Oakland, CA	54	61,213	74%	40.7	1.5%

City - State	School Aged Rank	2015 School Aged Population Estimate	Avg. FRLPCT city	EEI 2015	Average Chage Over Time
Oceanside, CA	154	29,516	59%	43.9	5.3%
Odessa, TX	197	23,318	51%	21.6	-15.0%
Olathe, KS	165	28,338	29%	45.0	0.0%
Omaha, NE	37	78,124	52%	48.1	4.7%
Ontario, CA	102	37,325	78%	34.0	-4.7%
Orange, CA	189	24,110	63%	44.9	5.0%
Orem, UT	253	19,553	40%	57.7	
Overland Park, KS	121	34,132	9%	53.0	-0.1%
Oxnard, CA	86	43,316	78%	34.7	-0.5%
Palmdale, CA	96	39,271	73%	43.1	4.2%
Pasadena, CA	268	18,919	73%	43.4	2.4%
Pasadena, TX	124	33,832	79%	66.5	-0.5%
Pearland, TX	216	22,199	27%	62.6	3.9%
Peoria, IL	251	19,792	72%	29.2	-8.1%
Philadelphia, PA	7	249,223	85%	40.7	-6.9%
Pittsburgh, PA	117	34,701	47%	45.4	-2.8%
Plano, TX	60	55,577	31%	62.5	4.8%
Pomona, CA	135	32,646	84%	51.2	6.2%
Providence, RI	152	29,569	80%	43.5	1.5%
Raleigh, NC	46	71,719	44%	42.1	7.3%
Rancho Cucamonga, CA	120	34,171	44%	51.0	5.7%
Rialto, CA	185	24,958	79%	42.9	-3.1%
Richardson, TX	273	18,728	47%	66.6	-0.5%
Richmond, CA	258	19,199	83%	41.1	2.9%
Richmond, VA	174	27,096	62%	43.9	-1.8%
Rio Rancho, NM	252	19,682	45%	47.6	-1.9%
Riverside, CA	53	63,195	69%	51.5	4.8%
Rochester, MN	267	18,966	40%	43.8	-0.5%
Rochester, NY	108	36,296	67%	34.4	-1.6%
Rockford, IL	173	27,135	84%	52.5	7.9%
Roseville, CA	183	25,402	28%	45.1	4.4%

City - State	School Aged Rank	2015 School Aged Population Estimate	Avg. FRLPCT city	EEI 2015	Average Chage Over Time
Roswell, GA	294	17,105	38%	46.4	
Round Rock, TX	179	25,867	33%	56.3	2.0%
Sacramento, CA	31	85,384	68%	43.6	1.8%
Salem, OR	156	29,290	65%	64.4	3.5%
Salinas, CA	119	34,466	72%	34.0	0.8%
Salt Lake City, UT	166	28,323	48%	55.8	
San Antonio, TX	6	282,210	68%	58.5	-0.4%
San Bernardino, CA	72	49,057	89%	44.9	4.6%
San Diego, CA	9	212,029	52%	53.2	3.5%
San Francisco, CA	39	77,833	65%	65.3	9.5%
San Jose, CA	10	179,709	47%	45.8	4.7%
San Marcos, CA	282	18,029	42%	48.6	9.8%
Sandy, UT	250	19,846	33%	52.3	
Santa Ana, CA	43	73,117	80%	52.0	0.8%
Santa Clara, CA	296	17,039	39%	32.5	1.5%
Santa Clarita, CA	109	36,292	35%	43.9	14.7%
Santa Maria, CA	205	22,595	72%	42.7	-0.1%
Santa Rosa, CA	161	29,045	53%	40.5	-0.7%
Savannah, GA	212	22,288	71%	34.0	
Seattle, WA	47	69,130	43%	60.1	5.3%
Shreveport, LA	116	34,905	73%	34.5	8.8%
Simi Valley, CA	191	23,963	40%	35.0	8.0%
Sioux Falls, SD	163	28,476	44%	50.1	0.5%
South Bend, IN	254	19,390	76%	50.5	-0.7%
South Gate, CA	221	21,883	88%	54.5	4.1%
Spokane, WA	133	33,057	54%	60.3	1.9%
Springfield, IL	260	19,117	71%	44.6	5.4%
Springfield, MA	147	30,405	80%	54.9	-0.1%
Springfield, MO	240	20,518	59%	46.9	-2.2%
Sterling Heights, MI	232	21,392	47%	40.5	3.3%
Stockton, CA	51	65,716	74%	41.8	5.7%

City - State	School Aged Rank	2015 School Aged Population Estimate	Avg. FRLPCT city	EEI 2015	Average Chage Over Time
Sunnyvale, CA	223	21,853	30%	33.3	7.7%
Surprise, AZ	186	24,914	39%	58.1	
Syracuse, NY	200	23,063	69%	17.5	-7.9%
Tacoma, WA	130	33,272	60%	59.6	7.2%
Temecula, CA	177	26,547	25%	43.6	10.1%
Thousand Oaks, CA	193	23,928	25%	33.8	8.7%
Torrance, CA	187	24,795	32%	50.0	7.7%
Tucson, AZ	30	87,721	55%	57.7	
Tyler, TX	286	17,733	72%	51.4	-0.6%
Vacaville, CA	299	16,747	37%	32.4	5.4%
Vallejo, CA	243	20,249	74%	30.3	3.4%
Vancouver, WA	157	29,213	52%	50.8	0.5%
Ventura, CA	277	18,321	45%	39.6	3.8%
Victorville, CA	158	29,212	80%	34.6	-3.5%
Virginia Beach, VA	44	72,892	38%	59.6	9.9%
Visalia, CA	169	27,972	63%	44.6	5.1%
Vista, CA	270	18,866	68%	45.4	5.7%
Waco, TX	208	22,501	82%	50.6	-2.9%
Warren, MI	210	22,469	64%	36.5	0.4%
West Covina, CA	245	20,178	69%	64.7	6.1%
West Jordan, UT	168	27,987	37%	50.0	
West Valley City, UT	143	31,055	69%	50.8	
Westminster, CO	257	19,345	48%	49.5	5.7%
Wichita, KS	45	72,533	72%	45.5	0.1%
Worcester, MA	162	28,646	74%	53.7	-2.2%
Yakima, WA	275	18,459	71%	54.7	11.0%
Yonkers, NY	139	32,179	75%	45.7	5.8%
Yuma, AZ	261	19,110	29%	42.4	

APPENDIX D: LIST OF TOP SCHOOLS IN LARGE CITIES BASED ON 2015 EEI SCORE (EEI SCORE IN THE "FAR ABOVE AVERAGE" CATEGORY)

School Name	City - State	Avg. School EEI	Enrollment	% FRL
51st Avenue Academy Aka The Path To Academic Excel	New York, NY	93.7	538	91%
A Hamilton Preparatory Academy	Elizabeth, NJ	92.3	973	83%
A. J. Cook Elementary School	Garden Grove, CA	92.6	379	66%
Abernethy Elementary School	Portland, OR	94.1	512	11%
Academy for Excellence Through the Arts	New York, NY	100	209	15%
Accelerated Interdisciplinary Academy	Houston, TX	94.8	254	97%
Achievement First Bushwick Charter School	New York, NY	91.6	1,030	91%
Alexander Ii Magnet School	Macon, GA	96.1	526	100%
Alhambra Traditional School	Phoenix, AZ	92.3	752	51%
Alicia R. Chacon Elementary School	El Paso, TX	90.9	785	73%
All City Leadership Secondary School	New York, NY	99.4	356	83%
Alliance Dr. Olga Mohan High School	Los Angeles, CA	93	458	98%
Alliance Marc & Eva Stern Math And Science	Los Angeles, CA	91.5	613	91%
Alpha Academy	Fayetteville, NC	90.8	649	97%
American Indian Public High School	Oakland, CA	97.2	214	73%
Andrews Elementary School	Plano, TX	100	699	3%
Animo Inglewood Charter High School	Inglewood, CA	99.1	633	94%
Arizona College Prep Academy	Tucson, AZ	93.1	121	62%
Arizona College Prep Erie Campus	Chandler, AZ	96.3	486	12%
Arizona College Prep Oakland Campus	Chandler, AZ	98.2	589	10%
Aurora Quest K-8	Aurora, CO	99.4	600	23%
Baccalaureate School for Global Education	New York, NY	100	476	29%
Balboa High School	San Francisco, CA	92.3	1,257	79%
Ballet Tech Nyc Ps For Dance	New York, NY	94.9	149	66%
Barack Obama Male Leadership Aca at BF Darrell Middle School	Dallas, TX	97.5	269	69%
Bard Early College High School	Newark, NJ	92.8	300	74%
Baylor College Of Medicine Academy	Houston, TX	94.6		51%
Bellevue Big Picture School	Bellevue, WA	94.2	343	18%
Ben Milam Elementary School	Dallas, TX	94.8	272	89%
Benavides Elementary School	Brownsville, TX	95.2	653	87%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Blackshear Elementary School	Austin, TX	94.4	276	88%
Blandford Nature Center	Grand Rapids, MI	91.1	62	31%
Bolsa Grande High School	Garden Grove, CA	91.4	2,054	81%
Borchardt Elementary School	Plano, TX	100	727	4%
Boston Latin Academy	Boston, MA	97.1	1,723	38%
Boston Latin School	Boston, MA	99.7	2,439	20%
Briarmeadow Charter School	Houston, TX	91.7	611	49%
Britt David Elementary Computer Magnet Academy	Columbus, GA	98.6	575	11%
Bronx Charter School For The Arts	New York, NY	93.9	315	93%
Bronx School For Law Government And Justice	New York, NY	93.9	771	92%
Brooke Charter School East Boston	Boston, MA	98		44%
Brooklyn School Of Inquiry	New York, NY	92	438	15%
C I Waggoner School	Tempe, AZ	92.6	612	21%
C M Rice Middle School	Plano, TX	91.7	1,176	3%
Caddo Parish Middle Magnet School	Shreveport, LA	91.4	1,281	21%
California Academy Of Mathematics And Science	Carson, CA	99.9	676	46%
Capitol Collegiate Academy	Sacramento, CA	91	217	98%
Cardenas Elementary School	Chicago, IL	94.1	696	99%
Carl C. Icahn Charter School 4	New York, NY	94.1	288	74%
Carver Center	Midland, TX	100	431	9%
Castaneda Elementary School	Brownsville, TX	98	568	94%
Central Magnet School	Murfreesboro, TN	100	1,230	10%
Central Queens Academy Charter School	New York, NY	95.4		91%
Champion Elementary School	Brownsville, TX	93.7	832	99%
Chandler Traditional Academy - Liberty Campus	Chandler, AZ	99.2	709	13%
Charles School At Ohio Dominican University	Columbus, OH	92.9	363	75%
Charter School Of Educational Excellence	Yonkers, NY	92.6	660	78%
Chin (John Yehall) Elementary School	San Francisco, CA	98.6	273	91%
City High School	Tucson, AZ	93.3	176	49%
City Honors School At Fosdick Masten Park	Buffalo, NY	95.3	1,001	30%
City On A Hill Charter Public School	Boston, MA	99.3	287	62%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Claiborne Fundamental Elementary School	Shreveport, LA	92.4	401	73%
Classical High School	Providence, RI	99.8	1,118	69%
Clayton Elementary School	Austin, TX	99.9	881	4%
Colorado Springs Early Colleges	Colorado Springs, CO	90	620	31%
Columbia Secondary School	New York, NY	99.5	660	46%
Columbus Preparatory Academy	Columbus, OH	99	673	51%
County Prep High School	Jersey City, NJ	93.9	708	57%
Dallas Environmental Science Acade	Dallas, TX	99.9	427	85%
Daniel Breeden Elementary School	Brownsville, TX	97.1	676	96%
DC Prep — Edgewood Elementary Campus	Washington, DC	92.5	432	82%
De Chaumes Elementary School	Houston, TX	92.3	832	90%
Delano Elementary School	Memphis, TN	91.7	240	86%
Denver School of Science and Technology: Green Valley Ranch High School	Denver, CO	94.4	505	72%
Denver School of Science and Technology: Stapleton High School	Denver, CO	93.5	514	56%
Design Science Early College High School	Fresno, CA	95.2	256	69%
Dirksen Elementary School	Chicago, IL	90	833	80%
Downtown Business High School	Los Angeles, CA	98.4	1,060	82%
Downtown Charter Academy	Oakland, CA	98.7	248	83%
Dr. Ronald Mc Nair Academy High School	Jersey City, NJ	94.6	716	50%
Dsst: Byers Middle School	Denver, CO	93.3		43%
Dsst: College View Middle School	Denver, CO	94		
Early College High School	Salem, OR	98.5	208	66%
Early College High School	Costa Mesa, CA	94.8	249	65%
East Side Middle School	New York, NY	95.3	449	8%
East West School Of International Studies	New York, NY	97.7	664	82%
Eastridge Elementary School	Lincoln, NE	100	279	33%
Edgemere Elementary School	El Paso, TX	95	657	72%
Edison Computech School	Fresno, CA	98.4	817	67%
Edward Brooke Charter School	Boston, MA	98.5	506	45%
Eisenhower Academy	Joliet, IL	99.4	262	98%
El Magnet At Reagan Elementary School	Odessa, TX	92.1	707	13%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Elfida Chavez Elementary School	El Paso, TX	91.9	845	68%
Elizabeth High School	Elizabeth, NJ	98.1	840	72%
Elkhorn School	Stockton, CA	99.1	286	33%
Energized For Stem Academy Central	Houston, TX	93.2	28	79%
Excellence Girls Charter School	New York, NY	93.7	590	77%
Face To Face Academy	St. Paul, MN	98.7	76	92%
Fairfield Court Elementary School	Richmond, VA	100	541	0%
Fairfield Magnet School	Shreveport, LA	95.5	465	14%
Field Elementary School	Houston, TX	94.3	480	82%
Francisco Bravo Medical Magnet High School	Los Angeles, CA	97.9	1,841	91%
Franklin Junior High School	Mesa, AZ	95.2	281	36%
Fred Rodgers Magnet Academy	Aurora, IL	92.1	449	69%
Friendship Acdmy Of Fine Arts Chtr.	Minneapolis, MN	98.7	136	95%
Frostwood Elementary School	Houston, TX	99.9	700	4%
Galileo High School	San Francisco, CA	95.2	1,909	83%
Gallegos Elementary School	Brownsville, TX	92.4	665	100%
Gambold Preparatory Magnet High School	Indianapolis, IN	90		78%
Garfield School	Phoenix, AZ	91.7	427	96%
Gateway Early College High School	Phoenix, AZ	96.4	248	89%
George Bannerman Dealey Internatio	Dallas, TX	97.7	189	48%
George Bannerman Dealey Montessori	Dallas, TX	90.2	439	42%
George W. Carver Elementary School	Richmond, VA	99.8	561	97%
Gilder Elementary School	Omaha, NE	94	433	82%
Glen Cove Elementary School	El Paso, TX	95.9	869	69%
Glenwood Elementary School	Amarillo, TX	94.9	394	93%
Golden Rule	Dallas, TX	93.2	165	92%
Gonzalez Elementary School	Brownsville, TX	90.6	901	92%
Graham Elementary School	Austin, TX	98.5	768	88%
Grand Concourse Academy Charter School	New York, NY	91.8	389	83%
Grand Prairie Collegiate Institute	Grand Prairie, TX	98		51%
Grand Prairie Fine Arts Academy	Grand Prairie, TX	96.2		47%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Greathouse Shryock Traditional	Louisville, KY	93.6	604	28%
Grossmont Middle College High School	El Cajon, CA	96.7	79	28%
Guerrero Thompson	Austin, TX	92.2	690	100%
Haines Elementary School	Chicago, IL	98.9	644	96%
Hairgrove Elementary School	Houston, TX	91.6	835	85%
Harlem Success Academy Charter School 2	New York, NY	97.9	739	85%
Harlem Success Academy Charter School 3	New York, NY	99.5	803	75%
Harlem Success Academy Charter School 4	New York, NY	99	618	80%
Harlem Success Academy Charter School 5	New York, NY	98.3	523	71%
Harry Stone Montessori Academy	Dallas, TX	98	194	72%
Haun Elementary School	Plano, TX	92.9	501	4%
Hawkins Elementary School	El Paso, TX	91.3	349	95%
Healy Elementary School	Chicago, IL	97.4	1,391	91%
Henry Ford Early College	Dearborn, MI	91.8	233	60%
Henry W Longfellow Career Explorat	Dallas, TX	99.6	425	88%
Hillside Academy For Excel	Garland, TX	91.4	463	51%
Hirsch Academy A Challenge Foundation	Scottsdale, AZ	91.5	144	96%
Hitchcock Elementary School	Omaha, NE	100	296	20%
Horizon Science Academy Cleveland	Cleveland, OH	91.2	470	80%
Houston Gateway Academy	Houston, TX	95.5	610	90%
Houston Gateway Academy - Coral Ca	Houston, TX	99	715	91%
Houston Gateway Academy Inc Elite	Houston, TX	96.4		95%
Houston Heights Learning Academy I	Houston, TX	100	166	91%
I.S. 187 The Christa Mcauliffe School	New York, NY	100	1,020	57%
I.S. 227 Louis Armstrong Intermediate School	New York, NY	93.6	1,633	66%
I.S. 98 Bay Academy	New York, NY	99.8	1,445	57%
Icahn Charter School 2	New York, NY	91.9	324	72%
Idea Brownsville Academy	Brownsville, TX	94.2		91%
Idea Mcallen Academy	Mcallen, TX	90.1		85%
Idea Mcallen College Preparatory	Mcallen, TX	97.6		85%
Iles Elementary School	Springfield, IL	99	448	25%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Impact Academy of Arts and Technology	Hayward, CA	94.5	468	71%
Infinity Institute	Jersey City, NJ	99.9	261	77%
Iris Becker Elementary School	Dearborn, MI	93.4	262	97%
Irma Rangel Young Womens Leadershi	Dallas, TX	100	283	74%
Is 230	New York, NY	91.6	1,077	83%
Is 237	New York, NY	91.9	1,183	85%
Is 25 Adrien Block	New York, NY	91.7	797	64%
Is 289	New York, NY	95.6	293	30%
Is 392	New York, NY	90.2	270	82%
James A Allison Elementary School 3	Indianapolis, IN	95.1	280	80%
James Irwin Charter Elementary School	Colorado Springs, CO	93.9	519	51%
Jhs 185 Edward Bleeker	New York, NY	93.6	1,526	77%
Jhs 201 The Dyker Heights	New York, NY	96.3	1,416	73%
Jhs 234 Arthur W Cunningham	New York, NY	94	1,917	63%
Jhs 259 William Mckinley	New York, NY	95.4	1,475	80%
Jhs 67 Louis Pasteur	New York, NY	95.3	886	42%
Jhs 74 Nathaniel Hawthorne	New York, NY	96.4	1,047	45%
John Marshall High School	Richmond, VA	100	767	83%
John P. Freeman Optional School	Memphis, TN	95.5	584	63%
K I P P: Academy Nashville	Nashville, TN	93.3	349	92%
Kazen Elementary School	Laredo, TX	96.8	550	91%
Kearny International Business School	San Diego, CA	94.5	428	72%
Kemps Landing Magnet	Virginia Beach, VA	100	1,098	11%
Kerr Elementary School	Allen, TX	91.5	700	5%
King Elementary School	Akron, OH	90.6	419	47%
King/Drew Medical Magnet High School	Los Angeles, CA	91	1,564	82%
Kipp Academy Middle	Houston, TX	93	400	94%
KIPP Academy Of Innovation	Los Angeles, CA	92.8	105	91%
Kipp East End	Houston, TX	93	838	93%
KIPP Empower Academy	Los Angeles, CA	90.8	567	89%
KIPP Heritage Academy	San Jose, CA	90.2	105	73%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
KIPP Los Angeles College Preparatory School	Los Angeles, CA	97.6	495	94%
KIPP Raices Academy	Los Angeles, CA	99.2	536	93%
KIPP San Jose Collegiate	San Jose, CA	95.2	475	71%
Kipp Sharp College Prep	Houston, TX	98.9	890	92%
Kipp Shine Prep	Houston, TX	97.1	823	94%
Kittredge Magnet School	Atlanta, GA	98.3	456	12%
Knox Gifted Academy	Chandler, AZ	99.9	532	10%
La Vega Elementary School	Waco, TX	97	702	85%
Lake Forest Elementary Charter School	New Orleans, LA	96.8	531	77%
Lake Pointe Elementary School	Austin, TX	100	676	5%
Lasalle Intermediate Academy	South Bend, IN	93.7	854	46%
Lau (Gordon J.) Elementary School	San Francisco, CA	92.8	648	92%
Laura Welch Bush Elementary School	Austin, TX	93.7	862	2%
Lawton Alternative Elementary School	San Francisco, CA	95.7	601	66%
Leadership Preparatory Ocean Hill Charter School	New York, NY	92.7	607	85%
Leadership Public Schools - Hayward	Hayward, CA	93.8	507	67%
Lenart Elementary Regional Gifted Center	Chicago, IL	92.1	287	41%
Liberty Collegiate Academy	Nashville, TN	93.1	416	93%
Lighthouse Community Charter High School	Oakland, CA	97.1	262	89%
Lincoln Elementary School	Oakland, CA	91.2	737	90%
Locke A Elementary Charter Academy	Chicago, IL	93.2	579	95%
Longoria Elementary School	Brownsville, TX	90.5	381	89%
Los Angeles International Charter High School	Los Angeles, CA	93.7	256	90%
Lowell High School	San Francisco, CA	98.1	2,718	52%
Lowrey Middle School	Dearborn, MI	94.6	626	89%
Lusher Charter School	New Orleans, LA	93.4	1,691	19%
Lyons Elementary School	Houston, TX	91.5	1,060	87%
Manchester Gate	Fresno, CA	99.1	749	45%
Manzano Middle School	Brownsville, TX	90.1	899	95%
Maples Elementary School	Dearborn, MI	91.9	624	98%
Maria L. Varisco-Rogers Charter School	Newark, NJ	94	520	88%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Mark Twain is 239 for the Gifted and Talented	New York, NY	97.7	1,300	27%
Martin Luther King Junior Magnet- Pearl High School	Nashville, TN	96.7	1,224	43%
Mary Adams Elementary School	Indianapolis, IN	92.1	514	37%
Marzolf Primary School	Pittsburgh, PA	93.3	354	45%
Masterman Julia R Secondary School	Philadelphia, PA	99.8	1,180	32%
Math, Science, & Technology Magnet Academy At Roosevelt High	Los Angeles, CA	94.3	442	76%
Mathews Elementary School	Plano, TX	100	502	7%
McCall Gen George A School	Philadelphia, PA	91.5	681	70%
Mccoy Elementary School	Carrollton, TX	92.3	422	61%
Mcculloch Intermediate School	Dallas, TX	99.9	1,096	1%
Mcdade Elementary Classical School	Chicago, IL	99.2	182	47%
Mcfadden School Of Excellence	Murfreesboro, TN	100	388	0%
Medgar Evers College Preparatory School	New York, NY	99.9	1,269	73%
Meigs Middle Magnet School	Nashville, TN	90	699	29%
Mempis Business Academy Elementary School	Memphis, TN	90.9	265	91%
Middle College High School	San Bernardino, CA	99.7	273	90%
Middle College High School	Stockton, CA	98.8	242	33%
Middle College High School	Santa Ana, CA	98.5	328	94%
Middle School 223 Laboratory School of Finance and Technology	New York, NY	92.6	502	97%
Mission San Jose High School	Fremont, CA	90.1	2,129	4%
Mission Valley Elementary School	El Paso, TX	94.1	558	87%
Morgan Park High School	Chicago, IL	95	1,425	87%
Mott Hall Ii	New York, NY	90.5	335	38%
Ms 131	New York, NY	91.2	405	95%
Ms 158 Marie Curie	New York, NY	94.2	1,039	57%
Ms 255 Salk School Of Science	New York, NY	93.4	366	8%
Nashua Elementary School	Kansas City, MO	95.8	374	23%
New Explorations Into Science, Tech and Math High School	New York, NY	98.1	1,717	10%
New Vision Academy	Nashville, TN	90.5	178	90%
No 22 William F Halloran	Elizabeth, NJ	97.9	862	72%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
North Star Academy Charter School of Newark	Newark, NJ	98.2	3,403	84%
Number 28 Elementary School	Paterson, NJ	100	525	7%
Nyc Lab Ms For Collaborative Studies	New York, NY	99.9	557	35%
Oakland Charter High School	Oakland, CA	99.5	350	87%
Oakland Unity High School	Oakland, CA	95.3	311	89%
Oakwood Junior High School	Dayton, OH	92.9	370	0%
Ocsa	Santa Ana, CA	90.9	1,922	12%
Olympic Hills Elementary School	Seattle, WA	93.2	298	74%
Ortega Elementary School	Austin, TX	95.3	326	95%
Ortiz Elementary School	Brownsville, TX	96.8	665	97%
P.S. 172 Beacon School Of Excellence	New York, NY	99.9	597	86%
P.S. 682 The Academy of Talented Scholars	New York, NY	90.6	356	36%
Pacific Rim Elementary School	Carlsbad, CA	90	866	7%
Palmetto Scholars Academy	North Charleston, SC	95.3	350	31%
Paramount School Of Excellence	Indianapolis, IN	95.6	616	90%
Patsy Sommer Elementary School	Austin, TX	99.9	992	1%
PEARLS Hawthorne	Yonkers, NY	91.5	1,001	31%
Perez Elementary School	Chicago, IL	94.2	331	99%
Phoenix College Preparatory Academy	Phoenix, AZ	97.3	105	85%
Phoenix Union Bioscience High School	Phoenix, AZ	98	307	62%
Poe Elementary Classical School	Chicago, IL	98.6	199	49%
Ponca Elementary School	Omaha, NE	100	144	49%
Prairie Creek Elementary School	Richardson, TX	92.8	328	2%
Project Chrysalis Middle School	Houston, TX	99.6	236	88%
Ps 12 James B Colgate	New York, NY	94.3	1,274	93%
Ps 124 Yung Wing	New York, NY	91	867	46%
Ps 125 Ralph Bunche	New York, NY	99	223	100%
Ps 126 Jacob August Riis	New York, NY	95.1	809	79%
Ps 130 Hernando De Soto	New York, NY	91.3	997	49%
Ps 131 Abigail Adams	New York, NY	95.4	824	85%
Ps 133	New York, NY	94.3	485	58%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Ps 159	New York, NY	93.4	654	56%
Ps 161 Arthur Ashe School	New York, NY	91.2	678	94%
Ps 176 Ovington	New York, NY	95	1,382	89%
Ps 184 Shuang Wen	New York, NY	98.1	663	75%
Ps 188 Kingsbury	New York, NY	90.1	693	23%
Ps 20 John Bowne	New York, NY	90.9	1,393	94%
Ps 203 Oakland Gardens	New York, NY	96.5	905	37%
Ps 205 Alexander Graham Bell	New York, NY	93.8	322	36%
Ps 206 Joseph F Lamb	New York, NY	90.3	1,411	76%
Ps 22 Thomas Jefferson	New York, NY	93.8	813	91%
Ps 221 The North Hills School	New York, NY	93.7	641	42%
Ps 229 Dyker	New York, NY	91.3	1,164	46%
Ps 242 Leonard P Stavisky Early Childhood School	New York, NY	94.3	405	72%
Ps 254	New York, NY	91.7	663	81%
Ps 254 Dag Hammarskjold	New York, NY	91.1	733	65%
Ps 31 Samuel F Dupont	New York, NY	92.4	621	72%
Ps 310	New York, NY	96.3	423	91%
Ps 315 Lab School	New York, NY	92	282	100%
Ps 32 State Street	New York, NY	91	950	63%
Ps 42 Benjamin Altman	New York, NY	91.6	773	68%
Ps 46 Alley Pond	New York, NY	91.1	599	45%
Ps 66 Jacqueline Kennedy Onassis	New York, NY	93.2	539	93%
Ps 69 Vincent D Grippo School	New York, NY	94.9	843	96%
Ps 748 Brooklyn School For Global Scholars	New York, NY	97.3	573	68%
PS 98 The Douglaston School	New York, NY	91.3	198	22%
Puc Lakeview Charter High School	Los Angeles, CA	91.5	388	90%
Queens College School For Math Science And Techno	New York, NY	92.2	504	56%
Queens Gateway To Health Sciences Secondary School	New York, NY	99.6	779	79%
Rainier View	Seattle, WA	94.1	194	68%
Ralph A Fabrizio School	New York, NY	90.9	985	96%
Ramona Elementary School	El Paso, TX	90.4	322	81%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Raquel Pena Elementary School	Brownsville, TX	95.3	675	98%
Resaca Elementary School	Brownsville, TX	97	285	95%
Richards School For Young Women Leade	Austin, TX	95.8	764	64%
Richardson PREP HI Middle School	San Bernardino, CA	95.1	609	78%
Rise Academy	Lubbock, TX	97.9	267	91%
Rise Kohyang Middle School	Los Angeles, CA	91.6	324	84%
Ritzman Community Learning Center	Akron, OH	92.2	399	63%
Robert F Wagner Junior Secondary School-Arts and Technology	New York, NY	97.9	614	76%
Robert Treat Academy Charter School	Newark, NJ	98.1	625	72%
Sam Houston Elementary School	Dallas, TX	97.2	241	80%
San Jose Charter Academy	West Covina, CA	90.7	1,228	49%
Santa Rosa Accelerated Charter School	Santa Rosa, CA	97	128	13%
Scholars Academy	New York, NY	99.9	1,302	44%
Scotsdale Elementary School	El Paso, TX	91.9	887	58%
Ser-Ninos Charter Elementary School	Houston, TX	91.9	574	97%
Sharpstown International School	Houston, TX	97.3	1,033	95%
Sheridan Elementary Math & Science Academy	Chicago, IL	90.7	557	58%
Sidener Academy for High Ability Students	Indianapolis, IN	99.8	353	42%
Skinner Elementary School	Chicago, IL	94.2	963	29%
Skinner North Elementary School	Chicago, IL	99.9	418	20%
Soar High (Students on Academic Rise) School	Lancaster, CA	98.6	409	63%
Soaring Heights Charter School	Jersey City, NJ	92.5	236	51%
Solomon Elementary School	Chicago, IL	94	355	66%
South Bronx Classical Charter School	New York, NY	99.2	373	85%
South Lawn Elementary School	Amarillo, TX	90.1	465	74%
South Loop Elementary School	El Paso, TX	96	433	95%
Southmost Elementary School	Brownsville, TX	90.3	455	93%
Springdale Elementary School	Macon, GA	95.2	622	100%
Stem Magnet Academy Elementary	Chicago, IL	90	392	41%
Stevenson (Robert Louis) Elementary School	San Francisco, CA	91.4	465	58%
Stockton Unified Early College Academy	Stockton, CA	98.8	375	44%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Success Academy Bronx 1	New York, NY	99.6	535	82%
Success Academy Bronx 2	New York, NY	98.6		69%
Success Academy Harlem 1	New York, NY	96.8	931	77%
Sumner Academy Of Arts & Science	Kansas City, KS	91.3	917	75%
Sunset Elementary School	San Francisco, CA	90.8	402	42%
T.C.P. World Academy	Cincinnati, OH	93.4	528	78%
Taft High School	Chicago, IL	95.2	3,185	63%
Tag Young Scholars	New York, NY	99.7	538	50%
Talkington School For Young Women	Lubbock, TX	93.1	415	51%
Tanglewood Elementary School	Fort Worth, TX	90.3	751	5%
Technology Engineering & Communications	Seattle, WA	90.8	290	76%
Technology High School	Newark, NJ	95	594	85%
Terence C. Reilly School #7	Elizabeth, NJ	99.3	1,004	72%
The Academy I Middle School	Jersey City, NJ	98.6	477	73%
The Active Learning Elementary School	New York, NY	98	440	85%
The Anderson School	New York, NY	96	572	10%
The Discovery School @ Bellwood	Murfreesboro, TN	95.1	411	17%
The Math And Science Exploratory School	New York, NY	93.9	518	23%
The Mott Hall School	New York, NY	92.4	280	84%
The Vanguard School (High)	Colorado Springs, CO	99.9		34%
Thurgood Marshall School	Rockford, IL	99.5	556	45%
Trautmann Elementary School	Laredo, TX	96.3	792	63%
Triangle Math and Science Academy	Cary, NC	90.2	458	13%
Ulloa Elementary School	San Francisco, CA	96.4	515	69%
University Preparatory School	Victorville, CA	92.4	1,109	76%
Vermillion Road Elementary School	Brownsville, TX	90.3	897	99%
Village Academy High School At Indian Hill	Pomona, CA	90.7	383	92%
Walnut Glen Academy For Excel	Garland, TX	93.8	529	54%
Ward J Elementary School	Chicago, IL	91.9	512	88%
Washington (George) High School	San Francisco, CA	92	2,001	72%
Washington Gifted School	Rockford, IL	99.7	514	31%

School Name	City - State	Avg. School EEI	Enrollment	% FRL
Washington Gifted School	Peoria, IL	93.5	282	22%
Watershed High School	Minneapolis, MN	93.4	51	100%
Werner Elementary School	Fort Collins, CO	94.7	544	15%
West Campus	Sacramento, CA	98.3	850	59%
West Englewood Elementary School	Kansas City, MO	91.2	447	67%
West Ridge Elementary School	Chicago, IL	92.6	727	92%
West Ridge Middle School	Austin, TX	92.3	898	5%
West University Elementary School	Houston, TX	99.9	1,266	2%
Westdale Heights Academic Magnet School	Baton Rouge, LA	96.7	445	16%
Whittier Elementary School	Amarillo, TX	97.9	562	96%
Wilchester Elementary School	Houston, TX	99.9	735	1%
Wilkerson Elementary School	El Monte, CA	90.7	538	96%
William B Travis Acad/Vangrd For A	Dallas, TX	100	274	34%
William B Travis Acdmy/Vngrd For A	Dallas, TX	100	132	15%
William Yates Elementary School	Independence, MO	95.9	388	53%
Willoughby Elementary School	Norfolk, VA	100	204	67%
Windsor Elementary School	Amarillo, TX	97.1	468	22%
Windsor Park G/T	Corpus Christi, TX	99.3	617	27%
Wonderland Avenue Elementary School	Los Angeles, CA	92.7	542	5%
Yes Prep - Southwest	Houston, TX	93.6	876	96%
York Early College Academy	New York, NY	94.4	613	85%
Yoshikai Elementary School	Salem, OR	93.2	536	100%
Young Magnet High School	Chicago, IL	100	2,205	43%
Young Women's College Prep Academy	Houston, TX	92.9	522	70%
Young Women's Leadership Academy	Fort Worth, TX	99.9	312	76%
Young Women's Leadership Academy	San Antonio, TX	99.7	415	63%
Young Women's Leadership School of Queens	New York, NY	96	560	82%
Yturria Elementary School	Brownsville, TX	92.2	508	83%
Yu (Alice Fong) Elementary School	San Francisco, CA	94.4	579	38%
Zavala Elementary School	El Paso, TX	92.3	286	93%

(ENDNOTES)

1 Reardon, Sean, 'The Widening Achievement Gap,' Educational Leadership, May 2013, Vol. 70, No. 8. http://www.ascd.org/publications/educational-leadership/may13/vol70/num08/The-Widening-Income-Achievement-Gap.aspx

2 While we know that "low-income" refers to a student's family, not to a student, we will use the phrase "low-income students" throughout this report to refer to students from low-income families.

3 In some cases, states have not released school-level test data disaggregated by subgroup and grade. For example, some states don't release complete data in the first year after adopting a new assessment.

4 We use the term "Low-Income Achievement Categories" as shorthand to refer to categories that show how the achievement of students from low-income families compares to the national distribution of all students.

5 Peer effects refer to the idea that students have effects on one another's performance. In the presence of peer effects, the same student will perform differently depending upon the composition of classroom peers.

6 Percents may not add to 100% due to rounding.

7 While 11% of cities nationally have an "above average" EEI Score (above 70), fewer numbers of large cities have "above average" EEI Scores because they are an average of larger numbers of schools. As we aggregate up from the grade-subject level to the city-level, weighting by numbers of students, many within-city differences in larger cities are canceled out. Given that, it's particularly notable to look at large cities with high EEI Scores.

8 Because the EEI is a distribution relative measure, change over time represents change of position in the distribution, not absolute change. So, for instance, an increase in the EEI of a particular school may be due to improvements in FRL student performance at that school, decreases in FRL student performance at other schools, or both.

9 In order to account for the fact that states with missing years of data may have a higher variance in average percent change than states with data for all years, we fill in the average year-over-year change for missing years of data and calculate the average percent change over a five year period.

10 These cut-points were determined based on cutting the distribution into thirds, while also taking into account natural breaks in the data.

11 A notable state missing from the 2015 analysis is Florida, which did not provide FRL data for that year.

12 There are only 6 large low poverty cities in the top 300 cities with adequate coverage levels.

13 There are only 3 large low poverty cities in the top 300 cities with adequate coverage levels that have a positive cumulative average change over time.