STATE SCHOOL FINANCE PROFILES

Profiles of the K-12 school finance systems of all 50 states and D.C.

2020-2021

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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.
Summary: This 2020-21 profile of Alabama’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back). Alabama scores 22 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).

Rating relative to other states (high I medium I low): AL is a medium effort state.

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
<th>AL</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama effort</td>
<td>3.66%</td>
<td></td>
</tr>
<tr>
<td>U.S. average effort</td>
<td>3.53%</td>
<td></td>
</tr>
</tbody>
</table>

- AL spends 3.66 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.12 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #19 of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low): Statewide adequacy in AL is low.

<table>
<thead>
<tr>
<th>Percent underfunded (rank #1 = most adequate)</th>
<th>AL</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
<td>89.3%</td>
<td></td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
<td>57.3%</td>
<td></td>
</tr>
</tbody>
</table>

- The typical AL student’s district spends 42.5 pct. below adequate levels (rank #48).

EQUAL OPPORTUNITY

Equal opportunity compares adequacy between states’ higher- and lower-poverty districts. The graph to the right presents adequate funding gaps (as a %) by district poverty quintile (the teal diamonds are U.S. averages). The difference (in ptc. points) between the (weighted) average gap of the two lowest-poverty and the two highest-poverty groups is a state’s “opportunity gap.”

Rating relative to other states (high I medium I low): Equal opportunity in AL is medium.

<table>
<thead>
<tr>
<th>ADEQUACY GAPS (%) BY DISTRICT POVERTY</th>
<th>AL</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Low/lowest poverty districts</td>
<td>-20.7%</td>
<td></td>
</tr>
<tr>
<td>B. High/highest poverty districts</td>
<td>-65.1%</td>
<td></td>
</tr>
<tr>
<td>C. Opportunity gap (8 minus A)</td>
<td>-44.3%</td>
<td></td>
</tr>
</tbody>
</table>

- AL’s opportunity gap of -44.3 points is ranked #25 out of 48 (#1=most equal).

Fiscal effort trend, 2006-21
- AL’s 2021 effort level is 0.36 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #33 in the nation.

Net change by period (% pts.)
<table>
<thead>
<tr>
<th>Period</th>
<th>AL</th>
<th>U.S. average</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 (2012-21)</td>
<td>-0.19%</td>
<td>-0.06%</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>-0.36%</td>
<td>-0.19%</td>
</tr>
</tbody>
</table>

- AL’s effort was lower than its 2006 level in 6 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-2021 spending would have been $4.78 billion (9.8 percent) higher.
- AL is a relatively low capacity state, with a GSP per capita ranked #47 in the nation.

Statewide adequacy trend, 2011-21
- Spending in AL was less adequate in 2021 compared with 2011, with a net change (in standard deviations) of -0.259 s.d.
- AL’s adequacy gap was ranked #46 in 2011 (#1 = most adequate) and #48 in 2021.

EO gaps by student outcome gaps
- AL’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.86 s.d. below its lowest-poverty districts (blue dot).
NOTES ON DATA AND MEASURES
State School Finance Profiles 2020-21 (publ. 2024)

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, tools, and reports, are freely available to download at [schoolfinancedata.org](http://schoolfinancedata.org). The following are some notes on the profiles.

- **The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimates for prior years 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 in total sums or proportions presented on the front page may differ from the sum of the individual calculations on the front page.**
- **The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.**

**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 three ways: 1) the proportion of students in each state in districts with above adequate funding below estimated adequate spending levels; 2) the proportion of students in districts below adequate funding levels (see below); and 3) 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. Given the imprecision inherent in comparing finance and student outcome data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common outcome categories (e.g., NECM); they are meant to tell us how much additional state funding is needed in the typical state (i.e., a weighted average of the “highest” and “low” poverty quintiles). 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded in which functionally adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

**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 (API). GSP and API 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. We present GSP-based fiscal effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SFID. Bear in mind that high-capacity states with more 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state’s economic effort level as low, medium, or high by sorting states into three groups based on their effort levels (using terciles).**

**Statewide adequacy**

```python
# SID variables used in this section: effort, year
```

**Equal opportunity**

```python
# NEOC variables used in this section: necm_predcost_q1, necm_ppcstot_q1, necm_predcost_state, necm_ppcstot_state
```

**Fiscal effort**

```python
# SID variables used in this section: effort, year
```

**Statewide adequacy**

```python
# SID variables used in this section: effort, year
```

**Equal opportunity**

```python
# NEOC variables used in this section: necm_predcost_q1, necm_ppcstot_q1, necm_predcost_state, necm_ppcstot_state
```

**Fiscal effort**

```python
# SID variables used in this section: effort, year
```

**Statewide adequacy**

```python
# SID variables used in this section: effort, year
```

**Equal opportunity**

```python
# NEOC variables used in this section: necm_predcost_q1, necm_ppcstot_q1, necm_predcost_state, necm_ppcstot_state
```
**ALASKA**

**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).

Rating relative to other states (high I medium I low):

- **AK is a high effort state.**

**K-12 FISCAL EFFORT TREND, 2006-21**

Fiscal effort summary

<table>
<thead>
<tr>
<th></th>
<th>Alaska effort</th>
<th>U.S. average effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal effort</td>
<td>4.77%</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):

- **Statewide adequacy in AK is high.**

**PERCENT BELOW ADEQUATE COMPARISONS**

Markers further to right are less adequately funded (AK region: West)

<table>
<thead>
<tr>
<th>Pct. of students in below adequate districts (rank of 49)</th>
<th>7.9% (#5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
<td>4.3% (#9)</td>
</tr>
</tbody>
</table>

- The typical AK student’s district spends 49.8 pct. above adequate levels (rank #5).

**EQUAL OPPORTUNITY**

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

Rating relative to other states (high I medium I low):

- **Equal opportunity in AK is medium.**

**ADEQUACY GAPS (%) BY DISTRICT POVERTY**

- AK’s opportunity gap of -47.3 pts is ranked #28 out of 48 (#1 = most equal).

**STATE SCHOOL FINANCE PROFILE**

2020-21 SCHOOL YEAR

**Summary:** This 2020-21 profile of Alaska’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back). Alaska scores 95 out of 100, which ranks 2nd out of the 48 states with possible ratings.

**CONTEXTUAL STATS**

<table>
<thead>
<tr>
<th>AK</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>12.7</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>77.7</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>62.2</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>130,400 (47)</td>
</tr>
</tbody>
</table>

**Fiscal effort trend, 2006-21**

- AK’s 2021 effort level is 0.61 pct. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #4 in the nation.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>AK</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession</td>
<td>-0.25</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession</td>
<td>0.86</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period</td>
<td>0.61</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- AK’s effort was lower than its 2006 level in 0 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 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.
**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.

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- **The years in the profile refer to the spring semester of the school year** (e.g., 2021 is 2020-21).
- **Estimates for prior years 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 in the presentation of the estimates on the front page may differ slightly from the actual calculation of the estimate on the front page.**
- **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. Each state is scored entirely relative to other states, 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 averaged 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 above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q12 difference in adequacy gap, in pct. points) (10%). 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-SID data sources** (“Contextual Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) 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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **To characterize each state’s effort relative** to their level of effort (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- **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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common measures among states. For some indication of how NECM, see the SID user’s guide (NECM)—and we note that NECM effort (based on standards) are used as input in the regional and 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. We therefore use effort primarily as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).**
- **We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing districts into three groups using these average z-scores (terciles).**
- **Chronically below adequate districts** are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- **The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.**
- **The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as ”substantial” if the absolute change exceeds 0.5 s.d., “modest” if the absolute change is between 0.5 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “low” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded in the same proportion to begin with. In other words, if both are chronically inadequate, high-poverty districts are more adequately funded than low-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii and cannot be calculated for D.C. (single government-run district state).**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**
- **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 two highest- and the two lowest-poverty districts). The graph displays five different combinations of q3 and q1.**
- **The bars (bars) and U.S. (teal diamond) estimates in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 outcome (vertical axis) as deviation from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest calculation year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.**
### 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).

**Rating relative to other states** (high 1 medium 1 low):

- **AZ is a low effort state.**

#### Fiscal effort summary

- **Arizona effort**: 2.50%
- **U.S. average effort**: 3.53%

- AZ spends 2.50 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 1.03 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #49 of 50).

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states** (high 1 medium 1 low):

- **Statewide adequacy in AZ is low.**

#### Percent below adequate comparisons

- **Pct. of students in below adequate districts**
  - Arizona: 73.8% (#35)
  - Regional and U.S. averages: 35.0% (#38)

- The typical AZ student’s district spends 22.2% below adequate levels (rank #37).

### Equal Opportunity

**Rating relative to other states** (high 1 medium 1 low):

- **Equal opportunity in AZ is high.**

#### Adequacy gaps (%) by district poverty

- **Arizona**
  - Low/lowest poverty districts: -3.8%
  - High/highest poverty districts: -39.6%
  - Opportunity gap (8 minus A): -25.9 pts

- **U.S. average**
  - Low/lowest poverty districts: -27.0%
  - High/highest poverty districts: -30.8%
  - Opportunity gap (8 minus A): -36.9%

- AZ’s opportunity gap of -25.9 points is ranked #10 out of 48 (#1 most equal).
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, tools, and reports, are freely available to download at: schoolfinancedata.org. The following notes about the profile:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimated for prior years 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 errors, the sum of differences between the estimates on the front side may not equal that on the back side.

### 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common adequacy estimates across multiple states (via the NECM, see the “discrepancy relation of states’ NECM adequacy” section (e.g., percent in below adequate districts) requires use of the SFID’s District Cost Data (CDD); 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 (2021 estimates will be released in early 2024).

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities).** Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- **We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).**
- **Chronically below adequate districts** are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- **The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.**
- **The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 two highest- and two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded in which funding is uniformly adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii (due to it being a geographically isolated, single-district state), and for California in 2017 (due to data irregularities).**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**
- **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 two highest- and the two lowest-poverty quintiles).**
- **The bar 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 test outcomes adjusted as much as possible for the difference from the national average in standard deviations (vertical axis).**
- **The student outcome data are for 2019, the latest year in the Stanford Education Data Archive (some districts’ values are imputed).**
- **The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).**
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimated for prior years 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 errors, the sum of differences between the estimates on the front side may not equal that on the back side.**

### 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 API. GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-poverty 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state’s effort level as low, medium, or high by sorting states into three groups based on their effort levels (using terciles).**
- **The table in the right panel summarizes the center-panel graph, with a focus on effort trends between 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 groups using terciles.**
**ARVILLEAS** STATE SCHOOL FINANCE PROFILE

2020-21 SCHOOL YEAR

**Summary:** This 2020-21 profile of Arkansas’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Arkansas scores 32 out of 100, which ranks 35th 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).

Rating relative to other states (high I medium I low): AR is a **high effort state**.

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas effort</td>
<td>4.04%</td>
</tr>
<tr>
<td>U.S. average effort</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- AR spends 4.04 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.50 percentage points higher than the U.S. average of 3.53 percent (rank #11 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low): **Statewide adequacy in AR is low**.

<table>
<thead>
<tr>
<th>Percent underfunded (rank #1 = most adequate)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
<td>82.3% (#37)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts</td>
<td>49.2% (#40)</td>
</tr>
</tbody>
</table>

- The typical AR student’s district spends 34.3 pct. below adequate levels (rank #45).

**EQUAL OPPORTUNITY**

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

Rating relative to other states (high I medium I low): **Equal opportunity in AR is medium**.

- **AR’s opportunity gap of -35.8 points is ranked #20 out of 48 (#1=most equal).**

**CONTEXTUAL STATS**

<table>
<thead>
<tr>
<th></th>
<th>AR</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>20.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>86.4</td>
<td>84.6</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>71.0</td>
<td>45.3</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>490,800 (32)</td>
<td></td>
</tr>
</tbody>
</table>

**Fiscal effort trend, 2006-21**

- AR’s 2021 effort level is 0.36 ppt. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #34 in the nation.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>AR</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>0.23</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-21)</td>
<td>-0.60</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>-0.36</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- AR’s effort was lower than its 2006 level in 6 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 spending would have been $1.54 billion (4.8 percent) higher.
- AR is a relatively low capacity state, with a GSP per capita ranked #49 in the nation.

**Arkansas Average Funding Gap, 2011-21**

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>AR</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>0.19 s.d.</td>
<td>0.06 s.d.</td>
</tr>
<tr>
<td>2012</td>
<td>0.17 s.d.</td>
<td>0.06 s.d.</td>
</tr>
<tr>
<td>2013</td>
<td>0.22 s.d.</td>
<td>0.06 s.d.</td>
</tr>
<tr>
<td>2014</td>
<td>0.36 s.d.</td>
<td>0.06 s.d.</td>
</tr>
<tr>
<td>2015</td>
<td>0.43 s.d.</td>
<td>0.06 s.d.</td>
</tr>
<tr>
<td>2016</td>
<td>0.36 s.d.</td>
<td>0.06 s.d.</td>
</tr>
<tr>
<td>2017</td>
<td>0.36 s.d.</td>
<td>0.06 s.d.</td>
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<tr>
<td>2019</td>
<td>0.36 s.d.</td>
<td>0.06 s.d.</td>
</tr>
<tr>
<td>2020</td>
<td>0.36 s.d.</td>
<td>0.06 s.d.</td>
</tr>
<tr>
<td>2021</td>
<td>0.36 s.d.</td>
<td>0.06 s.d.</td>
</tr>
</tbody>
</table>

- AR’s adequacy gap was ranked #41 in 2011 (#1 = most adequate) and #45 in 2021.

**EO gaps by student outcome gaps**

AR’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).

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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, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- **The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimates for prior years 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, the total sum of the estimates may not equal the estimate on the front side.**
- **The 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. Each state is scored entirely relative to other states, 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 (30%);**
  2. **statewide (%) adequacy gap (30%);**
  3. **GSP-based fiscal effort (15%);**
  4. **equal opportunity gap (Q4/Q5 vs. Q1/Q2 difference in adequacy gap, in p. points) (10%).**

- **Net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.**

- **The scatterplot in the right panel presents, by district poverty quintile, adequacy estimates in the state.**

- **EO and fiscal effort estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (no EO or fiscal effort data are available for D.C.).**

- **Statewide adequacy and equal opportunity as we define them are independent concepts.**

- **Non-SID data sources** (“Contextual Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total student elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics. 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, tools, and reports, are freely available to download at 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state’s effort as low, medium, or high by comparing its effort level (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- **The table in the right panel summarizes the center (median) and spread (interquartile range) of the effort distribution.**
- **The plot in the right panel illustrates how median effort levels have changed over time.**

**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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing changes over time about the NECM, see the SID user’s guide noted above. Trends, however, vary by state and year combination in which 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels).

- **In order to provide a sense of state’s capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three 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 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 two highest- and the two lowest-poverty districts in each state. Our measure of equal opportunity is (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two levels. 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 adequately funded. This measure is useful for evaluating whether states that fund their schools fairly are also treating students equally as they increase funding, or if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **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).**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**
- **The scatterplot 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 two highest- and the two lowest-poverty quintiles). The horizontal axis is the difference between the national average in standard deviations (vertical axis). The student outcome data for are for 2019, for the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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 quintiles is presented in the first bullet, below the plot, and can be interpreted as a poverty-related student achievement gap in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.**
Summary: This 2020-21 profile of California’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), California scores 30 out of 100, which ranks 37th out of the 48 states with possible ratings.

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).

Rating relative to other states (high I medium I low):
- CA is a low effort state.

**California effort** 3.10%
- U.S. average effort 3.53%

- CA spends 3.10 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.43 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #38 of 50).

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):
- Statewide adequacy in CA is medium.

**Percent underfunded** (rank #1 = most adequate)
- Pct. of students in below adequate districts (rank of 49): 69.0% (#34)
- Pct. of students in chronically below adequate districts (rank): 22.0% (#32)

- The typical CA student’s district spends 14.3% below adequate levels (rank #32).

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

Rating relative to other states (high I medium I low):
- Equal opportunity in CA is high.

**ADEQUACY GAPS (%) BY DISTRICT POVERTY**
- CA’s opportunity gap of -32.8 points is ranked #14 out of 48 (#1=most equal).

Fiscal effort trend, 2006-21
- CA’s 2021 effort level is 0.54 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #41 in the nation.

Net change by period (% pts.)
- Period
- CA  U.S.
- K-12 recession (2006-12) -0.49 -0.13
- Post-recession (2012-21) -0.05 -0.06
- Full period (2006-21) -0.54 -0.19

- CA’s effort was lower than its 2006 level in 6 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 spending would have been $79.48 billion (14.6 percent) higher.
- CA is a relatively high capacity state, with a GSP per capita ranked #5 in the nation.

Equal opportunity gaps by student outcome gaps
- 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. 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 at www.schoolfinancedata.org. The following are some notes about the profiles:

- **The measures in this profile are interpreted relative**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimates for prior years 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, numbers may not add up exactly.**
- **The national center calculates the estimates on the front side of the profile.**
- **The 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pct. points) (10%).
- State rankings may reflect differences in unrounded scores.
- **DCID data sources (“Contextual Stats” table):** 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates, 3) percent of total (FY 2021) revenue from states sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total State Elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics.

### Statewide adequacy

#### SID variables used in this section: necm_predcost_state, necm_predcost_district, necm_ppcost_state, necm_ppcost_district, necm_foeq_student

**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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing conditions relative to the NECM, see the user’s guide on the NECM website.

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).**
- **We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- **“Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.**
- **The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.**
- **The trend graph in the right panel presents the average statewide funding gap (the percentage difference between actual and estimated adequate funding for the typical student)** normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.

### Equal opportunity

#### SID variables used in section: necm_predcost_q1-q5, necm_ppcost_q1-q5, necm_predcost_district, necm_ppcost_district, necm_foeq_district

**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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded. In our analysis, which focuses on district-level estimates, if high-poverty districts are more adequately funded than low-poverty districts, statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii and cannot be calculated for D.C. (single-government-run district state).**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (usings terciles).**
- **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 two highest- and the two average poverty districts).**
- **The bar graph presents the average estimated and adequate spending for the typical student in each state (Statewide achieved spending).**
- **The trend graph in the right panel presents the average state-level EO estimate for the typical student in each state (Statewide achieved spending),** normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.
**Summary:** This 2020-21 profile of Colorado’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Colorado scores 45 out of 100, which ranks 25th 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).

- **Rating relative to other states** (high l medium I low):
  - **CO is a low effort state.**

  **Fiscal effort summary**
  - **Colorado effort:** 3.11%
  - **U.S. average effort:** 3.53%

  - CO spends 3.11 percent of its economic capacity (gross state product) on its K-12 public schools.
  - This effort level is 0.43 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #37 of 50).

### Statewide Adequacy

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

- **Rating relative to other states** (high l medium I low):
  - **Statewide adequacy in CO is medium.**

  **Percent underfunded (rank #1 = most adequate)**
  - Pct. of students in below adequate districts (rank of 49): 36.0% (#21)
  - Pct. of students in chronically below adequate districts (rank): 18.1% (#28)

  - The typical CO student’s district spends 1.3 pct. below adequate levels (rank #23).

### Equal Opportunity

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

- **Rating relative to other states** (high l medium I low):
  - **Equal opportunity in CO is medium.**

  **ADEQUACY GAPS (%) BY DISTRICT POVERTY**
  - **22.3%** 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).
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, tools, and reports are freely available to download at: www.schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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, the sum of percents may exceed 100% on nominal calculations of 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q4S vs. Q12 difference in adequacy gap, in pct. points) (10%). 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 Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state and local enrollment (Fall 2020) from the Digest of 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 (API). GSP and API 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. We present SFID-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-capacity states with such strong economies, 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s realized effort levels and effort trends on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The table in the right panel summarizes the 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, 2005-09) 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing communities of opportunity, or closer observation about the NECM, see the SID user’s guide. Note that this gap compares different groups than the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels.

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s realized statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 other districts. In the SFID, we measure equal educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded; in which funding for high-poverty districts is relatively inadequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii, and cannot be calculated for D.C. (single government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 exclude only the two highest- and other quintiles). Note that the figures present groups of estimated gaps in different combinations of q1s and q5s. The state (bars) and U.S. (teal diamonds) in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
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).

- CT spends 3.61 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.07 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #23 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

- The typical CT student’s district spends 54.0 pctl. above adequate levels (rank #4).

**EQUAL OPPORTUNITY**

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

- CT’s opportunity gap of -167.8 points is ranked #48 out of 48 (#1 = most equal).
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 notes about the measures:

- **The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimates for prior years 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 error, the values presented and used in the calculations of the estimates on the front side of the SID database may be slightly different from the estimates in the back side of the database.**
- **The 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q12 difference in adequacy gap, in pct. points) (10%). 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 Stats" table):** 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates. 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total standardized elementary and secondary school enrollment (Fall 2020) from the Digest of 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state’s effort level relative to others (based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the precision inherent in comparing both funding and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing combing NECM state quality index scores with the SFID outcome and funding quality scores (this section, as well as in below adequate districts) require the use of the SFID’s State Database (CDD); 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 SID website (2021 estimates will be released in early 2024).

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- **Chronically below adequate**
  - districts with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
  - The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
  - The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this section, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially above adequately funded than other districts. In the SFID, we measure equal educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the "highest" and "poverty quintiles and a weighted average of the "lowest" and "low poverty" quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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, as long as high- and low-poverty districts are inadequate in the same manner (see below). The EO measure expresses the extent to which funding in low-poverty districts is more adequately funded than low-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii (states not included in the national sample), and cannot be calculated for D.C. (single-government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and low-poverty groups), and the arrows in different combinations of states and years. The different estimates in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 (vertical axis) as the difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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 marker). 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.

NOTES ON DATA AND MEASURES

State School Finance Profiles 2020-21 (publ. 2024)

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).

- **Rating relative to other states** (high I medium I low):
  - **DE is a low effort state.**

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Delaware effort</td>
<td>2.96%</td>
</tr>
<tr>
<td>U.S. average effort</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

  - DE spends 2.96 percent of its economic capacity (gross state product) on its K-12 public schools.
  - This effort level is 0.58 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #42 of 50).

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

- **Rating relative to other states** (high I medium I low):
  - **Statewide adequacy in DE is medium.**

<table>
<thead>
<tr>
<th>Percent underfunded (rank #1 = most adequate)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
<td>46.9% (#26)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
<td>8.8% (#19)</td>
</tr>
</tbody>
</table>

- The typical DE student’s district spends 1.0 pct. below adequate levels (rank #22).

### EQUAL OPPORTUNITY

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

- **Rating relative to other states** (high I medium I low):
  - **Equal opportunity in DE is medium.**

<table>
<thead>
<tr>
<th>ADEQUACY GAPS (%) BY DISTRICT POVERTY</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DEFU average (enr-weighted)</td>
<td>79%</td>
</tr>
<tr>
<td>Delaware</td>
<td>19.2%</td>
</tr>
<tr>
<td>U.S. average</td>
<td>21.6%</td>
</tr>
<tr>
<td>-17.2%</td>
<td>21%</td>
</tr>
<tr>
<td>-3%</td>
<td>50%</td>
</tr>
<tr>
<td>-26.5%</td>
<td>79%</td>
</tr>
</tbody>
</table>

  - DE’s opportunity gap of -35.3 points is ranked #18 out of 48 (#1=most equal).

---

**SCHOOL FINANCE PROFILE 2020-21**

*Summary: This 2020-21 profile of Delaware’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back). Delaware scores 48 out of 100, which ranks 22nd out of the 48 states with possible ratings.*
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.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 reporting constraints, the sum of estimates may differ from the on-ground calculations of 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. Each state is scored entirely relative to other states, 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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. We therefore use effort primarily as a means of comparing 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s degree of fiscal effort based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- 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.

### 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate spending levels and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common outcomes about the NECM, see the SID user’s guide. Trends, however, vary by state.

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The national and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student. The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, state’s net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 educational opportunity (OE) 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) among the two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that OE is conceptually independent of statewide adequacy—e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit OE, so long as high- and low-poverty districts are adequately funded in which funding is generally adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii, and cannot be calculated for D.C. (single government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty districts) (using within-year standard deviations of grade 12 student test performance in math and reading). Each graph shows how each group of districts (e.g., low-poverty districts) differs from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.

NOTES ON DATA AND MEASURES

State School Finance Profiles 2020-21 (publ. 2024)

[www.schoolfinancedata.org](http://www.schoolfinancedata.org)
**Summary:** This 2020-21 profile of District of Columbia's public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. We cannot calculate an overall state score for the District of Columbia, as data are not available for one or more of the measures we use in calculating those overall scores (see below).

**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).

Rating relative to other states (high | medium | low):
Effort in D.C. in any given year should not be compared with that in other states.

- **District of Columbia effort**: 2.23%
- **U.S. average effort**: 3.53%

- DC spends 2.23 percent of its economic capacity (gross state product) on its K-12 public schools.

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high | medium | low):
Statewide adequacy in DC is low.

- **Pct. of students in below adequate districts**: 100.0% (#49)
- **Pct. of students in chronically below adequate districts**: 0.0% (#1)

- The typical DC student’s district spends 16.7 pct. below adequate levels (rank #35).

**EQUAL OPPORTUNITY**

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

An equal opportunity gap cannot be calculated for D.C., as it consists of a single government-run school district.

**Fiscal effort trend, 2006-21**

- DC’s 2021 effort level is 0.62 pct. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #3 in the nation.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>DC</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession</td>
<td>0.37</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession</td>
<td>0.25</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period</td>
<td>0.62</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- DC’s effort was lower than its 2006 level in 0 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-2021 spending would have been $0.00 billion (0.0 percent) higher.
- DC is a relatively high capacity state, with a GSP per capita ranked #1 in the nation.
Fiscal effort

Fiscal efforts indicate 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 (API). GSP and API are measures of a state's economic capacity. In this sense, efforts measure how much each state contributes as a percentage of how much it might contribute. We present GSP-based efforts in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SFID. Bear in mind that high-capacity states, 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 effort primary 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state's effort level as low, medium, or high by sorting states into three groups based on their spending levels each state would have to spend (weighted by enrollment) to meet the corresponding level's adequate funding estimate.
- The trend graph in the right panel presents the average statewide funding gap (the 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. Given the precision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when making comparisons within and between states.

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate spending levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the precision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when making comparisons within and between states.

- The trend graph in the right panel presents the average statewide funding gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, "statewide net changes between 2011 and 2021") is calculated as the difference between the 2011 and 2021 funding gaps (weighted by enrollment), divided by the population at the midpoint of the two years.
- 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 spending each state would have had to spend to achieve the level of spending that each state would have had that state returned to its own 2006 effort level by 2016 (with 2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 groups using terciles.

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further away from 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the "highest" and "low" poverty quintiles and a weighted average of the "lowest" and "low" poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 in the same proportion. Although high-poverty districts are generally considered to be inadequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii, and cannot be calculated for D.C. (single government-run district state).
- We characterize each state's degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty districts). The graphs in the panel present hypothetical trends from the data that would result if the distribution of funding remained constant while the composition of districts changed. The potential magnitude of the differences is shown by the range of possible outcomes, which is defined by the current distribution of poverty levels. The graph shows the potential magnitude of the differences between actual and estimated adequate spending (weighted by enrollment), divided by poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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) and the percent of students in each district who are estimated to achieve the level of spending that the district would have had if it returned to its own 2006 effort level by 2016 (using the NECM to estimate student outcomes in each quintile), which is how funding would have been allocated in 2016. The student outcome data are for 2019, the latest data available at the SFID website (2021).
**STATE SCHOOL FINANCE PROFILE 2020-21 SCHOOL YEAR**

**FLORIDA**

**Summary:** This 2020-21 profile of Florida’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Florida scores 12 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).

Rating relative to other states (high I medium I low): FL is a low effort state.

- FL spends 2.78 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.75 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #45 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual-per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low): Statewide adequacy in FL is low.

- The typical FL student’s district spends 28.1 pct. below adequate levels (rank #40).

**EQUAL OPPORTUNITY**

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

Rating relative to other states (high I medium I low): Equal opportunity in FL is high.

- FL’s opportunity gap of -13.3 points is ranked #1 out of 48 (#1=most equal).

**CONTINUOUS STATS**

- Child (5-17yo) poverty rate (%): 17.5 FL, 16.1 U.S.
- Public school coverage (%): 82.2 FL, 84.6 U.S.
- Percent revenue from state sources: 36.7 FL, 45.3 U.S.
- Total enrollment (U.S. rank): 2,860,600 (3)

**Fiscal effort trend, 2006-21**

- FL’s 2021 effort level is 0.79 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #49 in the nation.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>FL</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.34</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-21)</td>
<td>-0.45</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>-0.79</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- FL’s effort was lower than its 2006 level in 6 of 7 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 spending would have been $44.89 billion (24.9 percent) higher.
- FL is a relatively low capacity state, with a GSP per capita ranked #37 in the nation.

**Fiscal effort summary**

- Florida effort: 2.78%
- U.S. average effort: 3.53%

**PERCENT BELOW ADEQUATE COMPARISONS**

Pct. of students in below adequate districts:

- Florida: 95.1% (#46)
- Region avg.: 94.1% (#33)
- U.S. average: 92.1% (#21)
- Pct. of students in chronically below adequate districts:
  - Florida: 50.7% (#41)
  - Region avg.: 49.7% (#39)
  - U.S. average: 48.1% (#22)

- The typical FL student’s district spends 28.1 pct. below adequate levels (rank #40).

**EO gaps by student 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).

**STATEWIDE ADEQUACY TREND, 2006-21**

- U.S. average:
- Florida:

**ADEQUACY GAPS (%) BY DISTRICT POVERTY**

- A. Low/lowest poverty districts: -24.3%
- B. High/highest poverty districts: -37.6%
- C. Opportunity gap (B minus A): -13.3 pts

- FL’s opportunity gap of -13.3 points is ranked #1 out of 48 (#1=most equal).

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 as other SFID datasets, tables and reports are freely available to download at schoolfinancedata.org. The following is a summary of notes about the profiles.

- **The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimates for prior years 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 minor differences may arise between the estimates on the front side and the text, and some calculated numbers may be less than 0% or greater than 100% due to the arbitrary cutoff of 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q4/Q5 vs. Q1/Q2 difference in adequacy gap, in p. points) (10%). 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 Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state per capita elementary and secondary school enrollment (Fall 2020) from the Digest of 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SFID. 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 still produce the same funding. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state’s fiscal effort based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- **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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing outcomes with NECM information about the NECM, see the list of school districts with above adequate funding levels (this section, e.g., percent in below adequate districts) require the use of the SFID’s State Database (CDD); all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full NECM database (going back to 2009) is also publicly available at the SID website (2021 estimates will be released in early 2024).

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).**
- **We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent below adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).**
- **“Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.**
- **The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.**
- **The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this section, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axes ranges for this graph are expanded in a handful of 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded at the same time. If functional differences are not adequately, high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii (can be calculated for D.C. (single government-run district state).**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**
- **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 two highest- and the two lowest-poverty districts). Above adequate spending levels are indicated in the graph by average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 (measured as the difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some district’s values are imputed). The other markers (hollow circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clearer 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. Note that this gap compares different groups than does our opportunity gap measure. Axes ranges for this graph are expanded in a handful of states.**
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).

GA is a medium effort state. GA spends 3.48 percent of its economic capacity (gross state product) on its K-12 public schools.

This effort level is 0.06 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #30 of 50).

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

The typical GA student’s district spends 35.9 pct. below adequate levels (rank #46).

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

GA’s opportunity gap of -33.3 points is ranked #15 out of 48 (#1=most equal).
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: www.schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 measures might not add to 100%
- The weighted average of the two highest values is used for statewide adequacy.

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 three ways: 1) the proportion of students in each state in districts with above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q12 difference in adequacy gap, in pctl. points) (10%). State rankings may reflect differences in unrounded scores. For each state/year combination in which 2016-2018 exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-2018 funding would have been lower under states’ 2006 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 difference between actual and estimated adequate spending) between the two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded in the same relative proportions. Districts function as groups in which funding is normally adequately, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

EO estimates are not available for Vermont and Hawaii (states where no estimate can be calculated for D.C. (using state only scores)), and can be interpreted as a poverty-based student achievement gap in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.

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).

- **HI** is a low effort state.

#### Fiscal effort summary

<table>
<thead>
<tr>
<th></th>
<th>HI</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hawaii</td>
<td>2.66%</td>
<td></td>
</tr>
<tr>
<td>U.S.</td>
<td>3.53%</td>
<td></td>
</tr>
</tbody>
</table>

- HI spends 2.66 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.88 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #48 of 50).

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

We do not publish statewide adequacy estimates for Hawaii, as the state consists of a single geographically isolated government-run school district.

### Equal Opportunity

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

Equal opportunity cannot be calculated for Hawaii, as the state consists of a single geographically isolated government-run school district.

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**Contextual Stats**

<table>
<thead>
<tr>
<th></th>
<th>HI</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>12.4</td>
<td>16.1</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>75.5</td>
<td>84.6</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>88.0</td>
<td>45.3</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>171,800 (40)</td>
<td></td>
</tr>
</tbody>
</table>
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Due to rounding, differences in the number of states are sometimes apparent 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pctl. points) (10%). State rankings may reflect differences in unrounded scores.

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Fiscal effort

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• U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-21 due to data irregularities), so as to keep a consistent set of states across years.

• We characterize each state’s effort level as low, medium, or high by sorting states into three groups using these average z-scores (terciles).

• The table in the right panel summarizes 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common estimates across all states, rather than common estimates from a single panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axes ranges for this graph are expanded in a handful of states.

Equitable opportunity

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The chart in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized with each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axes ranges for this graph are expanded in a handful of states.

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**STATE SCHOOL FINANCE PROFILE**

**2020-21 SCHOOL YEAR**

**IDAHO**

**Summary:** This 2020-21 profile of Idaho's public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Idaho scores 20 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).

Rating relative to other states (high I medium I low): **ID is a low effort state.**

**Fiscal effort summary**

<table>
<thead>
<tr>
<th>Idaho effort</th>
<th>U.S. average effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.93%</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- ID spends 2.93 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.60 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #43 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low): **Statewide adequacy in ID is low.**

**Percent underfunded (rank #1 = most adequate)**

<table>
<thead>
<tr>
<th>Pct. of students in below adequate districts (rank of 49)</th>
<th>85.3% (#40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
<td>10.8% (#21)</td>
</tr>
</tbody>
</table>

- The typical ID student’s district spends 14.3 pct. below adequate levels (rank #31).

**EQUAL OPPORTUNITY**

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

Rating relative to other states (high I medium I low): **Equal opportunity in ID is high.**

**ADEQUACY GAPS (%) BY DISTRICT POVERTY**

| Average (non-weighted) funding gaps by poverty (Red=below adequate | Green=above adequate) |
|---------------------------------------------------------------|
| A. Low/lowest poverty districts | -7.5% |
| B. High/highest poverty districts | -30.5% |
| C. Opportunity gap (B minus A) | -23.0 pts |

- ID's opportunity gap of -23.0 points is ranked #5 out of 48 (#1=most equal).

**Fiscal effort trend, 2006-21**

- ID's 2021 effort level is 0.77 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #47 in the nation.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>ID</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.49</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-21)</td>
<td>-0.28</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>-0.77</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- ID’s effort was lower than its 2006 level in 6 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 spending would have been $2.87 billion (19.9% percent) higher.
- ID is a relatively low capacity state, with a GSP per capita ranked #48 in the nation.

**Statewide adequacy trend, 2011-21**

- Spending in ID was more adequate in 2021 compared with 2011, with a net change (in standard deviations) of 0.116 s.d.

**IDaho AVERAGE FUNDING GAP, 2011-21**

Normalized (expressed in s.d.) within years (U.S. average)

- ID’s adequacy gap was ranked #31 in 2011 (#1 = most adequate) and #31 in 2021.

**EO gaps by student outcome gaps**

- 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).

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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 Albright 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 SFID3 datasets, tools and reports are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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, the sum of component measures may not always equal the total measure.
- 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q4/Q5 vs. Q1/Q2 difference in adequacy gap, in pct. points) (10%). State rankings may reflect differences in unrounded scores.
- D.C., Hawaii, and Vermont are not assigned scores, as one of the measures that constitute the scores cannot be calculated for these states.
- Non-SFID data sources ("Contextual Stats" table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics (Edu.), 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 (API). GSP and API are measures of a state's economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- A state's effort level is measured based on its effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- 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 had between 2016 and 2021 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 2016-21 effort exceeded the state's 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the impression inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing conditions in a given state from one year to another using the NECM, see the SID user's guide (http://www.schoolfinancedata.org). Note that this gap compares different groups in this section (e.g., percent in below adequate districts) require the use of the SID's District Cost Database (DCD); 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 (2021 estimates will be released in early 2024).

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state's statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- "Chronically below adequate" districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequacy funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states' net changes between 2011 and 2021 are characterized as "substantial" if the absolute change exceeds 0.3 s.d., "modest" if the absolute change is between 0.05 and 0.3 s.d., and "no more or less adequate" if the absolute change does not exceed 0.05 s.d. Axes ranges for this graph are expanded in a handful of 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the "highest" and "poverty" quintiles and a weighted average of the "lowest" and "low" poverty quintiles). Each state's "opportunity gap" is the difference (in percentage points) between these two groups. 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 adequately funded. The adequacy gap (difference between actual funding and adequate funding for the typical student) measured within each state is also calculated based on the NECM, see the user's guide (http://www.schoolfinancedata.org). Note that this gap compares different groups in which funding is already adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii, and cannot be calculated for D.C. (single government-run district state).
- We characterize each state's degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and two lowest-poverty groups in each state). The graph illustrates different combinations of EO. The state (bars) and U.S. (teal diamonds) in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and the U.S. averages (teal 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 outcome achievement gap expressed as the difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts' values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axes ranges for this graph are expanded in a handful of states.
**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).

**Rating relative to other states** (high l medium l low):
- **IL is a medium effort state.**

**Fiscal effort summary**
- Illinois effort: 3.39%
- U.S. average effort: 3.53%

- IL spends 3.39 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.14 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #32 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states** (high l medium l low):
- **Statewide adequacy in IL is medium.**

**Percent underfunded** (rank #1 = most adequate)
- Pct. of students in below adequate districts (rank of 49): 44.9% (#25)
- Pct. of students in chronically below adequate districts: 8.7% (#18)

- The typical IL student’s district spends 8.6 pct. above adequate levels (rank #16).

**EQUAL OPPORTUNITY**

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

**Rating relative to other states** (high l medium l low):
- **Equal opportunity in IL is low.**

**ADEQUACY GAPS (%) BY DISTRICT POVERTY**

- IL’s opportunity gap of -102.4 points is ranked #42 out of 48 (#1=most equal).
NOTES ON DATA AND MEASURES
State School Finance Profiles 2020-21 (publ. 2024)

General

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- Due to rounding differences, the sum of the components of 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%)( adequacy gap (50%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pcts. points) (10%). State rankings may reflect differences in unrounded scores.
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- Non-SFID data sources (‘Contextual Stats’ table): 1) Child (5-17 year old) poverty from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total student elementary and secondary school enrollment (Fall 2020) from the Digest of 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state/year combination as having “adequate effort” (using the SFID’s District Cost Database (DCD); all SID adequacy measures (all of which have variable name beginning with necm_...)) aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2021 estimates will be released in early 2024).

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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 outputs and costs factors such as regional wage variation, district size, and student characteristics. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common outcomes about the NECM, see the SID’s user’s guide dated 10/1/2019. Trends, however, vary by state.”

- We characterize each state’s degree of equal opportunity as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each state/year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time.
- In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 the student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
**STATE SCHOOL FINANCE PROFILE**

2020-21 SCHOOL YEAR

**INDIANA**

**Summary:** This 2020-21 profile of Indiana’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Indiana scores 35 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).

**Rating relative to other states** (high I medium I low):

**IN is a low effort state.**

**Fiscal effort summary**

- Indiana effort: 3.07%
- U.S. average effort: 3.53%

- IN spends 3.07 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.46 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #39 of 50).

### STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states** (high I medium I low):

**Statewide adequacy in IN is medium.**

- The typical IN student’s district spends 11.0 pct. below adequate levels (rank #30).

### EQUAL OPPORTUNITY

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

**Rating relative to other states** (high I medium I low):

**Equal opportunity in IN is medium.**

- IN’s opportunity gap of -49.5 points is ranked #29 out of 48 (#1=most equal).

### EO gaps by student outcome gaps

- IN’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.74 s.d. below its lowest-poverty districts (blue dot).

**C. Opportunity gap (8 minus A) -49.5 pts**

**A. Low/lowest poverty districts 21.1 %**

**B. High/highest poverty districts -28.3 %**

**Average (enr-weighted) funding gaps by poverty (Red)=below adequate | Green=able adequate)**

- IN’s opportunity gap of -49.5 points is ranked #29 out of 48 (#1=most equal).
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Fiscal effort

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• U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-21 due to data irregularities), so as to keep a consistent set of states across years.

• We characterize each state’s degree of effort as low, medium, or high based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.

• 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing comparable states. Each state’s NECM data is provided in a different file format. Therefore, we provide a very simple summary of states’ combined “performance” on the three core indicators. Each state is scored entirely relative to other states, and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).

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The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.

The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student normalized within each year converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axes ranges for this graph are expanded in a handful of 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded in terms of funding gaps (within year converted to standard deviations). In this sense, districts are adequately funded if high-poverty districts are more adequately funded than low-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

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

We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).

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 two highest- and the two lowest-poverty groups). The bars (top) represent the average funding gap for the two highest-poverty groups for each state and the two lowest-poverty groups for each state. The graph shows the average difference between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal diamonds) represent an approximation of the national situation. Axes 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 total out-of-pocket spending as a percentage of the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axes ranges for this graph are expanded in a handful of states.
**Summary:** This 2020-21 profile of Iowa’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see below), Iowa scores 64 out of 100, which ranks 17th 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).

**Rating relative to other states (high I medium I low):**

- **IA is a medium effort state.**

**Fiscal effort summary**

- Iowa effort: 3.61%
- U.S. average effort: 3.53%

- IA spends 3.61 percent of its economic capacity (gross state product) on its K-12 public schools.

- This effort level is 0.07 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #24 of 50).

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states (high I medium I low):**

- **Statewide adequacy in IA is medium.**

**Percent underfunded (rank #1 = most adequate)**

- Pct. of students in below adequate districts (rank of 49): 31.0% (#17)
- Pct. of students in chronically below adequate districts: 14.3% (#24)

- The typical IA student’s district spends 2.5 percentage points below adequate levels (rank #21).

### Equal Opportunity

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

**Rating relative to other states (high I medium I low):**

- **Equal opportunity in IA is medium.**

**Adequacy Gaps (%) by District Poverty**

- **IA’s opportunity gap of -50.3 points is ranked #30 out of 48 (#1 = most equal).**
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, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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, the sum of the three measures presented in the state profile may not equal 100%.
- 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. Each state is scored entirely relative to other states, 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 above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q4S vs. Q12 difference in adequacy gap, in pcts. points) (10%). 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 Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics, published by the National Center for Education Statistics.

**Fiscal effort**

Financial 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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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 still produce the same funding. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s statewide adequacy effort based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The trend graph in the right panel summarizes the trend 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels).
- In order to provide a sense of state capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common trends over time. Bear in mind about the NECM, see the SID user’s guide. The starting point for assessing states’ reinvestment (or lack thereof) is 2006. Trends, however, vary by state. 

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted (i.e., they represent adequacy in the typical state, not the typical student). The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding required for the typical student) normalized with each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above adequate spending levels than are other districts. In the SFID, we measure equal educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded in the same way. National standards of relatively high adequacy, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (state School Finance Profiles 2021) and cannot be calculated for D.C. (single government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty quintiles). As a result, given different combinations of qts and the state (bars) and U.S. (teal diamonds) estimates in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 outcome (vertical axis). As a result, each point represents the difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.

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**NOTES ON DATA AND MEASURES**

State School Finance Profiles 2020-21 (publ. 2024)
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).

Rating relative to other states (high I medium I low):
- Kansas is a high effort state.

Fiscal effort summary
- 2020-21 Kansas effort: 4.06%
- U.S. average effort: 3.53%

- KS spends 4.06 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.52 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #10 of 50).

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):
- Statewide adequacy in KS is medium.

PERCENT BELOW ADEQUATE COMPARISONS
- The typical KS student's district spends 4.9 pct. above adequate levels (rank #19).

Equal opportunity compares adequacy between states' higher- and lower-poverty districts. The graph to the right presents adequate funding gaps (as a %) by district poverty quintile (the teal diamonds are U.S. averages). The difference (in pct. points) between the (weighted) average gap of the two lowest-poverty and the two highest-poverty groups is a state’s “opportunity gap.”

Rating relative to other states (high I medium I low):
- Equal opportunity in KS is low.

- KS’s opportunity gap of -5.77 points is ranked #33 out of 48 (#1=most equal).
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, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—i.e., by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021-2022).
- The years 2011 and 2021 present data for the typical student in each state. All these estimates are scored entirely relative to other states, and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
- DCD refers to the School District Finance Indicators Dataset (SID) going back to 2009. The full DCD dataset, which includes state and local school finance and resource allocation indicators published annually by the U.S. Census Bureau for each state (N=50) and for Vermont (N=1), is also presented for each state, based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The table in the right panel summarizes the trend 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.
- The scatterplot in the right panel presents, by district poverty quintile, adequacy differences in unrounded scores. Some of the estimates presented in this section (e.g., percent in below adequate spending levels) are aggregates of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2021 estimates will be released in early 2024).

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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-poverty states with strong 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s degree of fiscal effort based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The table in the right panel summarizes the trend 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.

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest average outcome goal (average test scores), our adequacy estimates are most appropriate when comparing combinations of districts with similar characteristics. For example, within any given state, the NECM user’s guide suggests that the most appropriate comparisons might be between districts within the same poverty quintile or between districts within the same urbanicity category.

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s degree of fiscal effort based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The trend graph in the right panel presents the average statewide funding gap (the percentage difference between actual and estimated adequacy funding) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest average outcome goal (average test scores), our adequacy estimates are most appropriate when comparing combinations of districts with similar characteristics. For example, within any given state, the NECM user’s guide suggests that the most appropriate comparisons might be between districts within the same poverty quintile or between districts within the same urbanicity category.

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above/below adequate spending levels than any other districts. In the SFID, we measure equal educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that EO is conceptually independent of statewide adequacy—i.e., a hypothetical state in which all districts are below adequate spending levels might still exhibit EO, so long as funding is distributed in a more equitable manner. High-poverty districts are inadequately funded in this state, but if high-poverty districts are funded more adequately than lower-poverty districts, statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (due to it being a geographically isolated, single-district state), and cannot be calculated for D.C. (single government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles). 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 two highest- and the two lowest-poverty district groups), as well as their group means and standard deviations. In addition, different estimates in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal diamonds) represent an approximation of the national situation. Axes ranges for this graph vary by state across states.
- The scatterplot in the right panel presents, by district poverty quintile, adequacy difference between actual and estimated adequate spending expressed in dollars per pupil (horizontal axis) by average student test outcomes (vertical axis) as difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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) estimates is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
**Summary:** This 2020-21 profile of Kentucky’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Kentucky scores 43 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).

**Rating relative to other states** (high I medium I low):

**KY is a medium effort state.**

#### Fiscal effort summary

<table>
<thead>
<tr>
<th>Kentucky effort</th>
<th>U.S. average effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.48%</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- KY spends 3.48 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.06 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #29 of 50).

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states** (high I medium I low):

**Statewide adequacy in KY is medium.**

#### Percent underfunded

- Pct. of students in below adequate districts (rank of 49) 57.2% (#32)
- Pct. of students in chronically below adequate districts (rank) 11.0% (#22)

- The typical KY student’s district spends 6.7 pct. below adequate levels (rank #26).

### EQUAL OPPORTUNITY

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

**Rating relative to other states** (high I medium I low):

**Equal opportunity in KY is medium.**

#### Adequacy gaps (% by district poverty

<table>
<thead>
<tr>
<th>Ky’s opportunity gap</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.8%</td>
<td>-2.0%</td>
</tr>
<tr>
<td>-13.1%</td>
<td>-21.1%</td>
</tr>
<tr>
<td>-35.4%</td>
<td>-30.0%</td>
</tr>
</tbody>
</table>

- KY’s opportunity gap of -34.9 points is ranked #17 out of 48 (#1=most equal).
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, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles.

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 in the presentation of 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4/S vs. Q1/Q2 difference in adequacy gap, in pct. points) (10%). 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 Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics; 5) teacher per 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when drawing comparisons within a state. In addition to the NECM, see the SID user’s guide, among other sources.

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—thei, they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequacy funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.

Equitable opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or belowadequate spending levels than are other districts. In the SFID, we measure equal educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.

- EO estimates are not available for Vermont and Hawaii (2021). These states are not included in 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when drawing comparisons within a state. In addition to the NECM, see the SID user’s guide, among other sources.
- EO estimates will be released in early 2023.
- Equity measures in the context of the NECM: the hypothetical average for a state (bars) and the estimated average (teal diamonds) in the plot are other states’ district poverty groups (color coded in the legend).
- 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 student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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-bound student achievement gap in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
Summary: This 2020-21 profile of Louisiana's public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Louisiana scores 26 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).

Rating relative to other states (high I medium I low):

**LA is a medium effort state.**

Fiscal effort summary

<table>
<thead>
<tr>
<th></th>
<th>Louisiana effort</th>
<th>U.S. average effort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.61%</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- LA spends 3.61 percent of its economic capacity (gross state product) on its K-12 public schools.

- This effort level is 0.08 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #22 of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):

**Statewide adequacy in LA is low.**

Percent underfunded (rank #1 = most adequate)

- Pct. of students in below adequate districts (rank of 49) 83.7% (#38)
- Pct. of students in chronically below adequate districts (rank) 56.7% (#44)

- The typical LA student’s district spends 32.0 pct. below adequate levels (rank #43).

EQUAL OPPORTUNITY

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

Rating relative to other states (high I medium I low):

**Equal opportunity in LA is high.**

Adequacy gaps (%) by district poverty

- LA’s opportunity gap of -34.5 points is ranked #16 out of 48 (#1=most equal).

LA’S 2021 EFFORT LEVEL IS 0.71 PCT. POINTS HIGHER THAN IT WAS PRE-RECESSION (2006).

- This net change in effort between 2006 and 2021 is ranked #2 in the nation.

- LA’s effort was lower than its 2006 level in 0 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-2021 spending would have been $0.00 billion (0.0 percent) higher.

- LA is a relatively low capacity state, with a GSP per capita ranked #41 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 notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020–21).
- Estimates for prior years 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, differences in the sum of component estimates of the measures on the front side.
- The total number of states assigned rankings varies slightly, 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. Each state is scored entirely relative to other states, 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 averaged 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 (30%); 2) statewide (%) adequacy goal (30%); 3) GPB-rated fiscal effort (15%); and 4) equal opportunity gap (Q5/Q1 difference in adequacy gap, in p. points) (10%). State rankings may reflect differences in unrounded scores.

**Statewide adequacy**

Adaptability 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate allocations; and 2) the proportion of students in chronically below adequacy districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (acceptable level of educational outcomes). Our estimates present in this section (e.g., percent in below adequacy districts) require use of the SFID’s District Cost Database (DCD); 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 SID website (2021 estimates will be released in early 2024).

- **Statewide adequacy estimates are available for Hawaii in all years (due to its being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities).** Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- **We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).**
- **Chronically below adequacy districts** are those with funding gaps (percent difference between actual and adequate funding) among the 20 largest percent in the nation.

- **The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.**
- **The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequacy funding for the typical student normalized within each year (converted to standard deviations (vertical axis)). The student outcome data are for 2019, for the latest data from the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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 (G5) 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. Note that this gap compares different groups than does our opportunity gap measure. Axes ranges for this graph are expanded in a handful of 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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-capacity states have many, more expensive, 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. We therefore use effort primarily 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state’s effort level as low, medium, or high by sorting states into three groups based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**

- **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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 groups using terciles.**
### MAINE

**Summary:** This 2020-21 profile of Maine’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back). Maine scores 85 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).

- **Rating relative to other states** (high I medium I low): ME is a high effort state.

  **Fiscal effort summary**
  - Maine effort: 4.21%
  - U.S. average effort: 3.53%

- ME spends 4.21 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.68 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #6 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

- **Rating relative to other states** (high I medium I low): Statewide adequacy in ME is high.

  **Percent underfunded**
  - Pct. of students in below adequate districts (rank of 49): 6.3% (#3)
  - Pct. of students in chronically below adequate districts (rank): 4.4% (#10)

- The typical ME student’s district spends 47.6 pct. above adequate levels (rank #6).

**EQUAL OPPORTUNITY**

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

- **Rating relative to other states** (high I medium I low): Equal opportunity in ME is low.

  **Adequacy gaps (%) by district poverty**
  - ME’s opportunity gap of -93.2 points is ranked #41 out of 48 (#1=most equal).

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**Fiscal effort trend, 2006-21**

- ME’s 2021 effort level is 0.20 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #22 in the nation.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>ME</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.03</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-21)</td>
<td>-0.17</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>-0.20</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- ME’s effort was lower than its 2006 level in 6 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 spending would have been $0.96 billion (5.8 percent) higher.
- ME is a relatively low capacity state, with a GSP per capita ranked #40 in the nation.

**Statewide adequacy trend, 2011-21**

- Spending in ME was more adequate in 2021 compared with 2011, with a net change (in standard deviations) of 0.194 s.d.

- ME’s adequacy gap was ranked #6 in 2011 (#1 = most adequate) and #6 in 2021.

**EO gaps by student outcome gaps**

- ME’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 Dataset (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 notes about the profiles.

### 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 Dataset (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 notes about the profiles.

- **The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimates for prior years may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated with data.**
- **Due to rounding, sum of components may not equal total**—the numerical calculations are for the front side of the profile.
- **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. Each state is scored entirely relative to other states, 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 averaged 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pct. points) (10%). 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-SID data sources** (“Contextual Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SIF documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from states sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) from the Digest of 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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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 still produce the same funding. We therefore use effort primarily as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

- US. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize effort in each state as high, medium, or low, which is based on their opportunity gaps (difference between actual and required 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. Given the pre-imposition inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing contemporaneous data about the NECM, see the SID user’s guide for a description of how this section (e.g., percent in below adequate districts) require the use of SFID’s State District Cost Database (DDC); all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCC estimates. The full DCC dataset (going back to 2009) is also publicly available at the SFID website (2021 estimates will be released in early 2024).

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).**
- **We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).**
- **Chronically below adequate districts** are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- **The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.**
- **The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequacy funding for the typical student)** normalized within each year (converted to standard deviations). Thus the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axes ranges for this graph are expanded in a handful of states.

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above adequate spending levels than are other districts. In the SFID, we measure equal educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that this gap 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 independently funded at a level at which combined funding is equal to the state’s overall equalization goal, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii and cannot be calculated for D.C. (single-government-run district state).**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**
- **The State profile 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 two highest- and the two lowest-poverty quintile groups due to space constraints).** Different estimates in the graph are averages between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal diamonds) represent an approximation of the national situation. Axes 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, as measured as the difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axes ranges for this graph are expanded in a handful of states.

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**NOTES ON DATA AND MEASURES**

State School Finance Profiles 2020-21 (publ. 2024)
**MARYLAND**

**Summary:** This 2020-21 profile of Maryland’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Maryland scores 47 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).

Ratings relative to other states (high I medium I low):  
**MD is a medium effort state.**

#### Fiscal effort summary

- **Maryland effort**: 3.57%  
- **U.S. average effort**: 3.53%

- MD spends 3.57 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.04 percentage points higher than the unweighted U.S. average of 3.53 percent (rank 25 of 50).

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Ratings relative to other states (high I medium I low):  
**Statewide adequacy in MD is medium.**

#### Percent underfunded (rank #1 = most adequate)

- Pct. of students in below adequate districts (rank of 49): 40.4% (#23)  
- Pct. of students in chronically below adequate districts: 23.8% (#35)

- The typical MD student’s district spends 10.1 pct. below adequate levels (rank #28).

### EQUAL OPPORTUNITY

**Equal opportunity** compares adequacy between states’ higher- and lower-poverty districts. The graph to the right presents adequate funding gaps (as a %) by district poverty quintile (the teal diamonds are U.S. averages). The difference (in pct. points) between the (weighted) average gap of the two lowest-poverty and the two highest-poverty groups is a state’s “outcome gap.”

Ratings relative to other states (high I medium I low):  
**Equal opportunity in MD is low.**

#### ADEQUACY GAPS (%) BY DISTRICT POVERTY

- **MD’s opportunity gap** of -71.3 points is ranked #37 out of 48 (#1 = most equal).
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 SFID3 datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

**The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).

**The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**

**Estimates for prior years may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated with data.**

**Due to rounding or differences between the two methods of calculating 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. Each state is scored entirely relative to other states, 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 (30%); 2. statewide (%) adequacy gap (30%); 3. GSP-based fiscal effort (15%); 4. personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pct. points) (10%). 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 Stats table):* 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from states sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total weighted elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics.

**NOTES ON DATA AND MEASURES**

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we are measuring average outcomes (at the state level), our adequacy estimates are most appropriate when comparing outcomes over time and within states, and should not be interpreted as a measure of the adequacy of funding in any particular state (using the NECM, see the SID user’s guide for explanations). Trends, however, vary by state and year.

**Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).

**We characterize each state’s level of statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).

**Chronically below adequate districts** are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.

**The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted (i.e., they represent adequacy in the typical state, not the typical student).**

**The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student, normalized with each year (converted to standard deviations) such that the average is zero.**

**Equally opposed changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.

**Equal opportunity**

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the "highest" and "high" poverty quintiles and a weighted average of the "lowest" and "low" poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded at the same high or low-poorly funded are inadequately funded at the same rate. In other words, if high-poverty districts are more adequately funded than low-poverty districts, Statewide adequacy and equal opportunity as we define them are independent concepts.

**EO estimates are not available for Vermont and Hawaii in all years due to the SFID being a geographically isolated, single-district state, and cannot be calculated for D.C. (single government-run district state).**

**We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**

**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 two highest- and low-povery quintiles). The horizontal axis groups states based on different combinations of gini. The state (bars) and U.S. (teal diamonds) are indicated by vertical axis. The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts' values are imputed). The other markers (hollow 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 quintile is estimated in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
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).

Rating relative to other states (high I medium I low):

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts effort</td>
</tr>
<tr>
<td>U.S. average effort</td>
</tr>
</tbody>
</table>

- MA spends 3.18 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.36 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #35 of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):

<table>
<thead>
<tr>
<th>Percent underfunded (rank #1 = most adequate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts</td>
</tr>
</tbody>
</table>

- The typical MA student’s district spends 39.4 pct. above adequate levels (rank #7).

EQUAL OPPORTUNITY

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

Rating relative to other states (high I medium I low):

<table>
<thead>
<tr>
<th>Adequacy gaps (%) by district poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Low/lowest poverty districts</td>
</tr>
<tr>
<td>B. High/highest poverty districts</td>
</tr>
<tr>
<td>C. Opportunity gap (B minus A)</td>
</tr>
</tbody>
</table>

- MA’s opportunity gap of -135.6 points is ranked #46 out of 48 (#1=most equal).
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 www.schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 refers to the 2020-21 academic year).
- Estimates for prior years 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, differences in the sum of component indicators of 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. Each state is scored entirely relative to other states, 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 above adequate funding (30%); 2) statewide (%) adequacy estimates (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q12 difference in adequacy gap, in pcts. points) (10%). 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 (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state expenditure in elementary and secondary school enrollment (Fall 2020) from the Digest of 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s effort level as a percent of its GSP (or API, depending on the state) to determine how much effort is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/average level of educational outcomes. The 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when making comparisons within and across states and are an informative starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state over time.

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when making comparisons within and across states and are an informative starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state over time.

- The table in the right panel summarizes the contextual 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 over time.
- The trend in the right panel presents a statewide adequacy measure (the percentage difference between actual and estimated adequate spending for the typical student) normalized with each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this section, percentiles in below adequate districts require use of the SFID’s District Cost Database (DCD); 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 SID website (2021 estimates will be released in early 2024).

- Statewide adequacy estimates are no available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding needed for the typical student) normalized with each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this section, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above adequately funded than 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded. In this sense, high- and low-poverty districts are independently of each other, but each one is adequately funded if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (estimates not available, and cannot be calculated for D.C. (single government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty districts). The groups are divided based on their national average of each group. Different estimates in the graph are averages difference between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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. Adequacy is defined as the difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019; the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow circles) in the plot are other states’ district poverty groups (color coded in the same manner, 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
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).

Rating relative to other states (high I medium I low): MI is a medium effort state.

Fiscal effort summary

<table>
<thead>
<tr>
<th>State</th>
<th>Fiscal effort</th>
<th>U.S. average fiscal effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>3.67%</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- MI spends 3.67 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.13 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #18 of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):

- Statewide adequacy in MI is medium.

Percent underfunded (rank #1 = most adequate)

- Pct. of students in below adequate districts (rank of 49) - 41.0% (#24)
- Pct. of students in chronically below adequate districts (rank) - 21.6% (#30)

- The typical MI student's district spends 16.5 pct. below adequate levels (rank #34).

EQUAL OPPORTUNITY

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

Rating relative to other states (high I medium I low):

- Equal opportunity in MI is low.

ADEQUACY GAPS (%) BY DISTRICT POVERTY

- MI's opportunity gap of -75.6 points is ranked #38 out of 48 (#1 = most equal).

EO gaps by student outcome gaps

- MI's opportunity gap contributes to a student outcome gap: the state's highest-poverty districts (pink dot) score 0.91 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 SID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

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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. Each state is scored entirely relative to other states, 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 (i.e., a student outcome data are for 2019, the latest available year, or, using 2020-21 spending levels, which are the most recent relative to prior years). The student outcome data are for 2019, the latest available year, or, using 2020-21 spending levels, which are the most recent relative to prior years).

- The scores are calculated as a weighted average of z-scores (i.e., a student outcome data are for 2019, the latest available year, or, using 2020-21 spending levels, which are the most recent relative to prior years).

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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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-fiscal capacity states, 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s effort level as low, medium, or high by sorting states into three groups based on their level of effort efforts (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The table in the right panel summarizes the states’ panel, with a focus on effort trends before and after the 2007-09 recession. The recession (2006-12 period) and 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.

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate spending; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing complements of states (e.g., the NECM shows the student’s guide is based on national averages, not per state). Such a difference is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.2 and 0.5 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 percentages (percentage difference between actual and estimated adequate spending) between the two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “low” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded in which functionally are equally adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii for this year, but can be calculated for D.C. (single government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty groups). The two highest-poverty quintile (Q1) and the two lowest-poverty quintile (Q5) are shaded. The other two quintiles (Q2 and Q4) are shown as lighter colors. The bar chart above the scatterplot shows the percent of students in each state who are in each quintile (using mean deviations). The average difference between the two highest- and the two lowest-poverty quintiles is defined state by state, and so the U.S. averages (teal 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 (average difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student test outcomes (averaged as the difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.

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**MINNESOTA**

**Summary:** This 2020-21 profile of Minnesota’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back). Minnesota scores 67 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).

Rating **relative to other states** (high | medium | low):

- **MN is a medium effort state.**

#### Fiscal effort summary

- **MN spends 3.65 percent of its economic capacity (gross state product) on its K-12 public schools.**
- **This effort level is 0.12 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #20 of 50).**

### Statewide Adequacy

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating **relative to other states** (high | medium | low):

- **Statewide adequacy in MN is high.**

#### Percent underfunded (rank #1 = most adequate)

- Pct. of students in below adequate districts (rank of 49): 21.4% (#10)
- Pct. of students in chronically below adequate districts: 7.0% (#13)

- The typical MN student’s district spends 12.4 pct. above adequate levels (rank #13).

### Equal Opportunity

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

Rating **relative to other states** (high | medium | low):

- **Equal opportunity in MN is medium.**

#### Adequacy gaps (%) by district poverty

- **MN’s opportunity gap of -54.1 points is ranked #31 out of 48 (#1=most equal).**

---

**CONTEXTUAL STATS**

<table>
<thead>
<tr>
<th>Metric</th>
<th>MN</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>10.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>95.5</td>
<td>84.6</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>61.9</td>
<td>45.3</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>873,100 (20)</td>
<td></td>
</tr>
</tbody>
</table>

**Fiscal effort trend, 2006-21**

- **MN’s 2021 effort level is 0.09 pct. points higher than it was pre-recession (2006).**
- **This net change in effort between 2006 and 2021 is ranked #10 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 (2006-12)</td>
<td>-0.11</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-21)</td>
<td>0.20</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>0.09</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- **MN’s effort was lower than its 2006 level in 0 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 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 adequacy trend, 2011-21**

- **Spending in MN was more adequate in 2021 compared with 2011, with a net change (in standard deviations) of 0.167 s.d.**

**MN’s adequacy gap was ranked #17 in 2011 (#1 = most adequate) and #13 in 2021.**

**EO gaps by student outcome gaps**

- **MN’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.72 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 SFID3 datasets, tools and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 appear when making manual calculations of 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. Each state is scored entirely relative to other states, 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 (in weightings parentheses): 1) percent of students in districts with above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pct. points) (10%). 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 (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state expenditures by elementary and secondary school enrollment (Fall 2020) from the Digest of 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 API. GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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 still produce the same funding. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize states’ effort level based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when making comparisons across states rather than within states. For information about the NECM, see the SFID’s user’s guide located at the SFID website (2021). Each state is then sorted into three groups using these average z-scores (terciles).

- “Chronically below adequate” districts are those with funding gaps (percent difference between adequate and actual funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical funded student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, “state” net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 any other districts. In the SFID, we measure equal educational 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) for the two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that EO is conceptually independent of statewide adequacy—e.g., a hypothesis in which all districts across adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are adequately funded. In the SFID, we define “equally adequate” funding in which funding for all poverty groups is equally adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii; their SFID estimates are not available, and cannot be calculated for D.C. (single-government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty quintiles). Each bar is labeled “district” in green or “state” in pink. Each bar within a group (different combinations of grades) represents the difference between the national average in standard deviations (vertical axis). The student outcome data are from 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
**MISSISSIPPI**

**STATE SCHOOL FINANCE PROFILE**

**2020-21 SCHOOL YEAR**

**Mississippi**

- **Summary:** This 2020-21 profile of Mississippi's public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Mississippi scores 23 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).

- **Rating relative to other states** (high I medium I low): MS is a high effort state.

**Fiscal effort summary**

<table>
<thead>
<tr>
<th></th>
<th>Mississippi</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal effort (%)</td>
<td>4.25%</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- MS spends 4.25 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.71 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #4 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

- **Rating relative to other states** (high I medium I low): Statewide adequacy in MS is low.

**Percent underfunded**

<table>
<thead>
<tr>
<th>Pct. of students in below adequate districts (rank of 49)</th>
<th>100.0% (#48)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
<td>74.6% (#49)</td>
</tr>
</tbody>
</table>

- The typical MS student’s district spends 52.9 pct. below adequate levels (rank #49).

**EQUAL OPPORTUNITY**

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

- **Rating relative to other states** (high I medium I low): Equal opportunity in MS is medium.

**Adequacy gaps (%) by district poverty**

<table>
<thead>
<tr>
<th>District poverty quintile</th>
<th>Average (enr-weighted) funding gaps by poverty (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Low/lowest poverty districts</td>
<td>-33.4 %</td>
</tr>
<tr>
<td>B. High/highest poverty districts</td>
<td>-69.2 %</td>
</tr>
<tr>
<td>C. Opportunity gap (B minus A)</td>
<td>-35.8 pts</td>
</tr>
</tbody>
</table>

- MS’s opportunity gap of -35.8 points is ranked #19 out of 48 (#1=most equal).

**Fiscal effort trend, 2006-21**

- MS’s 2021 effort level is 0.45 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #40 in the nation.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>MS</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession</td>
<td>-0.31</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession</td>
<td>-0.14</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>-0.45</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- MS’s effort was lower than its 2006 level in 6 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-2021 spending would have been $3.12 billion (10.9 percent) higher.
- MS is a relatively low capacity state, with a GSP per capita ranked #51 in the nation.

**Statewide adequacy trend, 2011-21**

- Spending in MS was less adequate in 2021 compared with 2011, with a net change (in standard deviations) of -0.154 s.d.

**EO gaps by student outcome gaps**

- 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).

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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 Alpert 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 notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years may differ slightly from previous profiles, as some measures are changed or improved each year, and all are recalculated annually with updated with data.
- Due to rounding, differences in reported estimates in this section may not always add up to the total of individual parts.
- 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q4/Q5 vs. Q1/Q2 difference in adequacy gap, in p. points) (10%). State rankings may reflect differences in unrounded scores.
- D.C., Hawaii, and Vermont are not assigned scores, as one of the measures that constitute the scores cannot be calculated for these states.

Non-SID data sources (“Contextual State” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from states sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state and local elementary and secondary school enrollment (Fall 2020) from the Digest of 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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-capacity states, such as California and New York, can fund education at lower rates, and produce the same effort per student, respectively. The same is true with the SFID's overall scores.

- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state's degree of equal opportunity as low, medium, or high by making comparisons between states and within states (e.g., by district poverty or over time).
- We report the number of states assigned rankings and the range across years of effort levels (using terciles). Note how that seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The table in the right panel summarizes the center-panel graph, with a focus on effort trends before and after the 2007-2009 recession. The 2006-2012 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 had between 2016 and 2021 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 2016-2021 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both funding and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing combinations of states (using the NECM, see the SID user’s guide). Trends, however, vary by state.

- We characterize each state’s degree of equal opportunity as low, medium, or high by making comparisons between states and within states (e.g., by district poverty or over time).
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student normalized within each year (converted to standard deviations)) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this section, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axes range for this graph are expanded in a handful of 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 the highest-poverty districts are adequately funded. In this way, funding gaps are measured independently of overall funding adequacy in each state, and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).

- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups using terciles.
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student normalized within each year (converted to standard deviations)) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this section, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axes range for this graph are expanded in a handful of states.
**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).

**Rating relative to other states (high I medium I low):**

**MO is a medium effort state.**

- Missouri effort: 3.37%
- U.S. average effort: 3.53%

- MO spends 3.37 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.17 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #33 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to meet the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states (high I medium I low):**

**Statewide adequacy in MO is medium.**

- Percent underfunded (rank #1 = most adequate)
  - Pct. of students in below adequate districts (rank of 49) 51.8% (#30)
  - Pct. of students in chronically below adequate districts 23.7% (#34)

- The typical MO student’s district spends 14.4 pct. below adequate levels (rank #33).

**EQUAL OPPORTUNITY**

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

**Rating relative to other states (high I medium I low):**

**Equal opportunity in MO is low.**

- Average (enr-weighted) funding gaps by poverty
  - A. Low/lowest poverty districts: 17.1 %
  - B. High/highest poverty districts: -43.6 %
  - C. Opportunity gap (8 minus A): -60.6 pts

- MO’s opportunity gap of -60.6 points is ranked #35 out of 48 (#1=most equal).
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 notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 factors, the sum of individual elements of a calculation may not equal the estimate 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (0.45% vs. 0.15% difference in adequacy gap, in pctl. points) (10%). 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 Stats" table): 1) Child (5-17 year old) poverty from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total staff (elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics; 5) numbers of students from 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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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 still produce the same funding. We therefore use effort 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 model (effort not available in 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize states on their effort levels (using this effort measure) based on their level’s expected revenue (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- 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, 2005-09) 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing concepts and trends (i.e., is there a pattern about the NECM, see the SID’s user’s guide). In this section, poverty quintiles are defined as below adequate districts require use of the SFID’s District Cost Database (DCD); all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of NECM estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2021 estimates will be released in early 2024).

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student. The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student normalized within each year (converted to standard deviations)) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference in (percentage points) between these two groups. 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 inadequately funded in which functioning adequately, high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (the state’s estimates are not available, and cannot be calculated for D.C. (single-government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty groups). The gray shaded area represents a high average of standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
Summary: This 2020-21 profile of Montana’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Montana scores 63 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).

Rating relative to other states (high I medium I low):

MT is a high effort state.

Fiscal effort summary

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Montana effort</td>
<td>3.96%</td>
</tr>
<tr>
<td>U.S. average effort</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- MT spends 3.96 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.43 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #14 of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):

Statewide adequacy in MT is medium.

PERCENT BELOW ADEQUATE COMPARISONS

Markers further to right are less adequately funded (MT region: West)

EQUAL OPPORTUNITY

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

Rating relative to other states (high I medium I low):

Equal opportunity in MT is high.

ADEQUACY GAPS (%) BY DISTRICT POVERTY

- MT’s opportunity gap of -25.3 points is ranked #9 out of 48 (#1=most equal).

EO gaps by student outcome gaps

- MT’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.91 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 as other SFID datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

**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, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 of specific estimates may not add up to totals calculated at the relevant time.

**Overall state scores:**

The overall scores reported at the top of the profile provide a very simple summary of state’s combined “performance” on the three core indicators. Each state is scored entirely relative to other states, 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 (30%);
  2. statewide (% ) adequacy gap (30%);
  3. GSP-based fiscal effort (15%); and
  4. equal opportunity gap (Q4/Q5 vs. Q1/Q2 difference in adequacy gap, in p. points) (10%).
- 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 Stats" table):

1. Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program;

**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 API. GSP and API 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 could contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-poverty-capacity states, 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s effort level (low, medium, or high) based on its effort level (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels).
- In order to provide a sense of state capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three 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 three ways:

1. the proportion of students in each state in districts with actual funding below estimated adequate spending levels;
2. the proportion of students in chronically below adequate districts (see below); and
3. 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest overall outcome goal (average test scores), our adequacy estimates are most appropriate when comparing composite measures about the NECM, see the SID user’s guide explained in the next section. Adequacy estimates in this section (e.g., percent in below adequate districts) require the use of the SID’s State Cost Database (DCD); all SID adequacy measures (which of 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 (2021 estimates will be released in early 2024).

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state's statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide funding gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states' net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d.; Axes ranges for this graph are expanded in a handful of 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 educational opportunity (EQO) 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that EQO is conceptually independent of statewide adequacy—e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EQO, so long as high- and low-poverty districts are in adequate funding levels in which funding is equally adequate, if high-poverty districts are more adequately funded than low-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EQO estimates are not available for Vermont and Hawaii (as they do not have the equal opportunity gap formula). For D.C. (single-government-run district state).
- We characterize each state's degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty districts). The gap is calculated for each group of quintiles and for different combinations of quintiles. The chart in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal diamonds) represent an approximation of the national situation. Axes 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 student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axes ranges for this graph are expanded in a handful of states.
NEBRASKA

**Summary:** This 2020-21 profile of Nebraska’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back). Nebraska scores 70 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).

Rating relative to other states (high l medium l low):

**NE is a high effort state.**

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
<th>NE</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nebraska effort</td>
<td>3.78%</td>
<td></td>
</tr>
<tr>
<td>U.S. average effort</td>
<td>3.53%</td>
<td></td>
</tr>
</tbody>
</table>

- NE spends 3.78 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.24 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #17 of 50).

### STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high l medium l low):

**Statewide adequacy in NE is high.**

<table>
<thead>
<tr>
<th>Percent underfunded (rank #1 = most adequate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
</tr>
</tbody>
</table>

- The typical NE student’s district spends 6.1 pct. above adequate levels (rank #17).

### EQUAL OPPORTUNITY

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

Rating relative to other states (high l medium l low):

**Equal opportunity in NE is medium.**

<table>
<thead>
<tr>
<th>Adequacy gaps (%) by district poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nebraska</td>
</tr>
<tr>
<td>U.S. average</td>
</tr>
<tr>
<td>Low/lowest poverty districts</td>
</tr>
<tr>
<td>High/highest poverty districts</td>
</tr>
<tr>
<td>Opportunity gap (B minus A)</td>
</tr>
</tbody>
</table>

- NE’s opportunity gap of -54.5 pts is ranked #32 out of 48 (#1=most equal).

- NE’s adequacy gap was ranked #15 in 2011 (#1 = most adequate) and #17 in 2021.

### CONTEXTUAL STATS

<table>
<thead>
<tr>
<th>Stat</th>
<th>NE</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>11.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>85.0</td>
<td>84.6</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>32.0</td>
<td>45.3</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>328,900 (36)</td>
<td></td>
</tr>
</tbody>
</table>

**Fiscal effort trend, 2006-21**

- NE’s 2021 effort level is 0.25 ppt. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #7 in the nation.

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

<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>0.19</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-21)</td>
<td>0.06</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-2021)</td>
<td>0.25</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- NE’s effort was lower than its 2006 level in 0 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 spending would have been $0.00 billion (0.0 percent) higher.
- NE is a relatively high capacity state, with a GSP per capita ranked #10 in the nation.

**Statewide adequacy trend, 2011-21**

- Spending in NE was less adequate in 2021 compared with 2011, with a net change (in standard deviations) of -0.124 s.d.
- NE’s adequacy gap was ranked #15 in 2011 (#1 = most adequate) and #17 in 2021.

**EO gaps by student outcome gaps**

- NE’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.49 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 notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021–2022).
- Estimates for prior years 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, the sum of reporter estimates of the measures on the front page may differ from the total state/year combination in which 2016–2017 expenditure (or other expenditure-related measure) is added.
- 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 state's combined "performance" on the three core indicators. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pct. points) (10%). 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 Stats" table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state/year elementary and secondary school enrollment (Fall 2020) from the Digest of 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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-capacity states, 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. We therefore use effort 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 measure (effort not available in 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state's effort level as high, medium, or low by looking at the ratio of each state’s spending to its GSP or API (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The table in the right panel summarizes the eight-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, 2008-09) 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 had between 2016 and 2021 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 2016-2021 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-2021 funding would have been lower under states’ 2006 effort levels).
- In order to provide a sense of state’s capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate spending levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common trends over time about the NECM, see the SID’s user’s guide (data). The object outcome gap (in percent) for states (e.g., percent of students in below adequate districts) require the use of the SFID’s District Cost Database (DCD); 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 SID website (2021 estimates will be released in early 2024).

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, state’s net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.03 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 other districts. In the SFID, we measure equal educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded. Adequacy and EO are independent concepts, in which functioning individually. Adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (due to being geographically isolated, single-district states), and cannot be calculated for D.C. (single-government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty districts). The graph highlights in each state's distinct combinations of high (the bars) and low (the lines) opportunity gaps. The different estimates in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 (adjusted as described above from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
STATE SCHOOL FINANCE PROFILE
2020-21 SCHOOL YEAR

NEVADA

Summary: This 2020-21 profile of Nevada's public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Nevada scores 14 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). Fiscal effort is calculated by dividing direct state and local K-12 expenditures in each state by its gross state product (GSP).

Rating relative to other states (high | medium | low):
NV is a low effort state.

Fiscal effort summary
Nevada effort 2.89%
U.S. average effort 3.53%

- NV spends 2.89 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.64 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #44 of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high | medium | low):
Statewide adequacy in NV is low.

PERCENT BELOW ADEQUATE COMPARISONS

Markers further to right are less adequately funded (NV region: West)

- The typical NV student’s district spends 32.6 pct. below adequate levels (rank #44).

EQUAL OPPORTUNITY

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

Rating relative to other states (high | medium | low):
Equal opportunity in NV is high.

ADEQUACY GAPS (%) BY DISTRICT POVERTY

- NV’s opportunity gap of -29.0 points is ranked #11 out of 48 (#1=most equal).

- Fiscal effort trend, 2006-21
  - NV’s 2021 effort level is 0.25 pct. points lower than it was pre-recession (2006).
  - This net change in effort between 2006 and 2021 is ranked #26 in the nation.

- Statewide adequacy trend, 2011-21
  - Spending in NV was less adequate in 2021 compared with 2011, with a net change (in standard deviations) of -0.212 s.d.
  - NV’s adequacy gap was ranked #39 in 2011 (#1 = most adequate) and #44 in 2021.

- EO gaps by student outcome gaps
  - NV’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.19 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 SID datasets, tools, and reports, are freely available to download at: schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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, the difference between the values shown on the axes and those shown in the data points may be greater than the sexagesimal fraction of the estimate 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. Each state is scored entirely relative to other states, 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 (weightings in parentheses): 1) percent of students in districts with above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 4) equal opportunity gap (Q4/Q5 vs. Q1/Q2 difference in adequacy gap, in percentile points (10%) State rankings may reflect differences in unreported rounds.

- 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 Stats" table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total student enrollment in elementary and secondary school enrollment (Fall 2020) from the Digest of 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-poverty capacity states, 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.

We therefore use effort 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 2018-21 due to data irregularities). We include most states' effort across years.
- We characterize each state's effort levels on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- 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 had between 2016 and 2021 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 2016-21 effort exceeded the state's 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states' 2006 effort levels).

- In order to provide a sense of state capacity, we characterize each state's GSP per capita as small, medium, or large by sorting states into three 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 three ways:

1. The proportion of students in each state in districts with actual funding below estimated adequate spending levels; and
2. The proportion of students in chronically below adequate districts (see below); and
3. 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. Given the imprecision inherent in combining both funding and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are more appropriate when making comparisons between states (ranks), and not within states.

Note that correlations among the NECM, see the SID's user guide (necm_api_gsp), and the NECM based on their effort levels (using terciles). This allows for more appropriate comparisons over time. In the first bullet of this panel, states' net changes between 2011 and 2021 are characterized as "substantial" if the absolute change exceeds 0.3 s.d., "modest" if the absolute change is between 0.05 and 0.3 s.d., and "no more or less adequate" if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state's districts are substantially further above adequate funding 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the "highest" and "high" poverty quintiles and a weighted average of the "lowest" and "low" poverty quintiles). Each state’s "opportunity gap" is the difference (in percentage points) between these two groups. 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 adequately funded in comparison with each other. Trends, however, vary by state.

- EO estimates are not available for Vermont and Hawaii (as data are not reported for these states).
- We characterize each state's degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty quintiles). The graph emphasizes the difference between the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts' values are imputed). The other markers (hollow 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 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 outcome (vertical axis) as measured as the difference from the national average in standard deviations (vertical axis). The student outcome data are from 2019, the latest available year in the Stanford Education Data Archive (some districts' values are imputed). The other markers (hollow 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).

Notes on data and measures

State School Finance Profiles 2020-21 (publ. 2024)

www.schoolfinancedata.org
Summary: This 2020-21 profile of New Hampshire’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), New Hampshire scores 86 out of 100, which ranks 3rd 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).

Rating relative to other states (high I medium I low): 

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
<th>NH is a medium effort state.</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Hampshire effort</td>
<td>3.52%</td>
</tr>
<tr>
<td>U.S. average</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- NH spends 3.52 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.01 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #26 of 50).

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low): 

**Statewide adequacy in NH is high.**

- The typical NH student’s district spends 96.2 pct. above adequate levels (rank #1).

### Equal Opportunity

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

Rating relative to other states (high I medium I low): 

**Equal opportunity in NH is low.**

- NH’s opportunity gap of -87.4 points is ranked #40 out of 48 (#1=most equal).

### Adequacy Gaps (%) by District Poverty

<table>
<thead>
<tr>
<th>District poverty quintile</th>
<th>NH Average</th>
<th>U.S. Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>21.8%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Low</td>
<td>21.8%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Medium</td>
<td>12.3%</td>
<td>15.8%</td>
</tr>
<tr>
<td>High</td>
<td>24.8%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Highest</td>
<td>24.8%</td>
<td>15.8%</td>
</tr>
</tbody>
</table>

- NH’s highest-poverty district (pink dot) scored 0.76 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 as other SFID datasets, tests, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 components may not equal the totals presented in 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. Each state is scored entirely relative to other states, 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 (weighting parentheticals): 1) percent of students in districts with above adequate funding (30%); 2) statewide (?) adequacy spending (30%); 3) GSP-based fiscal effort (15%); and 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4S vs. Q12J difference in adequacy gap, in pct. points) (10%). 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 Stats” table: 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) from the Digest of 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The table in the right panel summarizes the effort and student achievement gap in this state, 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 had between 2016 and 2021 had that state returned to its pre-recession (2006) effort level by 2016 (using 2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate spending levels; 2) the proportion of students in chronically below adequate districts; and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing components of the NECM, see the SID user’s guide (in the “notes” chapter) for more detailed information on how adequacy estimates are calculated. In this section (i.e., percent in below adequate districts) require the use of the SFID’s State Database (DCE); all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCE estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2021 estimates will be released in early 2024).

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted (i.e., they represent adequacy in the typical state, not the typical student). The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this section, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded. This measure focuses on how fairly funding is distributed among the poorest and wealthiest districts and is designed to show how farh districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (estimates not available in any year), and cannot be calculated for D.C. (single government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- The chart on the right panel presents equal opportunity gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the two highest- and two lowest-poverty groups) in different combinations of gds). The state bars (bars) and U.S. (teal diamond) in the graph are average differences between actual and estimated equal opportunity spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 normalized as distance from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
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).

Rating relative to other states (high I medium I low):
NJ is a high effort state.

Fiscal effort summary

<table>
<thead>
<tr>
<th></th>
<th>NJ</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Jersey effort</td>
<td>4.22%</td>
<td></td>
</tr>
<tr>
<td>U.S. average effort</td>
<td>3.53%</td>
<td></td>
</tr>
</tbody>
</table>

- NJ spends 4.22 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.68 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #5 of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):
Statewide adequacy in NJ is high.

PERCENT BELOW ADEQUATE COMPARISONS

Markers further to right are less adequately funded (NJ region: Northeast)

EQUAL OPPORTUNITY

Equal opportunity compares adequacy between states' higher- and lower-poverty districts. The graph to the right presents adequate funding gaps (as a %) by district poverty quintile (the teal diamonds are U.S. averages). The difference (in pct. points) between the (weighted) average gap of the two lowest-poverty and the two highest-poverty groups is a state’s “opportunity gap.”

Rating relative to other states (high I medium I low):
Equal opportunity in NJ is low.

ADEQUACY GAPS (%) BY DISTRICT POVERTY

EO gaps by student 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).
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, is freely available to download at学校financedata.org. The following are some notes about the profiles:

**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, is freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

**Fiscal effort**

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- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state’s effort as low, medium, or high based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- **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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 effort level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels).**
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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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common trends or changes in adequacy with the SFID. For the purposes of this section (i.e., percent in below adequate districts) require use of the SFID’s State Cost Database (DCD); 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 (2021 estimates will be released in early 2024).

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).**
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- **“Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.**
- **The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—we represent adequacy in the typical state, not the typical student.**
- **The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference in percentage points between these two groups. 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 adequately funded. Therefore, in which function funding is uniformly adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii and cannot be calculated for D.C. (single government-run district state).**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**
- **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 two highest- and the two lowest-poverty quintiles). The two groups are color-coded in the plot, and different estimates in the graph are averaged between actual and estimated average spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.**
**NEW MEXICO**

**STATE SCHOOL FINANCE PROFILE**

**2020-21 SCHOOL YEAR**

**Summary:** This 2020-21 profile of New Mexico’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), New Mexico scores 35 out of 100, which ranks 33rd out of the 48 states with possible ratings.

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### 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).

**Rating relative to other states** (high 1 medium 2 low): **NM is a high effort state.**

- NM spends 4.01 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.47 percentage points higher than the unweighted U.S. average of 3.53 percent (rank 12 of 50).

![FISCAL EFFORT TREND, 2006-21](image)

**K-12 FISCAL EFFORT TREND, 2006-21**

- U.S. average
- New Mexico

### STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states** (high 1 medium 2 low): **Statewide adequacy in NM is low.**

- The typical NM student’s district spends 30.6 pct. below adequate levels (rank #41).

![PERCENT BELOW ADEQUATE COMPARISONS](image)

**PERCENT BELOW ADEQUATE COMPARISONS**

- Markers further to right are less adequately funded (NM region: West)
- Pct. of students in below adequate districts
- Pct. of students in chronically below adequate districts

### EQUAL OPPORTUNITY

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

**Rating relative to other states** (high 1 medium 2 low): **Equal opportunity in NM is high.**

- NM’s opportunity gap of -21.6 points is ranked #4 out of 48 (#1=most equal).

![ADEQUACY GAPS (%) BY DISTRICT POVERTY](image)

**ADEQUACY GAPS (%) BY DISTRICT POVERTY**

- A. Low/lowest poverty districts
- B. High/highest poverty districts
- C. Opportunity gap (8 minus A)

- 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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**CONTEXTUAL STATS**

<table>
<thead>
<tr>
<th>NM</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>22.1</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>85.9</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>70.0</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>312,500 (38)</td>
</tr>
</tbody>
</table>

---

**Fiscal effort trend, 2006-21**

- NM’s 2021 effort level is 0.02 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #12 in the nation.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>NM</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 (2012-21)</td>
<td>-0.01</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>-0.02</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- NM’s effort was lower than its 2006 level in 3 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 spending would have been $0.45 billion (2.0 percent) higher.
- NM is a relatively low capacity state, with a GSP per capita ranked #46 in the nation.

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**New Mexico School Finance Profile 2020-21**

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 reports, is freely available at schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 differences, the sum of percents may not always total exactly 100%.
- 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. Each state is scored entirely relative to other states, 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 averaged 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) percent income-based fiscal effort (15%); and 5) equal opportunity gap (Q4S vs. Q12 difference in adequacy gap, in p.cts. (10%). 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-SID data sources: "Contextual State" table: 1) Child (5-17 year old) poverty in 2021 from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics.

Fiscal effort

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and test data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common indicators of adequacy, particularly between states (this section is based on their opportunity gaps).

- The trend graph in the right panel presents the average statewide funding gap (the percentage difference between actual and estimated adequate spending) for each state/year combination in which 2016 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 a highlighted in the table (rather than, say, 2001). In the first bullet of this panel, states’ net changes between 2016 and 2021 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 2016-2012 exceeded the state's 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-2012 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 groups using terciles.

Equal opportunity

Each state's degree of equal opportunity is achieved when none of that state's districts are substantially further above or below adequate spending levels than 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the "highest" and "highest" poverty quintiles and a weighted average of the "lowest" and "low" poverty quintiles). Each state's “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded at different rates. In which functional levels are generally adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (due to being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state's statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- "Chronically below adequate" districts are those with funding gaps (percent difference between actual and adequate funding) among the 20% poorest largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate spending for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states' net changes between 2011 and 2021 are characterized as "substantial" if the absolute change exceeds 0.3 s.d., "modest" if the absolute change is between 0.05 and 0.3 s.d., and "no more or less adequate" if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.

Statewide adequacy

Equal opportunity

www.schoolfinancedata.org
Summary: This 2020-21 profile of New York's public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), New York scores 83 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).

Rating relative to other states (high I medium I low):
NY is a high effort state.

New York effort 4.20%
U.S. average effort 3.53%

- NY spends 4.20 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.66 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #7 of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):
Statewide adequacy in NY is high.

- The typical NY student’s district spends 33.8 pct. above adequate levels (rank #8).

EQUAL OPPORTUNITY

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

Rating relative to other states (high I medium I low):
Equal opportunity in NY is low.

- NY’s opportunity gap of -166.5 points is ranked #47 out of 48 (#1=most equal).
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 SID3 datasets, tools, and reports, are freely available to download at www.schoolfinancedata.org. The following are some notes about the profiles.

The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).

The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).

Estimates for prior years 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 or other statistical adjustments, the sum of the percentages on the front side may not exactly equal 100%.

The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.

Overstate overall 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. Each state is scored entirely relative to other states, 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 percentiles 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4/5 vs. Q1/2 difference in adequacy gap, in pcts. points) (10%). State rankings may reflect differences in unrounded scores.

DC, 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 Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; estimates for percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 3) total state elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics (U.S. Census Bureau); 4) state GSP from the Digest of Education Statistics (U.S. Census Bureau); 5) equal opportunity gap (Q4/5 vs. Q1/2 difference in adequacy gap, in pcts. points). Benchmark values for the adequacy gap are calculated from national estimates on the front side of the profile.

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common measures across states or when making comparisons within a single state about the NECM, see the SFID’s user’s guide on how to interpret the estimates. 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 between 2016 and 2021 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 2016-2021 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-2021 funding would have been lower under states’ 2006 effort levels).

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

Equally 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded. In other words, high- and low-poverty districts in which funding is not evenly adequate, if high-poverty districts are more adequately funded than low-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

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

We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).

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 two highest- and the two lowest-poverty quintiles). We summarize the gaps across the five quintiles in each state. The bars (bars) and U.S. (teal diamond) estimates in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
**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).

Rating relative to other states (high I medium I low): NC is a low effort state.

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
<th>North Carolina effort</th>
<th>U.S. average effort</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.72%</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- NC spends 2.72 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.81 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #46 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low): Statewide adequacy in NC is low.

- The typical NC student’s district spends 30.8 pct. below adequate levels (rank #42).

**EQUAL OPPORTUNITY**

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

Rating relative to other states (high I medium I low): Equal opportunity in NC is high.

- NC’s opportunity gap of -23.4 points is ranked #6 out of 48 (#1=most equal).

**CONTINUOUS STATISTICS**

State: North Carolina

<table>
<thead>
<tr>
<th>Child (5-17y) poverty rate (%)</th>
<th>NC</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.2</td>
<td></td>
<td>16.1</td>
</tr>
</tbody>
</table>

- Public school coverage (%)
  - NC: 84.1
  - U.S.: 84.8
- Percent revenue from state sources
  - NC: 61.3
  - U.S.: 45.3
- Total enrollment (U.S. rank)
  - 1,531,800 (9)
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 SFID3 datasets, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- **The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimates for prior years 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 in the sums of components of 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. Each state is scored entirely relative to other states, and the selection/weighting of components entails subjective judgments on the part of the SFID research team.

- **Regional and other capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, but with more transparent markers to allow for clear viewing of this state’s markers.**
- **Based on the SFID Research team judgment.**
- **The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time). For more information about the NECM, see the SID user’s guide. Some of the spending) for the typical student in each state. All these estimates

*Steady state fiscal effort (15%); and 5) equal opportunity gap (Q4/5 vs. Q1/2 difference in adequacy gap, in percent).* The SFID data sources

The student outcome data are for 2019, the latest available. The NECM is used to compute the state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that EO

**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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when using combined data from NECM and the SID (see below). The NECM is used to compute the state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that EO

**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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded in the same relative mix, for example. The ability to afford this level of spending (in the case of high-poverty districts) is theoretically adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii.**
- **EO measures are available for all states.**
- **EO measures are available for all states.**
- **EO measures are available for all 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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state’s “effort” based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- **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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 groups using terciles.**

**Statewide adequacy**

This panel presents data for the typical student in each state, in the “school year” (i.e., the prior year’s spending for prior years changed or moved). The 2006 period (the “K-12 recession”) is characterized as “substantial” if the absolute change exceeds 0.**

- **Due to rounding, changes and differences published in this profile may vary slightly from users’ manual calculations of the estimates on the front side.**

**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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded in the same relative mix, for example. The ability to afford this level of spending (in the case of high-poverty districts) is theoretically adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii.**
- **EO measures are available for all states.**
- **EO measures are available for all states.**

**Notable on data and measures**

State School Finance Profiles 2020-21 (publ. 2024)

http://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).

Rating relative to other states (high I medium I low):
- ND is a medium effort state.

North Dakota scores 79 out of 100, which ranks 7th out of the 48 states with possible ratings.

**Fiscal effort trend, 2006-21**
- ND’s 2021 effort level is 0.20 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #23 in the nation.

**Net change by period (% pts.)**
- Period
  - ND
  - U.S.
  - K-12 recession (2006-12): -0.93
  - Post-recession (2012-21): 0.73
  - Full period (2006-21): -0.20

**Statewide adequacy**
- Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):
- Statewide adequacy in ND is high.

**Percent below adequate comparisons**
- The typical ND student’s district spends 27.2 pct. above adequate levels (rank #9).

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

Rating relative to other states (high I medium I low):
- Equal opportunity in ND is medium.

- ND’s opportunity gap of -40.9 points is ranked #23 out of 48 (#1 = most equal).

**OE gaps by student outcome gaps**
- 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).
### 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, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- **The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimates for prior years 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 differences in the calculations of 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. Each state is scored entirely relative to other states, 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 average 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 (30%); 2) statewide (%) adequacy estimate (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4 vs. Q1 difference in adequacy gap, in pct. points) (10%).
- **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 (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) SFID data sources for school coverage estimates; 3) percent of total FY (2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state and local elementary and secondary school enrollment (Fall 2020) from the Digest of 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-poverty 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 still produce the same funding. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state’s educational effort as small, medium, or large by using the percent of GSP/PI in their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- **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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate spending; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common outcome trends about the NECM, see the SFID user’s guide (p. 3) for more details. Trends, however, vary by state.

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).**
- **We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).**
- **“Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.**
- **The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.**
- **The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.**

### Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above/greater below adequate spending levels than 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 the lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded. If districts in which funding is overall adequately funded, if high-poverty districts are more adequately funded than low-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii and cannot be calculated for D.C. (single government-run district state).**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**
- **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 two highest- and the two lowest-poverty groups, the graph presents each of the five combinations). Estimates for different combinations of grades and states (bar) and U.S. (teal diamonds) in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 (vertical axis) as the difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure.**

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**NOTES ON DATA AND MEASURES State School Finance Profiles 2020-21 (publ. 2024)**

www.schoolfinancedata.org
Summary: This 2020-21 profile of Ohio's public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Ohio scores 56 out of 100, which ranks 21st 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).

**Rating relative to other states** (high I medium I low):

OH is a high effort state.

| Fiscal effort summary | | |
|-----------------------|------------------|
| Ohio effort | 3.81% |
| U.S. average effort | 3.53% |

- OH spends 3.81 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.28 percentage points higher than the unweighted U.S. average of 3.55 percent (rank #16 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states** (high I medium I low):

Statewide adequacy in OH is medium.

- The typical OH student’s district spends 10.9 pctl. below adequate levels (rank #29).

**EQUAL OPPORTUNITY**

Equal opportunity compares adequacy between states' higher- and lower-poverty districts. The graph to the right presents adequate funding gaps (as a %) by district poverty quintile (the teal diamonds are U.S. averages). The difference (in pctl. points) between the (weighted) average gap of the two lowest-poverty and the two highest-poverty groups is a state’s “opportunity gap.”

**Rating relative to other states** (high I medium I low):

Equal opportunity in OH is low.

<table>
<thead>
<tr>
<th>ADEQUACY GAPS (%) BY DISTRICT POVERTY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Low/lowest poverty districts</strong></td>
</tr>
<tr>
<td><strong>B. High/highest poverty districts</strong></td>
</tr>
<tr>
<td><strong>C. Opportunity gap (B minus A)</strong></td>
</tr>
</tbody>
</table>

- OH’s opportunity gap of -76.7 points is ranked #39 out of 48 (#1 = most equal).

**Fiscal effort trend, 2006-21**

- OH’s 2021 effort level is 0.35 pts. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #32 in the nation.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>OH</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 (2012-21)</td>
<td>-0.34</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>-0.35</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

- OH’s effort was lower than its 2006 level in 6 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years, total 2016-21 spending would have been $13.47 billion (8.8 percent higher).
- OH is a relatively medium capacity state, with a GSP per capita ranked #25 in the nation.

**Statewide adequacy trend, 2011-21**

- Spending in OH was less adequate in 2021 compared with 2011, with a net change (in standard deviations) of -0.070 s.d.
- OH’s adequacy gap was ranked #26 in 2011 (#1 = most adequate) and #29 in 2021.

**EO gaps by student outcome gaps**

- OH’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 1.03 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 SFID3 datasets, tools, and reports, are freely available at www.schoolfinancedata.org. The following are some notes about the profile:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 add up to 100%. Small discrepancies are due to the rounding of 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 4) equal opportunity gap (Q4/Q5 vs. Q1/Q2 difference in adequacy gap, in p. points) (10%). 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 Stats” table):

1. Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) 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 2020) 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s effort level as low, moderate, or high by sorting each state’s “effort” based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The table in the right panel summarizes the effort trends for each state/year combination in which 2016 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels). In order to provide a sense of state capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate spending; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and test scores, the relationship between districts’ performance and their actual spending is expected to be imprecise. We therefore use adequacy primarily as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

- The scores are calculated as a weighted average of z-scores (final averages expressed as percentiles of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4/Q5 vs. Q1/Q2 difference in adequacy gap, in p. points) (10%). 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 Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) 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 2020) from the Digest of Education Statistics, published by the National Center for Education Statistics.

Equation opportunity

Equation 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 at the same magnitude to the same degree in which funding varies. If all districts are equally adequate, high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- 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).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles). 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 two highest- and the two lowest-poverty quintiles). The two bars (bars) and the line indicate the distribution of funding across different combinations of grades. The state (bars) and U.S. (teal diamond) averages are measures of the average difference between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal diamonds) represent an approximation of the national situation. Axes 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 (scored entirely relative to other states, and the selection/weighting of components entails subjective judgments on the part of the SFID research team). The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
Oklahoma School Finance Profile 2020-21

**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).

**Oklahoma** is a medium effort state.

- **Oklahoma effort**: 3.50%
- **U.S. average effort**: 3.53%

**Statewide Adequacy**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Oklahoma** is low.

- **Pct. of students in below adequate districts**: 26.0% (rank #39)
- **Pct. of students in chronically below adequate districts**: 37.9% (rank #39)

**Equal Opportunity**

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

**Oklahoma** is medium.

- **Average (enr-weighted) funding gaps by poverty**
  - Low/lowest poverty districts: -3.2%
  - High/highest poverty districts: -42.6%
  - Opportunity gap (8 minus A): -39.3 pts

- **Oklahoma’s opportunity gap of -39.3 points is ranked #22 out of 48 (#1 most equal).**

**Summary**

This 2020-21 profile of Oklahoma’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back). Oklahoma scores 31 out of 100, which ranks 36th out of the 48 states with possible ratings.
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 notes on the profiles:

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- Due to rounding, differences between numbers shown in the text and those calculated by the NECM may be less than 0.05 s.d.
- 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. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 4) equal opportunity gap (Q4/Q vs. Q1/Q2 difference in adequacy gap, in pct. points) (10%). State rankings may reflect differences in unrounded scores.

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- We characterize each state’s effort level as low, medium, or high by sorting states into three groups based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- The table in the right panel summarizes the center (bars) and spread (whiskers) of the distribution of state effort levels in each year.
- 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 between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels).
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- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
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- EO estimates are not available for Vermont and Hawaii (neither has the NECM data necessary to calculate them), and cannot be calculated for D.C. (single-government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty quintiles in the group), as well as the average difference between these two groups. The “opportunity gap” is the difference from the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
**STATE SCHOOL FINANCE PROFILE 2020-21 SCHOOL YEAR**

**OREGON**

**Summary:** This 2020-21 profile of Oregon’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Oregon scores 66 out of 100, which ranks 13th 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).

- OR spends 3.84 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.30 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #15 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

- The typical OR student’s district spends 8.9 pct. above adequate levels (rank #15).

**EQUAL OPPORTUNITY**

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

- OR’s opportunity gap of -36.5 points is ranked #21 out of 48 (#1=most equal).
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, tools and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

**The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).**

**The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**

**Estimates for prior years 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, the actual totals of some numerical figures may not add up due to the presentation of 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. Each state is scored entirely relative to other states, 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 (in weights parentheses): 1) percent of students in districts with above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q4/5 vs. Q1/2 difference in adequacy gap, in pct. points) (10%). 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 Stats" table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 5) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total standardized elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics.**

**Fiscal effort**

Fiscal effort indicates how much of a state’s economic output is contributed. We characterize each state’s effort level as low, medium, or high by sorting states into three groups based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.

**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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels).**

**In order to provide a sense of state capacities, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common data amongst about the NECM, see the SID user’s guide (available at the NECM website). Estimating the adequacy gap in any year requires making some assumptions about the NECM, the NECM user’s guide contains a detailed description of these assumptions. The difference (in percentage points) (10%). State rankings may reflect differences in unrounded scores.

**Historically below adequate districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.**

**The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.**

**The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized with each year (converted to standard deviations).**

**Net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d.**

**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 educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 higher- and low-poverty districts are adequately funded. Adequacy gaps in which funding is generally inadequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

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

**We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**

**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 two highest- and the two lowest-poverty groups). The two bars at each of the five groups indicate high and low equal opportunity estimates.**

**The graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal diamonds) represent an approximation of the national situation.**

**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 adjusted as far as possible from the national average in standard deviations (vertical axis).**

**Note that this gap compared differences in groups than does our opportunity gap measure.**

[www.schoolfinancedata.org](http://www.schoolfinancedata.org)
Summary: This 2020-21 profile of Pennsylvania’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Pennsylvania scores 69 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).

Rating relative to other states (high I medium l low):

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pennsylvania effort</td>
</tr>
<tr>
<td>U.S. average effort</td>
</tr>
</tbody>
</table>

- PA spends 4.10 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.57 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #9 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium l low):

<table>
<thead>
<tr>
<th>Percent underfunded (rank #1 = most adequate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
</tr>
</tbody>
</table>

- The typical PA student’s district spends 18.6 pct. above adequate levels (rank #11).

**EQUAL OPPORTUNITY**

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

Rating relative to other states (high I medium l low):

<table>
<thead>
<tr>
<th>Adequacy gaps (%) by district poverty quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of students below adequate funding in PA is low.</td>
</tr>
<tr>
<td>▪ PA’s opportunity gap of -120.8 points is ranked #43 out of 48 (#1=most equal).</td>
</tr>
</tbody>
</table>

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 as other SFID datasets, tools and reports, are freely available to download at: schoolfinancedata.org. The following are some notes about the profiles:

**The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).

**The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**

**Estimates for prior years 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.
Summary: This 2020-21 profile of Rhode Island’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Rhode Island scores 65 out of 100, which ranks 15th out of the 48 states with possible ratings.

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Statewide adequacy in RI is high.

- The typical RI student’s district spends 9.0 pct. above adequate levels (rank #14).

EQUAL OPPORTUNITY

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

Equal opportunity in RI is low.

- RI’s opportunity gap of -134.2 points is ranked #45 out of 48 (#1=most equal).

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).

Rating relative to other states (high I medium I low):
RI is a high effort state.

- RI spends 4.46 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.92 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #3 of 50).

FISCAL EFFORT TREND, 2006-21

- RI’s 2021 effort level is 0.18 pct. points higher than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #8 in the nation.

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):
Statewide adequacy in RI is high.

- The typical RI student’s district spends 9.0 pct. above adequate levels (rank #14).

EQUAL OPPORTUNITY

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

Rating relative to other states (high I medium I low):
Equal opportunity in RI is low.

- RI’s opportunity gap of -134.2 points is ranked #45 out of 48 (#1=most equal).
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 notes about the profiles:

- The measures in this profile are interpreted relatively— that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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 measures differ from the actual calculations of 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. Each state is scored entirely relative to other states, 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 (weightings in parentheses): 1) percent of students in districts with above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4S vs. Q1/Q2 difference in adequacy gap, in p.c.t. points) (10%). 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 Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics.

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 (API). GSP and API 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. We present GDP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-capacity states, 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s effort level as low, medium, or high by sorting states into three groups (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). E.g., “highest poverty districts in each state”

Equal opportunity SID variables used in this section: necm _predecost_state; necm _ppcost_state; necm _enroll_state

Equal opportunity is achieved in a given state when none of that state’s districts are substantially further away from below adequate spending levels than are other districts. In the SFID, we measure equal opportunity equally (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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded in roughly the same proportions. The SFID measures how much states vary in their inadequacy, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (effort not available due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and two lowest-poverty districts). Gaps are shown for different combinations of grade levels. The bars (bars) and U.S. (teal diamonds) in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 total outside spending (expressed as a percentage of the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some district’s values are imputed). The other markers (hollow 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-related student achievement gap in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.

Statewide adequacy SID variables used in this section: necm _predecost_state; necm _ppcost_state; necm _enroll_state

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common trends in alleviation about the NECM, see the SID’s user’s guide: estimated adequate spending levels for this section (e.g., percent in below adequate districts) require use of the SID’s District Cost Database (DCD); all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of NECM estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2021 estimates will be released in early 2024).

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical district normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.
**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).

Rating relative to other states (high [ ] medium [ ] low):  
**SC is a high effort state.**

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>South Carolina effort</td>
<td>4.00%</td>
</tr>
<tr>
<td>U.S. average effort</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- SC spends 4.00 percent of its economic capacity (gross state product) on its K-12 public schools.  
- This effort level is 0.47 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #13 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high [ ] medium [ ] low):  
**Statewide adequacy in SC is low.**

<table>
<thead>
<tr>
<th>Percent underfunded (rank #1 = most adequate)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
<td>89.7% (#43)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
<td>30.2% (#36)</td>
</tr>
</tbody>
</table>

- The typical SC student’s district spends 22.4 pct. below adequate levels (rank #38).

**EQUAL OPPORTUNITY**

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

Rating relative to other states (high [ ] medium [ ] low):  
**Equal opportunity in SC is high.**

**ADJUSTED ADEQUACY GAPS (%) BY DISTRICT POVERTY**

- SC’s opportunity gap of -29.1 points is ranked #12 out of 48 (#1=most equal).

**Fiscal effort trend, 2006-21**

- SC’s 2021 effort level is 0.64 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #45 in the nation.

**Statewide adequacy trend, 2011-21**

- Spending in SC was more adequate in 2021 compared with 2011, with a net change (in standard deviations) of 0.216 s.d.  

- SC’s adequacy gap was ranked #42 in 2011 (#1 = most adequate) and #38 in 2021.

**EO gaps by student outcome gaps**

- SC’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.71 s.d. below its lowest-poverty districts (blue dot).
NOTES ON DATA AND MEASURES
State School Finance Profiles 2020-21 (publ. 2024)

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 SID datasets, tools, and reports, are freely available to download at: www.schoolfinancedata.org. The following notes are specific to the SFID profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The trends in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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, state-level calculations may differ slightly from the actual calculations of the estimates on the front side.
- The number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- The 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. Each state is scored overall relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pct. points) (10%). 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 Stats” table): 1) Child (5-17 year old) poverty from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics.

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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-poverty states, especially those with large metropolitan areas, 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- We characterize each state’s effort level as low, medium, or high by sorting states into three groups based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- 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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 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 groups using terciles.

Statewide adequacy

SID variables used in this section: necm_predcost: state; necm_pspcost: state; necm_enroll: state

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing components of the NECM, see the SID user’s guide for more about the NECM. The measures in this profile are interpreted relatively—state by state, and so the U.S. averages represent an approximation of the national situation. Axis ranges for this graph may vary between states.

- Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this section, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of states.

Equal opportunity

SID variables used in this section: necm_predcost: q1-q5; necm_pspcost: q1-q5; necm_enroll: q1-q5; necm_outcome: q1-q5

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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded to the same extent. In which functional adequacy is relatively adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (neither state has school districts), and cannot be calculated for D.C. (single government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty groups). Trends, however, vary by state. The estimates in this graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal 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 student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
**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).

Rating relative to other states (high I medium I low): 
- **SD** is a low effort state.

**Statewide Adequacy** compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low): 
- **SD** is at the medium level.

**Equal Opportunity** compares adequacy between states’ higher- and lower-poverty districts. The graph to the right presents adequate funding gaps (as a %) by district poverty quintile (the teal diamonds are U.S. averages). The difference (in pct. points) between the (weighted) average gap of the two lowest-poverty and the two highest-poverty groups is a state’s “opportunity gap.”

Rating relative to other states (high I medium I low): 
- **SD** is at the high level.

### Fiscal Effort Trend, 2006-21

- SD’s 2021 effort level is 0.16 pctl. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #20 in the nation.

### Statewide Adequacy Trend, 2011-21
- Spending in SD was no more or less adequate in 2021 compared to 2011, with a net change (in standard deviations) of -0.013 s.d.

### Equal Opportunity
- 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, 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 notes about the profiles:

**General**

The score 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 three ways: 1) the proportion of students in each state in districts with above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4S vs. Q12 difference in adequacy gap, in p.c. points) (10%). 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 (API). GSP and API 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. We present GSP-based efforts in these profiles, but the two are highly correlated, and the API-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. We therefore use effort primarily as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.

**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 three ways: 1) the proportion of students in each state in districts with above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4S vs. Q12 difference in adequacy gap, in p.c. points) (10%). 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 farther above or below adequate spending levels than other districts. In the SFID, we measure equal educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the "highest" and "high" poverty quintiles and a weighted average of the "lowest" and "low" poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded. In such a state, EO is achieved when districts with initially adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

EO estimates are not available for Wyoming and Hawaii. However, they can be calculated for D.C. (single government-run district state). We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).

The student outcome data are for 2019, the latest available. The scores are calculated as a weighted average of z-scores (rank-transformed differences between percentiles, 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 adequately funded. In such a state, EO is achieved when districts with initially adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

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EO estimates are not available for Wyoming and Hawaii. However, they can be calculated for D.C. (single government-run district state). We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).

The student outcome data are for 2019, the latest available. The scores are calculated as a weighted average of z-scores (rank-transformed differences between percentiles, 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 adequately funded. In such a state, EO is achieved when districts with initially adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

EO estimates are not available for Wyoming and Hawaii. However, they can be calculated for D.C. (single government-run district state). We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).

The student outcome data are for 2019, the latest available. The scores are calculated as a weighted average of z-scores (rank-transformed differences between percentiles, 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 adequately funded. In such a state, EO is achieved when districts with initially adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

EO estimates are not available for Wyoming and Hawaii. However, they can be calculated for D.C. (single government-run district state). We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).

The student outcome data are for 2019, the latest available. The scores are calculated as a weighted average of z-scores (rank-transformed differences between percentiles, 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 adequately funded. In such a state, EO is achieved when districts with initially adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

EO estimates are not available for Wyoming and Hawaii. However, they can be calculated for D.C. (single government-run district state). We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).

The student outcome data are for 2019, the latest available. The scores are calculated as a weighted average of z-scores (rank-transformed differences between percentiles, 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 adequately funded. In such a state, EO is achieved when districts with initially adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

EO estimates are not available for Wyoming and Hawaii. However, they can be calculated for D.C. (single government-run district state). We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).

The student outcome data are for 2019, the latest available. The scores are calculated as a weighted average of z-scores (rank-transformed differences between percentiles, 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 adequately funded. In such a state, EO is achieved when districts with initially adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.
STATE SCHOOL FINANCE PROFILE
2020-21 SCHOOL YEAR

TENNESSEE

Summary: This 2020-21 profile of Tennessee’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Tennessee scores 18 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).

Rating relative to other states (high I medium I low):
TN is a low effort state.

| Fiscal effort summary | | |
|-----------------------|------------------|
| Tennessee effort | 2.68% |
| U.S. average effort | 3.53% |

- TN spends 2.68 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.85 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #47 of 50).

STATEWIDE ADEQUACY

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):
Statewide adequacy in TN is low.

PERCENT BELOW ADEQUATE COMPARISONS

The typical TN student’s district spends 16.9 pct. below adequate levels (rank #36).

EQUAL OPPORTUNITY

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

Rating relative to other states (high I medium I low):
Equal opportunity in TN is high.

EO gaps by student outcome gaps

- 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).
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.

### General

- **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 (API). GSP and API are measures of a state's economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID.

- **Statewide adequacy** measures how much each state's total economic capacity goes toward K-12 schools.

- **Equal opportunity** is achieved in a given state when none of that state's districts are substantially further above or below adequate spending levels than 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that EO is conceptually independent of statewide adequacy — 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 inadequately funded at different rates. To characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate average funding gap and dividing states into three groups using these average z-scores (terciles).

- **General**

- **The measures in this profile are interpreted relatively**— that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).

- **Overall state scores**: The overall scores reported at the top of this profile present a very simple summary of states’ combined “performance” on the three core indicators. Each state is scored entirely relative to other states, 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 (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 4) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pctl. points) (10%). 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**
  - SID variables used in this section: effort

- **Fiscal effort**

- **Statewide adequacy**

- **Equal opportunity**

- **Notes on data and measures**

    - **SFID datasets, tools, and reports, are freely available to download at:**

    - **Rutgers University Graduate School of Education**

- **NOTES ON DATA AND MEASURES**

    - **State School Finance Profiles 2020-21 (pub. 2024)**

- **www.schoolfinancedata.org
**FISCAL EFFORT**

**Texas 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).

**Rating** relative to other states (high l medium l low):
- **Texas effort** summary
  - Texas effort: 3.45%
  - U.S. average effort: 3.53%

- TX spends 3.45 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.09 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #31 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating** relative to other states (high l medium l low):
- **Statewide adequacy in Texas** is low.

- The typical TX student’s district spends 42.0 percent below adequate levels (rank #47).

**EQUAL OPPORTUNITY**

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

**Rating** relative to other states (high l medium l low):
- **Equal opportunity in Texas** is high.

- TX’s opportunity gap of -32.7 points is ranked #13 out of 48 (#1 = most equal).
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, tools, and reports, are freely available to download at schoolfinancedata.org. The following are some notes about the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The trend graph in the right panel presents the average statewide funding gap (the percentage difference between actual and estimated adequate funding) among the 20 percent largest in the nation.
- Qualitative results are provided in text, while the trend graph in the right panel presents the average statewide funding gap (the percentage difference between actual and estimated adequate funding) among the 20 percent largest in the nation.
- 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 funding per capita each state would need to return 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 2016-2012 exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-2012 funding would have been lower under states’ 2006 effort levels).
- In order to provide a sense of state capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three groups using terciles.

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 (API). GSP and API are measures of a state’s economic capacity. In this section, effort measures how much each state contributes as a percentage of how much it might contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-poverty states, 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.
- In every state, effort 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 above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4/5 vs. Q1/2 difference in adequacy gap, in p.ccts. (10%)). 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 Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from states sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state elementary and secondary school enrollment (Fall 2020) from the Digest of Education Statistics.

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common measures (i.e., categorical or contextual). A comparative note about the NECM, see the SID user’s guide (estimated adequate spending levels), or 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 between 2016 and 2021 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 2016-2012 exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-2012 funding would have been lower under states’ 2006 effort levels).

- In order to provide a sense of state capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three 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 educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “highest” poverty quintiles and a weighted average of the “lowest” and “lowest” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded in the same way, or in which funding is uniformly adequate, if high-poverty districts are more adequately funded than low-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (estimates will be released in early 2024).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- The center panel figure presents average funding levels and z-scores for all quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the two highest- and the two lowest-poverty groups). We calculate z-scores for different combinations of groups. The state (bars) and U.S. (teal diamond) estimates in the graph are averages difference between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal diamonds) represent an approximation of the national situation. Axis ranges for this graph 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 student outcome data are from 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
**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 economic capacity (i.e., ability to raise revenue).

- **UT** is a low effort state.

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utah effort</td>
</tr>
<tr>
<td>U.S. average effort</td>
</tr>
</tbody>
</table>

- UT spends 3.00 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.53 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #41 of 50).

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

- **Utah** is medium in statewide adequacy.

<table>
<thead>
<tr>
<th>Percent underfunded (rank #1 = most adequate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
</tr>
</tbody>
</table>
- The typical UT student’s district spends 7.0 pct. below adequate levels (rank #27).

**EQUAL OPPORTUNITY**

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

- UT’s opportunity gap of -14.8 points is ranked #2 out of 48 (#1=most equal).

**COMPULSORY SPENDING GAP**

- UT’s spending level is 7.6% below adequate in 2021.

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

<table>
<thead>
<tr>
<th>Period</th>
<th>UT</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-12 recession (2006-12)</td>
<td>-0.04</td>
<td>-0.13</td>
</tr>
<tr>
<td>Post-recession (2012-21)</td>
<td>-0.30</td>
<td>-0.06</td>
</tr>
<tr>
<td>Full period (2006-21)</td>
<td>-0.25</td>
<td>-0.19</td>
</tr>
</tbody>
</table>

**SUMMARY**

- UT’s 2021 effort level is 0.25 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2021 and 2026 is ranked #27 in the nation.

- UT’s effort was lower than its 2006 level in 6 of 6 years between 2012-2021; had effort recovered to its 2006 level during these years, total 2016-21 spending would have been $1.83 billion (5.4 percent) higher.
- UT is a relatively medium capacity state, with a GSP per capita ranked #22 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.

### 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 API. GSP and API 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. We present GSP-based efforts in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-capacity states, 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize each state's effort level as high, medium, or low when based on their effort levels (using terciles).** Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.

### 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both funding and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing complexity around the NECM, see the SID user’s guide, and data sources for further details.

- **Statewide adequacy estimates are available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).**
- **We characterize each state's statewide adequacy as low, medium, or high by comparing within-year z-scores for percent below adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).**
- **"Chronically below adequate" districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.**
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2016 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axes ranges for this graph are expanded in a handful of 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 educational 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 adequately funded in each of the districts. EO is measured independently of the degree to which funding is adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii.**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**
- **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 two highest- and the two lowest-poverty quintiles). The horizontal axis shows the groupings of states into different combinations of groups.** The state (bars) and U.S. (teal diamonds) represent different estimates in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal diamonds) represent an approximation of the national situation. Axes 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 student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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. Note that this gap compares different groups than does our opportunity gap measure. Axes ranges for this graph are expanded in a handful of states.
**VERMONT**

**OVERALL STATE SCORE NOT AVAILABLE**

**Summary:** This 2020-21 profile of Vermont’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. We cannot calculate an overall state score for Vermont, as data are not available for one or more of the measures we use in calculating those overall scores (see below).

**CONTEXTUAL STATS**

<table>
<thead>
<tr>
<th></th>
<th>VT</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child (5-17yo) poverty rate (%)</td>
<td>10.5</td>
<td>16.1</td>
</tr>
<tr>
<td>Public school coverage (%)</td>
<td>81.1</td>
<td>84.6</td>
</tr>
<tr>
<td>Percent revenue from state sources</td>
<td>88.1</td>
<td>45.3</td>
</tr>
<tr>
<td>Total enrollment (U.S. rank)</td>
<td>83,500 (51)</td>
<td></td>
</tr>
</tbody>
</table>

**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).

We do not publish fiscal effort estimates for Vermont between 2018-2021 due to data irregularities in that state.

- In the graph to the right, there are estimates for 2006-2017, but note that the national averages do not include Vermont.

**STATEWIDE ADEQUACY**

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

We do not publish statewide adequacy estimates for Vermont between 2017 and 2021 due to data irregularities in that state. You can view previous years’ data by downloading the full state dataset at the project website, but these estimates should be interpreted with caution.

**EQUAL OPPORTUNITY**

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

We cannot calculate equal opportunity for Vermont between 2017 and 2021 due to data irregularities in that state. You can view previous years’ data by downloading the full state dataset at the project website, but these estimates should be interpreted with caution.
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 state personal income (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-capacity states, such as California and Texas, can produce lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same funding. We therefore use effort primarily as a means of differentiating between low/moderate funding states that do and do not have the capacity to increase revenue.

- 

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 three ways: 1) the proportion of students in each state in districts with above adequate funding (30%); 2) statewide (%) adequacy gap (30%); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing cumulative spending for a given group (such as this section) or within a state. 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 above or below adequate funding levels than 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded in the same proportion. To measure statewide adequacy, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

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NOTES ON DATA AND MEASURES

State School Finance Profiles 2020-21 (publ. 2024)

www.schoolfinancedata.org
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).

Rating relative to other states (high I medium I low):
VA is a medium effort state.

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

Rating relative to other states (high I medium I low):
Statewide adequacy in VA is medium.

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

Rating relative to other states (high I medium I low):
Equal opportunity in VA is medium.

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
<th>VA</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virginia effort</td>
<td>3.30%</td>
<td>3.53%</td>
</tr>
<tr>
<td>U.S. average effort</td>
<td>3.53%</td>
<td>3.53%</td>
</tr>
</tbody>
</table>

- VA spends 3.30 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.23 percentage points lower than the unweighted U.S. average of 3.53 percent (rank #34 of 50).

<table>
<thead>
<tr>
<th>PERCENT BELOW ADEQUATE COMPARISONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
</tr>
</tbody>
</table>

- The typical VA student’s district spends 5.5 pct. below adequate levels (rank #25).

<table>
<thead>
<tr>
<th>ADEQUACY GAPS (%) BY DISTRICT POVERTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average (enr-weighted) funding gaps by poverty:</td>
</tr>
<tr>
<td>9.6%</td>
</tr>
<tr>
<td>-37.6%</td>
</tr>
<tr>
<td>-47.2 pts</td>
</tr>
</tbody>
</table>

- VA’s opportunity gap of -47.2 points is ranked #27 out of 48 (#1=most equal).

<table>
<thead>
<tr>
<th>EO gaps by student outcome gaps</th>
</tr>
</thead>
</table>
| VA’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).
### Notes on Data and Measures

State School Finance Profiles 2024 (publ. 2024)

#### 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, tools, and reports, are freely available to download at [schoolfinancedata.org](http://schoolfinancedata.org). The following are some notes about the profiles:

- **The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- **The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).**
- **Estimates for prior years 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 in the measures reported in this profile may differ slightly from the actual calculation of 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. Each state is scored entirely relative to other states, 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 averaged 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 above adequate funding (30%); 2) statewide (%) adequacy gap (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q45 vs. Q1/2 difference in adequacy gap, in pct. points) (10%). 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 Stats” table): 1) Child (5-17 year old) poverty (2021) from the U.S. Census Bureau’s Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for school coverage estimates; 3) percent of total (FY 2021) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total expenditures handled by state’s TOT state (Fall 2020) from the Digest of Education Statistics; 5) equity estimates by district poverty quintile (necm_outcomegap_q1-q5) established 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 (API). GSP and API 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 could contribute. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-capacity states with low fiscal effort, 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize states having state’s fiscal effort as high (using their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.**
- **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 had between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels).**
- **In order to provide a sense of states’ capacity, we characterize each state’s GSE per capita as small, medium, or large by sorting states into three 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both funding and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing correct sets of observations about the NECM, see the SID user’s guide (based on their effort levels (using terciles). Note that this gap compares different groups than those found in below adequate districts) require use of the SFID’s District Cost Database (DCD); 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 SID website (2021 estimates will be released in early 2024).

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).**
- **We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average average z-scores (terciles).**
- **“Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.**
- **The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—i.e., they represent adequacy in the typical state, not the typical student.**
- **The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized with each year (converted to standard deviations) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axis ranges for this graph are expanded in a handful of 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 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded, and further that funding levels are not ideally adequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- **EO estimates are not available for Vermont and Hawaii (due to the states’ single-district status) and cannot be calculated for D.C. (single government-run district state).**
- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**
- **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 two highest- and the two lowest-poverty quintiles), for all years and for the past 20 years. In this figure, different estimates in the graph are average differences between actual and estimated adequate spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined state by state, and so the U.S. averages (teal diamonds) represent an approximation of the national situation.**
- **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 student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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 gain in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.**

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[www.schoolfinancedata.org](http://www.schoolfinancedata.org)
**WASHINGTON**

**State School Finance Profile 2020-21 School Year**

**Summary:** This 2020-21 profile of Washington's public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), Washington scores 65 out of 100, which ranks 16th 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).

**Washington effort summary**

<table>
<thead>
<tr>
<th>Fiscal effort percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington effort</td>
</tr>
<tr>
<td>U.S. average effort</td>
</tr>
</tbody>
</table>

- WA spends 3.17% of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.37 percentage points lower than the unweighted U.S. average of 3.53% (rank #36 of 50).

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Statewide adequacy in WA is high.**

**Percent underfunded (rank #1 = most adequate)**

- Pct. of students in below adequate districts (rank of 49) 18.2% (#9)
- Pct. of students in chronically below adequate districts (rank) 3.00% (#7)

- The typical WA student’s district spends 22.3% above adequate levels (rank #10).

### Equal Opportunity

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

**Equal opportunity in WA is low.**

**Adequacy gaps (%) by district poverty**

<table>
<thead>
<tr>
<th>District poverty quintile</th>
<th>WA</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>59.6%</td>
<td>29.9%</td>
</tr>
<tr>
<td>Low</td>
<td>21.1%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Medium</td>
<td>-1.7%</td>
<td>-23.4%</td>
</tr>
<tr>
<td>High</td>
<td>-7.2%</td>
<td>-23.4%</td>
</tr>
<tr>
<td>Highest</td>
<td>-23.4%</td>
<td>-23.4%</td>
</tr>
</tbody>
</table>

- WA’s opportunity gap of -58.9 points is ranked #34 out of 48 (#1 = most equal).

### Contextual Stats

- Child (5-17yo) poverty rate (%): 11.2% (WA) vs. 16.1% (U.S.)
- Public school coverage (%): 85.8% (WA) vs. 84.6% (U.S.)
- Percent revenue from state sources: 67.7% (WA) vs. 45.3% (U.S.)
- Total enrollment (U.S. rank): 1,080,300 (14th)

**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</td>
<td>-0.14%</td>
<td>-0.13%</td>
</tr>
<tr>
<td>Post-recession</td>
<td>0.16%</td>
<td>-0.06%</td>
</tr>
<tr>
<td>Full period</td>
<td>0.02%</td>
<td>-0.19%</td>
</tr>
</tbody>
</table>

- WA’s effort was lower than its 2006 level in 2 of 6 years between 2016-2021; had effort recovered to its 2006 level during these years.
- Total 2016-2021 spending would have been $0.13 billion (0.1% percent) higher.
- WA is a relatively high capacity state, with a GSP per capita ranked #4 in the nation.

**Equal opportunity gaps by student outcome gaps**

- WA’s opportunity gap contributes to a student outcome gap: the state’s highest-poverty districts (pink dot) score 0.81 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 Al 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.

### 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SID. Bear in mind that high-capacity states, 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. We therefore use effort 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 2018-21 due to data irregularities), so as to keep a consistent set of states across years.**
- **We characterize states’ overall effort levels based on their effort levels (using terciles). Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.
- **The table in the right panel summarizes the center-point 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 and year.**
- **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 between 2016 and 2021 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 2016-21 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-21 funding would have been lower under states’ 2006 effort levels).**
- **In order to provide a sense of state capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three 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 three ways:

1. The proportion of students in each state in districts with above adequate funding (30%); 2) statewide (%)) adequacy gap (30%); 3) GSP-based fiscal effort (15%); and 4) personal income-based fiscal effort (15%) and 5) equal opportunity gap (Q4/Q vs. Q1/Q2 difference in adequacy gap, in pcts. points) (10%). 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.**

**Equal opportunity**

Equal 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) among the highest two and the lowest two-poverty districts in each state (i.e., a weighted average of the “highest” and “low” poverty quintiles and a weighted average of the “lowest” and “high” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. Note that EO is conceptually independent of statewide adequacy — 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 inadequately funded in ways that functionally make each group similarly inadequate, if high-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

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

- **We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).**

- **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 two highest and the two lowest quintiles; see below for a breakdown into higher and lower spenders). Each group is further divided by whether they exceed or fail to reach the national average in standard deviations (vertical axis). The student outcome data are for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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 gain in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.**

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NOTES ON DATA AND MEASURES

State School Finance Profiles 2020-21 (publ. 2024)

Fiscal effort

Statewide adequacy

Equal opportunity
**WEST VIRGINIA**

**STATE SCHOOL FINANCE PROFILE**

**2020-21 SCHOOL YEAR**

**Summary:** This 2020-21 profile of West Virginia’s public K-12 school finance system focuses on three core indicators: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures, with performance assessed relative to that of other states (see back), West Virginia scores 77 out of 100, which ranks 8th 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).

**Rating relative to other states** (high l medium l low):

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Virginia effort</td>
</tr>
<tr>
<td>U.S. average effort</td>
</tr>
</tbody>
</table>

- WV spends 4.15 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.62 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #8 of 50).

### STATEWIDE ADEQUACY

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states** (high l medium l low):

<table>
<thead>
<tr>
<th>Statewide adequacy in WV is high.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent underfunded (rank #1 = most adequate)</td>
</tr>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
</tr>
</tbody>
</table>

- The typical WV student’s district spends 14.2 pct. above adequate levels (rank #12).

### EQUAL OPPORTUNITY

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

**Rating relative to other states** (high l medium l low):

**Equal opportunity in WV is high.**

<table>
<thead>
<tr>
<th>ADEQUACY GAPS (%) BY DISTRICT POVERTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>WV Average</td>
</tr>
<tr>
<td>U.S. average</td>
</tr>
</tbody>
</table>

- WV’s opportunity gap of -19.5 points is ranked #3 out of 48 (#1=most equal).

### FISCAL EFFORT TREND, 2006-21

- WV’s 2021 effort level is 0.54 pct. points lower than it was pre-recession (2006).
- This net change in effort between 2006 and 2021 is ranked #42 in the nation.

### STATEWIDE ADEQUACY TRENDS, 2011-21

- Spending in WV was substantially less adequate in 2021 compared to 2011, with a net change (in standard deviations) of -0.544 s.d.

### EQUAL OPPORTUNITY GAPS

- 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).

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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 www.schoolfinancedata.org. The following are some notes on the profiles:

- The measures in this profile are interpreted relatively—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).
- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years may differ slightly from previous years, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, the percentage of how much it might cost to provide an 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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in combining both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common measures of this type. The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—are they represent adequacy in the typical state, not the typical student.
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations (vertical axis)). The student outcome data for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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) estimates is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.

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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in combining both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when comparing common measures of this type. The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—are they represent adequacy in the typical state, not the typical student.

- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student) normalized within each year (converted to standard deviations (vertical axis)). The student outcome data for 2019, the latest available year in the Stanford Education Data Archive (some districts’ values are imputed). The other markers (hollow 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) estimates is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts is 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 districts with same funding. The other markers (hollow 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) estimates is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state. Note that this gap compares different groups than does our opportunity gap measure. Axis ranges for this graph are expanded in a handful of states.
**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).

**Rating relative to other states** (high I medium I low):

- **WI is a medium effort state.**

<table>
<thead>
<tr>
<th>Fiscal effort summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wisconsin effort</td>
</tr>
<tr>
<td>U.S. average effort</td>
</tr>
</tbody>
</table>

- WI spends 3.63 percent of its economic capacity (gross state product) on its K-12 public schools.
- This effort level is 0.09 percentage points higher than the unweighted U.S. average of 3.53 percent (rank #21 of 50).

**STATEWIDE ADEQUACY**

**Statewide adequacy** compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right compares this state with other states in terms of the percentage of students in below adequate districts (spending is below adequate) and the percentage in chronically below adequate districts (the top 20% largest negative gaps nationally).

**Rating relative to other states** (high I medium I low):

- **Statewide adequacy in WI is high.**

<table>
<thead>
<tr>
<th>Percent underfunded (rank #1 = most adequate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. of students in below adequate districts (rank of 49)</td>
</tr>
<tr>
<td>Pct. of students in chronically below adequate districts (rank)</td>
</tr>
</tbody>
</table>

- The typical WI student’s district spends 2.7 pct. above adequate levels (rank #20).

**EQUAL OPPORTUNITY**

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

**Rating relative to other states** (high I medium I low):

- **Equal opportunity in WI is low.**

<table>
<thead>
<tr>
<th>Adequacy gaps (%) by district poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>District poverty quintile</td>
</tr>
<tr>
<td>A. Low/lowest poverty districts</td>
</tr>
<tr>
<td>B. High/highest poverty districts</td>
</tr>
<tr>
<td>C. Opportunity gap (B minus A)</td>
</tr>
</tbody>
</table>

- WI’s opportunity gap of -67.1 points is ranked #36 out of 48 (#1 = most equal).
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 is a synopsis of notes about the profiles.

**The measures in this profile are interpreted relatively**—that is, by making comparisons between states (rankings) and within states (e.g., by district poverty or over time).

- The years in the profile refer to the spring semester of the school year (e.g., 2021 is 2020-21).
- Estimates for prior years 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, differences in equal opportunity (EO) scores (final averages expressed as percentile equivalents) or differences in effort levels represent large revenue amounts, as the denominators are entire state economies.

**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 three ways: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; 2) the proportion of students in chronically below adequate districts (see below); and 3) 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. Given the imprecision inherent in comparing both finance and testing data between districts in all states, as well as the fact that we set a modest common outcome goal (average test scores), our adequacy estimates are most appropriate when looking compared to other information about the NECM, see the side bar’s guide to interpreting the funding levels in this section (e.g., percent in below adequate districts) require the use of the SFID’s District Cost Database (DCD); 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 (2021 estimates will be released in early 2024).

- **Statewide adequacy estimates are not available for Hawaii in all years (due to it being a geographically isolated, single-district state), and for Vermont between 2017 and 2021 (due to data irregularities). Estimates for D.C. apply to a single school district (District of Columbia Public Schools).
- We characterize each state’s statewide adequacy as low, medium, or high by averaging within-year z-scores for percent above adequate and average funding gap and dividing states into three groups using these average z-scores (terciles).
- “Chronically below adequate” districts are those with funding gaps (percent difference between actual and adequate funding) among the 20 percent largest in the nation.
- The regional and U.S. averages in the middle graph (the teal and gold diamonds, respectively) are unweighted—(i.e., they represent adequacy in the typical state, not the typical student).
- The trend graph in the right panel presents the average statewide adequacy gap (the percentage difference between actual and estimated adequate funding for the typical student normalized within each year (converted to standard deviations)) such that the average is zero. This allows for more appropriate comparisons over time. In the first bullet of this panel, states’ net changes between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change do not exceed 0.05 s.d. Range bars for this graph are expanded in a handful of 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded to the same extent. In other words, if funding levels for low-poverty districts are inadequately funded, high-poverty districts are also inadequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.

- EO estimates are not available for Vermont and Hawaii (as noted above) and cannot be calculated for D.C. (single-government-run district state).
- We characterize each state’s degree of equal opportunity as low, medium, or high by sorting states into three groups based on their opportunity gaps (using terciles).
- 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 two highest- and the two lowest-poverty districts). The bars (teal diamonds) and the trend line represent the typical state’s “opportunity gap” as measured by the NECM. The white circles (around 2010) indicate changes in funding levels in which funding for chronically high- and low-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.
- EO estimates are not available for Vermont and Hawaii (as noted above) and cannot be calculated for D.C. (single-government-run district state).
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- EO estimates are not available for Vermont and Hawaii (as noted above) and cannot be calculated for D.C. (single-government-run district state).
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- 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 two highest- and the two lowest-poverty districts). The bars (teal diamonds) and the trend line represent the typical state’s “opportunity gap” as measured by the NECM. The white circles (around 2010) indicate changes in funding levels in which funding for chronically high- and low-poverty districts are more adequately funded than lower-poverty districts. Statewide adequacy and equal opportunity as we define them are independent concepts.
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).

Rating relative to other states (high I medium I low):

WY is a high effort state.

### Statewide Adequacy

Statewide adequacy compares actual per-pupil (PP) spending in each state to estimates of the amount adequate to achieve the modest goal of U.S. average test scores. The graph to the right represents adequate funding gaps (as a %) by district poverty quintile (the teal diamonds are U.S. averages). The difference in pct. points between the (weighted) average gap of the two lowest-poverty and the two highest-poverty groups is a state’s “opportunity gap.”

Rating relative to other states (high I medium I low):

Equal opportunity in WY is medium.

### Equal Opportunity

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

Rating relative to other states (high I medium I low):

Equal opportunity in WY is medium.

<table>
<thead>
<tr>
<th>District poverty quintile</th>
<th>Average (enr-weighted) funding gaps by poverty</th>
<th>Wyoming</th>
<th>U.S. average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>107.6%</td>
<td>0%</td>
<td>48.5%</td>
</tr>
<tr>
<td>Low</td>
<td>90.6%</td>
<td>8%</td>
<td>63.6%</td>
</tr>
<tr>
<td>Medium</td>
<td>86.8%</td>
<td>4%</td>
<td>59.6%</td>
</tr>
</tbody>
</table>

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).
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 (SIFD), a state-level dataset containing roughly 125 variables. This profile focuses on three types of measures included in the SIFD: fiscal effort, statewide adequacy, and equal opportunity.

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 three ways: 1) the proportion of students in each state in districts with above adequate funding (30%); 2) statewide (%) adequacy funded (30%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q4S vs. Q1/Q2 difference in adequacy gap, in pcts. points) (10%). 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 is substantially further above or below adequate spending levels than 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 two highest- and the two lowest-poverty districts in each state (i.e., a weighted average of the “highest” and “high” poverty quintiles and a weighted average of the “lowest” and “low” poverty quintiles). Each state’s “opportunity gap” is the difference (in percentage points) between these two groups. 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 inadequately funded in the same relative manner. Trends for each district’s 5-year net change between 2011 and 2021 are characterized as “substantial” if the absolute change exceeds 0.3 s.d., “modest” if the absolute change is between 0.05 and 0.3 s.d., and “no more or less adequate” if the absolute change does not exceed 0.05 s.d. Axes ranges for this graph are expanded in a handful of 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 (API). GSP and API 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. We present GSP-based effort in these profiles, but the two are highly correlated, and the API-based effort indicator is available in the SFID. Bear in mind that high-capacity states with such economies, 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. We therefore use effort primarily 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 (difference between actual and required spending) for the typical student in each state. All these estimates include years in which 2016 recession (2006) effort level by 2016 (with 2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-2021 effort exceeded the state’s 2006 level, the hypothetical additional spending is zero (i.e., the hypothetical additional funding estimates do not include years in which 2016-2021 funding would have been lower under states’ 2006 effort levels).

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

NOTES ON DATA AND MEASURES

State School Finance Profiles 2020-21 (publ. 2024)

www.schoolfinancedata.org
(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