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Introduction to the profiles

School funding is both enormously important and extremely complicated. Large amounts of finance data are collected every year by districts, states, and the federal government. These data are used by scholars and organizations to produce volumes of reports and papers, which vary widely in terms of empirical rigor, and sometimes reach conflicting conclusions. This can be frustrating for policymakers, parents, educators, advocates, and other stakeholders.

The primary purpose of the School Finance Indicators Database (SFID) is to cut through this clutter. It is a collection of finance and resource allocation measures that are based on sophisticated and widely accepted methods, but also designed to be easy for non-researchers to understand and use. The full state database, as well as user-friendly documentation, online data visualizations, and other resources are freely available to the public at the SFID website: schoolfinancedata.org.

Each year, we publish a report summarizing key findings from the SFID. Although this report does present data from every state, it does not allow for the kind of convenient state-specific summary that many users desire. Moreover, while all of our state indicators data are available to the public, the fact remains that analyzing datasets, as well as compiling and contextualizing results from a variety of different measures, can be difficult and time-consuming. These 51 one-page state profiles pull together a selection of key measures into one place and provide a succinct summary of each state’s (and D.C.’s) public K-12 finance system. They are published every year as an accompaniment to the annual report. Note that the individual state profiles compiled in this document can be downloaded as separate PDF files at the SFID website.

Characterizing complex state finance systems parsimoniously is a challenge. The State Indicators Database (SID), which is the primary product of the SFID, includes approximately 125 variables measuring revenue and spending at different levels (e.g., federal, state, local), resource allocation (e.g., staff ratios, teacher pay), and other topics. The indicators are statistically adjusted for factors, such as regional wage variation and poverty, to allow for better comparisons within and between states (many of the indicators are available over the past 25-30 years). Any attempt to include all or even most of these measures in a single profile would likely overwhelm many users. It is also unnecessary.

Instead, the profiles, like the annual report, focus on three "core" measures from the state database, which together offer an effective overview of the fairness and sufficiency of each state’s finance system:

1. **Effort**: how much of a state’s total resources or capacity are spent directly on public K-12 education;
2. **Statewide adequacy**: how many of states’ students are in districts with resources sufficient to meet common outcome goals;
3. **Equal opportunity**: whether funding is more adequate for lower-poverty districts than for higher-poverty districts.

In the profiles, on both the front and back sides, we provide descriptions of each of these three measures, and we try to present the data clearly and in context. This includes, for example, comparisons of each state with the nation as a whole, and, where appropriate, trends over time. The profiles also include overall state scores.

On the back of each profile you can find more detailed information about the indicators and notes about how they are presented and might be interpreted. This back page also lists the names of SID variables used, should readers wish to download and analyze the data for themselves (note that some of the results in the profiles require use of the SFID’s District Cost Database, which is also freely available to download on the SFID website). It is our hope that the profiles contribute to improving the quality and productivity of school finance debates and policymaking.
**ALABAMA**

**Summary:** This 2019-20 profile of Alabama’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Alabama scores 30 out of 100, which ranks 42nd out of the 48 states with possible ratings.

### Fiscal Effort
Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **Alabama effort:** 3.65%
- **U.S. average:** 3.61%

- AL is a medium effort state.
- In FY 2020, AL spent 3.65 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.04 percentage points higher than the unweighted national average of 3.61 percent.
- AL’s effort level ranks #24 in the nation (out of 50).

### Statewide Adequacy
Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in AL is relatively low.
- By the modest standard of U.S. average scores, 77.7 percent of AL students attend inadequately funded districts, which ranks #39 in the nation (out of 49).
- The typical AL student’s district spends 27.7 percent below adequate levels, which ranks #47 in the nation.

### Equal Opportunity
Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in AL is highly unequal.
- Spending in AL’s highest-poverty districts is 51.9 percent ($11,681 PP) below the estimated adequate level, compared with 6.4 percent ($617 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -58.3 percentage points is ranked #25 in the nation (out of 48).

**ALABAMA SCHOOL FINANCE PROFILE 2019-20**
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well as other SFID datasets, toolkits, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding and other limitations, some small differences from users’ manual calculations may appear on the front side.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection of components entails subjective judgments on the part of the SFID research team.

**Fiscal effort**

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but it might in fact be true that states use substantially less effort than their capacity allows (due to a combination of below-inadequate funding states that do and do not have the capacity to increase revenue).

- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate the effort measure, as quarterly effort estimates are not available before that.
- The table in the right panel presents the center-panel graph, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2011. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.
- In the third bullet of the right panel, below the table, we present a “thought experiment” of sorts, in which we calculate how much additional total state and local spending each state would have to do to raise effort to the national average for the typical state from 2006. This is as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.
- For each state/year combination in which 2016-20 effort exceeded the state’s 2006 level, the hypothetical additional spending is calculated (in the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).
- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

**Statewide adequacy**

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy can be calculated with the software tool Kit for the full dataset or with tercile estimates on the front side.

- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state. The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates.
- In the third bullet below the table, we present a “thought experiment” of sorts, in which we calculate how much additional total state and local spending each state would have to do to raise adequacy to the national average for the typical state from 2006. This is as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of adequate funding levels (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30 points); slightly unequal (-30 to 30 points); and acceptable (above 30 points).
- The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest-and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the top and bottom bars are not necessarily comparable to each other across states.
- The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.
Summary: This 2019-20 profile of Alaska's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Alaska scores 88 out of 100, which ranks 2nd out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- AK effort: 4.53%
- U.S. average: 3.61%

- AK is a high effort state.
- In FY 2020, AK spent 4.53 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.93 percentage points higher than the unweighted national average of 3.61 percent.
- AK’s effort level ranks #3 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in AK is relatively high.
- By the modest standard of U.S. average scores, 2.6 percent of AK students attend inadequately funded districts, which ranks #4 in the nation (out of 49).
- The typical AK student’s district spends 56.0 percent above adequate levels, which ranks #7 in the nation.

EQUAL OPPORTUNITY

- Educational opportunity in AK is highly unequal.
- Spending in AK’s highest-poverty districts is 29.9 percent ($6,323 PP) above the estimated adequate level, compared with 95.8 percent ($8,069 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -65.9 percentage points is ranked #26 in the nation (out of 48).

Effort trend and capacity

- AK’s 2020 effort level is 0.37 pct. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #5 in the nation.

<table>
<thead>
<tr>
<th>Period</th>
<th>AK</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.25</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>0.62</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>0.37</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- AK’s effort was lower than its 2006 level in 0 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $0.00 billion (0.0 percent) higher.
- AK is a relatively high capacity state, with a GSP per capita ranked #9 in the nation.
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effect, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: SchoolFinanceData.org. The following are some general notes about the profiles, followed by details pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations of the estimates on the front side of the report.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all years.
- Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
- The years in the table in the right panel present adequacy estimates (percentage difference between actual and estimated adequate spending) for the typical state. Adequacy estimates are not available at the state level.
Arizona Summary: This 2019-20 profile of Arizona’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Arizona scores 16 out of 100, which ranks 48th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th></th>
<th>Arizona effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.62%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- AZ is a low effort state.
- In FY 2020, AZ spent 2.62 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.99 percentage points lower than the unweighted national average of 3.61 percent.
- AZ’s effort level ranks #48 in the nation (out of 50).

Effort trend and capacity

- AZ’s 2020 effort level is 0.65 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #47 in the nation.

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in AZ is relatively low.
- By the modest standard of U.S. average scores, 87.5 percent of AZ students attend inadequately funded districts, which ranks #45 in the nation (out of 49). The typical AZ student’s district spends 25.4 percent below adequate levels, which ranks #45 in the nation.

 Adequacy in 10 largest AZ districts

| Percent above/below adequate spending, ten largest AZ school districts |
|-------------------------------------------------|-----------------|
| MESA UNIF DIST (4235)                           | -32.6           |
| CHANDLER UNIF DIST #90 (4242)                   | -2.6            |
| TUCSON UNIF DIST (4403)                         | -26.7           |
| PEORIA UNIF SD (4237)                           | -24.4           |
| GILBERT UNIF DIST (4239)                        | -3.2            |
| DEER VALLEY UNIF DIST (4246)                    | -2.4            |
| PARADISE VALLEY UNIF DIST (4241)                | -3.7            |
| PHOENIX UNION HIGH SD (4286)                    | -38.1           |
| DYSART UNIF DIST (4243)                         | -27.6           |
| WASHINGTON ELEM SD (4260)                       | -41.3           |

- Statewide, spending is below estimated adequate levels in 164 of the 207 AZ districts with available data.
- Closing all these negative gaps would require $2.9 billion in new funding.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in AZ is moderately unequal.
- Spending in AZ’s highest-poverty districts is 33.9 percent ($5,539 PP) below the estimated adequate level, compared with 6.1 percent ($535 PP) below adequate in the state’s most affluent districts.
- This opportunity gap of -27.8 percentage points is ranked #5 in the nation (out of 48).

 Adequacy by district poverty

<table>
<thead>
<tr>
<th>Adequacy gaps by outcome gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZ’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.87 s.d. below its lowest-poverty districts (blue dot).</td>
</tr>
</tbody>
</table>
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, are freely available to download at: schoolfinancedata.org. The following are some general notes about the measures, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in this profile refer to the spring semester of each school year. (e.g., 2020 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all years.
- Overall state scores: The overall scores reported at the top of this profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but preserved historical levels of funding may still produce the same funding.

- US effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.
- In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate GSP-based effort, as currency changes in effort estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels.
- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

Statewide adequacy

Adequacy is typically defined as the amount to which the method of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (COC); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide [typical student’s] gap of <50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).
- The regional groupings in the graph are U.S. Census divisions (9 groups), AZ’s division is Mountain. Axis ranges for the bottom graph may vary by state.
- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state.
- The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The first bullet presents the total additional funding that would be required to close all these negative funding gaps (ignoring all districts in which actual spending exceeds adequate levels).

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of the actual funding gap (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30 points); slightly unequal (-100 to -76 points); and equal (EO gap less than -100). The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based EO indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but preserved historical levels of funding may still produce the same funding.

- The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the national estimates may not sum perfectly to the state totals.
- The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

- In the right panel, the U.S. or state-level poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes is presented in the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
Summary: This 2019-20 profile of Arkansas’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Arkansas scores 43 out of 100, which ranks 32nd out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- AR is a high effort state.
- In FY 2020, AR spent 4.24 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.63 percentage points higher than the unweighted national average of 3.61 percent.
- AR’s effort level ranks #8 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in AR is relatively low.
- By the modest standard of U.S. average scores, 77.3 percent of AR students attend inadequately funded districts, which ranks #38 in the nation (out of 49).
- The typical AR student’s district spends 23.4 percent below adequate levels, which ranks #43 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in AR is highly unequal.
- Spending in AR’s highest-poverty districts is 43.7 percent ($8,409 PP) below the estimated adequate level, compared with 4.6 percent ($466 PP) below adequate in the state’s most affluent districts.
- This opportunity gap of -39.1 percentage points is ranked #18 in the nation (out of 48).
Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of systemic adequacy (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -30 percent); moderately unequal (EO gap between -30 and -75 percent); slightly unequal (EO gap between -75 and -100 percent); and equal (EO gap is zero or greater than 0 percent). Trends, however, may vary by state. We express EO as a percent of how much it would cost to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).

Statewide adequacy

 Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage, variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy scores are based on a 75 point scale (e.g., the 2006-07 recession. The 2006-07 recession ended, and because federal stimulus funds ran out after 2012. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, may vary by state. In the table in the right panel presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).

In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we can calculate GSP-based fiscal effort, as quarterly/annual GSP estimates are not available before that. The table in the right panel groups the center panel graph, with a focus on effort trends before and after the 2007-09 recession. The 2006-07 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2012. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, may vary by state. In the table in the right panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we can calculate GSP-based fiscal effort, as quarterly/annual GSP estimates are not available before that. The table in the right panel presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still provide high-average spending levels.ピン The scatterplot in the right panel presents, by district poverty quintile, adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage, variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy scores are based on a 75 point scale (e.g., the 2006-07 recession. The 2006-07 recession ended, and because federal stimulus funds ran out after 2012. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, may vary by state. In the table in the right panel presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).

In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we can calculate GSP-based fiscal effort, as quarterly/annual GSP estimates are not available before that. The table in the right panel presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).
**CALIFORNIA**

**State score 32**

**Summary:** This 2019-20 profile of California's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), California scores 32 out of 100, which ranks 39th out of the 48 states with possible ratings.

### FISCAL EFFORT

**Fiscal effort** is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>California effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.21%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- **CA is a low effort state.**
- **In FY 2020, CA spent 3.21 percent of its economic capacity (GSP) on its K-12 public schools.**
- This was 0.40 percentage points lower than the unweighted national average of 3.61 percent.
- **CA’s effort level ranks #36 in the nation (out of 50).**

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% below/below) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in CA is relatively low.**
- **By the modest standard of US. average scores, 78.2 percent of CA students attend inadequately funded districts, which ranks #40 in the nation (out of 49).**
- **The typical CA student’s district spends 12.3 percent below adequate levels, which ranks #37 in the nation.**

### EQUAL OPPORTUNITY

**Equal opportunity** is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Spending in CA’s highest-poverty districts is 25.4 percent ($4,736 PP) below the estimated adequate level, compared with 13.3 percent ($1,498 PP) above adequate in the state’s most affluent districts.**
- **This opportunity gap of -38.6 percentage points is ranked #16 in the nation (out of 48).**

- **CA’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.92 s.d. below its lowest-poverty districts (blue dot).**
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity.

### Notes on Data and Measures

#### State School Finance Profiles 2019-2020 (publ. 2022)

#### General

The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and research reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- **The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).**
- **Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.**
- **Due to rounding, percentages may differ slightly from users’ manual calculations.**
- **The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.**
- **Overall state scores:** The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weights of components entails subjective judgments on the part of the SFID research team.
- **The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unreported scores.
- **D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.**
- **Non-SFID data sources** (“Contextual State” table): 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the Digest of Education Statistics, published by the National Center for Education Statistics.

#### Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but given the same level of effort, states with smaller economies should appropriately allocate a larger share of their resources to education.

- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.** In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using tertiles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we can calculate GSP-based fiscal effort, as quarterly GSP estimates are not available before that. The table in the right panel summarizes the center-panel graph, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2011. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.

- **In the third bullet of the right panel, below the table, we present a “thought experiment” of sorts, in which we calculate how much additional total state and local spending each state would have needed between 2001 and 2009 (due to a 15% point decrease in per-pupil spending) had it spent as much in the typical state on education as the hypothetical state did.** For each state/year combination in which 2016-20 effort exceeded the state’s 2006 level, the hypothetical additional funding is (in the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).

- **In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using tertiles.**

#### Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage, variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are calculated for all states in all years, even those that are not included, single-district state), and for Vermont between 2017 and 2020 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).

- **In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide [typical student’s]’ gap of +50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).**

- **The regional chart graphs in the profile are U.S. Census divisions (9 groups). CA’s division is Pacific. Axes ranges for the bottom graph may vary by state.**

- **The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state.**

- **The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates.**

- **The first bullet presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).**

#### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups ([district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state] note that EO is conceptually independent of overall adequacy spending—e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts.

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**

- **In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to -5 points); moderately similar (-5 to +5 points); highly similar (+5 to +30 points); and very similar (+30 to +75 points).**

- **The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation.**

- **Average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers).**

The difference in student outcomes between the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **CO** is a low effort state.
- In FY 2020, CO spent 3.15 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.45 percentage points lower than the unweighted national average of 3.61 percent.
- CO's effort level ranks #40 in the nation (out of 50).

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STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in CO is relatively moderate.
- By the modest standard of U.S. average scores, 34.0 percent of CO students attend inadequately funded districts, which ranks #26 in the nation (out of 49).
- The typical CO student's district spends 5.3 percent above adequate levels, which ranks #29 in the nation.

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EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state's higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state's "opportunity gap."

- Educational opportunity in CO is highly unequal.
- Spending in CO's highest-poverty districts is 18.4 percent ($2,489 PP) below the estimated adequate level, compared with 28.1 percent ($2,456 PP) above adequate in the state's most affluent districts.
- This opportunity gap of -46.5 percentage points is ranked #22 in the nation (out of 48).

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CO’s opportunity gap contributes to a student outcome gap: the state's highest-poverty districts (pink dot) score 0.53 s.d. below its lowest-poverty districts (blue dot).
NOTES ON DATA AND MEASURES
State School Finance Profiles 2019-20 (publ. 2022)

General
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, with accessible documentation of and data sources for all the measures presented in this profile, as well as other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding and scaling issues from users’ manual calculations, some estimates on the front side in the table may be slightly different from their SFID counterparts (e.g., a hypothetical state in which all districts are below adequate spending levels might still exhibit adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty districts) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2012. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.

Fiscal effort
Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still contribute a greater amount to public education as a percentage of their gross economies.

- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate fiscal effort, as quarterly GSP estimates are not available before that.
- The table in the right panel presents the center-panel graph, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2012. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.

Statewide adequacy
Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between adequacy and capacity (as a percentage of GDP), so as to keep a consistent set of states across all years. In the first bullet of the right panel, we characterize each state’s adequacy level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in adequacy levels represent large revenue amounts, as the denominators are entire state economies.

- The regional categorizations in the graph are U.S. Census divisions (9 groups). CO’s division is Mountain. Axis ranges for the bottom graph may vary by state.
- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest enrollment districts in this state. The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates.

Equal opportunity
Equal educational opportunity is achieved in a given state when none of that state’s districts’ revenues are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to -10); adequately equal (-10 to 10); and equally funded (10 to 75). EO scores (final averages expressed as percentile-averages, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ratings may reflect differences in unrounded scores.

- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

- Non-SFID data sources: (a) “Contextual State” table: 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

www.schoolfinancedata.org
### Fiscal Effort

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>Connecticut effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.57%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- CT is a medium effort state.
- In FY 2020, CT spent 3.57 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.03 percentage points lower than the unweighted national average of 3.61 percent.
- CT’s effort level ranks #27 in the nation (out of 50).

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in CT is relatively high.
- By the modest standard of U.S. average scores, 10.0 percent of CT students attend inadequately funded districts, which ranks #10 in the nation (out of 49).
- The typical CT student’s district spends 77.5 percent above adequate levels, which ranks #3 in the nation.

### Equal Opportunity

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in CT is severely unequal.
- Spending in CT’s highest-poverty districts is 19.3 percent ($3,123 PP) above the estimated adequate level, compared with 223.5 percent ($14,947 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -204.2 percentage points is ranked #46 in the nation (out of 48).

### Adequacy by District Poverty

<table>
<thead>
<tr>
<th>District poverty quintile</th>
<th>Adequacy by district poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>223.5%</td>
</tr>
<tr>
<td>Low</td>
<td>197.5%</td>
</tr>
<tr>
<td>Medium</td>
<td>171.9%</td>
</tr>
<tr>
<td>High</td>
<td>109.5%</td>
</tr>
<tr>
<td>Highest</td>
<td>19.3%</td>
</tr>
</tbody>
</table>

- CT’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.96 s.d. below its lowest-poverty districts (blue dot).
**NOTES ON DATA AND MEASURES**

**State School Finance Indicators 2019-20 (publ. 2022)**

**General**

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at schoolfinance.data.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in this profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding of national results from users' manual calculation of the state side estimates on the front side.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- **Overall state scores**: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weights of components entails subjective judgments on the part of the SFID research team.

**Fiscal effort**

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but this effort might still serve them well (due in part to their large economies).

- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we can calculate GSP-based effort, as quarterly between GSP estimates are not available before that.
- The table in the right panel summarizes the center SFID datasets, tools, and reports, are freely available to download at schoolfinance.data.org. The data in this state profile are from the General Accounting Office (GAO) and the National Public Education Forum (NPEF).

**Statewide adequacy**

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (CDB); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates (i.e., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).

- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent from economic adequacy (gaps), i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 and -25 points); slightly unequal (-25 and -10 points); and adequate (0 and 10 points).
- The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparisons of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the sample sizes for each group vary by state.
- The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

- In the right panel, we characterize each state’s EO as follows: adequate ( EO gap less than -75 points); slightly unequal (EO gap between -30 and -75 points); moderately unequal (-30 and -75 points); severely unequal (EO gap less than -75 points); and very unequal (EO gap greater than -75 points).
- The scatterplot in the right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes is presented in the highest- and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
### DELAWARE

**Summary:** This 2019-20 profile of Delaware's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Delaware scores 55 out of 100, which ranks 18th out of the 48 states with possible ratings.

#### FISCAL EFFORT

**Fiscal effort** is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>Delaware effort</th>
<th>3.00 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. average</td>
<td>3.61 %</td>
</tr>
</tbody>
</table>

- **DE** is a low effort state.
- In FY 2020, DE spent 3.00 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.60 percentage points lower than the unweighted national average of 3.61 percent.
- DE’s effort level ranks #43 in the nation (out of 50).

#### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in DE is relatively moderate.**
- By the modest standard of U.S. average scores, 29.6 percent of DE students attend inadequately funded districts, which ranks #23 in the nation (out of 49).
- The typical DE student’s district spends 6.6 percent above adequate levels, which ranks #27 in the nation.

#### EQUAL OPPORTUNITY

**Equal opportunity** is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in DE is highly unequal.**
- Spending in DE’s highest-poverty districts is 18.6 percent ($3,474 PP) below the estimated adequate level, compared with 14.4 percent ($1,948 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -33.0 percentage points is ranked #13 in the nation (out of 48).

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### FUNDING GAP (% above/below)

DE’s 2020 effort level is 0.03 pct. points higher than it was pre-recession (2006).

- This net change in effort between 2006 and 2020 is ranked #16 in the nation.

#### Adequacy in 10 largest DE districts

| Percent above/below adequate spending, ten largest DE school districts | 
|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                          | RED CLAY CONSOL SD | CHRISTINA SD      | APPOQUINIMINK SD  | INDIAN RIVER SD   | BRANDYWINE SD     |
|                          | 11.9              | 13.2              | 13.1              | 0.3               | 18.6              |
|                          | COLONIAL SD       | CAESAR RODNEY SD  | CAPITAL SD        | SMYRNA SD         | CAPE HENlopen SD  |
|                          | -8.7              | 23.1              | -15.4             | 7.4               | 86.4              |

- Statewide, spending is below estimated adequate levels in 8 of the 16 DE districts with available data.
- Closing all these negative gaps would require $85.3 million in new funding.

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**DE’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.27 s.d. below its lowest-poverty districts (blue dot).**
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity.

### Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate personal state income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but this is not necessarily an indication of lower quality public schools. Use of either method (GSP or GSP per capita) as a measure of “required” or “adequate” spending (as defined by state law) has important implications for how schools are funded and what is required to serve all students.

This report presents a view of effort trends before and after the 2007-2009 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2011. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.

### Sidestate adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district poverty quintile, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of economic status, i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate if high-poverty districts are more adequately funded than low-poverty districts.
STATE SCHOOL FINANCE PROFILE 2019-20 SCHOOL YEAR

DISTRICT OF COLUMBIA

Summary: This 2019-20 profile of District of Columbia’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), District of Columbia scores out of 100, which ranks out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>State</th>
<th>Fiscal Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>District of Columbia</td>
<td>2.19 %</td>
</tr>
<tr>
<td>U.S. average</td>
<td>3.61 %</td>
</tr>
</tbody>
</table>

- DC is a low effort state.
- In FY 2020, DC spent 2.19 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 1.42 percentage points lower than the unweighted national average of 3.61 percent.
- DC’s effort level ranks #50 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in DC is relatively moderate.
- By the modest standard of U.S. average scores, 0.0 percent of DC students attend inadequately funded districts, which ranks #1 of 50.
- The typical DC student’s district spends 10.0 percent above adequate levels, which ranks #25 of 50.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in DC is.
- Spending in DC’s highest-poverty districts is 10.0 percent ($2,082 PP) above the estimated adequate level, compared with percent ($ PP) adequate in the state’s most affluent districts.
- This opportunity gap of percentage points is ranked # in the nation (out of 48).
Fiscal effort

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but produce higher actual outcomes (due to size). A hypothetical state with the highest capacity might still exhibit low effort, as it might produce the same funding.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate spending"). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm, ) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—i.e., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state) Note that EO is conceptually independent of need (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide [typical student’s] gap of <50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below-adequate districts).

In the first bullet of the right panel, the scatterplot in the right panel presents, by district poverty quintile, adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state.

In the first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid funding data. The first bullet presents the total additional funding that would be required to close all these negative funding gaps ("ignoring" all districts in which actual spending exceeds adequate levels).

Student achievement gap

Our measure of student achievement gap in this state is based on the results of the National Assessment of Educational Progress (NAEP) and is calculated in the SID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity.
**Summary:** This 2019-20 profile of Florida’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Florida scores 20 out of 100, which ranks 46th out of the 48 states with possible ratings.

### FISCAL EFFORT

**Fiscal effort** is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- Florida effort: 2.90%
- U.S. average: 3.61%

- **FL is a low effort state.**
- In FY 2020, FL spent 2.90 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.71 percentage points lower than the unweighted national average of 3.61 percent.
- FL’s effort level ranks #45 in the nation (out of 50).

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in FL is relatively low.**
- By the modest standard of U.S. average scores, 87.5 percent of FL students attend inadequately funded districts, which ranks #44 in the nation (out of 49).
- The typical FL student’s district spends 18.1 percent below adequate levels, which ranks #40 in the nation.

### EQUAL OPPORTUNITY

**Equal opportunity** is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in FL is moderately unequal.**
- Spending in FL’s highest-poverty districts is 30.3 percent ($4,402 PP) below the estimated adequate level, compared with 11.5 percent ($1,264 PP) below adequate in the state’s most affluent districts.
- This opportunity gap of -18.7 percentage points is ranked #1 in the nation (out of 48).

### Adequacy gaps by outcome gaps

- FL’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.37 s.d. below its lowest-poverty districts (blue dot).

---

**CONTEXTUAL STATS**

<table>
<thead>
<tr>
<th>FL</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>16.5</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>80.4</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>38.0</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>2,858,461</td>
</tr>
</tbody>
</table>

**Note:**
- FL’s 2020 effort level is 0.67 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #48 in the nation.
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tool, and report, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding and inconsistency from users' manual calculations, some estimates on the front side.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% of). State rankings may reflect differences in unrounded scores.
- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

**Fiscal effort**

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but given the same poverty levels (dually as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue). The data in this state profile are from the General Education Statistics (GEO) program.

- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending levels) in the graph are calculated using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate effort as a percentage of GDP, as quarterly GSP estimates are not available before that. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but given the same poverty levels (dually as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue).
- In order to provide a sense of states’ capacity, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate effort as a percentage of GDP, as quarterly GSP estimates are not available before that. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but given the same poverty levels (dually as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue). The data in this state profile are from the General Education Statistics (GEO) program.

**Statewide adequacy**

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- In the first bullet of the right panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide [typical student’s] gap of +50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).
- The regional color coding in the graph (the color for each state’s range is shown in parentheses) are U.S. Census divisions (9 groups). FL’s division is South Atlantic. Axis ranges for the bottom graph may vary by state.
- In the first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The first bullet presents the total additional funding that would be required to close all these negative funding gaps (ignoring” all districts in which actual spending exceeds adequate levels).

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent (even though it is measured somewhat contemporaneously with adequacy, e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates are calculated using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate effort as a percentage of GDP, as quarterly GSP estimates are not available before that. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but given the same poverty levels (dually as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -90 and -75 points); moderately unequal (-60 to -90 points); evenly divided (-30 to -60 points); and fairly equal (0 to -30 points). The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparisons of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the state bars do not represent theNation as a whole. The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary by states.
Summary: This 2019-20 profile of Georgia’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Georgia scores 40 out of 100, which ranks 36th out of the 48 states with possible ratings.

**FISCAL EFFORT**

**Fiscal effort** is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>GA</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia</td>
<td>3.60 %</td>
</tr>
<tr>
<td>U.S. average</td>
<td>3.61 %</td>
</tr>
</tbody>
</table>

- **GA** is a medium effort state.
- In FY 2020, GA spent 3.60% of its economic capacity (GSP) on its K-12 public schools.
- This was 0.00 percentage points lower than the unweighted national average of 3.61 percent.
- GA's effort level ranks #26 in the nation (out of 50).

**Effort trend and capacity**

- GA’s 2020 effort level is 0.27 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #35 in the nation.

**STATEWIDE ADEQUACY**

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in GA is relatively low.
- By the modest standard of U.S. average scores, 78.7 percent of GA students attend inadequately funded districts, which ranks #41 in the nation (out of 49).
- The typical GA student’s district spends 21.7 percent below adequate levels, which ranks #42 in the nation.

**ADEQUACY IN 10 LARGEST GA DISTRICTS**

| Percent above/below adequate spending, ten largest GA school districts |
|-------------------------------|------------------|
| GWINNETT CNTY                 | -25.9            |
| COBB CNTY                     | -16.3            |
| DEKALB CNTY                   | -38.2            |
| FULTON CNTY                   | -14.3            |
| CLAYTON CNTY                  | -48.3            |
| ATLANTA PS                    | -12.8            |
| FORSYTH CNTY                  | 25.4             |
| HENRY CNTY                    | -30.1            |
| CHEROKEE CNTY                 | 19.4             |
| SAVANNAH-CHATHAM CNTY         | -30.7            |

- Statewide, spending is below estimated adequate levels in 135 of the 180 GA districts with available data.
- Closing all these negative gaps would require $6.3 billion in new funding.

**EQUAL OPPORTUNITY**

**Equal opportunity** is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in GA is highly unequal.**
- Spending in GA’s highest-poverty districts is 42.7 percent ($8,962 PP) below the estimated adequate level, compared with 9.8 percent ($1,210 PP) below adequate in the state’s most affluent districts.
- This opportunity gap of -32.9 percentage points is ranked #12 in the nation (out of 48).
- GA’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.67 s.d. below its lowest-poverty districts (blue dot).
### General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: **fiscal effort**, **statewide adequacy**, and **equal opportunity**. The full SFID dataset, with accessible documentation of and data sources for all the measures presented in this profile, as well as other SFID datasets, tables, and reports, are freely available to download at [SchoolFinanceData.org](http://www.schoolfinancedata.org). The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- **The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).**
- **Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.**
- **Due to rounding, changes and differences published in this profile may vary slightly from users’ manual calculations.**
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### Fiscal effort

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but generally higher effort is a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

- **U.S. GSP averages are not available for any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.**
- **In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles.**

**SID variables used in this section: effort; year**

### Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of SFID’s Cost Dataset (CDS); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

**SID variables used in this section: necm_predcost_state; necm_ppcost_state; necm_outcomegap_q1**

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of adequacy, as, e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

**SID variables used in this section: necm_predcost_q1-q5; necm_ppcost_q1-q5; necm_outcomegap_q1-q5**

### Notes on Data and Measures

The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well as other SFID datasets, tables, and reports, are freely available to download at [SchoolFinanceData.org](http://www.schoolfinancedata.org). The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

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**HAWAII**

**Summary:** This 2019-20 profile of Hawaii’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Hawaii scores out of 100, which ranks out of the 48 states with possible ratings.

### FISCAL EFFORT

**Fiscal effort** is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th></th>
<th>Hawaii effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.54 %</td>
<td>3.61 %</td>
</tr>
</tbody>
</table>

- HI is a low effort state.
- In FY 2020, HI spent 2.54 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 1.06 percentage points lower than the unweighted national average of 3.61 percent.
- HI’s effort level ranks #49 in the nation (out of 50).

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in HI is relatively high.
- By the modest standard of U.S. average scores, percent of HI students attend inadequately funded districts, which ranks # in the nation (out of 49).
- The typical HI student’s district spends percent adequate levels, which ranks # in the nation.

### EQUAL OPPORTUNITY

**Equal opportunity** is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in HI is.
- Spending in HI’s highest-poverty districts is percent ($ PP) the estimated adequate level, compared with percent ($ PP) adequate in the state’s most affluent districts.
- This opportunity gap of percentage points is ranked # in the nation (out of 48).

**ADEQUACY BY DISTRICT POVERTY**

- HI’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score s.d. below its lowest-poverty districts (blue dot).
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and methodological reports, are freely available to download at SchoolFinanceData.org. The following are some general notes about the profiles, followed by descriptions pertaining to the three types of measures they present:

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- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, percentages may differ slightly from users’ manual calculations.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but might still have a higher effort relative to their capacity than states with relatively small economies. (Thus, the SID fiscal effort is expressed as a ratio between low/inadequate funding states and those with higher economic capacity, i.e., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels.)

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Finance Cost Database (OCD; many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

Equal opportunity

The NEO measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent but related to other measures such as the hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts.

Notes on Data and Measures

SFID variables used in this section: necm_enroll_q1; necm_enroll_q2; necm_enroll_q3; necm_enroll_q4; necm_enroll_q5; necm_predcost_q1; necm_predcost_q2; necm_predcost_q3; necm_predcost_q4; necm_predcost_q5; necm_popstat_state; necm_popstat_county; necm_popstat_district

School Finance Indicators Database

www.schoolfinancedata.org
Summary: This 2019-20 profile of Idaho’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Idaho scores 30 out of 100, which ranks 41st out of the 48 states with possible ratings.

### Fiscal Effort

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

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<tr>
<th></th>
<th>Idaho</th>
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<tbody>
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<td>Idaho effort</td>
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<tr>
<td>U.S. average</td>
<td>3.61%</td>
<td></td>
</tr>
</tbody>
</table>

- ID is a low effort state.
- In FY 2020, ID spent 3.18% of its economic capacity (GSP) on its K-12 public schools.
- This was 0.43 percentage points lower than the unweighted national average of 3.61 percent.
- ID’s effort level ranks #38 in the nation (out of 50).

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in ID is relatively low.
- By the modest standard of U.S. average scores, 69.0% of ID students attend inadequately funded districts, which ranks #36 in the nation (out of 49).
- The typical ID student’s district spends 7.0% below adequate levels, which ranks #34 in the nation.

### Equal Opportunity

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in ID is moderately unequal.
- Spending in ID’s highest-poverty districts is 20.6% below the estimated adequate level, compared with 9.0% above adequate in the state’s most affluent districts.
- This opportunity gap of -29.5 percentage points is ranked #8 in the nation (out of 48).

### Adequacy by District Poverty

<table>
<thead>
<tr>
<th></th>
<th>Idaho</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above adequate</td>
<td>9.0%</td>
<td></td>
</tr>
<tr>
<td>Below adequate</td>
<td>-11.8%</td>
<td>-14.0%</td>
</tr>
<tr>
<td>Lowest</td>
<td>-24.3%</td>
<td>-20.6%</td>
</tr>
</tbody>
</table>

- ID’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.42 s.d. below its lowest-poverty districts (blue dot).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptive notes pertaining to the three types of measures they present:

- **Fiscal effort**: measures equal opportunity (EO)
- **Statewide adequacy**: presents the total additional funding that would be required to close all these negative funding gaps ("ignoring" all other fiscal gaps). Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate" spending). We express statewide adequacy in terms of either: (1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and (2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_, are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).
- **Equal opportunity**: presents the number of students in each state in districts with below adequate funding levels as the number of students in each state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts. EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

**Fiscal effort**

- Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still provide greater spending for schools per capita. This is similar to a system in which low/inequitable funding states that do and do not have the capacity to increase revenue.

- U.S. effort averages are unweighted and do not include Vermont or Hawaii (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.

- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

**Statewide adequacy**

- Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate" spending). We express statewide adequacy in terms of either: (1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and (2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_, are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide gap above +50 percent); moderate (between 20 percent below adequate and statewide gap above +50 percent; (high) greater than 20 percent below adequate and statewide gap above +50 percent; (high) greater than 20 percent below adequate and statewide gap above +50 percent; (high) greater than 20 percent below adequate and statewide gap above +50 percent; (high) greater than 20 percent below adequate and statewide gap above +50 percent). DCD estimates are national averages, calculated using specifications that are not state-specific but allow for clear viewing of this state’s adequacy.”

**Equal opportunity**

- Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—i.e., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of revenue adequacy (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.)
**ILLINOIS**

**FISCAL EFFORT**

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>Fiscal effort category</th>
<th>IL</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort level</td>
<td>3.44 %</td>
<td>3.61 %</td>
</tr>
</tbody>
</table>

- IL is a medium effort state.
- In FY 2020, IL spent 3.44% of its economic capacity (GSP) on its K-12 public schools.
- This was 0.17 percentage points lower than the unweighted national average of 3.61 percent.
- IL’s effort level ranks #31 in the nation (out of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in IL is relatively moderate.
- By the modest standard of U.S. average scores, 34.9 percent of IL students attend inadequately funded districts, which ranks #27 in the nation (out of 49).
- The typical IL student’s district spends 26.8 percent above adequate levels, which ranks #15 in the nation.

**EQUAL OPPORTUNITY**

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in IL is severely unequal.
- Spending in IL’s highest-poverty districts is 7.9 percent ($1,431 PP) below the estimated adequate level, compared with 120.6 percent ($9,602 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -128.5 percentage points is ranked #40 in the nation (out of 48).

**CONTEXTUAL STATS**

<table>
<thead>
<tr>
<th>Fiscal effort</th>
<th>IL</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>13.4</td>
<td>14.9</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>83.9</td>
<td>83.1</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>42.4</td>
<td>47.0</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>1,943,117 (5)</td>
<td></td>
</tr>
</tbody>
</table>

**Effort trend and capacity**

- IL’s 2020 effort level is 0.03 pct. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #17 in the nation.

**Net change by period (% pts.)**

<table>
<thead>
<tr>
<th>Period</th>
<th>IL</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.08</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>-0.05</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>0.03</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- IL’s effort was lower than its 2006 level in 4 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $4.62 billion (3.3 percent) higher.
- IL is a relatively high capacity state, with a GSP per capita ranked #10 in the nation.
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

• The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
• Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
• Due to rounding, some reported results from users’ manual calculations may not exactly match the estimates on the front side.
• The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
• Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
• The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.
• D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger populations, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but prioritize spending more fairly among districts. Effort is sometimes defined alternatively as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue. The scatterplot in the right panel presents, by district poverty quintile, adequacy estimates for the typical student in that district (i.e., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SID State Cost Database (CORD); many but not all SID adequacy measures (all of which have variable names beginning with necm_, are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates (as computed by the model) are available in all states, except for Vermont between 2017 and 2020 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).

• In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide [typical student’s] gap of +50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).

• In the first panel of the right side, we show the distribution of students in each state in adequate districts, by district quintiles. The overall score is reported at the top of the profile (rather than, say, 200). Because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2012, 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of adequacy estimates (e.g., a hypothetical state in which all district spending levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts).

• EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

• In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -30 points); moderately unequal (-30 points < EO gap ≤ -15 points); low-to-moderate inequality (-15 points > EO gap ≥ -5 points); and low inequality (EO gap < -5 points).

• The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the measures used here are not nationally comparable. The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.
Summary: This 2019-20 profile of Indiana's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Indiana scores 37 out of 100, which ranks 37th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>State</th>
<th>Fiscal effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN</td>
<td>3.16%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- IN is a low effort state.
- In FY 2020, IN spent 3.16 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.44 percentage points lower than the unweighted national average of 3.61 percent.
- IN's effort level ranks #39 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in IN is relatively moderate.
- By the modest standard of U.S. average scores, 38.9 percent of IN students attend inadequately funded districts, which ranks #32 in the nation (out of 49).
- The typical IN student's district spends 2.4 percent above adequate levels, which ranks #33 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in IN is severely unequal.
- Spending in IN’s highest-poverty districts is 24.1 percent ($3,755 PP) below the estimated adequate level, compared with 52.6 percent ($3,451 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -76.7 percentage points is ranked #31 in the nation (out of 48).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

**Fiscal effort**
- Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but that lower effort states might be doing so for good reason (e.g., as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue).
- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate effort, as quarterly GSP estimates are not available before that.
- The table in the right panel summarizes the center (national) poverty quintile, adequacy gaps for all five quintiles in each state (although opportunity gaps as we understand them cannot be calculated for these states). See SID documentation for sources used for public school coverage estimates. Whenever we report on expenditure gaps, we are comparing current-year spending to estimates from previous years. Details on the steps we follow to generate these estimates are given in the SFID’s Technical Appendix. Where there are no gaps (i.e., the hypothetical additional spending estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).
- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

**Statewide adequacy**
- Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the State Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy percentages might only be able to be calculated for a subset of states, for example, if in some states all districts are isolated, single-district state), and for Vermont between 2017 and 2020 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide [typical student’s] gap of <50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).
- The regional cost proxies in the graph are U.S. Census divisions (9 groups). In’s division is East North Central. Axis ranges for the bottom graph may vary by state. The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state. The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The first bullet presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).

**Equal opportunity**
- Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of overall adequacy (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts).
  - EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
  - In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to -5 points); slightly unequal (5 to +30 points); and adequate (<30 points).
  - The center panel figure presents adequacy funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the rankings for “highest” and “lowest” poverty districts will differ by state. For instance, the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

www.schoolfinancedata.org
Summary: This 2019-20 profile of Iowa's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Iowa scores 58 out of 100, which ranks 15th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- IA is a medium effort state.
- In FY 2020, IA spent 3.82 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.21 percentage points higher than the unweighted national average of 3.61 percent.
- IA's effort level ranks #17 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in IA is relatively moderate.
- By the modest standard of U.S. average scores, 25.9 percent of IA students attend inadequately funded districts, which ranks #20 in the nation (out of 49).
- The typical IA student's district spends 16.0 percent above adequate levels, which ranks #21 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state's higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state's "opportunity gap."

- Educational opportunity in IA is severely unequal.
- Spending in IA's highest-poverty districts is 16.1 percent ($2,309 PP) below the estimated adequate level, compared with 80.8 percent ($4,662 PP) above adequate in the state's most affluent districts.
- This opportunity gap of -96.8 percentage points is ranked #35 in the nation (out of 48).
GENERAL

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, some discrepancies may appear when moving from one category to the next, and minor differences in calculations. The calculations and conclusions are taken from the authors' manual calculation, not the original estimates on the front side.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states' combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations or state-level public education systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of "good" or "bad"), and the collection of components entails subjective judgments on the part of the SFID research team.
- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.
- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.
- Non-SFID data sources: (Contextual State) table: 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics published by the National Center for Education Statistics.

FISCAL EFFORT

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger populations, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still provide institutions that might be rated so highly. The effort measure is thus a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in whom we calculate SFID-based effort, as quarterly GSP estimates are not available before that.
- The table in the right panel summarizes the center-panel graph, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the "K-12 recession") is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the "official recession" ended, and because federal stimulus funds ran out after 2011. 2012 is therefore an apt starting point for assessing states' re-investment (or lack thereof). Trends, however, vary by state.
- In the third bullet of the right panel, below the table, we present a "thought experiment" of sorts, in which we calculate how much additional total local and state spending each state would have had to increase between 2004 and 2020 had that state returned to its own pre-recession (2006) effort level by 2016 (with 2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-20 effort exceeded the state's 2006 level, the hypothetical additional spending is calculated (i.e., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states' 2006 effort levels).
- In order to provide a sense of states' capacity, we characterize each state's GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

STATEWIDE ADEQUACY

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate spending"). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID State Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy scores (final averages expressed as weighted averages of unrounded, isolated, single-district state) and, for Vermont between 2017 and 2020 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below adequate districts and statewide gap of +50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).

- The regional aggregates in the graph are U.S. Census divisions (9 groups), IA’s division is West North Central. Axis ranges for the bottom graph may vary by state.
- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state.
- The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The second bullet presents the total additional funding that would be required to close all these negative funding gaps (ignoring all districts in which actual spending exceeds adequate levels).

EQUAL OPPORTUNITY

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of adequacy (as the hypothesis in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts).

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available, and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to -5); and slightly unequal (+5 to +30). Note that even seemingly small changes or differences in EO levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in whom we calculate SFID-based EO, as quarterly GSP estimates are not available before that.

- The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

- The right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes between the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- Kansas effort: 3.88%
- U.S. average: 3.61%

- KS is a high effort state.
- In FY 2020, KS spent 3.88 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.27 percentage points higher than the unweighted national average of 3.61 percent.
- KS's effort level ranks #16 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in KS is relatively moderate.
- By the modest standard of U.S. average scores, 27.5 percent of KS students attend inadequately funded districts, which ranks #21 in the nation (out of 49).
- The typical KS student's district spends 24.3 percent above adequate levels, which ranks #17 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state's higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state's "opportunity gap."

- Educational opportunity in KS is severely unequal.
- Spending in KS's highest-poverty districts is 12.3 percent ($1,800 PP) below the estimated adequate level, compared with 91.6 percent ($5,273 PP) above adequate in the state's most affluent districts.
- This opportunity gap of -103.9 percentage points is ranked #37 in the nation (out of 48).

Efficiency

Efficiency in KS's highest-poverty districts is 12.3 percent ($1,800 PP) below the estimated adequate level, compared with 91.6 percent ($5,273 PP) above adequate in the state's most affluent districts.

This opportunity gap of -103.9 percentage points is ranked #37 in the nation (out of 48).

KS's opportunity gap contributes to a student outcome gap: the state's highest-poverty districts (pink dot) score 0.70 s.d. below its lowest-poverty districts (blue dot).
NOTES ON DATA AND MEASURES
State School Finance Profiles 2019-20 (publ. 2022)

General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes pertaining to the three types of measures they present:

- The years in this profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, differences may appear between users' manual calculations and the estimates on the front side.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of this profile provide a very simple summary of states' combined "performance" on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states' school finance systems. Each state's score is calculated entirely relative to other states (i.e., rather than based on some absolute standard of "good" or "bad"), and the selection of components entails subjective judgments on the part of the SFID research team.
- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%)); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded measures.
- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.
- Non-SFID data sources ("Contextual State" table): 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still achieve higher total expenditures per pupil (due to their larger capacities) than lower capacity states with smaller economies.

- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state's effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we can calculate GSP-based fiscal effort, as quarterly GSP estimates are not available before that.
- The table in the right panel summarizes the center estimates for each state. The full SID dataset, along with accessible documentation of all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate spending"). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID State Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are only available in all states and districts except for D.C., Hawaii, and Vermont. For 2020, each state's "opportunity gap" is the difference (in percentage points) between their typical student's gap (+50 percent or greater); high (greater than 20 percent below adequate and statewide gap under 50 percent); moderate (greater than 15 percent below adequate and statewide gap under 25 percent); and low (greater than 10 percent below adequate and statewide gap under 30 percent). State rankings may reflect differences in unrounded measures.

- The regional GSP-based fiscal-effort measures are U.S. Census divisions (9 groups). KS's division is West North Central. Axis ranges for the bottom graph may vary by state.
- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state. The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The first bullet presents the total additional funding that would be required to close all these negative funding gaps ("ignoring" all districts in which actual spending exceeds adequate levels).

Equal opportunity

Equitable educational opportunity is achieved in a given state when none of that state's districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state's "opportunity gap" is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of the "effort" indicators (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -30 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 and -15 points); slightly unequal (-15 and 0 points); and equal (0 and 15 points).
- The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

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KENTUCKY

Summary: This 2019-20 profile of Kentucky’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Kentucky scores 59 out of 100, which ranks 14th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>Kentucky effort</th>
<th>3.69 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. average</td>
<td>3.61 %</td>
</tr>
</tbody>
</table>

- Kentucky is a medium effort state.
- In FY 2020, KY spent 3.69 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.09 percentage points higher than the unweighted national average of 3.61 percent.
- KY’s effort level ranks #21 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in KY is relatively moderate.
- By the modest standard of U.S. average scores, 22.1 percent of KY students attend inadequately funded districts, which ranks #17 in the nation (out of 49).
- The typical KY student’s district spends 15.6 percent above adequate levels, which ranks #22 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in KY is highly unequal.
- Spending in KY’s highest-poverty districts is 19.0 percent ($2,686 PP) below the estimated adequate level, compared with 33.6 percent ($3,010 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -52.6 percentage points is ranked #24 in the nation (out of 48).

Effort trend and capacity

- KY’s 2020 effort level is 0.07 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #21 in the nation.

Net change by period (% pts.)

<table>
<thead>
<tr>
<th>Period</th>
<th>KY</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.19</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>-0.25</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>-0.07</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- KY’s effort was lower than its 2006 level in 5 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-2020 spending would have been $1.05 billion (2.8 percent) higher.
- KY is a relatively low capacity state, with a GSP per capita ranked #46 in the nation.

Adequacy in 10 largest KY districts

<table>
<thead>
<tr>
<th>Percent above/below adequate spending, ten largest KY school districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>JEFFERSON CNTY</td>
</tr>
<tr>
<td>FAYETTE CNTY</td>
</tr>
<tr>
<td>BOONE CNTY</td>
</tr>
<tr>
<td>WARREN CNTY</td>
</tr>
<tr>
<td>HARDIN CNTY</td>
</tr>
<tr>
<td>KENTON CNTY</td>
</tr>
<tr>
<td>BULLITT CNTY</td>
</tr>
<tr>
<td>OLDHAM CNTY</td>
</tr>
<tr>
<td>DAVIESS CNTY</td>
</tr>
<tr>
<td>MADISON CNTY</td>
</tr>
</tbody>
</table>

- Statewide, spending is below estimated adequate levels in 71 of the 172 KY districts with available data.
- Closing all these negative gaps would require $323.8 million in new funding.

Adequacy gaps by outcome gaps

- KY’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.13 s.d. below its lowest-poverty districts (blue dot).
NOTES ON DATA AND MEASURES
State School Finance Profiles 2019-20 (publ. 2022)

General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the sources, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in this profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all are recalculated annually with updated data.
- Due to rounding, expenditures may vary slightly from users’ manual calculations.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all years.
- Overall state scores: The overall scores reported at the top of this profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but otherwise there is a correlation. Efforts can be calculated for the state as a whole or for a subgroup, such as a region or revenue stream. Measures can be calculated on an aggregate basis or by district. GSP is the product of the SFID is the State Indicators Database (SID), a state level dataset containing roughly 125 variables.

The total number of states assigned rankings varies slightly by measure, as not all measures are available in all years. In the first bullet of the left panel, we characterize each state’s level of effort as follows: low (less than 50 percent); high (greater than 50 percent in below adequate districts). The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the typical state.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. The overall NECM score provides a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. It should be viewed with appropriate caution. More information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID School Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Adequacy estimates from the NECM are only available for the top range (or highest) of the distribution of all states, and all years are recalculated annually with update (horizontal axis)

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent from adequacy; e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -70 and -75 points); moderately unequal (-90 to -75 points); mildly unequal (-95 to -90 points); and equal (-100 to -95 points).
- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the typical student in each state.

SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. www.schoolfinancedata.org
**LOUISIANA**

**Summary:** This 2019-20 profile of Louisiana’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Louisiana scores 29 out of 100, which ranks 43rd out of the 48 states with possible ratings.

### FISCAL EFFORT

**Fiscal effort** is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **LA** is a low effort state.
- In FY 2020, LA spent 3.32 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.29 percentage points lower than the unweighted national average of 3.61 percent.
- LA’s effort level ranks #35 in the nation (out of 50).

#### K-12 FISCAL EFFORT TREND, 2006-20

<table>
<thead>
<tr>
<th>Period</th>
<th>LA</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019-2020</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Effort trend and capacity**

- LA’s 2020 effort level is 0.42 ppt. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #4 in the nation.

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in LA is relatively low.**
- By the modest standard of U.S. average scores, 74.5 percent of LA students attend inadequately funded districts, which ranks #37 in the nation (out of 49).
- The typical LA student’s district spends 18.3 percent below adequate levels, which ranks #41 in the nation.

#### PCT. OF STUDENTS IN BELOW ADEQUATE DISTRICTS

**ADEQUATE FUNDING GAP OF TYPICAL STUDENT**

- LA's funding gap is below adequate levels.
- Region: -18.3%
- U.S.: -27.9%
- LA: -3.0%

### EQUAL OPPORTUNITY

**Equal opportunity** is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in ppt. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in LA is highly unequal.
- Spending in LA’s highest-poverty districts is 42.7 percent ($9,110 PP) below the estimated adequate level, compared with 3.5 percent ($387 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -46.2 percentage points is ranked #21 in the nation (out of 48).

#### ADEQUACY BY DISTRICT POVERTY

- LA’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.58 s.d. below its lowest-poverty districts (blue dot).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SID datasets, topic and data reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2021-2022.)
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- Due to reporting differences, some measures in this profile may not match state reports.
- Statewide adequacy measures are not available for Hawaii in all years (due to it being a geographically isolated, single district state), and as a result, statewide adequacy scores are not available for Hawaii in all years (due to it being a geographically isolated, single district state).
- The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-2020).
- Estimates for D.C. apply to a single school district (District of Columbia Public Schools). Estimates for D.C. provide a very simple summary of states' combined "performance" on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states' school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of "good" or "bad"), and the selection/comparison of components entails subjective judgments on the part of the SFID research team.
- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile- or standard-deviation equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unreported data.
- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.
- Non-SFID data sources ("Contextual State" tab): 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still provide adequate funding (by the definition of Adequacy). Prior to the NECM, an adequate funding measure was defined more narrowly as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue. U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state's level of effort as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate effort based on state general fund revenues, as quarterly effort measures are not available before that.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate" spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are based on all students in all districts in all states, whereas state-level data is available for the state's division (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts. EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of statewide adequacy—e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts. EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -70 and -75 points); moderately unequal (-50 to -70 points); slightly unequal (-30 to -50); and about equal (-15% or less). The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the estimates do not necessarily represent the whole U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

The scores are calculated as a weighted average of z-scores (final averages expressed as percentile- or standard-deviation equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unreported data.

D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.
STATE SCHOOL FINANCE PROFILE
2019-20 SCHOOL YEAR

MAINE

Summary: This 2019-20 profile of Maine’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Maine scores 62 out of 100, which ranks 11th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

Maine effort 4.19 %
U.S. average 3.61 %

- ME is a high effort state.
- In FY 2020, ME spent 4.19 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.58 percentage points higher than the unwighted national average of 3.61 percent.
- ME’s effort level ranks #10 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in ME is relatively high.
- By the modest standard of U.S. average scores, 7.2 percent of ME students attend inadequately funded districts, which ranks #8 in the nation (out of 49).
- The typical ME student’s district spends 66.3 percent above adequate levels, which ranks #5 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in ME is severely unequal.
- Spending in ME’s highest-poverty districts is 4.0 percent ($558 PP) above the estimated adequate level, compared with 178.9 percent ($9,581 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -174.9 percentage points is ranked #45 in the nation (out of 48).

www.schoolfinancedata.org

MAINE SCHOOL FINANCE PROFILE 2019-20
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- **The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2020-2021).**
- **Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.**
- **Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations (e.g., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states' 2006 effort levels).**

Fiscal effort

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states have larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but with higher quality of education (even though the latter states might be using a proportionally smaller share of their economic base). As a result, the SID and SFID 's approach to measuring effort is primarily as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.**
- **In the first bullet of the left panel, we characterize each state's effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- **Note also that 2006 is the first year in which we can calculate state fiscal effort, as quarterly GSP estimates are not available before that.**

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate" spending).

- **We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state.**

Statewide adequacy is calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (QS/Q1 difference in adequacy gap, in percentage points) (25%). State ratings may reflect differences in unreported revenue sources.

- **D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.**

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of fiscal effort (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts).

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**
- **In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -50 and -75 points); moderately unequal (-75 to -30 points); and relatively equal (-30 points).**
- **The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the national estimates presented in the graph are best understood as approximations of the national situation.**
- **Average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers).**

School Finance Indicators Database, 2022
**FISCAL EFFORT**

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **MD's effort** was 3.65% in 2020, which is a medium effort state.
- In FY 2020, MD spent 3.65% of its economic capacity (GSP) on its K-12 public schools.
- This was 0.04 percentage points higher than the unweighted national average of 3.61%.
- MD's effort level ranks #25 in the nation (out of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in MD is relatively moderate.
- By the modest standard of U.S. average scores, 36.3% of MD students attend inadequately funded districts, which ranks #29 in the nation (out of 49).
- The typical MD student’s district spends 4.9 percent above adequate levels, which ranks #30 in the nation.

**EQUAL OPPORTUNITY**

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in MD** is highly unequal.
- Spending in MD’s highest-poverty districts is 23.3 percent ($4,931 PP) below the estimated adequate level, compared with 44.3 percent ($4,681 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -67.6 percentage points is ranked #28 in the nation (out of 48).

**MARYLAND**

**Summary:** This 2019-20 profile of Maryland’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Maryland scores 49 out of 100, which ranks 22nd out of the 48 states with possible ratings.

<table>
<thead>
<tr>
<th>Contextual Stats</th>
<th>MD</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>10.8</td>
<td>14.9</td>
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<tr>
<td>Public school coverage (%)</td>
<td>80.7</td>
<td>83.1</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>43.2</td>
<td>47.0</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>900,494 (20)</td>
<td></td>
</tr>
</tbody>
</table>

**ADEQUACY BY DISTRICT POVERTY**

Adequacy gaps by outcome gaps

- MD’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.98 s.d. below its lowest-poverty districts (blue dot).

**Effort trend and capacity**

- MD’s 2020 effort level is 0.03 pct. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #15 in the nation.

**Net change by period (% pts.)**

<table>
<thead>
<tr>
<th>Period</th>
<th>MD</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>0.01</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>0.03</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- MD’s effort was lower than its 2006 level in 4 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $2.51 billion (3.6 percent) higher.
- MD is a relatively high capacity state, with a GSP per capita ranked #12 in the nation.
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the sources, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all are recalculated annually with updated data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- The total number of state assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-poverty states with larger capacities, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but provide comparable spending (due to being a proxy of high effort or high spending as a measure of high standards and high costs). Effort is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum acceptable level of education outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NEMC, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Finance Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are taken from the SFID (used in all states), not from the NECM (used primarily in certain states). The table in the right panel presents adequacy estimates for community college districts and statewide (typical student’s) gap (95th percentile - 50th percentile). Equality of opportunity: This gap represents the “base” or the hypothetical additional spending needed to reduce the gap down to zero. More information about the NEMC, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is a part of the SID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NEMC, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the

Equal opportunity

Educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of the adequacy gaps (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

SID variables used in this section: necm_predcost_state; necm_pscpct_state; necm_predcost_group; necm_pscpct_group

Notes on Data and Measures

State School Finance Profiles 2019-20 (publ. 2022)

www.schoolfinancedata.org
Summary: This 2019-20 profile of Massachusetts’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Massachusetts scores 45 out of 100, which ranks 28th out of the 48 states with possible ratings.

### Fiscal Effort

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>State</th>
<th>Massachusetts</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort</td>
<td>3.12%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- **MA is a low effort state.**
- In FY 2020, MA spent 3.12 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.48 percentage points lower than the unweighted national average of 3.61 percent.
- **MA’s effort level ranks #42 in the nation (out of 50).**

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in MA is relatively high.**
- By the modest standard of U.S. average scores, 16.4 percent of MA students attend inadequately funded districts, which ranks #12 in the nation (out of 49).
- The typical MA student’s district spends 53.1 percent above adequate levels, which ranks #8 in the nation.

### Equal Opportunity

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in MA is severely unequal.**
- Spending in MA’s highest-poverty districts is 8.8 percent ($1,570 PP) above the estimated adequate level, compared with 148.3 percent ($10,768 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -139.5 percentage points is ranked #43 in the nation (out of 48).

### Effect trend and capacity

- **MA’s 2020 effort level is 0.19 pct. points lower than it was pre-recession (2006).**
- This net change in effort between 2006 and 2020 is ranked #29 in the nation.

### Adequacy in 10 largest MA districts

- **Statewide, spending is below estimated adequate levels in 11 of the 286 MA districts with available data.**
- Closing all these negative gaps would require $287.3 million in new funding.

---

**Adequacy gaps by outcome gaps**

- MA’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.92 s.d. below its lowest-poverty districts (blue dot).
Conducting a state’s fiscal effort necessarily involves calculations of its economic capacity. Nevertheless, the state’s economy is a fluid concept. Some of the state’s yearly economic totals are available only in a moderately unequal (EO gap above 30 points). A moderate amount of additional spending power is normally required to achieve the state’s required test score goals. Adequacy estimates are not available for D.C. (single government district state). In the first bullet of the left panel, we characterize each state’s economic capacity as follows: severely unequal (EO gap less than 30 points). In the third bullet of the right panel, below the table, we present a “thought experiment” of sorts, in which we calculate hypothetical additional spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution.
MICHIGAN

STATE SCHOOL FINANCE PROFILE 2019-20 SCHOOL YEAR

Summary: This 2019-20 profile of Michigan's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Michigan scores 43 out of 100, which ranks 31st out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>Michigan effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.70 %</td>
<td>3.61 %</td>
</tr>
</tbody>
</table>

- MI is a medium effort state.
- In FY 2020, MI spent 3.70 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.09 percentage points higher than the unweighted national average of 3.61 percent.
- MI's effort level ranks #20 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in MI is relatively moderate.
- By the modest standard of U.S. average scores, 35.7 percent of MI students attend inadequately funded districts, which ranks #28 in the nation (out of 49).
- The typical MI student's district spends 3.6 percent above adequate levels, which ranks #31 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state's higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state's "opportunity gap."

- Educational opportunity in MI is severely unequal.
- Spending in MI's highest-poverty districts is 33.8 percent ($6,776 PP) below the estimated adequate level, compared with 63.5 percent ($4,427 PP) above adequate in the state's most affluent districts.
- This opportunity gap of -97.2 percentage points is ranked #36 in the nation (out of 48).

Effort trend and capacity

- MI's 2020 effort level is 0.60 pctl. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #46 in the nation.

<table>
<thead>
<tr>
<th>Period</th>
<th>MI</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession</td>
<td>-0.18</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession</td>
<td>-0.42</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period</td>
<td>-0.60</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

MI's effort was lower than its 2006 level in 5 of 5 years between 2016-2020. Had effort recovered to its 2006 level during these years, total 2016-2020 spending would have been $18.54 billion (20.5 percent) higher.

- MI is a relatively low capacity state, with a GSP per capita ranked #39 in the nation.

Adequacy in 10 largest MI districts

<table>
<thead>
<tr>
<th>Percent above/below adequate spending, ten largest MI school districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETROIT CITY SCHOOLS</td>
</tr>
<tr>
<td>UTICA COMM SCH</td>
</tr>
<tr>
<td>DEARBORN CITY SD</td>
</tr>
<tr>
<td>ANN ARBOR PS</td>
</tr>
<tr>
<td>PLYMOUTH-CANTON COMM SCH</td>
</tr>
<tr>
<td>CHIPPEWA VALLEY SCHLS</td>
</tr>
<tr>
<td>ROCHESTER COMMUNITY SD</td>
</tr>
<tr>
<td>GRAND RAPIDS PS</td>
</tr>
<tr>
<td>LIVONIA PS SD</td>
</tr>
<tr>
<td>WARREN CONSOL SCHLS</td>
</tr>
</tbody>
</table>

- Statewide, spending is below estimated adequate levels in 240 of the 537 MI districts with available data.
- Closing all these negative gaps would require $2.3 billion in new funding.

Adequacy gaps by outcome gaps

MI's opportunity gap contributes to a student outcome gap: the state's highest-poverty districts (pink dot) score 0.84 s.d. below its lowest-poverty districts (blue dot).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Alphonse Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tool reports, and other publications are freely available to download at schoolfinancedata.org.

### General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Alphonse Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tool reports, and other publications are freely available to download at schoolfinancedata.org. The following are some general notes on the profiles, followed by descriptions pertaining to the three types of measures they present:

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- **Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.**
- **Due to rounding, some percentages from users' manual calculations may not add to 100% on the front side.**
- **The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.**
- **Overall state scores**: The overall scores reported at the top of the profile provide a very simple summary of states' combined "performance" on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states' school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of "good" or "bad"), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

### Fiscal effort

**SID variables used in this section**: **effort: year**

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but might still be better off than their smaller economy counterparts in this respect (due to relatively higher quality-of-life benefits or similarly as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue).

- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.**
- **In the first bullet of the left panel, we characterize each state's effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- **Note also that 2006 is the first year in which we can calculate a fiscal effort indicator, as quarterly GSP estimates are not available before that year.**
- **In order to provide a sense of states' capacity, we characterize each state's GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

### Statewide adequacy

**SID variables used in this section**: **necm_predcost_state; necm_ppcost_state; necm_enroll_q1**

Statewide adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate" spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Cost Database (DCD); many not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- **In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide gap under 75 points); moderate (greater than 20 percent below adequate and statewide gap under 50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).**
- **In the second bullet, we provide a "thought experiment" of sorts, in which we calculate how much additional total state and local spending each state would have to spend to bring districts to the NECM spending levels for 2016 (recognized state by state, but in this case by district poverty quintile).**
- **In the third bullet of the right panel, below the table, we present a "thought experiment" of sorts, in which we calculate how much additional total state and local spending each state would have to spend to bring districts to the NECM spending levels for 2016 (recognized state by state, but in this case by district poverty quintile).**
- **The table in the right panel summarizes the center estimates in the right panel) require use of SFID data sources (Q5) and lowest SFID adequacy estimates are not available before that year.**
- **For each state/year combination in which 2016-20 effort exceeded the state's 2006 level, the hypothetical additional spending is calculated as the hypothetical additional spending estimates do not include years in which 2016-20 funding would have been lower under states' 2006 effort levels.**
- **In order to provide a sense of states' capacity, we characterize each state's GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

### Equal opportunity

**SID variables used in this section**: **necm_predcost_q1; necm_ppcost_q1; necm_enroll_q1**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of the adequacy gap (a., e.g., the hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**
- **In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to +30 points); moderately equal (+30 to +75 points); highly equal (+75 points or greater); and equal (EO gap of 0). Note that these estimates do not represent comprehensiv...**
- **In the second bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to +30 points); moderately equal (+30 to +75 points); highly equal (+75 points or greater); and equal (EO gap of 0). Note that these estimates do not represent comprehensiv...**
- **In the third bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to +30 points); moderately equal (+30 to +75 points); highly equal (+75 points or greater); and equal (EO gap of 0). Note that these estimates do not represent comprehensiv...**
Summary: This 2019-20 profile of Minnesota's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Minnesota scores 61 out of 100, which ranks 12th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>State</th>
<th>Fiscal Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota</td>
<td>3.78%</td>
</tr>
<tr>
<td>U.S. average</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- MN is a medium effort state.
- In FY 2020, MN spent 3.78 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.18 percentage points higher than the unweighted national average of 3.61 percent.
- MN's effort level ranks #18 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in MN is relatively moderate.
- By the modest standard of U.S. average scores, 18.6 percent of MN students attend inadequately funded districts, which ranks #14 in the nation (out of 49).
- The typical MN student’s district spends 26.2 percent above adequate levels, which ranks #16 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in MN is severely unequal.
- Spending in MN’s highest-poverty districts is 8.9 percent ($1,479 PP) below the estimated adequate level, compared with 79.3 percent ($5,230 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -88.1 percentage points is ranked #34 in the nation (out of 48).

Effort trend and capacity

- MN’s 2020 effort level is 0.23 ppt. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #7 in the nation.

Net change by period (% pts).

<table>
<thead>
<tr>
<th>Period</th>
<th>MN</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession</td>
<td>-0.11</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession</td>
<td>0.33</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period</td>
<td>0.23</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- MN’s effort was lower than its 2006 level in 0 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $0.00 billion (0.0 percent) higher.
- MN is a relatively high capacity state, with a GSP per capita ranked #15 in the nation.

Statewide spending is below estimated adequate levels in 68 of the 327 MN districts with available data.

Closing all these negative gaps would require $380.5 million in new funding.
**NOTES ON DATA AND MEASURES**

State School Finance Indicators 2019-20 (publ. 2022)

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**General**

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- **The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses):**
  - 1 percent of students in districts with above adequate funding (22.5%); 2 statewide (% adequacy gap (22.5%); 3 GSP-based fiscal effort (15%); 4 personal income-based fiscal effort (15%); and 5 equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unrounded measures.
- **D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.**

**Fiscal effort**

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still spend on an absolute basis equal to or higher than the national average. The income-based measure is used primarily as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so to keep a consistent set of states across all years.**
- **In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states based on the mean (effort not available in 2018-20 due to data irregularities).**
- **The table in the right panel presents the center-panel graph, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2012. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.**
- **In the third bullet of the right panel, below the table, we present a “thought experiment” of sorts, in which we calculate how much additional total state and local spending each state would have to spend in each year between 2006 and 2018 to return to its pre-recession level of spending (2006 effort level by 2016 (2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-20 effort exceeded the state’s 2006 level, the hypothetical additional spending is (in the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower than states’ 2006 effort levels).**
- **In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.**

**Statewide adequacy**

Statewide adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s District Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- **Statewide adequacy estimates are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses):**
  - 10% (relative spending); and 90% (adequate spending).
- **The regional cost estimates in the graph are for U.S. Census divisions (9 groups).**
- **The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state.**
- **The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates.**

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent from adequacy (which is largely a function of spending per pupil). That is, a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally inadequate, if high-poverty districts are more adequately funded than lower-poverty districts.

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**
- **In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-15 to -30 points); slightly unequal (-5 to -15 points); and acceptable (EO gap of 5 points or greater).**
- **The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.**

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**MISSISSIPPI**

**STATEWIDE ADEQUACY**

**PCT. OF STUDENTS IN BELOW ADEQUATE DISTRICTS**

- **MS**: 89.5%
- **Region**: 57.0%
- **U.S.**: 52.2%

**ADEQUATE FUNDING GAP OF TYPICAL STUDENT**

- **MS**: -37.4%
- **Region**: -15.7%
- **U.S.**: 3.0%

**EQUAL OPPORTUNITY**

**ADEQUACY BY DISTRICT POVERTY**

- **MS**: -41.8%
- **U.S.**: -48.0%

**FISCAL EFFORT**

**K-12 FISCAL EFFORT TENDENCY, 2006-20**

- **Mississippi effort**: 4.43%
- **U.S. average**: 3.61%

- **MS is a high effort state.**
- In FY 2020, MS spent 4.43 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.82 percentage points higher than the unweighted national average of 3.61 percent.
- MS’s effort level ranks #4 in the nation (out of 50).

**CONTEXUAL STATS**

- **Child (5-17yo) poverty rate (%)**: 24.7 vs. 14.9
- **Public school coverage (%)**: 78.7 vs. 83.1
- **Percent revenue from state sources**: 50.2 vs. 47.0
- **Total enrollment (U.S. rank)**: 466,002 (35)

**Effect trend and capacity**

- **MS’s 2020 effort level is 0.28 pct. points lower than it was pre-recession (2006).**
- This net change in effort between 2006 and 2020 is ranked #36 in the nation.

**Effort trend and capacity**

- **Net change by period (% pts.)**
  - **Period**: MS vs. U.S.
    - K-12 recession (2006-12): -0.31 vs. -0.13
    - Post-recession (2012-20): 0.03 vs. 0.01
    - Full period (2006-20): -0.28 vs. -0.12

- **MS’s effort was lower than its 2006 level in 5 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $2.49 billion (10.6 percent) higher.**
- **MS is a relatively low capacity state, with a GSP per capita ranked #51 in the nation.**

**EQUAL OPPORTUNITY**

**ADEQUACY BY DISTRICT POVERTY**

- **MS**: -41.8%
- **U.S.**: -48.0%

- **MS’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.69 s.d. below its lowest-poverty districts (blue dot).**
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, toolkits, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

• The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
• Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
• Due to rounding, some of the percentages may deviate from the sum of the individual components.
• The total number of states assigned rankings varies slightly by measure, as not all measures are available in all years.
• Overall state scores: the overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
• The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap) (22.5%); 3) GSP-based fiscal effort (15%); 4) per-pupil GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unreported funds.
• D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.
• Non-SFID data sources ("Contextual State" table): 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with large economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but this is a result of the states’ relatively large economic potentials compared to their relatively small capacities. Other SID adequacy measures (all of which are available in all states) are calculated based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NCEM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the SFID’s School Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_...) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NCEM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the SFID’s School Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_...) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of adequacy, e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are adequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
• In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 and >75 points); and least unequal (EO gap of 0 or greater). The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the figures presented are specific to the state in question. The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

Equal average student test outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes between the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
Summary: This 2019-20 profile of Missouri’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Missouri scores 41 out of 100, which ranks 34th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>Missouri effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.46%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- MO is a medium effort state.
- In FY 2020, MO spent 3.46 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.15 percentage points lower than the unweighted national average of 3.61 percent.
- MO’s effort level ranks #30 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level model cost estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in MO is relatively moderate.
- By the modest standard of U.S. average scores, 38.7 percent of MO students attend inadequately funded districts, which ranks #31 in the nation (out of 49).
- The typical MO student’s district spends 3.0 percent above adequate levels, which ranks #32 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in MO is severely unequal.
- Spending in MO’s highest-poverty districts is 35.2 percent ($6,064 PP) below the estimated adequate level, compared with 50.0 percent ($3,676 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -85.2 percentage points is ranked #33 in the nation (out of 48).

MO’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.68 s.d. below its lowest-poverty districts (blue dot).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SFID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the approaches, followed by descriptions and tables pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, some calculations may not add up exactly from users' manual calculations to the estimates on the front side.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

**Fiscal effort**

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but got higher effort scores historically as a means of differentiating between low/inequitable funding states that do and do not have the capacity to increase revenue. This model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution.

**Statewide adequacy**

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage, variation, district size, and student characteristics.

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of either measure of school finance adequacy—e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, as long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is unevenly adequate, if high-poverty districts are more adequately funded than low-poverty districts. EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (EO gap between -30 and 0 points); fairly equitable (EO gap between 0 and 30 points); and very equitable (EO gap greater than 30 points).
- The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.
MONTANA

Summary: This 2019-20 profile of Montana's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Montana scores 70 out of 100, which ranks 6th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>Montana effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.18%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- MT is a high effort state.
- In FY 2020, MT spent 4.18 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.57 percentage points higher than the unweighted national average of 3.61 percent.
- MT’s effort level ranks #11 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in MT is relatively moderate.
- By the modest standard of U.S. average scores, 18.2 percent of MT students attend inadequately funded districts, which ranks #13 in the nation (out of 49).
- The typical MT student’s district spends 29.0 percent above adequate levels, which ranks #13 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in MT is highly unequal.
- Spending in MT’s highest-poverty districts is 2.8 percent ($436 PP) below the estimated adequate level, compared with 40.9 percent ($3,288 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -43.6 percentage points is ranked #20 in the nation (out of 48).

MT’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.9 s.d. below its lowest-poverty districts (blue dot).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

**Fiscal effort**
- Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or state aggregate personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger populations, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still maintain the same relative level of effort as states that do not have the capacity to increase revenue.
- U.S. effort averages are unweighted and do not include Vermont in any year (error not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate SFID-based effort, as quarterly gaps between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NEmC, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (SCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy is calculated as the quadratic function of the difference between actual funding and required funding, and all data are in all states across all years. For Vermont between 2017 and 2020 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide gap above +50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to -50 points); slightly unequal (-50 to 0 points); nearly equal (0 to +50 points). The center panel figure presents average funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the comparisons between states should be made with caution. The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.
NEBRASKA

Summary: This 2019-20 profile of Nebraska’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Nebraska scores 68 out of 100, which ranks 9th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>Nebraska effort</th>
<th>3.69 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. average</td>
<td>3.61 %</td>
</tr>
</tbody>
</table>

• NE is a medium effort state.
• In FY 2020, NE spent 3.69 percent of its economic capacity (GSP) on its K-12 public schools.
• This was 0.08 percentage points higher than the unweighted national average of 3.61 percent.
• NE’s effort level ranks #22 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

• Overall adequacy in NE is relatively moderate.
• By the modest standard of U.S. average scores, 25.0 percent of NE students attend inadequately funded districts, which ranks #19 in the nation (out of 49).
• The typical NE student’s district spends 19.3 percent above adequate levels, which ranks #20 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

• Educational opportunity in NE is highly unequal.
• Spending in NE’s highest-poverty districts is 30.9 percent ($4,654 PP) above the estimated adequate level, compared with 71.8 percent ($4,654 PP) above adequate in the state’s most affluent districts.
• This opportunity gap of -40.8 percentage points is ranked #19 in the nation (out of 48).

Effort trend and capacity

• NE’s 2020 effort level is 0.16 ppt. points higher than it was pre-recession (2006).
• This net change in effort from 2006 and 2020 is ranked #8 in the nation.

<table>
<thead>
<tr>
<th>Period</th>
<th>NE</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>20.1 %</td>
<td>19.2 %</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>18.9 %</td>
<td>18.0 %</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>21.8 %</td>
<td>20.7 %</td>
</tr>
</tbody>
</table>

• NE’s effort was lower than its 2006 level in 0 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $0.00 billion (0.0 percent) higher.
• NE is a relatively high capacity state, with a GSP per capita ranked #14 in the nation.
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

• The years in the profile refer to the spring semester of each year (e.g., 2022 is 2019-20).
• Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
• Due to rounding, percentages may not sum to 100% from users’ manual calculations.
• The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
• Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school financing systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection of which measures entails subjective judgments on the part of the SFID research team.

The SFID datasets, tools, and reports, are freely available to download at: www.schoolfinancedata.org.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but provide higher contribution per student (not simply as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue). Note also that 2006 is the first year in which we can calculate GSP-based fiscal effort, as quarterly GSP estimates are not available before that.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Adequacy estimates calculated for the typical student are U.S. Census divisions (9 groups). NE’s division is West North Central. Axis ranges for the bottom graph may vary by state. The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state. The first column displays the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The first bullet presents the total additional funding that would be required to close all these negative funding gaps (ignoring all districts in which actual spending exceeds adequate levels).

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of the adequacy measure (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit high EO, as long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts. EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to -10 points); mildly unequal (-10 to +10 points); nearly equal (+10 to +30 points); and equal (+30 to +75 points). Note also that 2006 is the first year in which we can calculate GSP-based fiscal effort, as quarterly GSP estimates are not available before that.

The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the state estimates may be substantially different from the national average for any particular group. The bars for each state show the average adequacy gap for the five quintiles in that state. The lines show trends over time for the five quintiles and for the state as a whole.

The table in the right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes between the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
**NEVADA SCHOOL FINANCE PROFILE 2019-20**

**Summary:** This 2019-20 profile of Nevada's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Nevada scores 21 out of 100, which ranks 45th out of the 48 states with possible ratings.

### FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **Nevada effort** 2.94%
- **U.S. average** 3.61%

- NV is a low effort state.
- In FY 2020, NV spent 2.94 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.66 percentage points lower than the unweighted national average of 3.61 percent.
- NV's effort level ranks #44 in the nation (out of 50).

### STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in NV is relatively low.
- By the modest standard of U.S. average scores, 88.6 percent of NV students attend inadequately funded districts, which ranks #46 in the nation (out of 49).
- The typical NV student's district spends 24.3 percent below adequate levels, which ranks #44 in the nation.

#### ADEQUATE FUNDING GAP OF TYPICAL STUDENT

- **NV** -24.3%
- **Region** -7.3%
- **U.S.** 3.0%

### EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in NV is moderately unequal.**
- Spending in NV’s highest-poverty districts is 31.3 percent ($4,366 PP) below the estimated adequate level, compared with 3.2 percent ($325 PP) below adequate in the state’s most affluent districts.
- This opportunity gap of -28.2 percentage points is ranked #6 in the nation (out of 48).

### Effort trend and capacity

- NV’s 2020 effort level is 0.20 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #30 in the nation.

#### Effort trend and capacity

<table>
<thead>
<tr>
<th>Period</th>
<th>NV</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.13</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>-0.07</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>-0.20</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

### Adequacy in 10 largest Nevada districts

<table>
<thead>
<tr>
<th>Nevada district</th>
<th>Above/below adequate spending, ten largest NV school districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLARK CNTY SD</td>
<td>-32.0</td>
</tr>
<tr>
<td>WASHOE CNTY SD</td>
<td>-6.1</td>
</tr>
<tr>
<td>ELKO CNTY SD</td>
<td>25.5</td>
</tr>
<tr>
<td>LYON CNTY SD</td>
<td>27.5</td>
</tr>
<tr>
<td>CARSON CITY SD</td>
<td>3.3</td>
</tr>
<tr>
<td>DOUGLAS CNTY SD</td>
<td>34.3</td>
</tr>
<tr>
<td>NYE CNTY SD</td>
<td>3.8</td>
</tr>
<tr>
<td>HUMBOLDT CNTY SD</td>
<td>35.7</td>
</tr>
<tr>
<td>CHURCHILL CNTY SD</td>
<td>11.3</td>
</tr>
<tr>
<td>WHITE PINE CNTY SD</td>
<td>36.0</td>
</tr>
</tbody>
</table>

- Statewide, spending is below estimated adequate levels in 2 of the 17 NV districts with available data.
- Closing all these negative gaps would require $1.5 billion in new funding.

**www.schoolfinancedata.org**
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the sources, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in this profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, some statistics (e.g., from users’ manual calculations) may not sum precisely.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of this profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

**Fiscal effort**

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still spend more than states with smaller economies. The SFID effort measure is thus primarily as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are large national economies. Note also that 2016 is the first year in which we calculate SFID-based effort, as quarterly effort between states can differ as a result of different datasets or when unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are large national economies. Note also that 2016 is the first year in which we calculate SFID-based effort, as quarterly effort between states can differ as a result of different datasets or state budget years. In the table below, the region in which each state’s GSP per capita is available is the key to sorting states into adequate funding levels and the average expenditures incurred by each of that state’s districts.

**Statewide adequacy**

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage, variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (CDB); many not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy is defined here as the proportion of students in each state who are in districts with below adequate funding (22.5%); 2) statewide (%) adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (QS/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unreported funds. D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

- Due to a lack of data, in this year’s report, we do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are large national economies. Note also that 2016 is the first year in which we calculate SFID-based effort, as quarterly effort between states can differ as a result of different datasets or state budget years. In the table below, the region in which each state’s GSP per capita is available is the key to sorting states into adequate funding levels and the average expenditures incurred by each of that state’s districts.

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state) note that EO is conceptually independent of (but not directly related to) actual spending (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30 points); mildly unequal (-30 to 0 points); and adequate (+0 to 20 points).
- In the center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the actual poverty quintile definitions may differ among states.
- On the right panel, the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower states’ 2016 effort levels.
- In order to provide a sense of states’ capacity, we characterize each state’s Average scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with adequate funding (22.5%); 2) statewide (%) adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (QS/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unreported funds. D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.
**NEW HAMPSHIRE**

**State score**: 65

**Summary**: This 2019-20 profile of New Hampshire’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), New Hampshire scores 65 out of 100, which ranks 10th out of the 48 states with possible ratings.

### FISCAL EFFORT

**Fiscal effort** is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **NH is a medium effort state.**
- In FY 2020, NH spent 3.67 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.06 percentage points higher than the unweighted national average of 3.61 percent.
- NH’s effort level ranks #23 in the nation (out of 50).

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in NH is relatively high.**
- By the modest standard of U.S. average scores, 8.0 percent of NH students attend inadequately funded districts, which ranks #9 in the nation (out of 49).
- The typical NH student’s district spends 92.3 percent above adequate levels, which ranks #2 in the nation.

### EQUAL OPPORTUNITY

**Equal opportunity** is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in NH is severely unequal.**
- Spending in NH’s highest-poverty districts is 20.6 percent ($2,773 PP) above the estimated adequate level, compared with 151.3 percent ($10,847 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -130.6 percentage points is ranked #41 in the nation (out of 48).

### Effort trend and capacity

- NH’s 2020 effort level is 0.26 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #33 in the nation.

### Adequacy in 10 largest NH districts

- **MANCHESTER SD**: -10.3
- **NASHUA SD**: 45.1
- **BEDFORD SD**: 200.3
- **CONCORD SD**: 86.3
- **ROCHESTER SD**: 81.8
- **LONDONDERRY SD**: 197.4
- **DOVER SD**: 73.3
- **MERRIMACK SD**: 161.2
- **SALEM SD**: 195.3
- **TIMBERLANE REGIONAL SD**: 148.1

- Statewide, spending is below estimated adequate levels in 5 of the 162 NH districts with available data.
- Closing all these negative gaps would require $20.9 million in new funding.

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**FISCAL EFFORT**

**K-12 FISCAL EFFORT TREND, 2006-20**

**Effort trend and capacity**

- NH’s 2020 effort level is 0.26 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #33 in the nation.

**Net change by period (% pts.)**

<table>
<thead>
<tr>
<th>Period</th>
<th>NH</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>0.17</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>-0.43</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>-0.26</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- NH’s effort was lower than its 2006 level in 5 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $0.88 billion (5.7 percent) higher.
- NH is a relatively medium capacity state, with a GSP per capita ranked #18 in the nation.
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, toolkits, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- **The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).**
- **Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.**
- **Due to rounding differences from users' manual calculations, the estimates on the front side.**
- **The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.**
- **Overall state scores:** The overall scores reported at the top of the profile provide a very simple summary of states' combined performance (on the three core indicators featured in the profiles). They do not represent comprehensive evaluations of states' school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of "good" or "bad"), and the selectivity of components entails subjective judgments on the part of the SFID research team.
- **The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.
- **D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.**

### Fiscal effort

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger populations, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still maintain a high capacity ratio (decreasingly so as a means of differentiating between low/adequate funding states that do and do not have the capacity to increase revenue).

- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state's effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate fiscal effort, as quarterly gaps between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm...) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

### Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate" spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between expenditures by either Gross State Product (GSP) or aggregate state personal income and the "acceptable level of educational outcomes." Our measure of adequacy, however, is conceptually independent of statewide adequacy—e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit equal opportunity—whereas highly unequal opportunity might exist in a state in which funding is universally adequate if high-poverty districts are more adequately funded than lower-poverty districts.

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**
- **In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide [typical student’s] gap of +50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).**
- **The regional groupings in the graph are U.S. Census divisions (9 groups), NH’s division is New England. Axis ranges for the bottom graph may vary by state.**
- **The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state.**
- **In order to provide a sense of states' capacity, we characterize each state's GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.**

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of demographic differences (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate if high-poverty districts are more adequately funded than lower-poverty districts.

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**
- **In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30 points); and slightly unequal (+30 to +75 points).**
- **The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest-and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the same quintile in one state may include different districts in another state.**
- **The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.**
- **The scatterplot in the right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes between the highest- and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
NEW JERSEY

Summary: This 2019-20 profile of New Jersey’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), New Jersey scores 79 out of 100, which ranks 4th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- New Jersey effort: 4.63%
- U.S. average: 3.61%

- NJ is a high effort state.
- In FY 2020, NJ spent 4.63% of its economic capacity (GSP) on its K-12 public schools.
- This was 1.02 percentage points higher than the unweighted national average of 3.61 percent.
- NJ's effort level ranks #1 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in NJ is relatively high.
- By the modest standard of U.S. average scores, 5.5 percent of NJ students attend inadequately funded districts, which ranks #7 in the nation (out of 49).
- The typical NJ student’s district spends 58.6 percent above adequate levels, which ranks #6 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in NJ is severely unequal.
- Spending in NJ’s highest-poverty districts is 19.0 percent ($3,183 PP) above the estimated adequate level, compared with 138.2 percent ($12,189 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -19.2 percentage points is ranked #39 in the nation (out of 48).

Net change by period (% pts.)

<table>
<thead>
<tr>
<th>Period</th>
<th>NJ</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.51</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>-0.09</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>-0.60</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- NJ’s effort was lower than its 2006 level in 5 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $17.32 billion (12.4 percent) higher.
- NJ is a relatively high capacity state, with a GSP per capita ranked #11 in the nation.

Adequacy gaps by outcome gaps

- NJ’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 1.00 s.d. below its lowest-poverty districts (blue dot).
Fiscal effort

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SIF. Bear in mind that high-capacity states with larger populations, such as New York or California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but provide the same percentage of their income at the state level. The second measure is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SIF. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SIF user’s guide. Some of the estimates presented in this section of the profile can be calculated using SIF variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_, are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are from the SFID and are sole estimates of the data in each state. All these estimates are from the NECM, and for Vermont between 2017 and 2020 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).

In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts). Inadequate districts and statewide (typical student's) gap of <50 percent or greater; moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).

In the right panel, we present estimates of three types of measures they present: 1) percent of students in each state in districts with actual funding below estimated adequate funding levels; 2) percent statewide adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); and 4) personal income-based fiscal effort (15%) and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unreported measures.

O.C. Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

The scatterplot in the right panel presents, by district poverty quintile, adequacy scores (final averages expressed as percentile equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap) (22.5%); 3) GSP-based fiscal effort (15%); and 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unreported measures.

In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate effort primarily as quarterly spending, as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

In the first bullet of the left panel, we characterize each state's GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SIF. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SIF user’s guide. Some of the estimates presented in this section of the profile can be calculated using SIF variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_, are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are from the NECM, and for Vermont between 2017 and 2020 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).

In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts). Inadequate districts and statewide (typical student's) gap of <50 percent or greater; moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).

In the right panel, we present estimates of three types of measures they present: 1) percent of students in each state in districts with actual funding below estimated adequate funding levels; 2) percent statewide adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); and 4) personal income-based fiscal effort (15%) and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unreported measures.

In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate effort primarily as quarterly spending, as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

In the first bullet of the left panel, we characterize each state's GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of adequacy (for example, a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-80 and -30); and slightly unequal (+80 to +30). The center panel figure demonstrates how funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the graphs in the SIF provide separate estimates for each state, which are not reported here. The U.S. averages (blue diamonds) represent an approximation of the national situation. Average ranges for this graph may vary between states.

The scatterplot in the right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states' district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes between the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- NM is a high effort state.
- In FY 2020, NM spent 4.12 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.51 percentage points higher than the unweighted national average of 3.61 percent.
- NM's effort level ranks #13 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in NM is relatively low.
- By the modest standard of U.S. average scores, 82.0 percent of NM students attend inadequately funded districts, which ranks #43 in the nation (out of 49).
- The typical NM student’s district spends 15.4 percent below adequate levels, which ranks #39 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in NM is moderately unequal.
- Spending in NM’s highest-poverty districts is 30.6 percent ($5,848 PP) below the estimated adequate level, compared with 3.1 percent ($332 PP) below adequate in the state’s most affluent districts.
- This opportunity gap of -27.5 percentage points is ranked #4 in the nation (out of 48).

- NM’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.25 s.d. below its lowest-poverty districts (blue dot).

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The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by the notes pertaining to the three types of measures they present:

**Fiscal effort**
Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but that lower effort does not necessarily imply lower quality services. Rather, it tells us something about how states value education or prioritize it among other public goods. Fiscal effort is therefore a good measure of relative spending adequacy, as it approximates the amounts that states would hypothetically spend if they could commit, without constraints, to reaching national average test scores (i.e., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).

**Statewide adequacy**
Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are calculated using all the measures presented in this profile, as well as those of other reports the SFID publishes for each state. For Vermont between 2017 and 2020 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).

**Equal opportunity**
Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of statewide adequacy estimates (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts.

**Notes on Data and Measures**

**GENERAL**
The SFID is not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

**FISCAL EFFORT**
- **SID variables used in this section:** effort: year

**STATEWIDE ADEQUACY**
- **SID variables used in this section:** necm_predcost_state; necm_ppcost_state; necm_dirstate; necm_ppcost_dir; necm_predcost_dir; necm_dirstate; necm_ppcost_dir;

www.schoolfinancedata.org
Summary: This 2019-20 profile of New York's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), New York scores 69 out of 100, which ranks 7th out of the 48 states with possible ratings.

### Fiscal Effort
Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **New York effort**: 4.37%
- **U.S. average**: 3.61%

- NY is a high effort state.
- In FY 2020, NY spent 4.37 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.76 percentage points higher than the unweighted national average of 3.61 percent.
- NY’s effort level ranks #6 in the nation (out of 50).

### Statewide Adequacy
Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in NY is relatively high**.
- By the modest standard of U.S. average scores, 4.0 percent of NY students attend inadequately funded districts, which ranks #6 in the nation (out of 49).
- The typical NY student’s district spends 68.7 percent above adequate levels, which ranks #4 in the nation.

### Equal Opportunity
Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s"opportunity gap."

- Educational opportunity in NY is severely unequal.
- Spending in NY’s highest-poverty districts is 30.3 percent ($6,327 PP) above the estimated adequate level, compared with 264.2 percent ($18,826 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -233.9 percentage points is ranked #48 in the nation (out of 48).

### Summary

- **NY’s 2020 effort level is 0.04 pct. points higher than its pre-recession (2006).**
- **This net change in effort between 2006 and 2020 is ranked #14 in the nation.**

- **Effort trend and capacity**

  - **Statewide, spending is below adequate in the typical student’s district.**
  - **Effort recovery**
    - 2017-20: effort was higher than its 2006 level in 1 of 5 years between 2016-2020.
    - Had effort recovered to its 2006 level in these years, total 2016-20 spending would have been $0.30 billion (0.1 percent) higher.
  - **NY is a relatively high capacity state, with a GSP per capita ranked #2 in the nation.**

- **Adequacy in 10 largest NY districts**

  - **Percent above/below adequate spending, ten largest NY school districts**

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage of Districts Above Adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>68.7%</td>
</tr>
<tr>
<td>Region</td>
<td>60.6%</td>
</tr>
<tr>
<td>U.S.</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

- **Equal opportunity**

  - **NY’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.64 s.d. below its lowest-poverty districts (blue dot).**
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers at the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

### Fiscal effort

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still spend larger absolute amounts due to their larger economies (or more accurately, a combination of both). For these reasons, effort is sometimes used as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

- **U.S. effort averages are unweighted and do not include Vermont in any year** (effort not available in 2018 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate effort primarily as a ratio of effort, as previously described. This ratio can be thought of as the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels.

- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

### Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- Statewide adequacy is calculated as a weighted average of z-scores (i.e., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels)

- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of our standard measure of adequacy (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30 points); and slightly unequal (-30 to 0 points).

- The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

- The scatterplot in the right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student test outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes between the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
**NORTH CAROLINA**

**Summary:** This 2019-20 profile of North Carolina’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), North Carolina scores 19 out of 100, which ranks 47th out of the 48 states with possible ratings.

### FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **North Carolina effort** 2.84 %
- **U.S. average** 3.61 %

- NC is a low effort state.
- In FY 2020, NC spent 2.84 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.77 percentage points lower than the unweighted national average of 3.61 percent.
- NC’s effort level ranks #46 in the nation (out of 50).

### STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in NC is relatively low.
- By the modest standard of U.S. average scores, 92.3 percent of NC students attend inadequately funded districts, which ranks #49 in the nation (out of 49).
- The typical NC student’s district spends 26.8 percent below adequate levels, which ranks #46 in the nation.

### EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in NC is moderately unequal.
- Spending in NC’s highest-poverty districts is 42.9 percent ($8,029 PP) below the estimated adequate level, compared with 13.7 percent ($1,551 PP) below adequate in the state’s most affluent districts.
- This opportunity gap of -29.3 percentage points is ranked #7 in the nation (out of 48).

- **NC’s highest-poverty districts** -42.9 %
- **NC’s highest-poverty districts** -38.7 %
- **NC’s highest-poverty districts** -28.7 %
- **NC’s highest-poverty districts** -27.4 %
- **NC’s highest-poverty districts** -13.7 %

**Adequacy by district poverty**

**Adequacy gaps by outcome gaps**

### Effort trend and capacity

- NC’s 2020 effort level is 0.25 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #32 in the nation.

**Contextual Stats**

- **Child (5-17yo) poverty rate (%)** 17.0 14.9
- **Public school coverage (%)** 83.7 83.1
- **Percent revenue from state sources** 61.6 47.0
- **Total enrollment (U.S. rank)** 1,560,350 (9)

**Trend**

- **Net change by period (% pts.)**
  - **Period**
    - **K-12 recession (2006-12)** -0.07 -0.13
    - **Post-recession (2012-20)** -0.18 0.01
    - **Full period (2006-20)** -0.25 -0.12

- **NC’s effort was lower than its 2006 level in 5 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $8.28 billion (10.6 percent) higher.
- **NC is a relatively medium capacity** state, with a GSP per capita ranked #31 in the nation.
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, with accessible documentation of and data sources for all the measures presented in this profile, as well other SID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the source of the profiles, followed by discussions pertaining to the three types of measures they present:

- The years in the profile reflect the spring semester of the school year (e.g., 2020 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding requirements, results from users’ manual calculations may differ from SFID estimates on the front side.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection of components entails subjective judgments on the part of the SFID research team.
- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.
- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.
- General

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same funding.

- The table in the right panel highlights the center-school panel, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2012. 2012 is therefore a meaningful ending, and because federal stimulus funds ran out after 2012. 2012 is therefore a meaningful ending.

- In the third bullet of the right panel, below the table, we present a “think experiment” of sorts, in which we calculate how much additional total state and local spending each state would have to spend if it had been spending at the 2006 effort level in each of the years between 2006 and 2016 (with 2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-20 exceeded the state’s 2006 level, the hypothetical additional spending is (in the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).

- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate fiscal effort, as quarterly GSP estimates are not available before that.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and costs factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- Adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and costs factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide (typical student’s) gap of +50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap up +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts). Adequacy estimates are available in all states.

- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide (typical student’s) gap of +50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap up +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts). Adequacy estimates are available in all states.

- The regional comparisons in the graph are for the 10 largest U.S. Census divisions (9 groups). NC’s division is South Atlantic. Axis ranges for the bottom graph may vary by state.

- The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The first bullet presents the total additional funding that would be required to close all these negative funding gaps (ignoring all districts in which actual spending exceeds adequate levels).

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of per-student spending (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.)

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (EO gap between -30 and +30 points); slightly unequal (EO gap between +30 and +75 points); and very slight (EO gap less than +75 points). The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the estimates for states where poverty quintiles are not calculated differ from the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

- In the right panel, we characterize state-level EO inequality by quintile (percentage difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student test outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes in the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.

NOTES ON DATA AND MEASURES

School State Finance Profiles 2019-20 (publ. 2022)

School Finance Indicators Database
Summary: This 2019-20 profile of North Dakota’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), North Dakota scores 78 out of 100, which ranks 5th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>ND effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.43%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- ND is a medium effort state.
- In FY 2020, ND spent 3.43 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.17 percentage points lower than the unweighted national average of 3.61 percent.
- ND's effort level ranks #32 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in ND is relatively high.
- By the modest standard of U.S. average scores, 3.6 percent of ND students attend inadequately funded districts, which ranks #5 in the nation (out of 49).
- The typical ND student’s district spends 50.5 percent above adequate levels, which ranks #9 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s "opportunity gap."

- Educational opportunity in ND is moderately unequal.
- Spending in ND’s highest-poverty districts is 25.7 percent ($3,746 PP) above the estimated adequate level, compared with 46.7 percent ($3,937 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -21.0 percentage points is ranked #2 in the nation (out of 48).

Effort trend and capacity

- ND’s 2020 effort level is 0.29 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #38 in the nation.

Net change by period (% pts.)

<table>
<thead>
<tr>
<th>Period</th>
<th>ND</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.93</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>0.64</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>-0.29</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- ND’s effort was lower than its 2006 level in 5 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-2020 spending would have been $1.16 billion (12.5 percent) higher.
- ND is a relatively high capacity state, with a GSP per capita ranked #8 in the nation.

Adequacy in 10 largest ND districts

<table>
<thead>
<tr>
<th>District</th>
<th>Percent above/below adequate spending, ten largest ND school districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>BISMARCK 1</td>
<td>108.4</td>
</tr>
<tr>
<td>FARGO 1</td>
<td>56.5</td>
</tr>
<tr>
<td>WEST FARGO 6</td>
<td>45.5</td>
</tr>
<tr>
<td>MINOT 1</td>
<td>68.9</td>
</tr>
<tr>
<td>GRAND FORKS 1</td>
<td>51.1</td>
</tr>
<tr>
<td>WILLISTON 1</td>
<td>68.1</td>
</tr>
<tr>
<td>DICKINSON 1</td>
<td>52.3</td>
</tr>
<tr>
<td>MANDAN 1</td>
<td>114.1</td>
</tr>
<tr>
<td>JAMESTOWN 1</td>
<td>87.3</td>
</tr>
<tr>
<td>MCKENZIE CO SD 1</td>
<td>49.1</td>
</tr>
</tbody>
</table>

- Statewide, spending is below estimated adequate levels in 19 of the 168 ND districts with available data.
- Closing all these negative gaps would require $6.0 million in new funding.

ND’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.41 s.d. below its lowest-poverty districts (blue dot).

www.schoolfinancedata.org
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2021-22).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, indexes may not sum exactly to the figures presented from users' manual calculations.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all years.

### Overall state scores
The overall scores reported at the top of the profile provide a very simple summary of states' combined "performance" on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states' school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of "good" or "bad"), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (%) adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequate gap, in percentage points) (25%). State ranks may reflect differences in unreported scores.

- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

### Non-SFID data sources
- "Contextual States" table: 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

#### Fiscal effort
Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger populations, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but provide more dollars per student (see below) because the larger share of their economic capacity goes toward K-12 education instead of other priorities.

- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state's effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate GSP-based fiscal effort, as quarterly GDP estimates are not available before that.

- The table in the right panel summarizes the center-panel graph, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the "K-12 recession") is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the "official recession" ended, and because federal stimulus funds ran out after 2011. 2012 is therefore an apt starting point for assessing states' reinvestment (or lack thereof). Trends, however, vary by state.

- In the third bullet of the right panel, below the table, we present a "thought experiment" of sorts, in which we calculate how much additional total state and local spending each state would have to spend (whether or not the state has already met its state mandate) in order to achieve national average test scores (i.e., "required" or "adequate" spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_...) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are based on all students (including those in all isolated, single-district states), and for Vermont between 2017 and 2020 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).

- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below adequate districts); moderate (greater than 20 percent below adequate and statewide gap under 50 percent OR fewer than 20 percent below adequate and statewide gap above 50 percent); high (greater than 50 percent in below adequate districts). For states with very small populations, counties are U.S. Census divisions (9 groups). ND’s division is North Central. Axis ranges for the bottom graph may vary by state.

- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state. The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The first bullet presents the total additional funding that would be required to close all these negative funding gaps ("ignoring" all districts in which actual spending exceeds adequate levels).

#### Equal opportunity
Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of spending (i.e., whether adequate spending is achieved); e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is unevenly adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -50 and -75 points); moderately unequal (-25 to -50 points); slightly unequal (+25 to -25 points); marginally unequal (+25 to +75 points); and fair (+75 to +100 points). The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the state-by-state comparison may not always be meaningful. NEO’s (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.
**Ohio**

**Fiscal Effort** is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **OH** is a high effort state.
- In FY 2020, OH spent 4.04% of its economic capacity (GSP) on its K-12 public schools.
- This was 0.43 percentage points higher than the unweighted national average of 3.61 percent.
- OH's effort level ranks #14 in the nation (out of 50).

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in OH is relatively moderate.**
- By the modest standard of U.S. average scores, 27.5 percent of OH students attend inadequately funded districts, which ranks #22 in the nation (out of 49).
- The typical OH student’s district spends 19.3 percent above adequate levels, which ranks #19 in the nation.

### Equal Opportunity

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in OH is severely unequal.
- Spending in OH’s highest-poverty districts is 18.7 percent ($3,331 PP) below the estimated adequate level, compared with 116.3 percent ($6,584 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -135.0 percentage points is ranked #42 in the nation (out of 48).

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**OHIO SCHOOL FINANCE PROFILE 2019-20**
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing nearly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well as other SID datasets, tool and report development reports, are freely available to download at schoolfinancedata.org. The following are some general notes on the sources, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in this profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, comparisons from users’ manual calculations may differ slightly from the estimates on the front side.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: the overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/component of components entails subjective judgments on the part of the SFID research team.
- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (%) adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unrounded scores.
- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

Fiscal effort

Fiscal effort indicates how much of a state’s economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same funding. The latter measure (“effort not available in 2016-20 due to data irregularities”) is calculated by dividing the estimated fiscal effort of a district by the total spending each state would have had between states.

- U.S. GSP averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate effort, as quarterly GSP estimates are not available before that.

- The table in the right panel displays the state effort, as quarterly GSP estimates are not available before that.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm...) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy is reported at the top of the profile (e.g., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).

- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of the other two measures—e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-80 to -30); and mildly unequal (+30 to +80). The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest and lowest-poverty groups, this graph permits comparisons of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the numbers might be different from those in the states’ division is.

- The center panel figure shows high poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of the other two measures—e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-80 to -30); and mildly unequal (+30 to +80).
Summary: This 2019-20 profile of Oklahoma’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Oklahoma scores 35 out of 100, which ranks 38th out of the 48 states with possible ratings.

**FISCAL EFFORT**

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- OK is a medium effort state.
- In FY 2020, OK spent 3.50 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.11 percentage points lower than the unweighted national average of 3.61 percent.
- OK’s effort level ranks #29 in the nation (out of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% below/above) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in OK is relatively low.
- By the modest standard of U.S. average scores, 53.7 percent of OK students attend inadequately funded districts, which ranks #35 in the nation (out of 49).
- The typical OK student’s district spends 9.0 percent below adequate levels, which ranks #35 in the nation.

**EQUAL OPPORTUNITY**

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in OK is highly unequal.
- Spending in OK’s highest-poverty districts is 32.4 percent ($4,987 PP) below the estimated adequate level, compared with 34.2 percent ($2,201 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -66.6 percentage points is ranked #27 in the nation (out of 48).

OKLAHOMA

<table>
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<th>State score</th>
<th>35</th>
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OKLAHOMA SCHOOL FINANCE PROFILE 2019-20
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the sources, followed by descriptions and notes pertaining to the three types of measures they present:

- **The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).**
- **Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.**
- **Due to rounding, some differences may exist from users’ manual calculations by the estimates on the front side.**
- **The total number of state assigned rankings varies slightly by measure, as not all measures are available in all states.**
- **Overall state scores:** The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
- **The scores are calculated as a weighted average of z-scores (final averages expressed as percentile- equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses):** 1) percentage of students in districts with adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.
- **D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.**

### Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but this is not included in the calculation of effort (due to being a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue).

- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.**
- **In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups (terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- **Note also that 2006 is the first year in which we take into account fiscal effort, as quarterly GSP estimates are not available before that.**

### Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- **The regional groupings in the graph are U.S. Census divisions (9 groups). OK’s division is West South Central. Axis ranges for the bottom graph may vary by state.**
- **The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state.**
- **The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid data. The first bullet presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).**

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of the financing decision (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally inadequate, if high-poverty districts are more adequately funded than low-poverty districts).

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**
- **In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to -75); and relatively small differences (75 points).**
- **In the real-world panel, the graph presents by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student test outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student performance between the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- OR is a high effort state.
- In FY 2020, OR spent 3.98 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.37 percentage points higher than the unweighted national average of 3.61 percent.
- OR's effort level ranks #15 in the nation (out of 50).

Effort trend and capacity
- OR's 2020 effort level is 0.51 percentage points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #3 in the nation.

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in OR is relatively moderate.
- By the modest standard of U.S. average scores, 24.7 percent of OR students attend inadequately funded districts, which ranks #18 in the nation (out of 49).
- The typical OR student's spending spends 14.9 percent above adequate levels, which ranks #23 in the nation.

Adequacy by district poverty
- OR's highest-poverty districts are 1.7 percent ($225 PP) above the estimated adequate level, compared with 32.4 percent ($3,045 PP) above adequate in the state's most affluent districts.
- This opportunity gap of -30.7 percentage points is ranked #9 in the nation (out of 48).

OR's opportunity gap contributes to a student outcome gap: the state's highest-poverty districts (pink dot) score 0.50 s.d. below its lowest-poverty districts (blue dot).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, with accessible documentation of and data sources for all the measures presented in this profile, as well other SID datasets, topic reports, and fact sheets, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- **The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).**
- **Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.**
- **Due to rounding and minimum observable change from users' manual calculations, some numbers may not add up.**
- **The total number of states assigned rankings varies slightly by measure, as not all measures are available in all years.**
- **Overall state scores:** The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
- **The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses):** 1 percent of students in districts with adequate funding (22.5%); 2 statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded numbers.
- **D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.**
- **Non-SFID data sources:** (Contextual State) table: 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the Digest of Education Statistics, published by the National Center for Education Statistics.

### Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still achieve high overall spending. Effort is sometimes measured relatively (due to its use as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue). Effort is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/adequate standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team. The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20). The SFID variables used in this section are U.S. Census divisions (9 groups). OR’s division is Pacific. Axis ranges for the bottom graph may vary by state. For more information about the NCEM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (CDD); many but not all SID adequacy measures (all of which have variable name beginning with necm) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates presented in the DCD are the result of the state’s SFID-based student achievement gap in this state—e.g., the hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts.

### Statewide adequacy

Statewide adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (CDD); many but not all SID adequacy measures (all of which have variable name beginning with necm) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates presented in the DCD are the result of the state’s SFID-based student achievement gap in this state—e.g., the hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts.

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state) Note that EO is conceptually independent of adequacy; for example, a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts.

EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30 points); mildly unequal (0 to -75 points); very equitable (75 to 0 points); very equitable (0 to 75 points). The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the average gaps may not reflect the federal government’s view of the relative adequacy of the states.

Across states, the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states. The equal opportunity graph in the right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes is presented in the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
**FISCAL EFFORT**

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **Pennsylvania effort**: 4.17%
- **U.S. average**: 3.61%

- PA is a high effort state.
- In FY 2020, PA spent 4.17 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.56 percentage points higher than the unweighted national average of 3.61 percent.
- PA’s effort level ranks #12 in the nation (out of 50).

<table>
<thead>
<tr>
<th>Period</th>
<th>PA</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.37</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>0.38</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>0.01</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- PA’s 2020 effort level is 0.01 pct. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #18 in the nation.

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in PA is relatively moderate.
- By the modest standard of U.S. average scores, 19.9 percent of PA students attend inadequately funded districts, which ranks #16 in the nation (out of 49).
- The typical PA student’s district spends 44.2 percent above adequate levels, which ranks #10 in the nation.

**EQUAL OPPORTUNITY**

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pctl. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in PA is severely unequal.**
- Spending in PA’s highest-poverty districts is 16.2 percent ($2,867 PP) below the estimated adequate level, compared with 151.5 percent ($10,045 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -16.7 percentage points is ranked #44 in the nation (out of 48).
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of its data sources for all the measures presented in this profile, as well other SID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

• The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).
• Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
• Due to rounding, percentage differences may vary slightly from users’ manual calculations or estimates on the front side.
• The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
• Overall state scores: the overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still provide adequate funding for students by using a larger share of their economic capacity (due to having a larger denominator). The SID calculated effort indicator is available in the SFID.

• The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and costs factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_ are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

Statewide adequacy estimates are based on the SID’s SFID data sources (18): 1) State and District Cost Database (DCD) estimates; 2) Statewide Adequacy Estimates (SAIEP) program; 3) SFID variables used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the Digest of Education Statistics, published by the National Center for Education Statistics.

Statewide adequacy measures are from the SID variables used in this section: necm_predcost_q1, necm_ppcost_state, necm_ppcost_q1, necm_predcost_q5, necm_ppcost_q5, necm_ppcost_q1

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of the measures presented in this profile, e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -50 percent); high (greater than 50 percent in below adequate districts); moderate (greater than 20 percent below adequate and statewide gap under 50 percent); low (between 20 percent and 50 percent); and negligible (50 percent or greater); high (greater than 20 percent below adequate and statewide gap under +50 percent); high (greater than 50 percent in below adequate districts).

The regional classifications in the graph are for U.S. Census divisions (9 groups). PA’s division is Middle Atlantic. Axis ranges for the bottom graph may vary by state.

The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state.

The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid data. This bullet presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).

Equal opportunity measures are from the SID variables used in this section: necm_predcost_q1-q5, necm_ppcost_q1-q5, necm_predcost, necm_ppcost

www.schoolfinancedata.org
**RHODE ISLAND**

**Summary:** This 2019-20 profile of Rhode Island’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Rhode Island scores 48 out of 100, which ranks 24th out of the 48 states with possible ratings.

### Fiscal Effort

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- **Rhode Island effort**: 4.41%
- **U.S. average**: 3.61%

- **RI** is a high effort state.
- In FY 2020, RI spent 4.41 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.81 percentage points higher than the unweighted national average of 3.61 percent.
- RI’s effort level ranks #5 in the nation (out of 50).

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% below/above) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in RI** is relatively moderate.
- By the modest standard of U.S. average scores, 31.3 percent of RI students attend inadequately funded districts, which ranks #25 in the nation (out of 49).
- The typical RI student’s district spends 42.9 percent above adequate levels, which ranks #11 in the nation.

### Equal Opportunity

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in RI** is severely unequal.
- Spending in RI’s highest-poverty districts is 5.2 percent ($896 PP) below the estimated adequate level, compared with 202.1 percent ($11,498 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -207.3 percentage points is ranked #47 in the nation (out of 48).

The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% below/above) in the typical student’s district. The graphs include regional and national averages.

- **Statewide, spending is below estimated adequate levels in 4 of the 36 RI districts with available data.**
- Closing all these negative gaps would require $136.1 million in new funding.

#### Adequacy in 10 largest RI districts

<table>
<thead>
<tr>
<th>Percent above/below adequate spending, ten largest RI school districts</th>
<th>RI</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROVIDENCE</td>
<td>-1.3</td>
<td></td>
</tr>
<tr>
<td>CRANSTON</td>
<td>64.8</td>
<td></td>
</tr>
<tr>
<td>PAWTUCKET</td>
<td>-13.3</td>
<td></td>
</tr>
<tr>
<td>WARWICK</td>
<td>143.6</td>
<td></td>
</tr>
<tr>
<td>WOONSOCKET</td>
<td>-34.3</td>
<td></td>
</tr>
<tr>
<td>EAST PROVIDENCE</td>
<td>51.8</td>
<td></td>
</tr>
<tr>
<td>CUMBERLAND</td>
<td>106.3</td>
<td></td>
</tr>
<tr>
<td>COVENTRY</td>
<td>129.8</td>
<td></td>
</tr>
<tr>
<td>NORTH KINGSTOWN</td>
<td>154.6</td>
<td></td>
</tr>
<tr>
<td>WEST WARWICK DIST SCHLS</td>
<td>41.7</td>
<td></td>
</tr>
</tbody>
</table>

- **RI’s opportunity gap contributes to a student outcome gap:** the state’s highest-poverty districts (pink dot) score 1.12 s.d. below its lowest-poverty districts (blue dot).
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SFID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in this profile refer to the school year (e.g., 2022 is 2021-2022).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, percentages may not sum to 100%
- The total number of districts in each state is typically defined as the number of districts with a student population greater than 50 students. Details regarding the number of districts and schools in this profile are found in the “State Profile” tab.
- The table in the right panel presents adequacy estimates for the typical state (equal opportunity budget) and the state’s personal income-based fiscal effort indicator. This table presents the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under state’s 2016 effort levels.
- In order to provide a sense of states’ capacity, we characterize each state’s effort as high (fewer than 20 percent below adequate and unstable); moderate (20 percent below adequate and statewide gap above +50 percent); and low (50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent).
- Statewide adequacy:
  - SFID datasets, tools, and reports, are freely available to download at schoolfinancedata.org.
  - The data in this state profile are from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other state SFID datasets.


Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still maintain high effort (as a percentage). Fiscal effort is calculated as quarterly GSP divided by the sum of personal income and business income (as calculated by the Russell Methodology). The SFID also presents effort indicators that treat both categories equally (i.e., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under state’s 2016 effort levels).

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SFID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID School Cost Database (SCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy:

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent (as measured by the NECM) of the hypothetical in all states is below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -70 and -75 points); moderately unequal (-60 to -65 points); not significant (-30 to -35 points); slight (less than -10 points).
- The center panel figure presents adequate funding gaps for the five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the state averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.
SOUTH CAROLINA

Summary: This 2019-20 profile of South Carolina’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), South Carolina scores 47 out of 100, which ranks 27th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

South Carolina effort 4.22 %
U.S. average 3.61 %

- SC is a high effort state.
- In FY 2020, SC spent 4.22 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.62 percentage points higher than the unweighted national average of 3.61 percent.
- SC’s effort level ranks #9 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in SC is relatively low.
- By the modest standard of U.S. average scores, 81.8 percent of SC students attend inadequately funded districts, which ranks #42 in the nation (out of 49).
- The typical SC student’s district spends 14.2 percent below adequate levels, which ranks #38 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in SC is highly unequal.
- Spending in SC’s highest-poverty districts is 36.6 percent ($7,262 PP) below the estimated adequate level, compared with 3.0 percent ($337 PP) below adequate in the state’s most affluent districts.
- This opportunity gap of -33.6 percentage points is ranked #14 in the nation (out of 48).
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and other reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

• The years in this profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).
• Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
• Due to rounding procedures, sums from users' manual calculations may not exactly equal the totals presented.
• The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
• Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
• The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger populations, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but per capita the SIFD’s measure of effort is not necessarily much smaller, as a measure of total spending in the typical state compared to a large state is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/adequate level of education. Our adequacy estimates compare each district’s annual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate spending”). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Adequacy estimates are calculated on an annual basis and are not adjusted for inflation. They are also based on annual data; it may take several years to achieve a fully adequate funding level in any given state. That is, if a state’s 2006 level, the hypothetical additional spending is zero (i.e., there is no “opportunity” gap, because that year’s state score is 0) of the following measures (weights based on relative importance): 1) percent of students in districts with above adequate funding (22.5%); 2) state wide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate spending”). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Adequacy estimates are calculated on an annual basis and are not adjusted for inflation. They are also based on annual data; it may take several years to achieve a fully adequate funding level in any given state. That is, if a state’s 2006 level, the hypothetical additional spending is zero (i.e., there is no “opportunity” gap, because that year’s state score is 0) of the following measures (weights based on relative importance): 1) percent of students in districts with above adequate funding (22.5%); 2) state wide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded scores.

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles — e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state) Note that EO is conceptually independent of the measures of adequacy — e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inaccurate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

• EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
• In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30 points); fairly unequal (-30 to 75 points); fairly equal (75 to 125 points); and equal (125 points or greater).
• In the first bullet of the right panel, we compare EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30 points); fairly unequal (-30 to 75 points); fairly equal (75 to 125 points); and equal (125 points or greater).
• In the second bullet of the right panel, we highlight the gaps between the most and least funded districts in each state. In the third bullet of the right panel, below the table, we present a “thought experiment” of sorts, in which we calculate how much additional total state and local spending each state would have to spend in order to raise its EO by a given percentage (e.g., 10 percent), or to get its EO above a given benchmark (e.g., 125 points), given all other variables in the SFID model. That is, we calculate the additional spending each state would need to close all of its existing equity gaps (ignoring all districts in which actual spending exceeds adequate levels).
• In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

Notes on Data and Measures

State School Finance Profiles 2019-20 (publ. 2022)

www.schoolfinancedata.org
### FISCAL EFFORT

**Fiscal effort** is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>State</th>
<th>Effort (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dakota</td>
<td>3.13%</td>
</tr>
<tr>
<td>U.S.</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- SD is a **low effort** state.
- In FY 2020, SD spent 3.13 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.48 percentage points lower than the unweighted national average of 3.61 percent.
- SD's effort level ranks #41 in the nation (out of 50).

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in SD is relatively **moderate**.
- By the modest standard of U.S. average scores, 39.5 percent of SD students attend inadequately funded districts, which ranks #33 in the nation (out of 49).
- The typical SD student's district spends 10.9 percent above adequate levels, which ranks #24 in the nation.

### EQUAL OPPORTUNITY

**Equal opportunity** is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s "opportunity gap."

- Educational opportunity in SD is **highly unequal**.
- Spending in SD’s highest-poverty districts is 6.8 percent ($1,039 PP) below the estimated adequate level, compared with 32.0 percent ($2,273 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -38.8 percentage points is ranked #17 in the nation (out of 48).

### Adequacy by District Poverty

- **SD’s opportunity gap** contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.84 s.d. below its lowest-poverty districts (blue dot).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

**Fiscal effort**
Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but efforts for both states might be substantial as a proportion of their total economic capacity. Therefore, it can be interpreted as a poverty index on an economic capacity state-by-state basis.

**Statewide adequacy**
Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate" spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relation between outcomes and cost factors such as student poverty, capacity, and state population size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Finance Indicators Database (SFID); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

**Equal opportunity**
Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of fiscal adequacy (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

**Notes on data and measures**
Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations of measures in the profiles. Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data. Some measures improved somewhat during the time period for which data are available (due to improved statistical techniques used for these states).

**About the principal graphic**
The principal graphic in this section shows the total additional funding that would be required to close all these negative funding gaps ("ignoring" all districts in which actual spending exceeds adequate levels).

**Public school coverage**
School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

**Fiscal effort**
Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but efforts for both states might be substantial as a proportion of their total economic capacity. Therefore, it can be interpreted as a poverty index on an economic capacity state-by-state basis.

**Statewide adequacy**
Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate" spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relation between outcomes and cost factors such as student poverty, capacity, and state population size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Finance Indicators Database (SFID); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

**Equal opportunity**
Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of fiscal adequacy (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

**Notes on data and measures**
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TENNESSEE

Summary: This 2019-20 profile of Tennessee's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Tennessee scores 25 out of 100, which ranks 44th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

Tennessee effort 2.83 %
U.S. average 3.61 %

- TN is a low effort state.
- In FY 2020, TN spent 2.83 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.77 percentage points lower than the unweighted national average of 3.61 percent.
- TN's effort level ranks #47 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% below/above) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in TN is relatively low.
- By the modest standard of U.S. average scores, 50.8 percent of TN students attend inadequately funded districts, which ranks #34 in the nation (out of 49).
- The typical TN student's district spends 9.9 percent below adequate levels, which ranks #36 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state's higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state's "opportunity gap."

- Educational opportunity in TN is highly unequal.
- Spending in TN’s highest-poverty districts is 44.4 percent ($8,294 PP) below the estimated adequate level, compared with 26.3 percent ($1,966 PP) adequate in the state’s most affluent districts.
- This opportunity gap of -70.6 percentage points is ranked #29 in the nation (out of 48).

Net change by period (% pts.)

<table>
<thead>
<tr>
<th>Period</th>
<th>TN</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>0.12</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>-0.40</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>-0.28</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- TN’s effort was lower than its 2006 level in 5 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $4.92 billion (9.8 percent) higher.
- TN is a relatively low capacity state, with a GDP per capita ranked #34 in the nation.

 Adequacy in 10 largest TN districts

<table>
<thead>
<tr>
<th>Percent above/below adequate spending, ten largest TN school districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHELBY CNTY SD</td>
</tr>
<tr>
<td>DAVIDSON CNTY</td>
</tr>
<tr>
<td>KNOX CNTY</td>
</tr>
<tr>
<td>RUTHERFORD CNTY</td>
</tr>
<tr>
<td>HAMILTON CNTY</td>
</tr>
<tr>
<td>WILLIAMSON CNTY</td>
</tr>
<tr>
<td>MONTGOMERY CNTY</td>
</tr>
<tr>
<td>SUMNER CNTY</td>
</tr>
<tr>
<td>WILSON CNTY</td>
</tr>
<tr>
<td>SEVIER CNTY</td>
</tr>
</tbody>
</table>

- Statewide, spending is below estimated adequate levels in 76 of the 140 TN districts with available data.
- Closing all these negative gaps would require $2.0 billion in new funding.

- TN’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.44 s.d. below its lowest-poverty districts (blue dot).

TN 2019-20 SCHOOL FINANCE PROFILE

www.schoolfinancedata.org
### General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albany Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the School Finance Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

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- **D.C., Hawaii, and Vermont are not assigned scores**, as one or more of the measures that constitute the scores cannot be calculated for these states.
- **Non-SFID data sources**: “(Contextual State) table:” 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

### Fiscal effort

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- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.
- In the first bullet of the left panel, we characterize each state’s level of effort as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate GSP-based fiscal effort, as quarterly GSP estimates are not available before that.
- The table in the right panel presents the effort-related data, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2012. 2012 is therefore an apt starting point for assessing states’ reallocation of resources. Trends, however, vary by state.

### Statewide adequacy

 Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy includes years in which 2016-20 had that state returned to its 2006 level, the hypothetical additional spending is (in the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).

- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of statewide adequacy—i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30 points); and low (-30 to 0 points).
- The table in the right panel presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the method is used differently in different states. The U.S. averages (blue diamonds) represent an approximation of the national situation. Axes ranges for this graph may vary between states.

NOTES ON DATA AND MEASURES

State School Finance Profiles 2019-20 (publ. 2022)

www.schoolfinancedata.org
Summary: This 2019-20 profile of Texas’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Texas scores 32 out of 100, which ranks 40th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

Texas effort 3.51%
U.S. average 3.61%

- TX is a medium effort state.
- In FY 2020, TX spent 3.51 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.10 percentage points lower than the unweighted national average of 3.61 percent.
- TX’s effort level ranks #28 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in TX is relatively low.
- By the modest standard of U.S. average scores, 90.5 percent of TX students attend inadequately funded districts, which ranks #48 in the nation (out of 49).
- The typical TX student’s district spends 31.1 percent below adequate levels, which ranks #48 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in TX is highly unequal.
- Spending in TX’s highest-poverty districts is 42.4 percent ($8,098 PP) below the estimated adequate level, compared with 11.6 percent ($1,249 PP) below adequate in the state’s most affluent districts.
- This opportunity gap of -30.9 percentage points is ranked #10 in the nation (out of 48).

Effort trend and capacity

- TX’s 2020 effort level is 0.16 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #27 in the nation.

Net change by period (% pts.)

<table>
<thead>
<tr>
<th>Period</th>
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- TX’s effort was lower than its 2006 level in 5 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $24.55 billion (8.4 percent) higher.
- TX is a relatively medium capacity state, with a GSP per capita ranked #19 in the nation.

STATEWIDE ADEQUACY

PCT. OF STUDENTS IN BELOW ADEQUATE DISTRICTS

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ADEQUATE FUNDING GAP OF TYPICAL STUDENT

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- TX is a relatively medium capacity state, with a GSP per capita ranked #19 in the nation.

STATEWIDE ADEQUACY

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The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and other reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the sources, followed by descriptions and notes pertaining to the three types of measures they present:

• The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2021-2022).
• Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
• Due to rounding error, some total amounts may differ slightly from users’ manual calculations of the front side.
• The total number of states assigned rankings varies slightly by measure, as not all measures are available in all years.
• Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
• The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 0 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with adequate funding (22.5%); 2) statewide (% adequacy gap) (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unrounded numbers.
• D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.
• Non-SFID data sources (“Contextual State” table: 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

Fiscal effort
Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still provide less funding per pupil because they can afford to do so. The state’s adequacy gap is used here as a proxy for how high the required spending is for a state to be adequate. This is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/a reasonable standard of learning. The NECM model calculates required spending based on the relationship between student needs and spending each state would have to spend in order to meet these needs. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either GSP or aggregate state personal income.

Statewide adequacy
Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SID’s Cost Database (CDB); many but not all SID adequacy measures (all of which have variable name beginning with necm, ) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy is calculated as the average of all states in any year (due to weighting each state’s 2006 level, the hypothetical additional spending is calculated using the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under state’s 2006 effort levels).

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Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of statewide adequacy—e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts.

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www.schoolfinancedata.org
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- **Utah effort** 3.20%
- **U.S. average** 3.61%

- **UT is a low effort state.**
- In FY 2020, UT spent 3.20 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.41 percentage points **lower** than the unweighted national average of 3.61 percent.
- UT’s effort level ranks #37 in the nation (out of 50).

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Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- **Overall adequacy in UT is relatively moderate.**
- By the modest standard of U.S. average scores, 29.8 percent of UT students attend inadequately funded districts, which ranks #24 in the nation (out of 49).
- The typical UT student’s district spends 6.3 percent **above** adequate levels, which ranks #28 in the nation.

---

**EQUAL OPPORTUNITY**

**Equal opportunity** is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- **Educational opportunity in UT is moderately unequal.**
- Spending in UT’s highest-poverty districts is 3.6 percent ($389 PP) **below** the estimated adequate level, compared with 23.1 percent ($1,505 PP) **above** adequate in the state’s most affluent districts.
- This opportunity gap of -26.7 percentage points is ranked #3 in the nation (out of 48).

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** UT’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.15 s.d. **below** its lowest-poverty districts (blue dot).**
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

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- **The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses):** 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (%) adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded numbers.

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**Fiscal effort**

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but our measures (effort as a percent of GSP) correct for this fact (as a means of differentiating between low/adequate funding states that do and do not have the capacity to increase revenue. 

- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.**

- **In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using tertiles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate GSP-based effort, as quarterly GSP estimates are not available before that.**

- **In the table the right panel presents the center-group panel, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2011. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.

- **In the third bullet of the right panel, below the table, we present a “thought experiment” of sorts, in which we calculate how much additional total state and local spending each state would have to spend in order to bring its districts’ funding ratios (determined by a weighted average of current and adequate funding) up to the national average.**

- **Statewide adequacy**

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Finance Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- **Statewide adequacy is scored as high, medium, or low in these profiles (i.e., the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).**

- **In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using tertiles.**

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of overall spending adequacy (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than lower-poverty districts.

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**

- **In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 and -30); slightly unequal (-30 and 30); and equal (above 30).**

- **The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the state quintiles are not perfectly aligned across states.**

- **The U.S. averages (blue diamonds) represent an approximation of the national situation.**

- **Average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes is presented under the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.**
VERMONT

Summary: This 2019-20 profile of Vermont's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Vermont scores out of 100, which ranks out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

Vermont effort
U.S. average

3.61 %

- is a state.
- In FY 2020, spent percent of its economic capacity (GSP) on its K-12 public schools.
- This was percentage points than the unweighted national average of 3.61 percent.
- ‘s effort level ranks # in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in is relatively .
- By the modest standard of U.S. average scores, percent of students attend inadequately funded districts, which ranks # in the nation (out of 49).
- The typical student’s district spends percent adequate levels, which ranks # in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in is .
- Spending in ‘s highest-poverty districts is percent ($ PP) the estimated adequate level, compared with percent ($ PP) adequate in the state’s most affluent districts.
- This opportunity gap of percentage points is ranked # in the nation (out of 48).

ADEQUACY BY DISTRICT POVERTY

- ‘s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score s.d. below its lowest-poverty districts (blue dot).

www.schoolfinancedata.org
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and other reports, are freely available to download at: schoolfinedata.org. The following are some general notes about the sources, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in this profile refer to the spring semester of the school year (e.g., 2022-2023).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, percentages calculated from users’ manual calculations may not exactly match the values shown on the front side.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of this profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with adequate spending (22.5%); 2) statewide (% adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unreported/reported data.
- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.
- Non-SFID data sources (“Contextual State” table): 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with large economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but otherwise similar states. GSP-based fiscal effort is calculated as quarterly GSP estimates are not available before that.

- The table in the right panel represents the center-panel graph, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2012. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.
- In the third bullet of the right panel, below the table, we present a “thought experiment” of sorts, in which we calculate how much additional total state and local spending each state would have had to spend between 2019 and 2020 had that state returned to its own pre-recession (2006) effort level by 2016 (with 2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-20 effort exceeded the state’s 2006 level, the hypothetical additional spending is (in the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels).
- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate SFID-based effort, as quarterly GSP estimates are not available before that.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels and; 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SID. The NECM calculates required spending based on the relative cost of educating “typical students” in all states, adjusted for regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (CDB); many but not all SID adequacy measures (all of which have variable name beginning as necm_...) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide (typical student’s) gap of >50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap under +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).
- The regional grouping in the charts in the left panel are U.S. Census divisions (9 groups), s division is . Axes ranges for the bottom graph may vary by state.
- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state.
- The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid data. The second bullet presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of any adequacy gaps, i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to -75 points); mildly unequal (-75 to +75 points); equally small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The center panel figure presents adequacy funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so data among states is not comparable. The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.
- The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid data. The second bullet presents the total additional funding that would be required to close all these negative funding gaps ("ignoring" all districts in which actual spending exceeds adequate levels).
VIRGINIA

Summary: This 2019-20 profile of Virginia's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Virginia scores 48 out of 100, which ranks 26th out of the 48 states with possible ratings.

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- VA is a low effort state.
- In FY 2020, VA spent 3.41 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.19 percentage points lower than the unweighted national average of 3.61 percent.
- VA’s effort level ranks #34 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in VA is relatively moderate.
- By the modest standard of U.S. average scores, 37.9 percent of VA students attend inadequately funded districts, which ranks #30 in the nation (out of 49).
- The typical VA student’s district spends 7.4 percent above adequate levels, which ranks #26 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in VA is highly unequal.
- Spending in VA’s highest-poverty districts is 27.1 percent ($4,730 PP) below the estimated adequate level, compared with 22.9 percent ($2,555 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -50.0 percentage points is ranked #23 in the nation (out of 48).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by detailed notes pertaining to the three types of measures they present:

• The years in this profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
• Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
• Due to rounding, some differences may arise from users' manual calculations vs. the estimates on the front side.
• The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.

• Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states' combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states' school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selectivity or components entails subjective judgments on the part of the SFID research team.

• The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with adequate funding (22.5%); 2) statewide (% adequacy gap) (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unadjusted scores.

• D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

• SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The full DCD dataset (going back to 2009) is also available for research purposes (with NECM_). The primary product of the SFID is the State Indicators Database (SID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by detailed notes pertaining to the three types of measures they present:

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• Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
• Due to rounding, some differences may arise from users' manual calculations vs. the estimates on the front side.
• The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.

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• The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with adequate funding (22.5%); 2) statewide (% adequacy gap) (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unadjusted scores.

• D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

Fiscal effort

Fiscal effort indicates how much of a state's total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state's economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can pull forth lower effort than lower capacity states, such as Mississippi and Alabama, but still provide more than adequate funding. The effort indicator is therefore a measure of both sufficiency and adequacy as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

• U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state's effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculated GSP-based effort, as quarterly GSP estimates are not available before that. The table in the right panel summarizes the center GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district's actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., "required" or "adequate" spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user's guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy is defined as: -- high (60 to 100 percent of students in all districts in all states); moderate (60 to 49 percent of students in adequate districts and statewide gap above +50 percent); high (greater than 50 percent in adequate districts). The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the largest (enrollment) districts in this state. The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The first bullet presents the total additional funding that would be required to close all these negative funding gaps ("ignoring" all districts in which actual spending exceeds adequate levels).

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent (at least to some extent) from adequacy—i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

• EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
• In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -70 and -75 points); moderately unequal (-30 and -30); low (-25 and -30); and virtually equal (0 and above). The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparisons of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.
• The scatterplot in the right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes is presented in the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
**WASHINGTON**

**FISCAL EFFORT**

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th>Washington effort</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.43 %</td>
<td>3.61 %</td>
</tr>
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</table>

- WA is a medium effort state.
- In FY 2020, WA spent 3.43 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.18 percentage points lower than the unweighted national average of 3.61 percent.
- WA’s effort level ranks #33 in the nation (out of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in WA is relatively moderate.
- By the modest standard of U.S. average scores, 16.1 percent of WA students attend inadequately funded districts, which ranks #11 in the nation (out of 49).
- The typical WA student’s district spends 28.3 percent above adequate levels, which ranks #14 in the nation.

**EQUAL OPPORTUNITY**

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in WA is severely unequal.
- Spending in WA’s highest-poverty districts is 15.8 percent ($2,638 PP) below the estimated adequate level, compared with 59.7 percent ($5,396 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -75.5 percentage points is ranked #30 in the nation (out of 48).

**CONTEXTUAL STATS**

<table>
<thead>
<tr>
<th>State</th>
<th>WA</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>10.1</td>
<td>14.9</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>83.5</td>
<td>83.1</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>70.6</td>
<td>47.0</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>1,142,073 (14)</td>
<td></td>
</tr>
</tbody>
</table>

- WA’s 2020 effort level is 0.28 pct. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #6 in the nation.

**Net change by period (% pts.)**

<table>
<thead>
<tr>
<th>Period</th>
<th>WA</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.14</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>0.42</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>0.28</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- WA’s effort was lower than its 2006 level in 2 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-2020 spending would have been $0.13 billion (0.2 percent) higher.
- WA is a relatively high capacity state, with a GSP per capita ranked #5 in the nation.

**Statewide, spending is below estimated adequate levels in 70 of the 295 WA districts with available data.**

- Closing all these negative gaps would require $436.8 million in new funding.

**Adequacy in 10 largest WA districts**

<table>
<thead>
<tr>
<th>District</th>
<th>Adequacy Code</th>
<th>Adequacy</th>
<th>Spending (out of 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seattle SD NO. 1</td>
<td>Adequate</td>
<td>72</td>
<td>35.5</td>
</tr>
<tr>
<td>Lake Washington SD</td>
<td>Adequate</td>
<td>61</td>
<td>61.4</td>
</tr>
<tr>
<td>Spokane SD</td>
<td>Adequate</td>
<td>52</td>
<td>23.8</td>
</tr>
<tr>
<td>Tacoma SD</td>
<td>Adequate</td>
<td>39</td>
<td>27.7</td>
</tr>
<tr>
<td>Kent SD</td>
<td>Adequate</td>
<td>26</td>
<td>-3.6</td>
</tr>
<tr>
<td>Evergreen SD (Clark)</td>
<td>Adequate</td>
<td>28</td>
<td>24.9</td>
</tr>
<tr>
<td>Northshore SD</td>
<td>Adequate</td>
<td>27</td>
<td>83.9</td>
</tr>
<tr>
<td>Puyallup SD</td>
<td>Adequate</td>
<td>26</td>
<td>66.3</td>
</tr>
<tr>
<td>Vancouver SD</td>
<td>Adequate</td>
<td>27</td>
<td>26.3</td>
</tr>
<tr>
<td>Federal Way SD</td>
<td>Adequate</td>
<td>26</td>
<td>-11.6</td>
</tr>
</tbody>
</table>

- Statewide, spending is below estimated adequate levels in 70 of the 295 WA districts with available data.
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and data reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

**Fiscal effort**
Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but other states may have relatively higher (e.g., as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue. 

- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.**
- **In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using tertiles.** Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate SFID-based, as opposed to GSP-based, effort estimates as a measure of fiscal effort, as quarterly/period data for all the measures presented in this profile, as well other SFID datasets, tools, and data reports, are freely available to download at schoolfinancedata.org.

**Statewide adequacy**
Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy as follows: (1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and (2) the adequacy gap (percentage deviation between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage, variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require use of the SFID’s Cost Database (CDO); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy measures from the DCD are not available for some states. For example, Hawaii had state revenue data available before that. For each state/year combination in which 2016 effort level by 2016 (with 2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-20 effort exceeded the state’s 2006 level, the hypothetical additional funding is (by the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower than states’ effort levels).

**Equal opportunity**
Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage deviation between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state) Note that EO is conceptually independent of the financial measures presented above (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are adequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**
- **In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 to -30); equally funded (+30 to +75); and highly equal (+75 points);**
- **The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparisons of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation.**

Notes on Data and Measures for School Finance Indicators Profiles 2019-20 (publ. 2022)

**STATEWIDE ADEQUACY**

*SFID data sources* (*Contextual State* table): 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

**FISCAL EFFORT**

*SID variables used in this section: effort: year*

**STATEWIDE ADEQUACY**

*SID variables used in this section: necm_predcost_state; necm_ppcstot_state; necm_ppcstot_q1; necm_predcost_q1; necm_predcost; necm_ppcost; necm_ppcost_q1; necm_predcost_q1; necm_ppcost_q1; necm_ppcost; necm_ppcost_q1*
Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- WV is a high effort state.
- In FY 2020, WV spent 4.30 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.69 percentage points higher than the unweighted national average of 3.61 percent.
- WV’s effort level ranks #7 in the nation (out of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in WV is relatively moderate.
- By the modest standard of U.S. average scores, 2.1 percent of WV students attend inadequately funded districts, which ranks #3 in the nation (out of 49).
- The typical WV student’s district spends 33.1 percent above adequate levels, which ranks #12 in the nation.

**EQUAL OPPORTUNITY**

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in WV is highly unequal.
- Spending in WV’s highest-poverty districts is 13.9 percent ($1,490 PP) above the estimated adequate level, compared with 46.1 percent ($3,781 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -32.3 percentage points is ranked #11 in the nation (out of 48).

- WV’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.30 s.d. below its lowest-poverty districts (blue dot).
The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers at the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the sources, followed by description and notes pertaining to the three types of measures they present:

• The years in the profile refer to the spring semester of the school year (e.g., 2022 is 2021-2022).
• Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
• Due to rounding, sums of percentages from users’ manual calculations may not estimate the total on the front side.
• The total number of state assigned rankings varies slightly by measure, as not all measures are available in all years.
• Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

Fiscal effort
Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but this is not necessarily a flaw in the measure per se. Rather it is a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

• U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s level of effort as low, medium, or high by sorting states into three roughly equal groups using tertiles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we can calculate GSP-based fiscal effort, as quarterly GSP estimates are not available at that time. The SFID datasets, tools, and reports, are freely available to download at: www.schoolfinancedata.org.

Statewide adequacy
Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

• In the first bullet of the right panel, below the table, we present a “thought experiment” of sorts, in which we calculate how much additional total state and local spending each state would have had between 2016 and 2020 had that state returned to its own pre-recession (2006) effort level by 2016 (with 2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-20 effort exceeded the state’s 2006 level, the hypothetical additional spending is (in the hypothetical additional funding estimates do not include years in which 2016-20 funding would have been lower than state’s 2006 effort).

• In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using tertiles.

Equal opportunity
Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of adequacy (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

• EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
• In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to +30); evenly allocated (+30 to +75); and highly equal (+75 above).
• In the first bullet of the right panel, we present district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes presented in the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
WISCONSIN

FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

- WI is a medium effort state.
- In FY 2020, WI spent 3.71 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.10 percentage points higher than the unweighted national average of 3.61 percent.
- WI's effort level ranks #19 in the nation (out of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student's district. The graphs include regional and national averages.

- Overall adequacy in WI is relatively moderate.
- By the modest standard of U.S. average scores, 19.6 percent of WI students attend inadequately funded districts, which ranks #15 in the nation (out of 49).
- The typical WI student's district spends 21.6 percent above adequate levels, which ranks #18 in the nation.

EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in WI is severely unequal.
- Spending in WI’s highest-poverty districts is 20.6 percent ($3,630 PP) below the estimated adequate level, compared with 91.9 percent ($5,666 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -112.5 percentage points is ranked #38 in the nation (out of 48).

Net change by period (% pts.)

<table>
<thead>
<tr>
<th>Period</th>
<th>WI</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.30</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2020-20)</td>
<td>-0.30</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- WI’s effort was lower than its 2006 level in 5 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-20 spending would have been $5.91 billion (9.9 percent) higher.
- WI is a relatively medium capacity state, with a GSP per capita ranked #29 in the nation.

Adequacy gaps by outcome gaps

- WI’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.93 s.d. below its lowest-poverty districts (blue dot).
## General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well as other SFID datasets, tool-related reports, and educational resources, are freely available to download at [schoolfinancedata.org](http://schoolfinancedata.org). The following are some general notes about the sources of the profiles, followed by descriptions and notes pertaining to the three types of measures they present:

- The years in this profile refer to the spring semester of the school year (e.g., 2022 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, expenditure data may differ slightly from sources' manual calculations or the estimates on the front side of the report.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.

### Overall state scores

The overall scores reported at the top of this profile are a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in percentages): 1) percent of students in districts with adequate funding (22.5%); 2) statewide (%) adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unrounded measures.

### SID variables used in this section: effort: year

- **vareffdec** = variable used to indicate fiscal effort, as quarterly GSP estimates are not available in all states. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are large state economies. Note also that 2006 is the first year in which we calculate the effort level, as quarterly GSP estimates are not available before that.

### SID variables used in this section: state GSP per capita

- **vgspwpctot** = variable used to indicate state GSP per capita, as small, medium, or large by sorting states into three roughly equal groups using terciles. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution.

### Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Data Base (OCD); many not all SID adequacy measures (all of which have variable name beginning with necm) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are calculated as a weighted average of the estimated per-pupil costs in all states, normalized to the national average (SFID), a collection of public K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Fiscal effort indicates how much of a state’s total capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Fiscal effort indicates how much of a state’s total capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Fiscal effort indicates how much of a state’s total capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Fiscal effort indicates how much of a state’s total capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Fiscal effort indicates how much of a state’s total capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Fiscal effort indicates how much of a state’s total capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income.

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts’ educational outcomes are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of adequacy (i.e., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts).

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).
- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-75 and -30 points); slight inequality (-30 and 0 points); slightly unequal (0 and +30 points); and no inequality (+30 and +75 points).
- The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are the average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.
- In the right panel, the poverty quintiles are defined as follows: highest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.
Summary: This 2019-20 profile of Wyoming’s public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Wyoming scores 93 out of 100, which ranks 1st out of the 48 states with possible ratings.

### FISCAL EFFORT

Fiscal effort is a measure of how much states devote to their schools as a share of their economic capacity (i.e., ability to raise revenue). Effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

<table>
<thead>
<tr>
<th></th>
<th>Wyoming</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wyoming effort</td>
<td>4.61%</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

- Wy is a high effort state.
- In FY 2020, Wy spent 4.61 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 1.01 percentage points higher than the unweighted national average of 3.61 percent.
- Wy’s effort level ranks #2 in the nation (out of 50).

### STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to district-level cost model estimates of the amount required to achieve the modest goal of U.S. average test scores. The graphs to the right indicate the percentage of students in districts where spending is below adequate and the funding gap (% above/below) in the typical student’s district. The graphs include regional and national averages.

- Overall adequacy in Wy is relatively high.
- By the modest standard of U.S. average scores, 0.0 percent of Wy students attend inadequately funded districts, which ranks #1.5 in the nation (out of 49).
- The typical Wy student’s district spends 122.8 percent above adequate levels, which ranks #1 in the nation.

#### PCT. OF STUDENTS IN BELOW ADEQUATE DISTRICTS

<table>
<thead>
<tr>
<th></th>
<th>WY</th>
<th>Region</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent below adequate</td>
<td>0.0%</td>
<td>58.6%</td>
<td>52.2%</td>
</tr>
</tbody>
</table>

#### ADEQUATE FUNDING GAP OF TYPICAL STUDENT

<table>
<thead>
<tr>
<th></th>
<th>WY</th>
<th>Region</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate funding gap</td>
<td>-7.3%</td>
<td>3.0%</td>
<td></td>
</tr>
</tbody>
</table>

### EQUAL OPPORTUNITY

Equal opportunity is the comparison of adequacy between each state’s higher- and lower-poverty districts. The graph to the right presents adequate funding gaps by district poverty quintile (the blue diamonds are U.S. averages). The difference (in pct. points) between the lowest- and highest-poverty groups is a state’s “opportunity gap.”

- Educational opportunity in Wy is severely unequal.
- Spending in Wy’s highest-poverty districts is 81.5 percent ($10,046 PP) above the estimated adequate level, compared with 160.7 percent ($10,382 PP) above adequate in the state’s most affluent districts.
- This opportunity gap of -79.3 percentage points is ranked #32 in the nation (out of 48).

#### ADEQUACY BY DISTRICT POVERTY

- Wy’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.45 s.d. below its lowest-poverty districts (blue dot).

<table>
<thead>
<tr>
<th></th>
<th>Wyoming</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate</td>
<td>160.7%</td>
<td>133.5%</td>
</tr>
<tr>
<td>Below adequate</td>
<td>100.1%</td>
<td>88.5%</td>
</tr>
<tr>
<td>Above adequate</td>
<td>81.5%</td>
<td></td>
</tr>
</tbody>
</table>

#### Contextual Stats

<table>
<thead>
<tr>
<th>State</th>
<th>WY</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>9.1</td>
<td>14.9</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>89.3</td>
<td>83.1</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>52.7</td>
<td>47.0</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>94,616 (49)</td>
<td></td>
</tr>
</tbody>
</table>

**Effort trend and capacity**

- Wy’s 2020 effort level is 0.84 pct. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2020 is ranked #1 in the nation.

#### Net change by period (% pts.)

<table>
<thead>
<tr>
<th>Period</th>
<th>WY</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>0.38</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-20)</td>
<td>0.46</td>
<td>0.01</td>
</tr>
<tr>
<td>Full period (2006-20)</td>
<td>0.84</td>
<td>-0.12</td>
</tr>
</tbody>
</table>

- Wy’s effort was lower than its 2006 level in 0 of 5 years between 2016-2020; had effort recovered to its 2006 level during these years, total 2016-2020 spending would have been $0.00 billion (0.0 percent) higher.
- Wy is a relatively high capacity state, with a GSP per capita ranked #16 in the nation.

#### Adequacy in 10 largest Wy districts

<table>
<thead>
<tr>
<th>Region &amp; County</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laramie Delta</td>
<td>155.8</td>
</tr>
<tr>
<td>Natrona County</td>
<td>118.0</td>
</tr>
<tr>
<td>Campbell County</td>
<td>182.2</td>
</tr>
<tr>
<td>Sweetwater County</td>
<td>79.4</td>
</tr>
<tr>
<td>Albany County</td>
<td>166.9</td>
</tr>
<tr>
<td>Sheridan County</td>
<td>240.6</td>
</tr>
<tr>
<td>Lincoln County</td>
<td>161.3</td>
</tr>
<tr>
<td>Teton County</td>
<td>206.3</td>
</tr>
<tr>
<td>Uinta County</td>
<td>114.8</td>
</tr>
<tr>
<td>Sweetwater County</td>
<td>138.3</td>
</tr>
</tbody>
</table>

- Statewide, spending is below estimated adequate levels in 0 of the 48 Wy districts with available data.
- Closing all these negative gaps would require $0.0 in new funding.

www.schoolfinancedata.org
General

The data in this state profile are from the School Finance Indicators Database (SFID), a collection of public K-12 school finance and resource allocation indicators published annually by researchers from the Albert Shanker Institute, University of Miami School of Education and Human Development, and Rutgers University Graduate School of Education. The primary product of the SFID is the State Indicators Database (SID), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SID: fiscal effort, statewide adequacy, and equal opportunity. The full SID dataset, along with accessible documentation of and data sources for all the measures presented in this profile, as well other SFID datasets, tools, and other reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions pertaining to the three types of measures they present:

- The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.

Overall state scores: The overall scores reported at the top of the profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profiles. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection criteria of components entails subjective judgments on the part of the SFID research team.

- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above average funding (22.5%); 2) statewide (%), adequacy gap (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State ranks may reflect differences in unrounded scores.

- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

- Non-SFID data sources ("Contextual State" table): 1) Child (5-17 year old) poverty (2020) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still contribute a larger share of their economic output to their K-12 systems. For this reason, a measure of effort that is per capita (i.e., is divided by population) might be a more familiar metric to many observers and one that is more reflective of a state’s capacity relative to the size of its local market.

- The table in the right panel shows CDC prestige ratings (Q5) for each state. "D" denotes the lowest grouping; "A" denotes the highest, and "A+" denotes the highest group.

- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.

- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in high-poverty districts in each state). No points) between these two groups (district poverty groups are defined in terms of quintiles (Q1-Q5) starting point for assessing state's (reinvestment or lack thereof). Trends, however, vary by state.

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID’s Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023).

- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide (typical student’s) gap of <50 percent or greater); moderate (greater than 20 percent below adequate and statewide gap up +50 percent OR fewer than 20 percent below adequate and statewide gap above +50 percent); high (greater than 50 percent in below adequate districts).

- The regional groups in the graph, with a focus on effort trends before and after the 2007-08 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2011. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.

 Equality opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent from adequacy gaps; e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts.

- EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).

- In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -30 points); slightly less unequal (EO gap between -30 and -70 points); moderately unequal (-70 to -120 points); greatly unequal (-120 to -300 points). In the graph, the center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparisons of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates) in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the calculations in the panel graph are not comparable to those in the left and right panels, which are based on quintile estimates from the U.S. Census Bureau.

- The U.S. averages (blue diamonds) represent an approximation of the national situation. Axis ranges for this graph may vary between states.

- The center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparisons of gaps between different combinations of groups). The state bars (and U.S. (blue diamonds) estimates) in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the calculations in the panel graph are not comparable to those in the left and right panels, which are based on quintile estimates from the U.S. Census Bureau.
(In) \( \text{SCHOOL} = b_0 + b_1 \text{State}_i + b_2 \text{LaborMarket}_{ij} + b_3 \text{CWI}_{ij} + b_4 \text{FINANCE}_{ij} + b_5 \text{PopulationDensity}_{ij} + b_6 \text{Enrollment}_{ij} + b_7 \text{INDICATORS}_{ij} + b_8 \text{Scale}_{ij} + b_9 \text{Poverty}_{ij} + b_{10} \text{SchlType}_{ij} + b_{11} \text{DATABASE}_{ij} + e \)