OHIO

Summary: This 2019-20 profile of Ohio's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, statewide adequacy, and equal opportunity. On a weighted average of these three measures (see back), Ohio scores 55 out of 100, which ranks 19th out of the 48 states with possible ratings.

FISCAL EFFORT

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

<table>
<thead>
<tr>
<th>State</th>
<th>Effort</th>
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<tbody>
<tr>
<td>Ohio</td>
<td>4.04%</td>
</tr>
<tr>
<td>U.S. average</td>
<td>3.61%</td>
</tr>
</tbody>
</table>

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

STATEWIDE ADEQUACY

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

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

EQUAL OPPORTUNITY

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

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

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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 data reports, are freely available to download at schoolfinancedata.org. The following are some general notes about the sources, followed by definitions and notes pertaining to the three types of measures they present:

- The years in this profile refer to the spring semester of the school year (e.g., 2022 is for the 2021-2022 school year).
- Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.
- Due to rounding, the results expressed as percentiles shown in tables from users’ manual calculations do not necessarily add up to 100 percent.
- The total number of states assigned rankings varies slightly by measure, as not all measures are available in all states.
- Overall state scores: The overall scores reported at the top of this profile provide a very simple summary of states’ combined “performance” on the three core indicators featured in the profile. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection/weighting of components entails subjective judgments on the part of the SFID research team.
- The scores are calculated as a weighted average of z-scores (final averages expressed as percentile-equivalents, with a score of 50 = z-score of 0) of the following measures (weights in parentheses): 1) percent of students in districts with above adequate funding (22.5%); 2) statewide (% adequacy gap) (22.5%); 3) GSP-based fiscal effort (15%); 4) personal income-based fiscal effort (15%); and 5) equal opportunity gap (Q5/Q1 difference in adequacy gap, in percentage points) (25%). State rankings may reflect differences in unrounded measures.
- D.C., Hawaii, and Vermont are not assigned scores, as one or more of the measures that constitute the scores cannot be calculated for these states.

Fiscal effort
Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but provide relatively greater per-pupil funding (due to the second definition) as a means of differentiating between low/inadequate funding states that do and do not have the capacity to increase revenue.
- U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years. In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles. Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we were able to calculate GSP-based effort, as quarterly GSP estimates are not available in all states.
- The table in the right panel summarizes the center-panel graph, with a focus on effort trends before and after the 2007-09 recession. The 2006-12 period (the “K-12 recession”) is highlighted in the table (rather than, say, 2006-09) because the direct impact of the recession on K-12 funding in the typical state persisted for a few years after the “official recession” ended, and because federal stimulus funds ran out after 2011. 2012 is therefore an apt starting point for assessing states’ reinvestment (or lack thereof). Trends, however, vary by state.
- In the third bullet of the right panel, below the table, we present a “thought experiment” of sorts, in which we calculate how much additional total state and local spending each state would have to spend (on education only), as compared to what was spent in the pre-recession (2006) effort level by 2016 (with 2012-2016 representing a reasonable time period for full recovery). For each state/year combination in which 2016-20 effort exceeded the state’s 2006 level, the hypothetical additional spending is indicated in the “Hypothetical additional funding estimates” do not include years in which 2016-20 funding would have been lower under states’ 2006 effort levels.
- In order to provide a sense of states’ capacity, we characterize each state’s GSP per capita as small, medium, or large by sorting states into three roughly equal groups using terciles.

Statewide adequacy
Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the SFID Cost Database (DCD); many but not all SID adequacy measures (all of which have variable name beginning with necm_ are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are calculated for each state and for each year. We do not report adequacy estimates in any year that is an incomplete (8th-12th grade) year or that has variable name beginning with necm_ estimates in the graph are not available before that.
- In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below adequate districts); moderately unequal (EO gap above 20 but below 50 percent); high (greater than 50 percent in below adequate districts).
- The regional cost patterns in the graph are based on the U.S. Census Bureau Annual Survey of School System Finances. The total number of states assigned rankings varies slightly by measure, as not all measures are available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates are calculated for each state and for each year. We do not report adequacy estimates in any year that is an incomplete (8th-12th grade) year or that has variable name beginning with necm_.
- The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state. The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates. The first bullet presents the total additional funding that would be required to close all these negative funding gaps (“ignoring” all districts in which actual spending exceeds adequate levels).

Equal opportunity
Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent of fiscal effort (as quarterly GSP estimates are not available before that).
- The center panel presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparisons of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation. (EO varies across this graph may vary between states.)
- In the table in the right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student testing outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes between the highest- (Q5) and lowest-poverty (Q1) estimate is presented in the first bullet, below the plot, and can be interpreted as a poverty-based student achievement gap in this state.