

# **Comparisons and Systems Research of States' Accountability Measures**

**Preliminary Report presented to the Georgia Department of Education's Every Student  
Succeeds Act (ESSA) Working Committees  
November 2016**

Richard O. Welsh, Ph.D.  
University of Georgia  
Department of Lifelong Education, Administration and Policy  
Email: rowelsh@uga.edu; Phone: 706-542-7223

### Abstract

The purpose of this study is to provide a state-by-state comparison of accountability models to inform the work of Georgia's Every Student Succeeds Act (ESSA) working committees. In this preliminary report, Georgia's accountability model, the College and Career Ready Performance Index (CCRPI), is compared to a select group of Southeastern (Florida, Kentucky, Louisiana, Tennessee, and Virginia) and high-performing – based on the National Assessment of Educational Progress (NAEP) – states (Massachusetts, New Jersey, New Hampshire, Vermont, and Maryland).

Overall findings:

**Demographics:** In Georgia, as the percentage of African American and Free and Reduced Price Lunch (FRPL) students in a school increases and the percentage of White students decreases, school performance decreases. School performance decreases as the percentage of Hispanic students increases, however, not as distinctly as other racial/ethnic subgroups (the proportion of Hispanic students in F schools is less than that of D, C and B schools and similar to A schools).

**Gaps:** 'A' schools and 'F' schools have the widest performance gap in regards to achievement points and the smallest gaps in regards to earning progress points.

**Weights:** Overall, states generally place emphasis on growth at the elementary level, whereas proficiency and other indicators to gauge college and career readiness play a larger role in high schools; however, Georgia uses uniform achievement and growth weights across grade levels. Georgia's use of achievement gap and bonus points warrants further consideration.

**Variation:** There is large variation among states' accountability models in regards to the formula used to calculate performance. Other variations include: number, type, and weight of indicators, ranking system, scaled points, and growth measures.

**Rating System:** States use a variety of rating systems including: letter grades, numeric levels, categories, star systems, and color coding. States used a variety of scaled points – Georgia (1-100), Louisiana (0-150), Tennessee (0-4) and Florida (800-1000). No high-performing state analyzed used an A-F grading system.

**Measuring Performance:** Of the five Southeastern states analyzed, only two other states have letter grades for performance. Georgia schools have to earn 82% of possible points or greater to earn an 'A,' whereas Louisiana schools must earn 67% or greater and Florida schools 62% or greater. Georgia schools have to earn 53% of possible points or less to earn an 'F', whereas Louisiana schools must earn 32% or less and Florida schools 31% or less. Overall, it appears that Georgia has a harsher grading scale than other Southeastern states. Georgia's accountability system appears to identify the tails of school performance distribution fairly accurately (A & F schools), however, the middle of the distribution (B, C, and D schools) appear to be the schools that would trend higher on other states' accountability models (especially Southeastern states).

ESSA gives Georgia the opportunity to examine the characteristics of other states' accountability models and make refinements to its existing model to measure school performance. This preliminary report provides a state-by-state comparison, inventory of indicators, and issues for the ESSA working committees to discuss.

School accountability, in particular how school quality is measured, is a central plank of a state's education policy. With the recent passage of the ESSA, it is important to examine how school performance is judged in Georgia and gauge how Georgia's schools compare to schools in other states.<sup>1</sup>

This preliminary report provides an evaluation of the College and Career Ready Performance Index (CCRPI)<sup>2</sup> through a comparative analysis. First, I compare Georgia's school accountability system to accountability systems in a select group of Southeastern and high-performing states (based on the 2015 reading and mathematics scores on the National Assessment of Educational Progress (NAEP)). Next, I use school-level data to empirically explore how Georgia's schools would perform using other states' accountability systems.

Overall, this analysis provides empirical evidence to better understand how the performance of public K-12 schools in Georgia is measured by identifying trends, patterns, differences and similarities in how Georgia grades its schools relative to other states. It also informs how particular elements of Georgia's accountability system can be improved as well as what elements of Georgia's accountability system are working well. The objective of this research project is to provide state-to-state comparisons and systems research and analysis services for Georgia's ESSA working committees.

---

<sup>1</sup> Accountability is the concept of holding entities responsible for outcomes they can directly control or manipulate and the process of evaluating school performance based on student performance (Figlio & Loeb, 2011). The two most common approaches to measuring school effectiveness are the use of student achievement levels (e.g., the use of proficiency rates) and the use of student achievement growth (e.g., the Student Growth Percentiles). Achievement levels are students' achievement at a particular point in time. Achievement growth is the *change* in students' achievement over time that can be attributed to policies and practices within a school. In the typical accountability system, schools are predominantly evaluated on the achievement level of their students (Polikoff et al., 2014). Because achievement levels are typically strongly correlated with student demographics, arguments have been posited to include growth measures in the evaluation of school performance. Over time, federal policy has encouraged the expansion of the use of growth models in school accountability (Figlio & Loeb, 2011). Other critical factors influencing the effectiveness of accountability systems include: a) the identification of subgroups and exclusion requirements (which students are counted?), b) measurement error especially for small schools, and c) the consequences of and response of school personnel to accountability (Figlio & Loeb, 2011).

<sup>2</sup> In Georgia, school performance is measured using the CCRPI and each school and local education agency is provided a letter grade (A-F) based on the CCRPI score. The CCRPI encompasses four components: Achievement, Progress, Achievement Gap and Challenge Points (ED/EL/SWD Performance Points and Exceeding the Bar Points).

## Results

### CCRPI: A Brief Descriptive Overview

Table 1 compares the average demographic composition, enrollment, CCRPI, and CCRPI and FRPL percentiles across the letter grades of schools in Georgia.

**Table 1**

#### Demographics, enrollment and CCRPI by letter grades

|   | African American | Hispanic | White | FRPL | Enrollment | CCRPI | Percentile :FRPL | Percentile: CCRPI |
|---|------------------|----------|-------|------|------------|-------|------------------|-------------------|
| A | 19%              | 8%       | 61%   | 35%  | 834        | 94    | 3                | 10                |
| B | 25%              | 12%      | 57%   | 52%  | 786        | 84    | 4                | 8                 |
| C | 34%              | 13%      | 48%   | 65%  | 796        | 75    | 5                | 6                 |
| D | 49%              | 13%      | 33%   | 76%  | 799        | 65    | 7                | 3                 |
| F | 73%              | 9%       | 15%   | 86%  | 579        | 53    | 8                | 1                 |

- The table shows that as school performance decreases, the percentage of African American and FRPL students in a school increases and the percentage of White students decreases.
- In other words, schools in the top percentile of school performance are generally in the lowest percentile of FRPL and schools in the bottom percentile of school performance are typically in the highest percentile of FRPL.
- CCRPI is negatively correlated with percentage of FRPL students in a school (-0.61) and African American students (-0.56) but is positively correlated with the percentage of White students in a school (0.51).
- It appears the lowest performing schools tend to be smaller schools with a high concentration of African American and FRPL students.

Table 2 shows the CCRPI components by letter grades.

**Table 2**

**CCRPI components by letter grades<sup>3</sup>**

|   | Achievement | Progress | Achievement<br>Gap | Challenge | Performance | ETB  |
|---|-------------|----------|--------------------|-----------|-------------|------|
| A | 54.44       | 22.02    | 13.07              | 3.81      | 3.08        | 0.73 |
| B | 47.87       | 21.45    | 9.84               | 5.23      | 4.63        | 0.60 |
| C | 41.81       | 21.07    | 7.71               | 4.35      | 3.84        | 0.51 |
| D | 36.66       | 20.11    | 6.14               | 2.44      | 2.02        | 0.42 |
| F | 29.02       | 18.02    | 4.61               | 0.92      | 0.59        | 0.33 |

- Achievement points decrease with letter grades. The achievement points of A schools are nearly twice that of F schools.
- Progress points decrease with letter grades but the gaps between letter grades are fairly small. The progress points of A schools are only 4 points higher than F schools.
- Achievement Gap points decrease with letter grades.
- Unlike other components, challenge points do not mirror letter grades. B and C schools have higher challenge points than A schools. The majority of challenge points come from performance points.<sup>4</sup>

<sup>3</sup> Given the changes to the CCRPI that occurred in 2014-15, I run two specification checks of the unstandardized CCRPI and its components: a) using only the 2014-15 and b) using only 2011-12, 2012-13 and 2013-14. The results are qualitatively similar.

<sup>4</sup> There is no explicit mention of a cap on challenge points on the GaDOE's website. There are numerous examples of schools earning above 100 points and high-performing schools earning the maximum allowable extra credit points. For instance, the Gwinnett School of Math, Science and Technology earned a score of 103.2 in 2014-15 before receiving an additional 5.2 challenge points for a final CCRPI score was 108.4. Davidson Magnet High School, also scored over 100. The school earned a score of 98 in addition to 10.5 challenge points- 10 points for ED/EL/SWD performance and .5 points for exceeding the bar. Only 10 of the earned challenge points were added to their score resulting in a final score of 108. The final report will include a further review the relationship between challenge points and school performance.

Table 3 illustrates CCRPI scoring components by percentile of CCRPI scores.

**Table 3**

**CCRPI components by CCRPI percentiles**

| Percentile | CCRPI | Achievement | Progress | Achievement Gap | Challenge | Performance | ETB  |
|------------|-------|-------------|----------|-----------------|-----------|-------------|------|
| 10         | 93.54 | 54.57       | 22.07    | 13.14           | 3.76      | 3.03        | 0.73 |
| 9          | 87.57 | 50.37       | 21.23    | 10.83           | 5.14      | 4.50        | 0.64 |
| 8          | 83.37 | 46.72       | 21.85    | 9.46            | 5.34      | 4.76        | 0.58 |
| 7          | 79.75 | 44.53       | 21.41    | 8.65            | 5.16      | 4.63        | 0.53 |
| 6          | 76.15 | 42.91       | 20.69    | 7.98            | 4.57      | 4.07        | 0.50 |
| 5          | 72.68 | 40.41       | 21.03    | 7.30            | 3.94      | 3.45        | 0.49 |
| 4          | 68.97 | 38.57       | 20.56    | 6.61            | 3.23      | 2.79        | 0.44 |
| 3          | 64.54 | 36.22       | 20.00    | 6.08            | 2.24      | 1.83        | 0.41 |
| 2          | 59.01 | 33.07       | 19.10    | 5.40            | 1.44      | 1.06        | 0.38 |
| 1          | 48.39 | 26.79       | 17.01    | 4.02            | 0.60      | 0.28        | 0.32 |

- A schools are schools in the top percentile, B schools are in 9<sup>th</sup> and 8<sup>th</sup> percentile, C schools are in the 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> percentile, D schools are in 3<sup>rd</sup> and 4<sup>th</sup> percentile and F schools are in the 2<sup>nd</sup> and 1<sup>st</sup> percentile.
- Achievement points and achievement gap points decrease with percentiles
- Progress points do not decrease in percentiles. Schools in the 8<sup>th</sup> and 7<sup>th</sup> percentile have higher progress points than schools in the 9<sup>th</sup> percentile. Schools in the 5<sup>th</sup> percentile have higher progress points than schools in the 6<sup>th</sup> percentile.
- Challenge points do not decrease in percentiles. Schools in the 7<sup>th</sup> and 8<sup>th</sup> percentile have higher achievement gap points than schools in the 9<sup>th</sup> percentile. Schools in the 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> percentiles have higher achievement gap points than schools in the top percentile.

**Correlation between CCRPI and its components**

**2015**

- CCRPI has the highest correlation with achievement points (0.91), followed by achievement gap points (0.78), progress points (0.73) and challenge points (0.58).
- Achievement points' strongest correlation is with achievement gap points (0.60), followed by progress points (.44) and challenge points (0.41).
- Achievement gap points have a strong correlation with progress points (0.73) and a weaker correlation with challenge points (.29).

- Challenge points have a weak correlation with progress points (.27) and a strong correlation with performance points (.98).

### **Prior to 2015**

- CCRPI has the highest correlation with achievement points (0.93), followed by achievement gap points (0.73), progress points (0.71) and challenge points (0.63).
- Achievement points' strongest correlation is with progress points (0.57), followed by achievement gap points (.52) and challenge points (0.50).
- Achievement gap points have a moderate correlation with progress points (0.53) and a weaker correlation with challenge points (.27).
- Challenge points have a slightly moderate correlation with progress points (.37) and a strong correlation with performance points (.98).

### **Changes in correlation when comparing 2015 to prior to 2015**

- Correlation between CCRPI and achievement points slightly decreased whereas correlation between CCRPI and progress points slightly increased. The correlation between CCRPI and achievement gap points also increased.
- Correlation between achievement points and progress points increased whereas correlation between achievement points and achievement gap points decreased.
- Correlation between achievement gap points and progress points decreased.
- Correlation between challenge points and progress points increased.

## Comparing Accountability Systems

Table 4 compares Georgia's school accountability systems with the 10 aforementioned comparison states across a range of characteristics (see accompanying spreadsheet).

### Standards

- In the past, each state determined its own proficiency standards, resulting in considerable variation in standards. However, in the past five years, the majority of states have adopted the Common Core State Standards (CCSS).
- Overall, there is a convergence of standards across states.
- The majority of Southeastern states have adopted the CCSS. Only Virginia uses individual state-developed standards.
- All of the high-performing states have adopted the CCSS.
- All of the states (Southeastern and high-performing) with the exception of Virginia have adopted the CCSS.

### Assessments

- The convergence in standards is not mirrored in assessments. There is wide variation across states in the assessments that form the basis of school accountability.
- Each state in the Southeastern comparison group in this preliminary report has its own assessment. (Louisiana also uses the Partnership for Assessment of Readiness for College and Career (PARCC)).
- Massachusetts, New Jersey and Maryland use PARCC whereas New Hampshire and Vermont use Smarter Balanced.
- High-performing states tend to use similar assessments whereas Southeastern states tend to use individual state assessments.

### Proficiency levels on state standardized exams

- States also vary in the number of proficiency levels as well as the scaling of proficiency.
- Among the Southeastern states, Georgia, Kentucky, Florida and Tennessee have 4 levels, Virginia has 3 levels and Louisiana has 5 levels.
- In Georgia, there is only one level above proficiency (3/4), similar to Tennessee and Virginia (2/3). In Kentucky and Florida there are two levels above proficiency (2/4) as well as in Louisiana (3/5).



- Among the high-performing states, Massachusetts, Maryland and New Jersey have 5 levels and New Hampshire has 4 levels.
- Similar to Georgia, New Jersey (4/5), Massachusetts (4/5) and New Hampshire (3/4) have only one level above proficiency.

### Accountability components

The components within a state's accountability system are crucial because they contribute to ratings of school performance. Prior research suggests that different accountability components and academic indicators (discussed later) capture vastly different facets of school performance. There are several accountability components including: achievement levels (proficiency), achievement growth (growth), and achievement gap closure. Generally, there are fewer accountability components at the elementary and middle school levels than in high schools.

- **Proficiency.** All states (Southeastern and high-performing) use proficiency on state standardized exams in the measurement of school quality.
- **Growth.** All states except Louisiana use achievement growth in school performance measures.<sup>5</sup>
- **Achievement Gap.** Of the Southeastern states, Georgia, Kentucky and Tennessee are the only Southeastern states that consider achievement gap in school accountability. Virginia, Florida and Louisiana do not include achievement gap in school performance measures. Among the high-performing states, only Maryland includes achievement gap in school performance measures. Massachusetts prioritizes the narrowing of proficiency gaps in school accountability. New Hampshire and New Jersey do not include achievement gap in school accountability.
- **Different accountability components by level of schooling.** The accountability components are not always the same across grades. Typically, college and career readiness is included in middle and/or high schools and graduation rates in high schools. In Kentucky, Virginia, Florida, Louisiana and Massachusetts each schooling level has different components, with high schools generally having the most components. Conversely, Georgia, New Jersey and Tennessee apply the same elements across elementary, middle and high schools. In Maryland and New Hampshire, elementary, middle and high schools apply the same number of accountability components but the components applied at each level are not identical.
- **Test participation.** New Hampshire is the only state that incorporates participation into their school performance measures. The component contributes to 12.5% of each school's performance measure.
- **Bonus points.** Among Southeastern states, Georgia, Louisiana and Florida incorporate bonus points into their accountability systems. Among high-performing states, only Massachusetts incorporates bonus points. Georgia provides schools with the opportunity to receive up to 10 extra points based on the performance of ED/EL/SWD and exceeding the bar. Georgia's bonus points are the smallest amount allotted across the four states, with the exception of Florida. In Florida, high schools receive up to 10 additional bonus

---

<sup>5</sup> Louisiana and Virginia do not explicitly mention the implementation of gap or growth in their accountability formulas. Instead, their frameworks focus specifically on proficiency.

points if at least 50% of the students retaking the reading and math assessments required for graduation score high enough to meet the requirements in both subjects. Louisiana's accountability system offers up to 50 extra credit points. In the elementary and middle schools, these points are based on the number of students scoring above proficiency. In high schools, extra credit points are allotted according to diploma quality. In Massachusetts, schools can earn up to 100 extra credit points. At the elementary and middle school levels, the points are allotted to schools that show progress at the warning, advanced and proficiency levels. At the high school level, schools may receive extra points for dropout reengagement.

### **Weights on accountability components**

The weights on accountability components illustrate what states value most when measuring school performance. States assign different weights to a given accountability component. Those weights are used to determine overall school performance scores. There is also variation in the weights assigned to components across elementary, middle and high schools. Currently, the weights in Georgia are 50% for achievement, 40% for progress and 10% for achievement gap.

- **Variation across elementary, middle and high schools.** There is variation in weights across schooling levels in some states. Among Southeastern states, Georgia and Florida are largely consistent across levels whereas Kentucky and Louisiana have differences in the weights placed on components across elementary, middle and high schools. Virginia is unique in that achievement is viewed in terms of pass rate and not assigned an actual weight. The pass rate is the same across schooling levels. Among high-performing states, in Massachusetts achievement levels and achievement growth carry the same weight across schooling levels whereas New Hampshire and Maryland have differences in the weights placed on components across schooling levels.
- **Balancing proficiency and growth.** Among Southeastern states, in Georgia and Louisiana (elementary/middle schools) and Kentucky (middle and high schools) achievement levels are given greater weight than achievement growth.<sup>6</sup> Kentucky (elementary schools) and Florida place equivalent or more weight on achievement levels and achievement growth.
- Among high-performing states, Maryland (high schools) and New Hampshire (high schools) apply a greater weight to achievement levels than achievement growth. Massachusetts places equivalent weight on achievement levels and achievement growth. New Hampshire and Maryland only consider achievement growth at the elementary and middle school levels.

---

<sup>6</sup> There may be differences in the indicators that feed into the accountability component that lead to different inferences. For example, in Georgia content mastery, post readiness and graduation rates contribute to schools' achievement points whereas in Massachusetts, proficiency in math, reading and science and in Florida content mastery (100%) contribute to schools' achievement points (see Table 2A in the appendix). In Georgia content mastery is 20 points (40%) of the entire achievement so the differences in weights between achievement levels and achievement growth using entire/headline proportions versus examining indicators may appear larger.

- Overall, the results suggest that states generally place emphasis on achievement growth at the elementary level whereas proficiency and other indicators such as college and career readiness play a larger role in high schools.
- Louisiana and Virginia do not explicitly mention consideration of a growth component in their school performance measures. Weight assignments for Tennessee, New Jersey and Vermont were not available.

### **Indicators feeding into the accountability components**

States have different indicators that determine the aforementioned components including: content mastery in select subjects (reading and math and sometimes science or social studies), attendance, graduation rates, college and career readiness, and postsecondary readiness.

- Georgia, Florida, Kentucky, Virginia, Maryland and Massachusetts provide detailed descriptions for the data elements that contribute to school accountability components.
- **Subjects.** There is also notable variation in subjects included as some states either add to or eliminate subjects in school performance measures. For instance, Georgia, Louisiana (elementary/middle) and Florida focus on math, reading, science and social studies whereas Massachusetts and Maryland focus on reading, math and science; Virginia focuses on English, math, science and history; and Kentucky focuses on reading, math, science, social studies and writing.
- Georgia has 8 data elements in the indicator which is the same as Florida and Kentucky but less than Louisiana (10), and more than Arkansas (6), North Carolina (7), South Carolina (6) Tennessee (4) and Virginia (6) (Ni, Bowers, & Esswein, 2016).
- Georgia does not include dropout rate whereas New Hampshire and Massachusetts do.
- Georgia includes an English language indicator (the only Southeastern state to do so).

### **Growth Model**

Research has shown that characteristics like poverty have a negative effect on student achievement (Jensen, 2009, 2013). Typically, Student Growth Percentiles (SGPs) do not take into account student characteristics like race, poverty status or schooling environment (Ehlert, Koedel, Parsons, & Podgursky, 2014). Proponents of SGPs insist that taking student and school characteristics into consideration would set lower expectations for disadvantaged students (Ehlert et al., 2014). Unlike SGPs, value-added models (VAMs) attempt to estimate the impact of teacher contribution and other characteristics like poverty and resources on student achievement changes (Ehlert et al., 2014).

- Although most states include achievement growth in how school quality is measured, there is variation across states in how achievement growth is calculated.
- Among the Southeastern states, Georgia and Virginia use SGPs, while Florida and Tennessee use a value-added model. Louisiana does not include achievement growth in school performance measures. Kentucky uses an annual progress model.

- Similar to Georgia, most of the high-performing states (Massachusetts, New Jersey and New Hampshire) utilize SGPs. Maryland uses an annual progress model.
- According to their Department of Education's website, Vermont's accountability system is currently under review, therefore the information is unavailable.

### **Rating system**

All states in the country (with the exception of Delaware and Illinois) have implemented some form of rating system. These systems generally include: letter grades, numeric levels and categories, star systems and color coding.

- All of the states utilize ordinal PI scores (Ni et al., 2016). The use of such scores is beneficial for states in terms of ranking but not in terms of comparing positional differences among states (Ni et al., 2016).
- Similar to the majority of other Southeastern states, Georgia employs a single indicator of school and district performance on a 0-100 scale. A few states in the Southeastern group have scales (the range of scores) that are different from Georgia including: Louisiana (0-150 scale) and Tennessee (0-4). Florida scales range from 800 -1000 depending on schooling levels.
- Among Southeastern states, Georgia, Florida and Louisiana use a performance index and employ an A-F rating system.<sup>7</sup> States with letter grades use different grading scales for determining letters (see Table 5). Virginia uses an accreditation system to rank schools (Fully Accredited, Partially Accredited: Approaching Benchmark-Pass Rate, Partially Accredited: Approaching Benchmark-Graduation and Completion Index (GCI), Partially Accredited: Improving School-Pass Rate, Partially Accredited: Improving School-GCI, Partially Accredited: Warned School-Pass Rate, Partially Accredited: Warned School-GCI, Partially Accredited-Reconstituted School, Accreditation Denied). Tennessee categorizes schools into 3 categories (reward, focus and priority) and appears to be shifting to a five-level system. Similarly, Kentucky classifies schools into 3 main categories (needs improvement, proficient and distinguished).
- Among high-performing states, Massachusetts and Maryland use a five strand/level rating system. New Hampshire classifies schools into 3 categories (reward, focus and priority). New Jersey is the most unique state within the sample utilizing a peer ranking system.

### **Key Takeaways**

- Similar to prior studies (Figlio & Loeb, 2011; Martin, Sargrad, & Batel, 2016; Ni et al., 2016; Polikoff, McEachin, Wrabel, & Duque, 2014), this study finds that there is

---

<sup>7</sup> A-F is not mentioned in the enabling legislation or used by the GaDOE, but is used in the GOSA report/website.

substantial variation in school accountability systems across states. It is clear that no two states utilize identical formulas to calculate school performance scores.

- Commonalities between Georgia and other states include: a single indicator of school and district performance based on multiple accountability components and academic indicators, similar accountability components, a letter grade rating system and using SGPs to measure achievement growth.<sup>8</sup>
- Differences between Georgia and other states include: inclusion of bonus points, the weight placed on achievement levels vs. growth.

Given the convergence to CCSS, differences across states in school performance measures may be primarily attributed to accountability systems (for e.g., proficiency standards, state standardized exams and weights placed on varying accountability components). Hence, an A school in Louisiana may be different from an A school in Georgia. Due to the wide variation in school accountability systems, comparisons between schools across states are difficult. Nevertheless, in the next section, I empirically explore how Georgia's schools would be rated on other states' accountability systems.

---

<sup>8</sup> About a third of the states in the U.S use SGPs (Alabama, Colorado, Hawaii, Kentucky, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Oregon, Rhode Island, Utah, Virginia, Washington, West Virginia and Wyoming).

## Comparing States' Accountability Systems: Empirical Results

In this preliminary report, I employ two different methods to empirically compare Georgia to other states' accountability systems: a) grading scales, and b) school-level nationally normed measures.

### Method 1: Grading Scales

#### Georgia vs. other Southeastern States

Table 5 compares the scales for the letter grades across Southeastern states with letter grade rating systems. Of the states included in this preliminary report, only two Southeastern states (Florida and Louisiana) have letter grades for school performance. For this reason, these are the only other two states included in Table 5.

**Table 5**

#### Comparing letter grading scales

| Letter Grade | Georgia        | Louisiana      | Florida        |
|--------------|----------------|----------------|----------------|
| A            | 82% or greater | 67% or greater | 62% or greater |
| B            | 72% - 81%      | 57% to 66%     | 54% to 61%     |
| C            | 64%-71%        | 47% to 56%     | 41% to 53%     |
| D            | 54%-63%        | 33% to 46%     | 32% to 40%     |
| F            | 53% or less    | 32% or less    | 31% or less    |

*Note.* Percentages are based on the available points on the state's scale. In other words, what proportion of the available points is needed to obtain the letter grade. Georgia has a 0-110 scale, Louisiana has a 0-150 scale and Florida scales ranged from 800 -1000 depending on schooling levels

- Of the five Southeastern states, only two – Florida and Louisiana – have letter grades for school performance.<sup>9</sup>

<sup>9</sup> Around 30% of states have letter grading scales (Alabama, Arizona, Florida, Indiana, Louisiana, Maine, Mississippi, New Mexico, New York, Ohio, Oklahoma, Texas, Utah, Georgia).

- Overall, Table 5 shows that Georgia's letter grade scale is more stringent than Louisiana's and Florida's. This is consistent across all letter grades.
- For example, an A school in Louisiana is 100 out of 150 or roughly schools gaining about two-thirds or above of the possible points on the school performance measure (compared to Georgia where A schools need about four-fifths of the points or above to be considered A schools).
- The results indicate that a C school in Georgia would be an A school in Louisiana, a D school in Georgia would be a B school in Louisiana, and an F school in Georgia would be a C school in Louisiana.
- The results are similar when Georgia's school grading scale is compared to Florida's.

Virginia, Tennessee and Kentucky do not have letter grading scales. Nevertheless, some insights can be gleaned regarding how they rate school performance. For instance, Virginia has an accreditation system (schools can be fully accredited, partially accredited with approaching, partially accredited with improving, partially accredited with warning and accreditation denied). In order to be fully accredited, schools need a pass rate of 75% or higher. In Kentucky, the top schools are those in the 90<sup>th</sup> percentile, which is similar to Georgia.

### **Georgia vs. High-Performing States**

None of the high-performing states in this preliminary report use letter grades to rate school performance. Massachusetts uses a five-level scale (Level 1 is the highest performing and Level 5 is the lowest performing). An A school needs 75 or higher on the cumulative performance index. If this was analogous to a letter grade rating system, it would be less stringent than Georgia.

### **Key Takeaways**

- Compared to other Southeastern states with a school grading scale (letter grades) (Florida, Louisiana), Georgia has a more stringent grading scale. For instance, an A school in Florida & Louisiana needs roughly 2/3 of the points whereas in Georgia an A school needs about 4/5 of the points.
- Although the high-performing states included in this preliminary report do not have letter grades, overall, the top rating for schools is typically associated with earning roughly 75% of the points of the performance index.

- Overall, it appears that Georgia has a tougher grading scale than other Southeastern and high-performing states (see Table 1A in the appendix for the distribution of school across ratings).

The differences in accountability systems make a crude comparison of scales for letter grades across states somewhat tenuous. It is pivotal to have a common scale across states in order to definitively assess whether Georgia is grading similar schools more harshly than Louisiana. In the following section, a nationally normed measure is used to compare schools across states.



### Method 2: Comparisons using Nationally Normed Measures

Table 6 compares the percentage of students deemed proficient on state standardized exams versus the NAEP using data from schoolgrades.org. Overall, Georgia (56%) and other Southeastern states have a larger gap (35%) between state and national proficiency rates relative to high-performing states on the NAEP (25%).

**Table 6**

#### State versus national proficiency rates

|                                      | Proficient: State | Proficient: National<br>(NAEP) | Gap (state-<br>national) |
|--------------------------------------|-------------------|--------------------------------|--------------------------|
| Georgia                              | 88%               | 32%                            | 56%                      |
| <i><b>Southeastern States</b></i>    |                   |                                |                          |
| Louisiana                            | 67%               | 24%                            | 43%                      |
| Florida                              | 68%               | 33%                            | 35%                      |
| Tennessee                            | 42%               | 27%                            | 15%                      |
| Kentucky                             | 70%               | 36%                            | 34%                      |
| Virginia                             | 87%               | 41%                            | 46%                      |
| <i><b>High Performing states</b></i> |                   |                                |                          |
| Massachusetts                        | 58%               | 52%                            | 6%                       |
| New Hampshire                        | 74%               | 46%                            | 28%                      |
| New Jersey                           | 74%               | 47%                            | 27%                      |
| Vermont                              | 69%               | 45%                            | 24%                      |
| Maryland                             | 82%               | 43%                            | 39%                      |

*Notes.* Data on proficiency rates obtained from schoolgrades.org. These proficiency rates are based on the 2013-14 school year, the latest available data for the NAEP and state proficiency. This is the last year of the CRCT before the changes in the state assessments that form the foundation of the CCRPI from CRCT and EOCT to Georgia milestones.

Table 7 presents a summary of the comparison of school accountability across states.

**Table 7**

**Comparing schools across states**

|                           | Georgia | Florida | Louisiana | Massachusetts | Maryland |
|---------------------------|---------|---------|-----------|---------------|----------|
| <b>A schools</b>          |         |         |           |               |          |
| State proficiency rate    | 96%     | 74%     | 90%       | 73%           | 91%      |
| National proficiency rate | 59%     | 54%     | 53%       | 72%           | 63%      |
| Gap (State-National)      | 37%     | 20%     | 37%       | 1%            | 28%      |
| % FRPL                    | 51%     | 46%     | 61%       | 31%           | 24%      |
| Schoolgrades.org score    | 60      | 54      | 55        | 70            | 58       |
| Greatschools.org rating   | 8       | 9       | 9         | 7             | 8        |
| <b>B schools</b>          |         |         |           |               |          |
| State proficiency rate    | 93%     | 56%     | 77%       | 60%           | 83%      |
| National proficiency rate | 50%     | 34%     | 29%       | 57%           | 49%      |
| Gap (State-National)      | 43%     | 22%     | 50%       | 3%            | 34%      |
| % FRPL                    | 51%     | 71%     | 74%       | 43%           | 38%      |
| Schoolgrades.org score    | 51      | 39      | 33        | 57            | 47       |
| Greatschools.org rating   | 7       | 7       | 7         | 6             | 7        |
| <b>C schools</b>          |         |         |           |               |          |
| State proficiency rate    | 90%     | 51%     | 71%       | 45%           | 73%      |
| National proficiency rate | 37%     | 29%     | 23%       | 37%           | 39%      |
| Gap (State-National)      | 53%     | 22%     | 48%       | 8%            | 34%      |
| % FRPL                    | 61%     | 72%     | 72%       | 61%           | 60%      |
| Schoolgrades.org score    | 40      | 33      | 27        | 39            | 41       |
| Greatschools.org rating   | 6       | 5       | 6         | 4             | 5        |
| <b>D schools</b>          |         |         |           |               |          |
| State proficiency rate    | 85%     | 36%     | 58%       | 27%           | 70%      |
| National proficiency rate | 28%     | 19%     | 15%       | 21%           | 34%      |
| Gap (State-National)      | 57%     | 17%     | 43%       | 6%            | 36%      |
| % FRPL                    | 75%     | 84%     | 89%       | 86%           | 55%      |
| Schoolgrades.org score    | 33      | 24      | 20        | 26            | 35       |
| Greatschools.org rating   | 4       | 3       | 3         | 3             | 5        |
| <b>F schools</b>          |         |         |           |               |          |
| State proficiency rate    | 72%     | 17%     | 41%       | 31%           | 66%      |
| National proficiency rate | 15%     | 6%      | 7%        | 30%           | 29%      |
| Gap (State-National)      | 57%     | 11%     | 34%       | 1%            | 37%      |

|                         |     |     |     |     |     |
|-------------------------|-----|-----|-----|-----|-----|
| % FRPL                  | 91% | 91% | 95% | 88% | 57% |
| Schoolgrades.org score  | 20  | 9   | 10  | 36  | 31  |
| Greatschools.org rating | 2   | 1   | 2   | 4   | 4   |

*Note.* For Massachusetts and Maryland, Levels are used as letter grades. For e.g., “Level 1” schools are considered A schools.

### **A schools**

- A schools in Georgia tend to remain A schools using a nationally normed measure.
- A schools in Florida are mostly A schools using a nationally normed measure.
- Top percentile schools in Kentucky are typically A schools using a nationally normed measure.
- A schools in Louisiana remain A schools.
- Level 1 schools in Massachusetts are A schools
- Strand 1 schools in Maryland are A schools
- All Southeastern states had a lower consistency rates (A schools remaining A schools) than Georgia and high-performing states. Only Maryland and Massachusetts did an equal or better job of identifying A schools in their states’ accountability systems that were also A schools using nationally normed measures.
- The national proficiency rate of A schools in Georgia is comparable to Southeastern and high performing states (slightly lower than these Massachusetts and Maryland)
- The results imply the A schools in Georgia would most likely be A schools using the accountability systems in other Southeastern states.
- Given that the national proficiency rate and schoolgrades.org score is lower for A schools in Georgia than A schools in high-performing states, it is somewhat debatable whether Georgia’s A schools would rank similarly on these states’ accountability systems.

### *Examples*

- Bleckley County Primary School (Bleckley County), which has roughly the state average of FRPL students with 97% proficiency rates on state standardized exams, is an A school according to Georgia’s accountability system as well as the schoolgrades.org system.
- Webb Bridge Middle School (Fulton County), which has a state proficiency rate of 99%, a national proficiency rate of 64%, and a relatively low FRPL student population is ranked as an A school in Georgia and would remain so on a nationally normed measure as well as on other states’ accountability systems.
- Centerville Elementary School (Houston County) has a state proficiency rate of 94%, a national proficiency rate of 52% and a relatively high FRPL student population (70% on SGR) and would remain an A school.

- Ocee Elementary School (Fulton County) has a state proficiency rate of 99%, a national proficiency rate of 76%, below average FRPL student population and would remain an A school.
- Bay Creek Middle School (Gwinnett County) has a state proficiency rate of 98%, a national proficiency rate of 53%, just below average FRPL student population and would remain an A school.
- Banks County Primary School (Banks County) has a state proficiency rate of 96%, a national proficiency rate of 64%, an average FRPL student population and would remain an A school.
- Jacob G. Smith Elementary School (Chatham County) has a state proficiency rate of 98%, a national proficiency rate of 73%, a below-average FRPL student population and would remain an A school.
- Charles R. Drew Charter School (Atlanta Public Schools) has a state proficiency rate of 96%, a national proficiency rate of 52%, an average FRPL student population and would remain an A school.

### **B schools**

- On average, Georgia's B schools (regardless of the proportion of FRPL students) are consistently ranked higher (A schools) using the schoolgrades.org rating system.
- B schools in Florida are mostly consistent with nationally normed measures.
- "B" schools in Kentucky are mostly B schools.
- B schools in Louisiana are C schools by nationally normed measures.
- Level 2 schools in Massachusetts are generally A schools.
- Strand 2 schools in Maryland tend to be A schools.
- The national proficiency rate of B schools in Georgia is similar to A schools in Southeastern states. This suggests that it is likely that B schools in Georgia would be A schools using the accountability systems of Southeastern states.
- The national proficiency rate of B schools in Georgia is higher than Maryland and slightly lower than comparable schools in Massachusetts. This suggests that most B schools in Georgia would likely remain B schools when ranked on the accountability system of high-performing states.

### *Examples*

- Stonewall Tell Elementary School (Fulton County) has a state proficiency rate of 92%, a national proficiency rate of 47%, below average FRPL student population and is ranked as an A school.

- Riverbend Elementary School (Hall County) has a state proficiency rate of 89%, a national proficiency rate of 44%, above average FRPL student population and would be ranked as an A school.
- Dunwoody Elementary School (DeKalb County) has a state proficiency rate of 95%, a national proficiency rate of 60%, low FRPL student population and would be ranked as an A school.
- Moreland Elementary School (Coweta County) has a state proficiency rate of 94%, a national proficiency rate of 51%, slightly below average FRPL student population and would be ranked as an A school.
- Ebenezer Elementary School (Effingham County) has a state proficiency rate of 93%, a national proficiency rate of 53%, a below average FRPL student population and would be ranked as an A school.
- Dunleith Elementary School (Marietta City) has a national proficiency rate 86%, a national proficiency rate of 34%, a high FRPL student population and would remain a B school.

### **C schools**

- The results are mixed. Some C schools in Georgia should be ranked higher while others should be ranked lower. The results suggest that some C schools such as those with a very high concentration of FRPL students are B schools according to the nationally normed measure.
- The consistency rate of C schools is lower than A and B schools.
- C schools' ratings in Florida are mixed and inconsistent.
- C schools in Kentucky are C schools.
- C schools in Louisiana should be D schools by nationally normed measures.
- Level 3 schools in Massachusetts are mixed ranging from B to D schools.
- Strand 3 schools in Maryland tend to be C schools.
- The national proficiency rate of C schools in Georgia is similar to B schools in Southeastern states. This suggests that it is likely that C schools in Georgia would be B schools using the accountability systems of Southeastern states.
- The national proficiency rate of C schools in Georgia is roughly the same as comparable schools in Maryland and in Massachusetts. This suggests that most C schools in Georgia would likely remain C schools when ranked on the accountability system of high-performing states.

### *Examples*

- J.L Lomax Elementary School (Valdosta City) has a state proficiency rate of 87%, a national proficiency rate of 37%, a very high FRPL student population and would be ranked as a B school.
- Marbut Elementary School (DeKalb County) has a state proficiency rate of 89%, a national proficiency rate of 40%, above average FRPL student population and would be ranked as a B school.
- Arnold Mill Elementary School (Cherokee County) has a state proficiency rate of 91%, a national proficiency rate of 45%, below FRPL student population and would be ranked as a B school.
- Carter Elementary School (Bibb County) has a state proficiency rate of 89%, a national proficiency rate of 39%, just below average FRPL student population and would be ranked as a B school.
- Bethlehem Elementary School (Barrow County) has a state proficiency rate of 91%, a national proficiency rate of 46%, an average FRPL student population and would be ranked as an A school.
- Walnut Creek Elementary School (Henry County) has a state proficiency rate of 86%, a national proficiency rate of 36%, an average FRPL student population and would remain ranked as a C school.
- Mill Creek Middle School (Cherokee County) has a state proficiency rate of 94%, a national proficiency rate of 35%, a low FRPL student population and would be ranked as a D school.
- Coan Middle School (Atlanta Public Schools) has a state proficiency rate of 89%, a national proficiency rate of 23%, a high FRPL student population and would be ranked as a D school.
- Turner Middle School (Douglas County) has a state proficiency rate of 91%, a national proficiency rate of 29%, a high FRPL student population and would remain ranked as a C school.

### **D schools**

- Overall, the results are somewhat mixed but, on average, D schools in Georgia should be ranked higher (C schools).
- The consistency rate of D schools is lower than A and B schools. In other words, not all D schools would be ranked higher. Some would remain D schools or even be ranked lower (F schools).
- D schools in Florida are fairly consistent.
- “D” and “F” schools should be higher. Kentucky’s bottom performing schools appear to be rated too harshly on the state’s accountability system relative to a nationally normed measure.

- D schools in Louisiana should be F schools using nationally normed measures.
- Level 4 schools in Massachusetts are D & F schools.
- Strand 4 schools in Maryland tend to be C schools.
- The national proficiency rate of D schools in Georgia is higher than every other state except Massachusetts. This suggests that, on average, D schools would be rated higher on both Southeastern and high-performing states' accountability systems.

### *Examples*

- Creekside Elementary School (Baldwin County) has a state proficiency rate of 84%, a national proficiency rate of 31%, slightly above average FRPL student population and would be ranked as a C school.
- Rosa Taylor Elementary School (Bibb County) has a state proficiency rate of 82%, a national proficiency rate of 29%, an above average FRPL student population and would be ranked as a C school.
- Sanders Elementary School (Cobb County) has a state proficiency rate of 82%, a national proficiency rate of 28%, a high FRPL student population and would be ranked as a C school.
- Bear Creek Middle School (Fulton County) has a state proficiency rate of 87%, a national proficiency rate of 22%, a high FRPL student population and would remain a D school.
- Brooks County Middle School (Brooks County) has a state proficiency rate of 85%, a national proficiency rate of 17%, a high FRPL population and would be ranked an F school.
- Gould Elementary School (Chatham County) has a state proficiency rate of 85%, a national proficiency rate of 34%, above average FRPL student population and would be ranked as a C school.
- Eddie White Academy (Clayton County) has a state proficiency rate of 79%, a national proficiency rate of 19%, a high FRPL student population and would remain a D school.

### **F schools**

- F schools in Georgia would likely remain F schools using other states' accountability systems.
- The consistency rate of F schools is similar to A and B schools (Georgia's ranking almost mirrors that of schoolgrades.org rating system).
- F schools in Florida tend to be correctly identified.
- F schools in Louisiana are correctly identified.

- Level 5 schools in Massachusetts are typically F schools, but there is some evidence that these schools may be ranked higher.
- Strand 5 schools in Maryland tend to be D/F schools.
- The national proficiency rate of F schools in Georgia is a bit higher than Southeastern states but lower than high-performing states. This implies that F schools would largely remain F schools on the accountability systems in high-performing and Southeastern states.

### *Examples*

- Harper-Archer Middle School (Atlanta Public Schools) has a state proficiency rate of 72%, a national proficiency rate of 9%, a very high FRPL student population and would remain an F school.
- Southside Middle School (Dougherty County) has a state proficiency rate of 77%, a national proficiency rate of 10%, a very high FRPL student population and would remain an F school.
- Macon County Middle School (Macon County) has a state proficiency rate of 77%, a national proficiency rate of 11%, a high FRPL student population and would remain an F school.
- Manchester Middle School (Meriwether County) has a state proficiency rate of 80%, a national proficiency rate of 14%, above average FRPL student population and would remain an F school.
- Mary McLeod Bethune Middle School (Fulton County) has a state proficiency rate of 74%, a national proficiency rate of 9%, very high FRPL student population and would remain an F school.
- Dunaire Elementary School (DeKalb County) has a state proficiency rate of 64%, a national proficiency rate of 13%, a very high FRPL student population and would remain an F school.
- However, there are a few instances of F schools with high concentration of FRPL students that would be rated as D schools (for e.g., Toomer Elementary School (Atlanta Public Schools) (state proficiency rate of 78%, national proficiency rate of 24%), F.L. Stanton Elementary School (Atlanta Public Schools) (state proficiency rate of 69%, national proficiency rate of 17%).



## Key Takeaways

- Using nationally normed measures adjusted for student demographics, Georgia appears to rate some schools more harshly.
- Georgia's accountability system appears to identify the tails of the school performance distribution fairly accurately (A & F schools).
- The middle of the distribution (B, C & D schools) appears to be the schools most likely affected and warrants further investigation to better judge school performance for these schools.
- Other Southeastern states' accountability systems appear to also have difficulties with accurately identifying schools in the middle of the school achievement distribution.
- Overall, compared to Southeastern states, Georgia's accountability system seems to rank B, C and D schools more harshly. These schools would likely be ranked a grade higher (B would be A, C would be B, D would be C) on the accountability systems of Southeastern states based on national proficiency rates and schoolgrades.org rating.
- Conversely, the results suggest that Georgia schools receiving a B, C or D would be similarly ranked using the accountability system of high-performing states.

### How does Georgia rank against other states based on the preliminary results?

- An A school in Georgia would likely be an A school in other states' accountability systems (especially Southeastern states).
- A B school in Georgia would likely be an A school in other states' accountability systems.
- A C school in Georgia would likely, on average, be a B school in other states' accountability systems. There may be some C schools in Georgia that remain a C or even fall to a D school but it appears most C schools would be ranked higher.
- A D school in Georgia would likely, on average be ranked higher in other states' accountability systems. Similar to C schools, some D schools would remain a D or be ranked lower.

- An F school in Georgia would likely be an F school in other states' accountability systems.
- Overall, it appears B, C and D schools are most affected by Georgia's accountability systems and these schools, on average, would be ranked higher using other states' accountability systems.
- Accompanying this preliminary report is a spreadsheet with examples from other states of similar schools and their ratings that allows you to see how Georgia's schools did on other accountability measures. For instance, from these examples, we can infer how an F school in Georgia would rate in Florida (and vice versa). In the spreadsheet, I matched some Georgia schools with schools in other states that have: a) the same (or very close) national proficiency rate, indicating similar quality schools and b) similar FRPL demographic composition (the match is primarily on national proficiency rates so there are some wider gaps in FRPL composition, but overall qualitatively similar). Also included in the spreadsheet are: districts, the letter grade/school rating in each state, state proficiency rates, as well as some of the other common measures (greatschools.org rating, schoolgrade.org letter grades and numeric score). In essence, these examples provide a better picture of how Georgia's schools would perform on other states' school accountability systems and illustrate some of the trends highlighted in this preliminary report.

### **Policy Implications**

Below I provide a few policy recommendations worthy of deeper consideration based on the results of this preliminary report and the extant literature on the effects of school accountability.

- **Balancing proficiency and growth.** Explore placing equivalent weight on achievement levels and achievement growth or even prioritizing achievement gains in the measurement of school performance. It is important that measures of school performance reflect schools' efforts to increase student achievement rather than the contextual factors of the surrounding communities or the demographic composition of schools. Achievement levels reflect contextual factors such as poverty in addition to student demographics more so than achievement growth. Economically disadvantaged students typically perform worse on standardized tests than students from advantaged backgrounds. Thus, it is likely that a school performance measure that prioritizes achievement levels may be capturing contextual factors and student demographics rather than the quality of schools or the policies and practices that schools may employ to produce student achievement. This also disadvantages schools with challenging and harder-to-educate students who enter schools with low achievement levels, even if these schools are making growth similar to schools with students with higher achievement levels. Using achievement growth may provide a more consistent and fairer comparison among

schools, especially those serving challenging student populations. This is one way of minimizing the unintended, typically negative, consequences of school accountability. In essence, holding schools accountable for things outside their control, such as the demographic composition of schools, results from a school accountability system based predominantly on achievement levels (Polikoff, Duque, & Wrabel, 2016).

- **Recalibrating the scale.** Consider making letter grading scale less stringent. For instance, A schools can earn between 67-75% and above of the available points rather than four-fifths and above. It may also be worthy to explore greater differentiation in school ratings than offered by an A-F grading scale.
- **Equity measures.** Explore the inclusion of equity measures such as the disproportionality in discipline (Polikoff et al., 2016) or student mobility (Welsh, 2016).
- **Subgroups.** Prioritize subgroups in accountability components, similar to Massachusetts. Massachusetts uses a cumulative performance index for all students as well as select subgroups in rating schools. It may be worth exploring a bigger role for subgroup performance in school accountability to incentivize schools to focus on students most in need of improvement. This may also include prioritizing achievement growth in schools serving challenging student populations.
- **Bonus points.** Review the inclusion of bonus points. This appears to benefit higher-performing rather than lower-performing schools. It may also lead to confusion among stakeholders (is it a 100 or 110 point scale?). It may be possible to incorporate the goals of bonus points into the main accountability components.
- **Achievement gap.** Consider removing achievement gap from school performance measure. Several scholars have posited that school accountability should not focus particularly on closing achievement as there is less consistent evidence of the effectiveness of the accountability systems at closing gaps (Gaddis & Lauen, 2014; E. A. Hanushek & Raymond, 2005; Harris & Herrington, 2006; Polikoff et al., 2016). Achievement gaps can be closed using other interventions such as providing additional resources to schools serving challenging population and attracting high quality teachers to these schools (Polikoff et al., 2016).

## Appendix

### Data and Methods

#### Data

I use a four-year panel of publicly available school- and district-level data from the 2011-12 through the 2014-15 school year (there are only 4 available years of CCRPI). This study uses data from multiple sources.

For Georgia, I use data from the Georgia Department of Education (GaDOE), the Governor's Office of Student Achievement (GOSA) and the National Center for Education Statistics (NCES).

For comparison states, I obtain data from the NCES and the websites of the Department of Education or the relevant agencies as well as public report cards in the respective states.

The data includes the demographic (enrollment, race/ethnicity and free and reduced price lunch (FRPL)) and achievement characteristics (performance index, scoring components and school rankings such as letter grades or strands) of schools.<sup>10</sup>

The data is merged across sources and years using unique school and district identifiers (NCES school and district ID and state school and district ID). For the analysis in this preliminary report, I use representative samples of elementary and middle schools based on geographic diversity, percentile in school performance and FRPL composition from each included state.

---

<sup>10</sup> Data accessibility varies considerably across states. In general, most of the states provide district and statewide demographic data for ethnicity/race, gender and FRPL. Although New Hampshire did provide an interactive site for comparing schools, New Hampshire and Vermont do not provide aggregate data to the public. There were also several instances of the webpages stipulated for school-level data not working or redirecting to other pages; all of which made the data difficult to find. Most states provided school-level demographic data with the exception of Vermont. Maryland offered limited school-level demographic information (only enrollment counts).

## Methods

**Forming comparison groups.** I create two comparison groups. The first comparison group consists of five states in the southeastern United States (Florida, Kentucky, Louisiana, Tennessee and Virginia). The second group comprises five high-performing states (C+ and above) in the U.S. based on the 2015 reading and mathematics scores on the NAEP (Massachusetts, New Jersey, New Hampshire, Vermont and Maryland). Of the Southeastern states included in this preliminary report, Kentucky and Tennessee are similar performing states (C-), Florida and Virginia are higher performing states (C), and Louisiana is a lower performing state (D).<sup>11</sup>

**Categorizing schools.** I categorize schools by several variables including: the level of schooling (elementary, middle and high schools), student demographics (percentage of Black, Hispanic, White and Asian students, percentage of male students, percentage of FRPL students), school size (enrollment) and achievement characteristics (school performance measure (total and components), letter rating etc.). For this analysis, I focus on the categorization of schools in each state by letter grade/school ratings or deciles based on measures of school performance and the percentage of FRPL students.

**Comparing across states' accountability systems (elementary and middle schools).** The main approach used to examine how Georgia's schools would rank in other states' accountability systems is to compare school performance across states using a common measure that is nationally normed.

The key limitations in examining how Georgia schools do on other states' accountability measures are the variation across states in assessments and the design of accountability systems. However, we can get a richer understanding by using a common measure – in this case, performance on NAEP and a school-level national proficiency rate – to make the comparison more apples to apples rather than apples to oranges.

---

<sup>11</sup> Among the Southeastern states, Louisiana has the highest poverty level followed by Kentucky and Georgia. Virginia has the lowest poverty level. Louisiana has the most similar demographic composition to Georgia with roughly 60% White and 30% Black. All other Southeastern states have less than 20% Black with Kentucky having the lowest Black population (roughly 8%). In terms of geographic diversity (rural versus urban areas), Louisiana and Virginia are most similar to Georgia. See Table 4 for further details.

First, I use a representative sample of elementary and middle schools from states. I create this sample based on a multidimensional criteria including: percentile of school performance scores (the spectrum of achievement is represented), percentile of FRPL students, consistency of scores (if schools are in the same grade/percentile for at least two years), and location.

Second, I use data from schoolgrades.org to compare schools across states included in the empirical analysis (Florida, Kentucky, Louisiana, Virginia, Massachusetts, Maryland). Schoolgrades.org examines school performance in math and English across states relative to international benchmarks. This is the only grading system on a common standard that allows for comparison of schools across states and accounts for differences in academic standards and student demographics.<sup>12</sup> However, one of the limitations of using the schoolgrades.org rating system is that it is based on proficiency rates and does not capture schools' contribution to student achievement and learning. The schoolgrades.org numeric score represents the percentage of students that would meet national standards in reading and math if the school served the average American student population (roughly 48% are FRPL).

The data also includes a GreatSchools.org rating, another comparison of school performance across states. The rating is on a 1-10 scale: below average (1-3), average (4-7), and above average (8-10). Three measures feed into this rating: student achievement (based on state standardized tests), student growth (year-over-year gains on test scores that compares similar students) and college readiness (high school graduation rates and performance on college entrance exams such as SAT and ACT).

---

<sup>12</sup> The percentage of students in a school classified as proficient in state math and reading exams (the proficiency rates in both subjects are averaged to obtain a school's overall state proficiency percentage) is adjusted to align with national standards (using NAEP scores). Generally, earning proficiency on state exams is easier than national exams thus national standards are considered more rigorous. Adjusting to national standards allow for comparisons of how students in a school are performing relative to peers across the U.S (a nationally normed measure). Next, another adjustment is made for student demographics (percentage of economically disadvantaged students in a school). This adjustment gives additional credit to schools serving challenging student populations and holds schools with less challenging student population to a higher standard. Finally, a letter grade is assigned based on the school performance relative to international benchmarks (PISA). This considers how the school would rank in comparison to other students based on PISA scores. The grading scale aligned with international standards is: A (48-100%), B (40-47%), C (32-39%), D (25-31%) and F (0-24%). According to this rating system, 23% of American schools receive an A, 19% of schools receive a B, 42% of schools receive a C, 19% of schools receive a D and 17% of schools receive an F. The grading system is based on standardized test scores from the 2013-14 school year (for some states 2011-12 data are used). See <http://schoolgrades.org/> for further details.

**Table 1A.****The distribution of school quality across states**

This table illustrates the percentage of schools as classified by the school rating systems across states. For example, the results for Georgia show what percentage of schools was categorized as A schools (6%) etc. School quality is based on each state's school accountability system (the measure of school performance). In essence, the table shows the distribution of school performance across states using each state's rating systems.

|               | A   | B   | C   | D   | F   |
|---------------|-----|-----|-----|-----|-----|
| Georgia       | 6%  | 21% | 31% | 24% | 18% |
| Florida       | 23% | 23% | 39% | 12% | 3%  |
| Louisiana     | 17% | 29% | 28% | 19% | 7%  |
| Virginia      | 78% | 3%  | 4%  | 12% | 3%  |
| Massachusetts | 29% | 51% | 18% | 2%  | 0%  |
| Maryland      | 19% | 29% | 13% | 11% | 28% |

*Note.* Distribution is based on the latest available school year. Georgia's distribution is based on 2014-15 school year (The distribution for the previous 3 years prior to 2014-15 was: A -11%, B-25%, C-28%, D -20%, F-16%. Thus, the percentage of A, B schools decreased and the percentage of C, D and F schools increased). Florida's distribution is based on 2015-16 school year. In Florida, from 2015 to 2016, the number of A schools decreased by 13%, the number of B schools increased by 3%, the number of C schools increased by 12%, the number of D schools increased by 1% and the number of F school decreased by 3%. Louisiana's distribution is based on 2014-15 school year. Virginia's distribution is based on 2014-15 school year. For Virginia, A is analogous to Fully Accredited, B-Partially Accredited: Approaching Benchmark, C-Partially Accredited: Improving, D- Partially Accredited: Warned, F-Accreditation Denied. Massachusetts's distribution is based on 2014-15 school year. For Massachusetts, Level 1 is analogous to A, B-Level 2, C-Level 3, D-Level 4, F-Level 5. Maryland's distribution is based on 2013-14 school year. For Maryland, Strand 1 is analogous to A, B- Strand 2, C- Strand 3, D- Strand 4, F-Strand 5.

**Table 2A**

**Comparing accountability components, weights and indicators: Achievement Levels (Proficiency)**

| <b>State</b> | <b>Achievement Components</b>   | <b>Achievement Categorical Weights</b>  |
|--------------|---|---|
| Georgia      | <p><b>Elementary/Middle/High</b><br/>Achievement</p> <ul style="list-style-type: none"> <li>• Content Mastery</li> <li>• Post Readiness</li> <li>• Graduation Rate</li> </ul>   | <p><b>Elementary/Middle/High</b><br/>Achievement [0-50 pts]</p> <ul style="list-style-type: none"> <li>• Content Mastery [0-20 pts]</li> <li>• Post Readiness [0-15 pts]</li> <li>• Graduation Rate [0-15 pts]</li> </ul>   |
|              | <p><b>Elementary/Middle</b><br/>Achievement</p> <ul style="list-style-type: none"> <li>• English Language Arts (ELA)                             <ul style="list-style-type: none"> <li>• Mathematics</li> <li>• Science</li> </ul> </li> <li>• Social Studies</li> </ul> | <p><b>Elementary/Middle</b><br/>Achievement [50%]</p> <ul style="list-style-type: none"> <li>• English Language Arts (ELA) [0-100 pts]                             <ul style="list-style-type: none"> <li>• Mathematics [0-100 pts]</li> <li>• Science [0-100 pts]</li> </ul> </li> <li>• Social Studies [0-100 pts]</li> </ul> |
| Florida      | <p><b>High</b><br/>Achievement</p> <ul style="list-style-type: none"> <li>• English Language Arts (ELA)                             <ul style="list-style-type: none"> <li>• Mathematics</li> <li>• Science</li> </ul> </li> <li>• Social Studies</li> </ul>              | <p><b>High</b><br/>Achievement [50%]</p> <ul style="list-style-type: none"> <li>• English Language Arts (ELA) [0-100 pts]                             <ul style="list-style-type: none"> <li>• Mathematics [0-100 pts]</li> <li>• Science [0-100 pts]</li> </ul> </li> <li>• Social Studies [0-100 pts]</li> </ul>              |



|           |   |  |   |  |
|-----------|---|--|---|--|
| Kentucky  | <p style="text-align: center;"><b>Elementary/Middle/High</b><br/>Achievement</p> <ul style="list-style-type: none"> <li>• Content Mastery (reading, math, science, social studies, writing)</li> </ul>  | <p style="text-align: center;"><b>Elementary</b><br/>Achievement [0-30 pts]</p> <ul style="list-style-type: none"> <li>•Content Mastery</li> </ul>     | <p style="text-align: center;"><b>Middle</b><br/>Achievement [0-28 pts]</p> <ul style="list-style-type: none"> <li>• Content mastery</li> </ul> | <p style="text-align: center;"><b>High</b><br/>Achievement [0-20 pts]</p> <ul style="list-style-type: none"> <li>• Content mastery</li> </ul>                            |
|           | <p>Schools receive: 1 point for each percent of students scoring proficient or distinguished in reading, mathematics, science, social studies and writing. ½ point for each percent of students scoring apprentice. 0 points for novice students.</p> |  |   |  |
| Louisiana | <p style="text-align: center;"><b>Elementary</b><br/>Achievement</p> <ul style="list-style-type: none"> <li>• Content Mastery (reading, math, science and social studies)</li> </ul>  | <p style="text-align: center;"><b>Elementary</b><br/>Achievement [100%]</p> <ul style="list-style-type: none"> <li>• Content Mastery [100%]</li> </ul> | <p style="text-align: center;"><b>Middle</b><br/>Achievement [95%]<br/>Content Mastery [95%]</p>  | <p style="text-align: center;"><b>High</b><br/>Achievement {50%}</p> <ul style="list-style-type: none"> <li>•EOC Tests [25%]</li> <li>• ACT or WorkKeys [25%]</li> </ul> |
|           | <p style="text-align: center;"><b>Middle</b><br/>Achievement</p> <ul style="list-style-type: none"> <li>• Content Mastery (reading, math, science and social studies)</li> </ul>  | <p style="text-align: center;"><b>High</b><br/>Achievement</p> <ul style="list-style-type: none"> <li>•EOC Tests</li> <li>• ACT or WorkKeys</li> </ul> |   |  |

|               |  |  |
|---------------|--|--|
|               | <b>Elementary/Middle</b><br>Achievement <ul style="list-style-type: none"><li>• Mathematics Proficiency<ul style="list-style-type: none"><li>• Reading Proficiency</li><li>• Science</li></ul></li></ul> | <b>Elementary/Middle</b><br>Achievement [30%] <ul style="list-style-type: none"><li>• Mathematics Proficiency [33.3%]<ul style="list-style-type: none"><li>• Reading Proficiency [33.3%]</li><li>• Science [33.3%]</li></ul></li></ul> |
| Maryland      | <b>High</b><br>Achievement <ul style="list-style-type: none"><li>• Mathematics Proficiency<ul style="list-style-type: none"><li>• Reading Proficiency</li><li>• Science</li></ul></li></ul>              | <b>High</b><br>Achievement [40%] <ul style="list-style-type: none"><li>• Mathematics Proficiency [33.3%]<ul style="list-style-type: none"><li>• Reading Proficiency [33.3%]</li><li>• Science [33.3%]</li></ul></li></ul>              |
|               | <b>Elementary/Middle</b><br>Achievement <ul style="list-style-type: none"><li>• ELA</li><li>• Math</li><li>• Science</li></ul>   | <b>Elementary/Middle</b><br>Achievement [0-100 pts] <ul style="list-style-type: none"><li>• ELA</li><li>• Math</li><li>• Science</li></ul>   |
| Massachusetts | <b>High</b><br>Achievement <ul style="list-style-type: none"><li>• ELA</li><li>• Math</li><li>• Science</li></ul>  | <b>High</b><br>Achievement [0-100 pts] <ul style="list-style-type: none"><li>• ELA</li><li>• Math</li><li>• Science</li></ul>  |
|               | <b>Elementary/Middle</b><br>Achievement  | <b>Elementary/Middle</b><br>Achievement [20%]  |
| New Hampshire | <b>High</b><br>Achievement   | <b>High</b><br>Achievement [50%]   |

---

## References

- Ehlert, M., Koedel, C., Parsons, E., & Podgursky, M. (2014). The sensitivity of value-added estimates to specification adjustments: Evidence from school-and teacher-level models in Missouri. *Statistics and Public ...*, *1*(1), 19–27. Retrieved from <http://amstat.tandfonline.com/doi/abs/10.1080/2330443X.2013.856152>
- Figlio, D., & Loeb, S. (2011). School accountability. In E. Hanushek, S. Machin, & L. Woessmann (Eds.), *Handbooks in economics: Economics of education* (Volume 3, pp. 348–421). Amsterdam, Netherlands: Elsevier. <http://doi.org/10.1016/B978-0-444-53429-3.00008-9>
- Gaddis, S., & Lauen, D. (2014). School accountability and the black-white test score gap. *Social Science Research*, *44*, 15–31.
- Hanushek, E. A., & Raymond, M. (2005). Does school accountability lead to improved student performance? *Journal of Policy Analysis and Management*, 297–327.
- Harris, D., & Herrington, C. (2006). Accountability, standards, and the growing achievement gap: Lessons from the past half-century. *American Journal of Education*, *112*(2), 209–238.
- Jensen, E. (2009). *Teaching with poverty in mind: What being poor does to kids' brains and what schools can do about it*. ASCD.
- Jensen, E. (2013). How Poverty Affects Classroom Engagement. *Educational Leadership*, *70*(8), 24–30.
- Martin, C., Sargrad, S., & Batel, S. (2016). *Making the grade: A 50-state analysis of school accountability systems*.
- Ni, X., Bowers, A., & Esswein, J. (2016). *What counts in calculating school and district level performance index scores: A summary and analysis of academic performance index metrics across the 50 states*. New York, NY.
- Polikoff, M., Duque, M., & Wrabel, S. (2016). *A proposal for school accountability under ESSA*.
- Polikoff, M., McEachin, A., Wrabel, S., & Duque, M. (2014). The waive of the future? School accountability in the waiver era. *Educational Researcher*, *43*(1), 45–54. <http://doi.org/10.3102/0013189X13517137>
- Welsh, R. O. (2016). Student mobility, segregation and achievement gaps: Evidence from Clark County, Nevada. *Urban Education*.