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

FISCAL EFFORT

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

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<th>MA</th>
<th>U.S.</th>
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<tbody>
<tr>
<td>MA's effort</td>
<td>3.12 %</td>
<td>3.61 %</td>
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<tr>
<td>U.S. average</td>
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- MA is a low effort state.
- In FY 2020, MA spent 3.12 percent of its economic capacity (GSP) on its K-12 public schools.
- This was 0.48 percentage points lower than the unweighted national average of 3.61 percent.
- MA's effort level ranks #42 in the nation (out of 50).

STATEWIDE ADEQUACY

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

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

EQUAL OPPORTUNITY

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

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

MASSACHUSETTS SCHOOL FINANCE PROFILE 2019-20
Fiscal effort

Fiscal effort indicates how much of a state’s total economic capacity goes toward K-12 schools. It is calculated in the SFID by dividing direct state and local K-12 expenditures by either Gross State Product (GSP) or aggregate state personal income. Both of these are measures of a state’s economic capacity. In this sense, effort measures how much each state contributes as a percentage of how much it might contribute. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high-capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still spend more per student due to higher economic capacity and as a result of more resources. Conversely, states with smaller economies, such as all of the southeastern states, may spend more per student due to a perceived need as a result of low economic capacity and other factors, such as fiscal pressure from state and local governments, and provincial spending patterns.”

The SFID measures every state’s ‘adequate spending’ level based on the Commonwealth of Pennsylvania’s state plan. Adequate spending is defined in terms of the Commonwealth’s cost model for 2006. In the second bullet of the left panel, we present the number of states that had not met adequate spending levels for each measure used in the SFID. As with other SFID measures, adequate spending levels vary by state and by measure. For a state to meet its adequate spending level, it would have to spend a certain dollar amount per student as defined by the state plan. The SFID does not account for differences in state economic capacity, but does account for differences in state fiscal capacity. The SFID reports on how much each state is spending relative to its ‘adequate’ or ‘minimum’ level of spending.”

Statewide adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a minimum/acceptable level of educational outcomes. Our adequacy estimates compare each district’s actual spending levels to estimates from cost models of how much that district would have to spend in order to achieve national average test scores (i.e., “required” or “adequate” spending). We express statewide adequacy in terms of either: 1) the proportion of students in each state in districts with actual funding below estimated adequate levels; and 2) the adequacy gap (percentage difference between actual and estimated adequate spending) for the typical student in each state. All these estimates are from the National Education Cost Model (NECM), which is part of the SID. The NECM calculates required spending based on the relationship between outcomes and cost factors such as regional wage variation, district size, and student characteristics. Note that this model and the data it uses are necessarily imperfect, and estimates should be viewed with appropriate caution. For more information about the NECM, see the SID user’s guide. Some of these 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 not all SID adequacy measures (all of which have variable name beginning with necm_) are aggregations of DCD estimates. The full DCD dataset (going back to 2009) is also publicly available at the SFID website (2020 estimates will be released in early 2023). Statewide adequacy measures are available in all the states that have an NECM (87 states); a few states are U.S. Census divisions (9 groups). MA’s division is New England. Axis ranges for the bottom graph may vary by state. The table in the right panel presents adequacy estimates (percentage difference between actual and estimated adequate spending) for the 10 largest (enrollment) districts in this state. The first bullet directly below the table presents the number of districts with below adequate funding as well as the total number of districts in this state with valid data. The first bullet presents the total additional funding that would be required to close all these negative funding gaps (ignoring all districts in which actual spending exceeds adequate levels).”

Equal opportunity

Equal educational opportunity is achieved in a given state when none of that state’s districts are substantially further above or below adequate spending levels than are other districts. In the SFID, we measure equal opportunity (EO) with the same NECM estimates used for statewide adequacy (see above), but in this case by comparing adequacy gaps (percentage difference between actual and estimated adequate spending) between the highest- and lowest-poverty districts in each state. That is, each state’s “opportunity gap” is the difference (in percentage points) between these two groups (district poverty groups are defined in terms of quintiles—e.g., the 20 percent highest-poverty districts compared with the 20 percent lowest-poverty districts in each state). Note that EO is conceptually independent from (and distinct from) an adequacy gap (e.g., a hypothetical state in which all districts are below adequate funding levels might still exhibit EO, so long as high- and low-poverty districts are inadequate by roughly the same proportions, whereas highly unequal opportunity might exist in a state in which funding is universally adequate, if high-poverty districts are more adequately funded than low-poverty districts. EO estimates are not available for Vermont and Hawaii (adequacy estimates not available), and cannot be calculated for D.C. (single government-run district state). In the first bullet of the left panel, we characterize EO in each state as follows: severely unequal (EO gap less than -75 points); highly unequal (EO gap between -60 and -75 points); moderately unequal (-80 and -60); and roughly equal (-80 and -75). 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 include only the highest- and lowest-poverty groups, this graph permits comparison of gaps between different combinations of groups). The state (bars) and U.S. (blue diamonds) estimates in the graph are average differences between actual and required spending (weighted by enrollment), by district poverty quintile. Note, however, that poverty quintiles are defined by state, and so the state estimates may not fully reflect the national picture. The center panel illustrates how much spending is needed to close the opportunity gaps across poverty quintiles. The right panel presents, by district poverty quintile, adequacy (difference between actual and required spending) expressed in dollars per pupil (horizontal axis) by average student test outcomes expressed as the difference from the national average in standard deviations (vertical axis). The other markers (circles) in the plot are other states’ district poverty groups (color coded in the same manner, but with more transparent markers to allow for clear viewing of this state’s markers). The difference in student outcomes in the right panel presents the hypothetical additional funding needed to achieve the national average in test outcomes in the top quintile of districts.