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).

KY is a medium effort state.

In FY 2020, KY spent 3.69 percent of its economic capacity (GSP) on its K-12 public schools.

This was 0.09 percentage points higher than the unweighted national average of 3.61 percent.

KY’s effort level ranks #21 in the nation (out of 50).

STATEWIDE ADEQUACY

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

Overall adequacy in KY is relatively moderate.

By the modest standard of U.S. average scores, 22.1 percent of KY students attend inadequately funded districts, which ranks #17 in the nation (out of 49).

The typical KY student’s district spends 15.6 percent above adequate levels, which ranks #22 in the nation.

EQUAL OPPORTUNITY

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

Educational opportunity in KY is highly unequal.

Spending in KY’s highest-poverty districts is 19.0 percent ($2,686 PP) below the estimated adequate level, compared with 33.6 percent ($3,010 PP) above adequate in the state’s most affluent districts.

This opportunity gap of -52.6 percentage points is ranked #24 in the nation (out of 48).

KY’s opportunity gap contributes to a student outcome gap; the state’s highest-poverty districts (pink dot) score 0.13 s.d. below its lowest-poverty districts (blue dot).
**General**

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

- **The years in the profile refer to the spring semester of the school year (e.g., 2020 is 2019-20).**
- **Estimates may differ slightly from previous profiles, as some measures are changed or improved each year, and all years are recalculated annually with updated data.**
- **Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.**
- **Due to SFID data sources and available 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.**
- **SFID data sources** (Contextual State table): 1) Child (5-17 year-old) poverty (2020) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SID documentation for sources used for public school coverage estimates; 3) percent of total (FY 2020) revenue from state sources from the U.S. Census Bureau Annual Survey of School System Finances; 4) total state public elementary and secondary school enrollment (Fall 2019) from the 2020 Digest of Education Statistics, published by the National Center for Education Statistics.

**Fiscal effort**

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

- **U.S. effort averages are unweighted and do not include Vermont in any year (effort not available in 2018-20 due to data irregularities), so as to keep a consistent set of states across all years.**
- **In the first bullet of the left panel, we characterize each state’s effort level as low, medium, or high by sorting states into three roughly equal groups using terciles.** Note that even seemingly small changes or differences in effort levels represent large revenue amounts, as the denominators are entire state economies. Note also that 2006 is the first year in which we calculate SFID’s efforts, as quarterly effort not available in all states.
- **In the table 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 do to increase its effort level by 1 percentage point (at least 20 percent below adequate and statewide gap above +50 percent; higher (50 percent) in below adequate districts).** The SFID data sources used to calculate this are expressed in dollars per pupil (e.g., the School Coverage Estimates, denoted “necm&quot;). Averages from the SFID data sources are U.S. Census estimates, so as to keep a consistent set of states across all years. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection of components entails subjective judgments on the part of the SFID research team.

**Statewide adequacy**

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of the estimates presented in this section of the profile can be calculated using SID variables, whereas others (e.g., the district-by-district estimates in the right panel) require the use of the School Cost Database (OCD); many but not all SID adequacy measures (all of which have variable name beginning with necm,) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy estimates do not represent comprehensively district-by-district, nor are they available in all states. Despite these limitations, they do provide a sense of each state’s adequacy overall and can be interpreted as a poverty-based student achievement gap in this state. For more information on how these estimates are derived, see the SFID data sources (e.g., the NECM adequacy gap, denoted “necm&quot;). Averages from the SFID data sources are U.S. Census estimates, so as to keep a consistent set of states across all years. They do not represent comprehensive evaluations of states’ school finance systems. Each state is scored entirely relative to other states (i.e., rather than based on some absolute standard of “good” or “bad”), and the selection of components entails subjective judgments on the part of the SFID research team.

- **In the first bullet of the left panel, we characterize statewide adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide gap less than +50 percent or greater); moderate (between 20 percent above adequate and statewide gap above +50 percent; higher (50 percent) in below adequate districts).**
- **In the second bullet of the left panel, we characterize adequacy as follows: high (fewer than 20 percent of students in below-adequate districts and statewide gap above +50 percent or greater); moderate (between 20 percent above adequate and statewide gap above +50 percent; higher (50 percent) in below adequate districts).**
- **In the third bullet of the left panel, we characterize each state’s adequacy estimates (percentage difference between actual and estimated adequate spending) for the typical student in each state.**
- **In the fourth bullet of the right panel, below the table, we present the number of districts with below adequate funding as well as the total number of districts in this state with valid estimates.**

**Equal opportunity**

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

- **EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state).**
- **In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -30 and -75 points); moderately unequal (-30 to +30 points); slightly unequal (+30 to +75 points); and relatively equal (+75 to +125 points).**
- **In the center panel figure presents adequate funding gaps for all five quintiles in each state (although opportunity gaps as we define them for the purposes of this profile use only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the U.S. averages (blue diamonds) represent an approximation of the national situation.**

**Notes on Data and Measures**

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