STATE SCHOOL FINANCE PROFILES

Profiles of School Funding Adequacy and Fairness for 50 States and D.C.

2017-18

Bruce D. Baker
Matthew Di Carlo
Lauren Schneider
Mark Weber

ALBERT SHANKER INSTITUTE

RUTGERS Graduate School of Education

January 2021

The Albert Shanker Institute, endowed by the American Federation of Teachers and named in honor of its late president, is a nonprofit, nonpartisan organization dedicated to three themes—children's education, unions as an advocate for quality, and both civic education and freedom of association in the public life of democracies. Its mission is to generate ideas, foster candid exchanges and promote constructive policy proposals related to these issues.

The Institute commissions original analyses, organizes seminars, sponsors publications and subsidizes selected projects. Its independent board of directors is composed of educators, business representatives, labor leaders, academics and public policy analysts. This document does not necessarily represent the views of the members of its board of directors.

Rutgers University Graduate School of Education (GSE) is committed to ***Advancing Excellence and Equity in Education***. For nearly a century, the GSE has been a national leader in preparing educators, researchers, and leaders who create effective and equitable learning opportunities for diverse learners. Rutgers GSE is consistently ranked among the best schools of education in the country. In partnership with educators, our world-class faculty conduct innovative research to understand a broad range of educational issues and to advance educational practices and policies. GSE alumni have gone on to become effective practitioners, transformative leaders, and accomplished researchers in the United States and throughout the world.

ABOUT THE AUTHORS

Bruce D. Baker is Professor in the Graduate School of Education at Rutgers University and author of *Educational Inequality and School Finance: Why Money Matters for America's Students*.

Matthew Di Carlo is a senior fellow at the Albert Shanker Institute in Washington, D.C. He has a B.A. from Fordham University and a Ph.D. in sociology from Cornell University.

Lauren Schneider is a fellow at the Albert Shanker Institute in Washington, D.C. She is currently completing her master's degree program in Educational Transformation at Georgetown University.

Mark Weber is the Special Analyst for Education Policy at the New Jersey Policy Perspective and a lecturer in education policy at Rutgers University, where he earned his PhD. He is also a music teacher in Warren Township, NJ.

Acknowledgments

The authors wish to acknowledge the assistance of Bilan Jama, Emilee O'Brien, Ajay Srikanth, and Vicki Thomas, as well the W.T. Grant Foundation for their past support of the data and model development.

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, 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 state-specific detail 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 individual state profiles can be downloaded at the SFID website.

It is important to note that the latest year of data presented in the state profiles is 2017-18, which means the data predate the coronavirus pandemic and the economic crisis it caused. It will be a couple of years before we are able to publish the SFID data for a time period that reflects the impact of this crisis. In the meantime, however, it is crucial for policymakers and the public to examine and understand their school finance systems as they were prior to the pandemic. The features and performance of each state's system will to no small extent determine the severity and duration of the current downturn's impact on its school budgets, as well as its ability to withstand future economic crises.

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. **Adequacy**: whether states provide districts with resources sufficient to meet common outcome goals;
3. **Progressivity**: whether states allocate more resources to districts serving larger proportions of disadvantaged children.

In the profiles, 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 possible, trends over time.

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. It is our hope that the profiles contribute to improving the quality and productivity of school finance debates and policymaking.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

ALABAMA

Description: This 2017-18 profile of Alabama's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Alabama devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

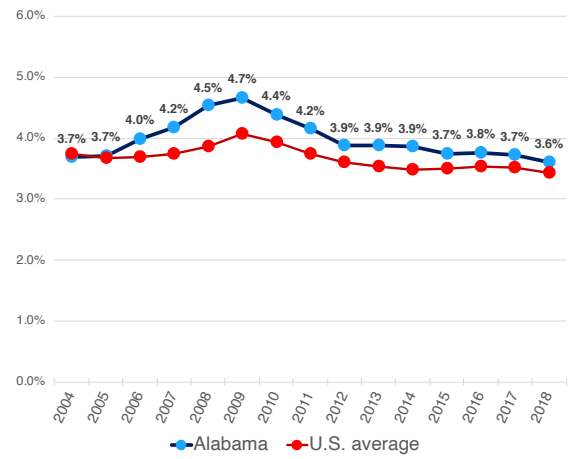
CONTEXTUAL STATS	AL.	U.S.
Child (5-17yo) poverty rate (%)	22.8	17.0
Public school coverage (%)	86.7	87.6
Pct. revenue from state sources	54.9	46.7
Total K-12 enrollment (U.S. rank)	742,444 (24)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Alabama effort	3.61 %
U.S. average	3.43 %

- In FY 2018, Alabama spent 3.61% of its economic capacity directly on K-12 education.
- This was 0.18 percentage points higher than the unweighted national average of 3.43%.
- Alabama's effort level ranks #17 in the nation (out of 49).



Effort trends, 2004-18

- Effort in AL increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.69% in 2004 to 4.67% in 2009.

Net change by period (% pts.)

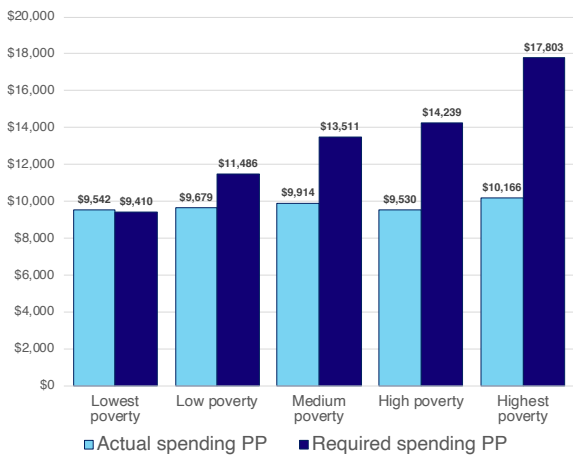
Period	AL	U.S.
2004-2009	0.98	0.33
2009-2018	-1.05	-0.64
2004-2018	-0.07	-0.31

- This was followed by a decrease of 1.05 percentage points between 2009 and 2018.
- AL's effort was 0.07 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Alabama's highest poverty districts is $7,637 PP lower than the estimated adequate level ($17,803), a difference of -42.9%.
- Districts in Alabama's second highest poverty quintile spend 33.1% less than the adequate level.



Adequacy: AL vs U.S. average

Percent above / below adequate

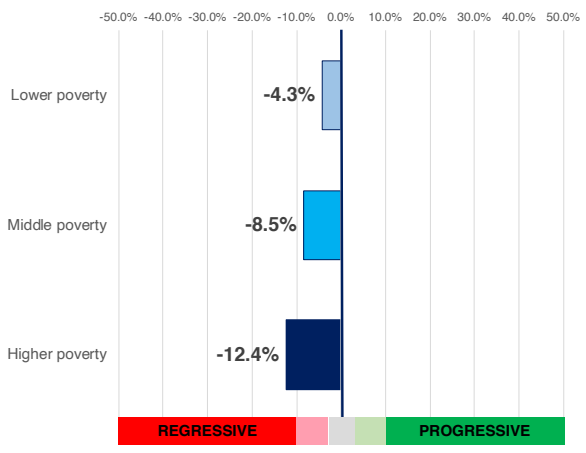
District poverty	AL	U.S.
Lowest poverty	1.4	45.4
Low poverty	-15.7	11.4
Medium poverty	-26.6	-2.0
High poverty	-33.1	-15.1
Highest poverty	-42.9	-20.7

- In its highest poverty districts, Alabama's spending is 42.9% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Alabama's highest poverty districts ranks #42 in the nation (out of 49).

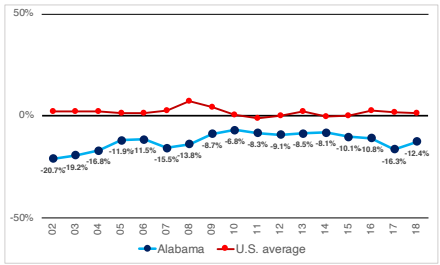
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Alabama is regressive.
- Higher poverty districts receive 12.4% less revenue than zero poverty districts (this level of progressivity ranks #44 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- AL's funding was less regressive in 2018 (-12.4%) vs. 2002 (-20.7%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

ALASKA

Description: This 2017-18 profile of Alaska's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Alaska devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

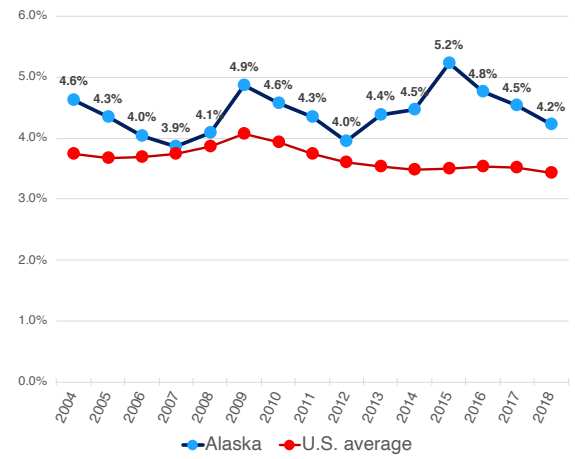
CONTEXTUAL STATS	AK	U.S.
Child (5-17yo) poverty rate (%)	13.2	17.0
Public school coverage (%)	91.5	87.6
Pct. revenue from state sources	62.5	46.7
Total K-12 enrollment (U.S. rank)	132,872 (47)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Alaska effort	4.23 %
U.S. average	3.43 %

- In FY 2018, Alaska spent 4.23% of its economic capacity directly on K-12 education.
- This was 0.79 percentage points higher than the unweighted national average of 3.43%.
- Alaska's effort level ranks #4 in the nation (out of 49).



Effort trends, 2004-18

- Effort in AK increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.63% in 2004 to 4.87% in 2009.

Net change by period (% pts.)

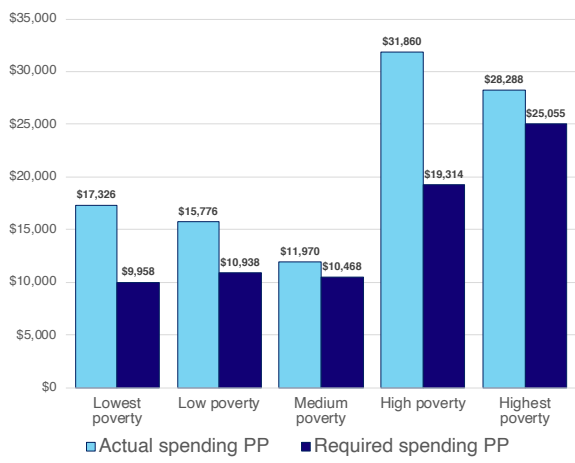
Period	AK	U.S.
2004-2009	0.24	0.33
2009-2018	-0.64	-0.64
2004-2018	-0.40	-0.31

- This was followed by a decrease of 0.64 percentage points between 2009 and 2018.
- AK's effort was 0.40 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Alaska's highest poverty districts is $3,233 PP higher than the estimated adequate level ($25,055), a difference of 12.9%.
- Districts in Alaska's second highest poverty quintile spend 65.0% more than the adequate level.



Adequacy: AK vs U.S. average

Percent above / below adequate

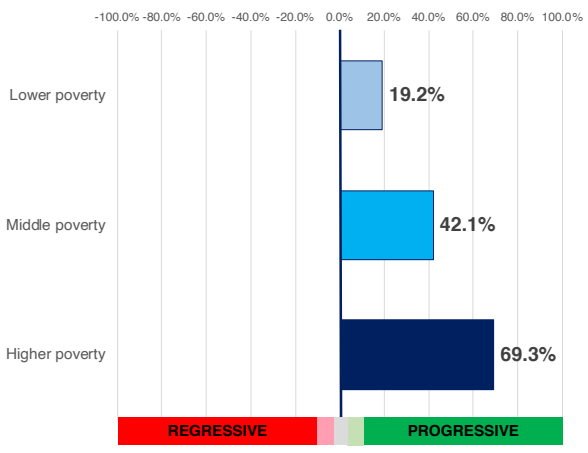
District poverty	AK	U.S.
Lowest poverty	74.0	45.4
Low poverty	44.2	11.4
Medium poverty	14.3	-2.0
High poverty	65.0	-15.1
Highest poverty	12.9	-20.7

- In its highest poverty districts, Alaska's spending is 12.9% above the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Alaska's highest poverty districts ranks #5 in the nation (out of 49).

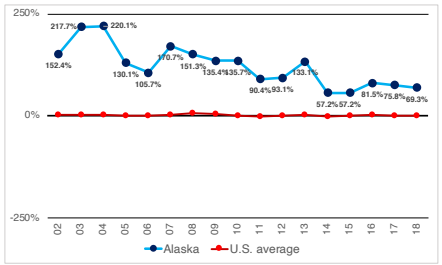
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Alaska is progressive.
- Higher poverty districts receive 69.3% more revenue than zero poverty districts (this level of progressivity ranks #1 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- AK's funding was more regressive in 2018 (69.3%) vs. 2002 (152.4%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

ARIZONA

Description: This 2017-18 profile of Arizona's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Arizona devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

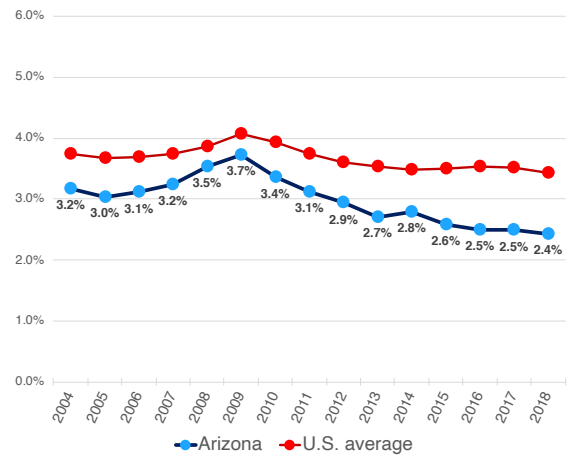
CONTEXTUAL STATS	AZ	U.S.
Child (5-17yo) poverty rate (%)	19.2	17.0
Public school coverage (%)	89.4	87.6
Pct. revenue from state sources	40.4	46.7
Total K-12 enrollment (U.S. rank)	1,110,851	(13)

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Arizona effort	2.43 %
U.S. average	3.43 %

- In FY 2018, Arizona spent 2.43% of its economic capacity directly on K-12 education.
- This was 1.00 percentage points lower than the unweighted national average of 3.43%.
- Arizona's effort level ranks #49 in the nation (out of 49).



Effort trends, 2004-18

- Effort in AZ increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.18% in 2004 to 3.73% in 2009.

Net change by period (% pts.)

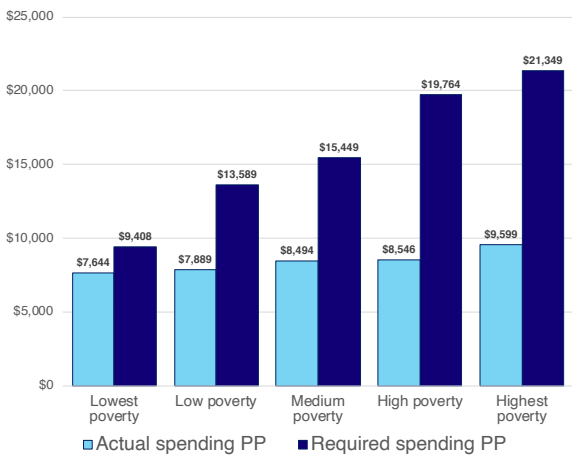
Period	AZ	U.S.
2004-2009	0.55	0.33
2009-2018	-1.30	-0.64
2004-2018	-0.75	-0.31

- This was followed by a decrease of 1.30 percentage points between 2009 and 2018.
- AZ's effort was 0.75 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Arizona's highest poverty districts is $11,750 PP lower than the estimated adequate level ($21,349), a difference of -55.0%.
- Districts in Arizona's second highest poverty quintile spend 56.8% less than the adequate level.



Adequacy: AZ vs U.S. average

Percent above / below adequate

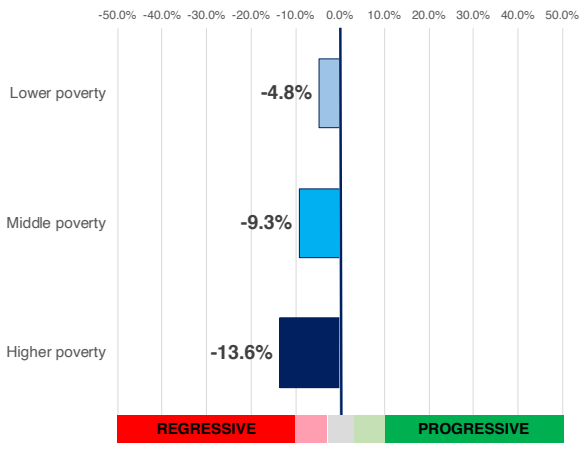
District poverty	AZ	U.S.
Lowest poverty	-18.8	45.4
Low poverty	-41.9	11.4
Medium poverty	-45.0	-2.0
High poverty	-56.8	-15.1
Highest poverty	-55.0	-20.7

- In its highest poverty districts, Arizona's spending is 55.0% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Arizona's highest poverty districts ranks #49 in the nation (out of 49).

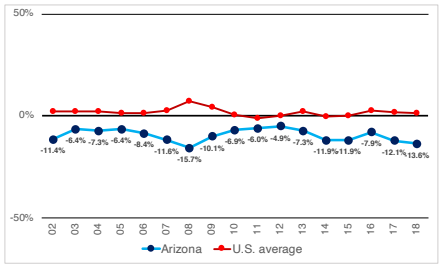
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Arizona is regressive.
- Higher poverty districts receive 13.6% less revenue than zero poverty districts (this level of progressivity ranks #45 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- AZ's funding was more regressive in 2018 (-13.6%) vs. 2002 (-11.4%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

ARKANSAS

Description: This 2017-18 profile of Arkansas's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Arkansas devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

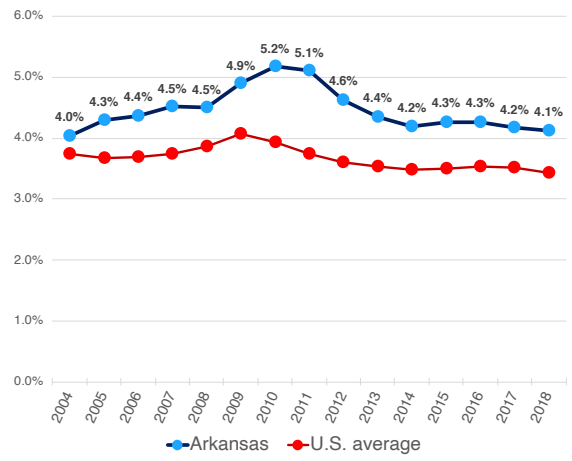
CONTEXTUAL STATS	AR	U.S.
Child (5-17yo) poverty rate (%)	22.1	17.0
Public school coverage (%)	88.8	87.6
Pct. revenue from state sources	76.0	46.7
Total K-12 enrollment (U.S. rank)	496,085 (33)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Arkansas effort	4.13 %
U.S. average	3.43 %

- In FY 2018, Arkansas spent 4.13% of its economic capacity directly on K-12 education.
- This was 0.69 percentage points higher than the unweighted national average of 3.43%.
- Arkansas's effort level ranks #7 in the nation (out of 49).



Effort trends, 2004-18

- Effort in AR increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.04% in 2004 to 4.89% in 2009.

Net change by period (% pts.)

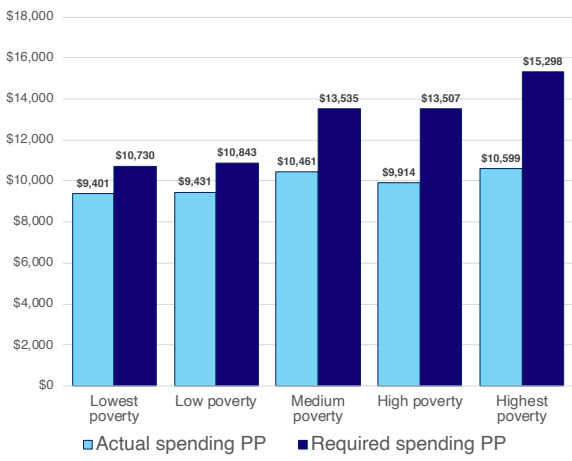
Period	AR	U.S.
2004-2009	0.85	0.33
2009-2018	-0.77	-0.64
2004-2018	0.09	-0.31

- This was followed by a decrease of 0.77 percentage points between 2009 and 2018.
- AR's effort was 0.09 percentage points higher in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Arkansas's highest poverty districts is $4,699 PP lower than the estimated adequate level ($15,298), a difference of -30.7%.
- Districts in Arkansas's second highest poverty quintile spend 26.6% less than the adequate level.



Adequacy: AR vs U.S. average

Percent above / below adequate

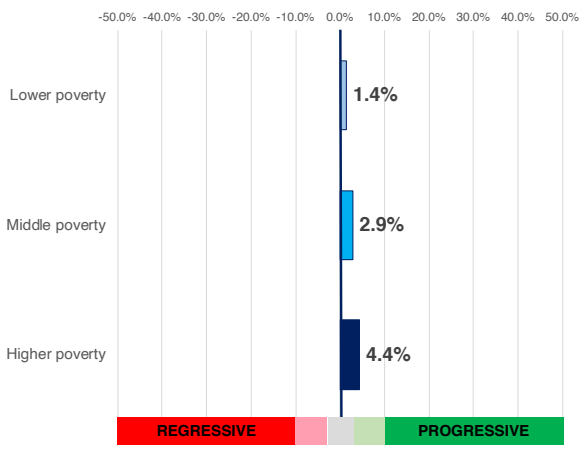
District poverty	AR	U.S.
Lowest poverty	-12.4	45.4
Low poverty	-13.0	11.4
Medium poverty	-22.7	-2.0
High poverty	-26.6	-15.1
Highest poverty	-30.7	-20.7

- In its highest poverty districts, Arkansas's spending is 30.7% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Arkansas's highest poverty districts ranks #34 in the nation (out of 49).

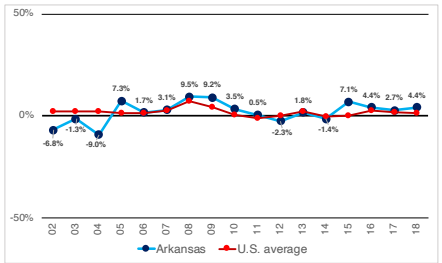
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Arkansas is moderately progressive.
- Higher poverty districts receive 4.4% more revenue than zero poverty districts (this level of progressivity ranks #18 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- AR's funding was more progressive in 2018 (4.4%) vs. 2002 (-6.8%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

CALIFORNIA

Description: This 2017-18 profile of California's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much California devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

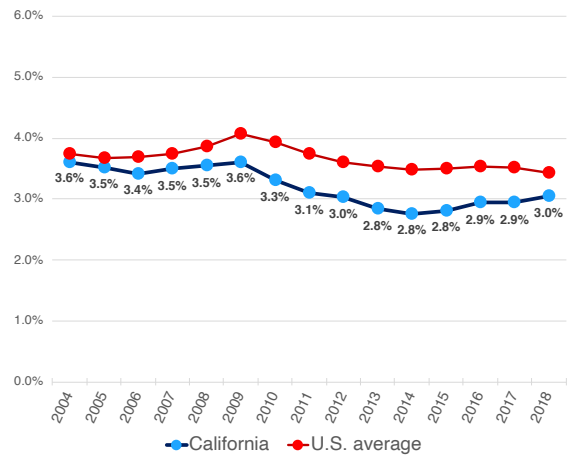
CONTEXTUAL STATS	CA	U.S.
Child (5-17yo) poverty rate (%)	16.9	17.0
Public school coverage (%)	89.8	87.6
Pct. revenue from state sources	56.1	46.7
Total K-12 enrollment (U.S. rank)	6,304,266 (1)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

California effort	3.05 %
U.S. average	3.43 %

- In FY 2018, California spent 3.05% of its economic capacity directly on K-12 education.
- This was 0.39 percentage points lower than the unweighted national average of 3.43%.
- California's effort level ranks #35 in the nation (out of 49).



Effort trends, 2004-18

- Effort in CA did not change in the years before the "Great Recession's" main impact on K-12 funding, going from 3.61% in 2004 to 3.61% in 2009.

Net change by period (% pts.)

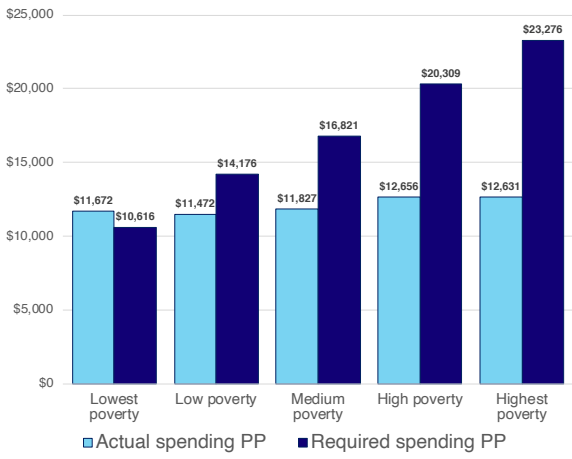
Period	CA	U.S.
2004-2009	0.00	0.33
2009-2018	-0.56	-0.64
2004-2018	-0.56	-0.31

- This was followed by a decrease of 0.56 percentage points between 2009 and 2018.
- CA's effort was 0.56 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in California's highest poverty districts is $10,645 PP lower than the estimated adequate level ($23,276), a difference of -45.7%.
- Districts in California's second highest poverty quintile spend 37.7% less than the adequate level.



Adequacy: CA vs U.S. average

Percent above / below adequate

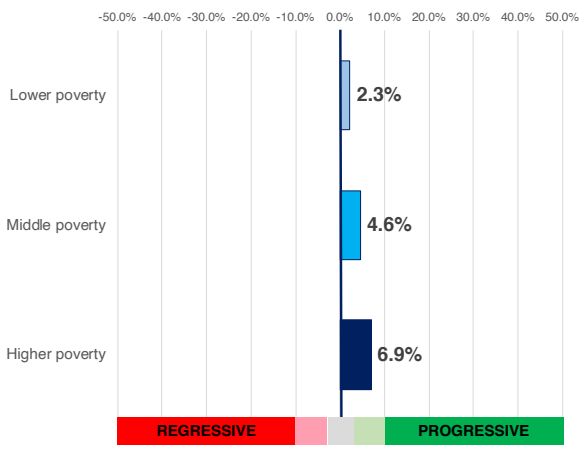
District poverty	CA	U.S.
Lowest poverty	9.9	45.4
Low poverty	-19.1	11.4
Medium poverty	-29.7	-2.0
High poverty	-37.7	-15.1
Highest poverty	-45.7	-20.7

- In its highest poverty districts, California's spending is 45.7% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in California's highest poverty districts ranks #45 in the nation (out of 49).

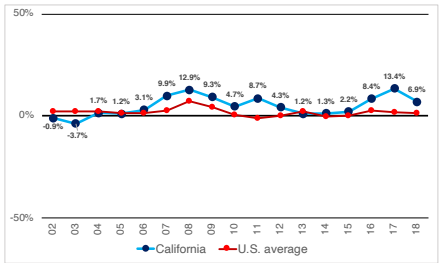
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in California is moderately progressive.
- Higher poverty districts receive 6.9% more revenue than zero poverty districts (this level of progressivity ranks #14 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- CA's funding was more progressive in 2018 (6.9%) vs. 2002 (-0.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

COLORADO

Description: This 2017-18 profile of Colorado's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Colorado devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

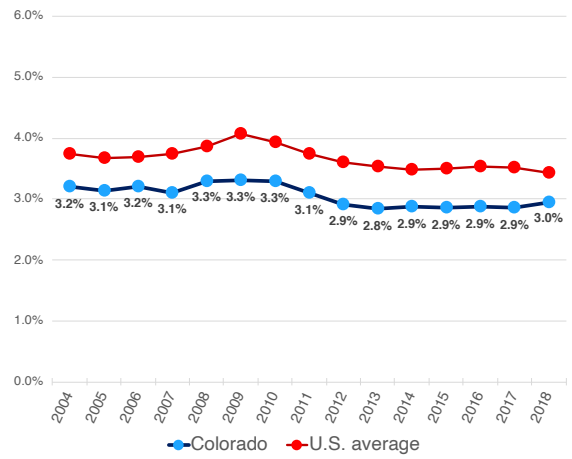
CONTEXTUAL STATS	CO	U.S.
Child (5-17yo) poverty rate (%)	11.5	17.0
Public school coverage (%)	90.0	87.6
Pct. revenue from state sources	41.2	46.7
Total K-12 enrollment (U.S. rank)	910,280 (19)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Colorado effort	2.95 %
U.S. average	3.43 %

- In FY 2018, Colorado spent 2.95% of its economic capacity directly on K-12 education.
- This was 0.48 percentage points lower than the unweighted national average of 3.43%.
- Colorado's effort level ranks #40 in the nation (out of 49).



Effort trends, 2004-18

- Effort in CO increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.20% in 2004 to 3.30% in 2009.

Net change by period (% pts.)

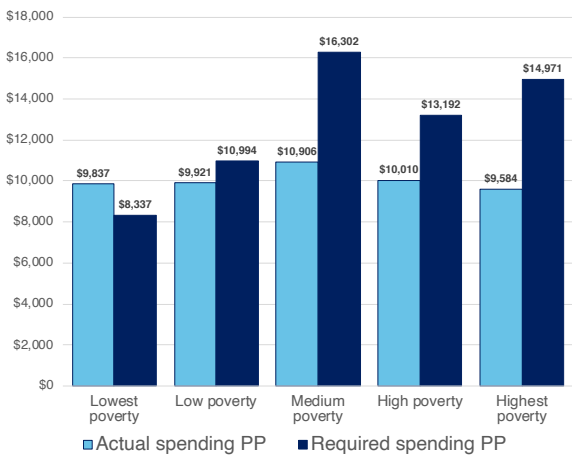
Period	CO	U.S.
2004-2009	0.10	0.33
2009-2018	-0.35	-0.64
2004-2018	-0.25	-0.31

- This was followed by a decrease of 0.35 percentage points between 2009 and 2018.
- CO's effort was 0.25 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Colorado's highest poverty districts is $5,387 PP lower than the estimated adequate level ($14,971), a difference of -36.0%.
- Districts in Colorado's second highest poverty quintile spend 24.1% less than the adequate level.



Adequacy: CO vs U.S. average

Percent above / below adequate

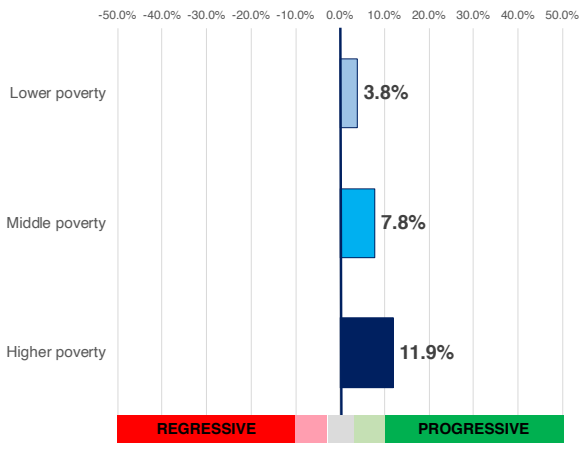
District poverty	CO	U.S.
Lowest poverty	18.0	45.4
Low poverty	-9.8	11.4
Medium poverty	-33.1	-2.0
High poverty	-24.1	-15.1
Highest poverty	-36.0	-20.7

- In its highest poverty districts, Colorado's spending is 36.0% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Colorado's highest poverty districts ranks #39 in the nation (out of 49).

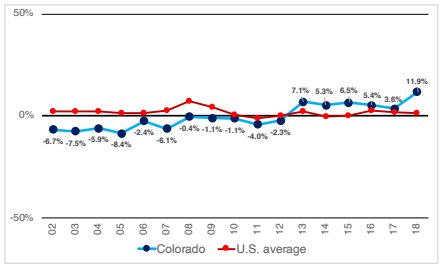
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Colorado is progressive.
- Higher poverty districts receive 11.9% more revenue than zero poverty districts (this level of progressivity ranks #7 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- CO's funding was more progressive in 2018 (11.9%) vs. 2002 (-6.7%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

CONNECTICUT

Description: This 2017-18 profile of Connecticut's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Connecticut devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

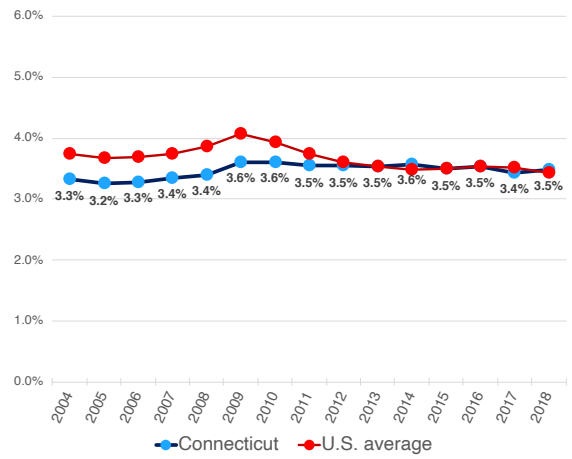
CONTEXTUAL STATS	CT	U.S.
Child (5-17yo) poverty rate (%)	13.0	17.0
Public school coverage (%)	89.9	87.6
Pct. revenue from state sources	37.8	46.7
Total K-12 enrollment (U.S. rank)	531,288 (30)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Connecticut effort	3.48 %
U.S. average	3.43 %

- In FY 2018, Connecticut spent 3.48% of its economic capacity directly on K-12 education.
- This was 0.05 percentage points higher than the unweighted national average of 3.43%.
- Connecticut's effort level ranks #24 in the nation (out of 49).



Effort trends, 2004-18

- Effort in CT increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.32% in 2004 to 3.61% in 2009.

Net change by period (% pts.)

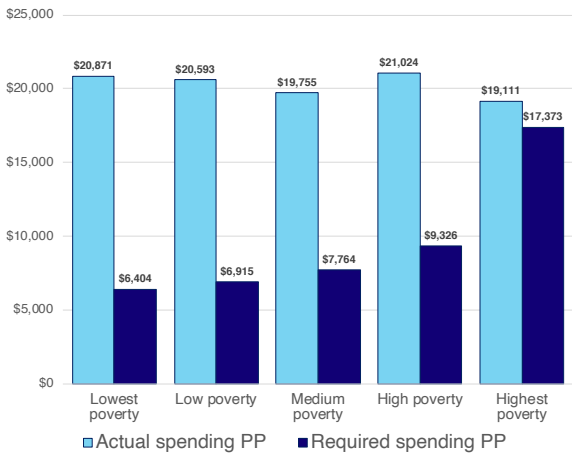
Period	CT	U.S.
2004-2009	0.29	0.33
2009-2018	-0.13	-0.64
2004-2018	0.16	-0.31

- This was followed by a decrease of 0.13 percentage points between 2009 and 2018.
- CT's effort was 0.16 percentage points higher in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Connecticut's highest poverty districts is $1,738 PP higher than the estimated adequate level ($17,373), a difference of 10.0%.
- Districts in Connecticut's second highest poverty quintile spend 125.4% more than the adequate level.



Adequacy: CT vs U.S. average

Percent above / below adequate

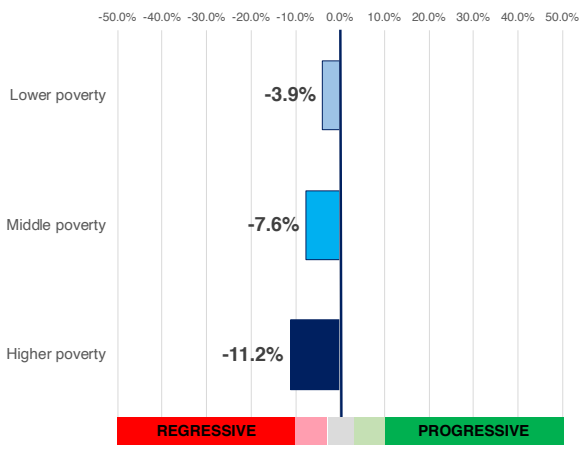
District poverty	CT	U.S.
Lowest poverty	225.9	45.4
Low poverty	197.8	11.4
Medium poverty	154.4	-2.0
High poverty	125.4	-15.1
Highest poverty	10.0	-20.7

- In its highest poverty districts, Connecticut's spending is 10.0% above the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Connecticut's highest poverty districts ranks #6 in the nation (out of 49).

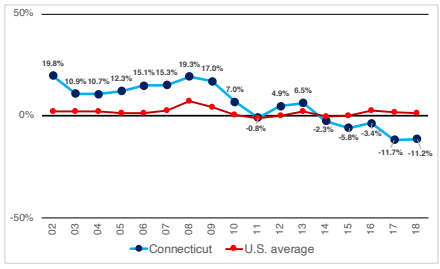
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Connecticut is regressive.
- Higher poverty districts receive 11.2% less revenue than zero poverty districts (this level of progressivity ranks #40 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- CT's funding was more regressive in 2018 (-11.2%) vs. 2002 (19.8%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

DELAWARE

Description: This 2017-18 profile of Delaware's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Delaware devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

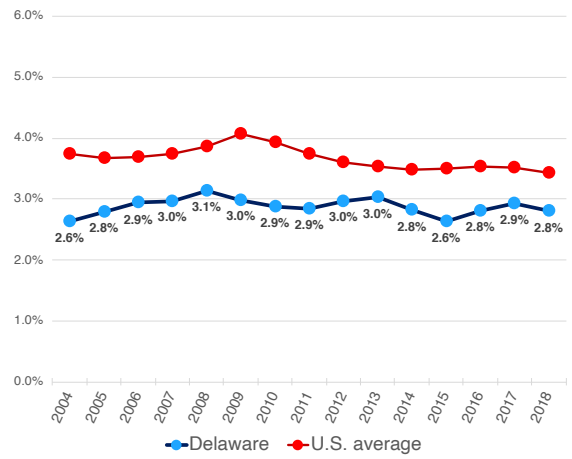
CONTEXTUAL STATS	DE	U.S.
Child (5-17yo) poverty rate (%)	16.5	17.0
Public school coverage (%)	87.1	87.6
Pct. revenue from state sources	63.4	46.7
Total K-12 enrollment (U.S. rank)	136,293 (46)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Delaware effort	2.80 %
U.S. average	3.43 %

- In FY 2018, Delaware spent 2.80% of its economic capacity directly on K-12 education.
- This was 0.63 percentage points lower than the unweighted national average of 3.43%.
- Delaware's effort level ranks #44 in the nation (out of 49).



Effort trends, 2004-18

- Effort in DE increased in the years before the "Great Recession's" main impact on K-12 funding, going from 2.63% in 2004 to 2.98% in 2009.

Net change by period (% pts.)

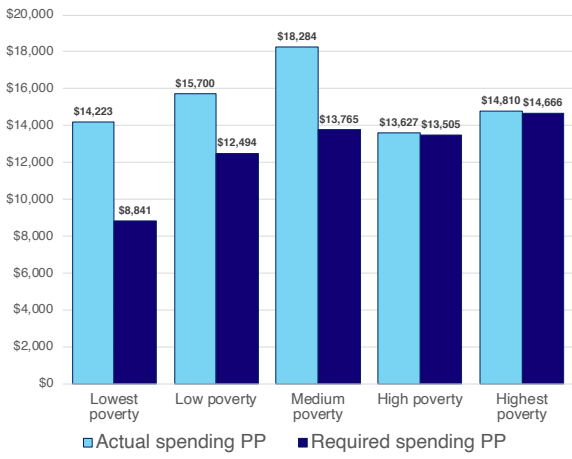
Period	DE	U.S.
2004-2009	0.36	0.33
2009-2018	-0.18	-0.64
2004-2018	0.18	-0.31

- This was followed by a decrease of 0.18 percentage points between 2009 and 2018.
- DE's effort was 0.18 percentage points higher in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Delaware's highest poverty districts is $144 PP higher than the estimated adequate level ($14,666), a difference of 1.0%.
- Districts in Delaware's second highest poverty quintile spend 0.9% more than the adequate level.



Adequacy: DE vs U.S. average

Percent above / below adequate

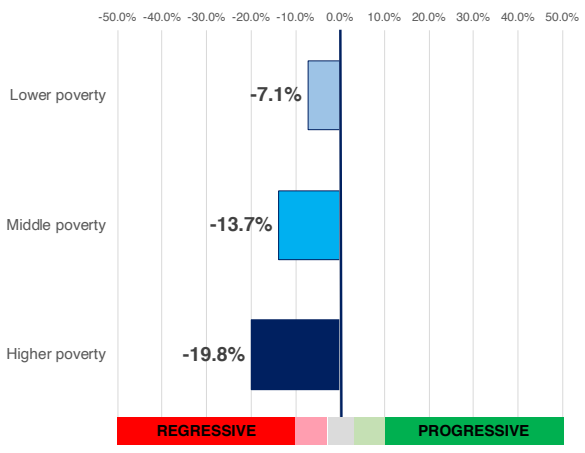
District poverty	DE	U.S.
Lowest poverty	60.9	45.4
Low poverty	25.7	11.4
Medium poverty	32.8	-2.0
High poverty	0.9	-15.1
Highest poverty	1.0	-20.7

- In its highest poverty districts, Delaware's spending is 1.0% above the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Delaware's highest poverty districts ranks #9 in the nation (out of 49).

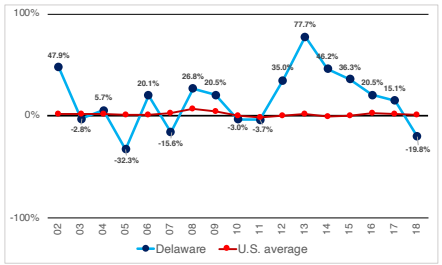
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Delaware is regressive.
- Higher poverty districts receive 19.8% less revenue than zero poverty districts (this level of progressivity ranks #48 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- DE's funding was more regressive in 2018 (-19.8%) vs. 2002 (47.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

DISTRICT OF COLUMBIA

Description: This 2017-18 profile of the District of Columbia's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much D.C. devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

CONTEXTUAL STATS	DC	U.S.
Child (5-17yo) poverty rate (%)	24.8	17.0
Public school coverage (%)	82.0	87.6
Pct. revenue from state sources	n/a	46.7
Total K-12 enrollment (U.S. rank)	87,315 (51)	

FISCAL EFFORT

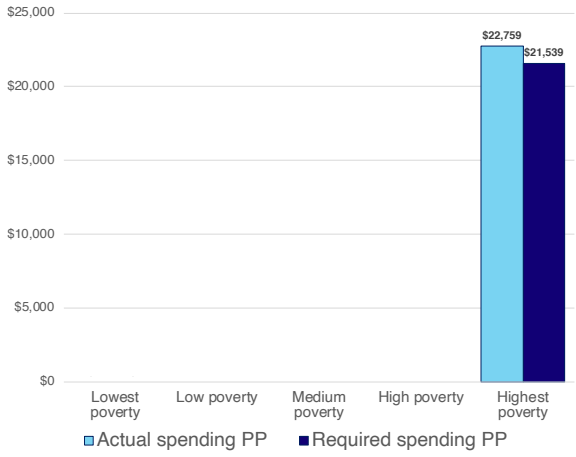
Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Effort is not calculated for the District of Columbia.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in the District of Columbia's highest poverty districts is $1,220 PP higher than the estimated adequate level ($21,539), a difference of 5.7%.
- **Note**: *due to the structure of D.C.'s education system, adequacy estimates are only available for the highest poverty quintile*



Adequacy: DC vs U.S. average

Percent above / below adequate

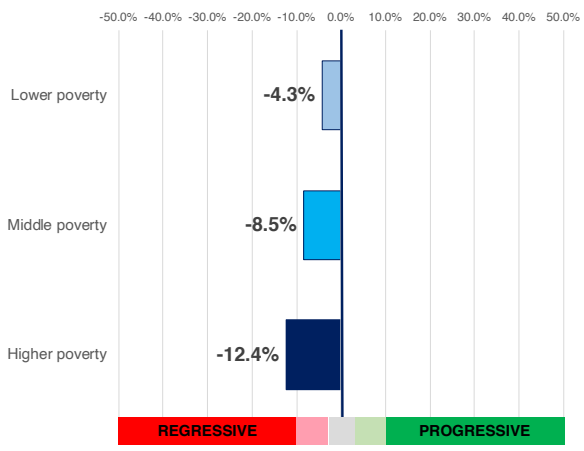
District poverty	DC	U.S.
Lowest poverty	n/a	45.4
Low poverty	n/a	11.4
Medium poverty	n/a	-2.0
High poverty	n/a	-15.1
Highest poverty	5.7	-20.7

- In its highest poverty districts, D.C.'s spending is 5.7% above the adequate level, compared with a -20.7% U.S. average.
- Adequacy in D.C.'s highest poverty districts ranks #7 in the nation (out of 49).

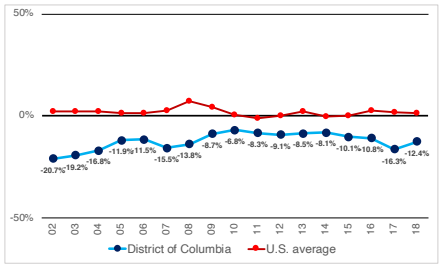
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in the District of Columbia is regressive.
- Higher poverty districts receive 12.4% less revenue than zero poverty districts (this level of progressivity ranks #43 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- DC's funding was less regressive in 2018 (-12.4%) vs. 2002 (-20.7%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(ln)SCHOOL = b_0 + b_1State_i + b_2LaborMarket_{ij} + b_3CWI_{ij} + b_4FINANCE_{ij} + b_5PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7INDICATORS_{ij} + b_8Scale_{ij} + b_9Poverty_{ij} + b_{10}SchlType_{ij} + b_{11}DATABASE_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2017-18 SCHOOL YEAR

FLORIDA

Description: This 2017-18 profile of Florida's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Florida devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

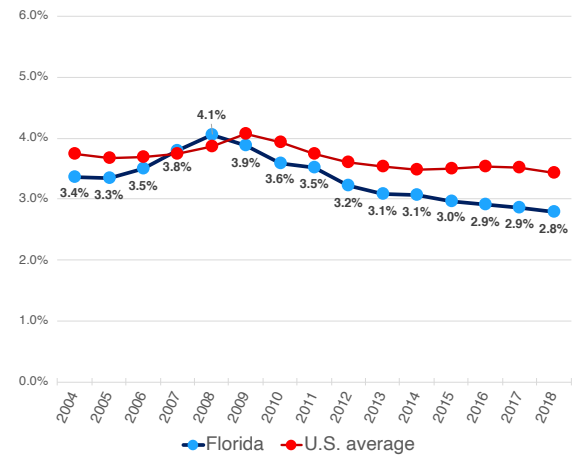
CONTEXTUAL STATS	FL	U.S.
Child (5-17yo) poverty rate (%)	18.8	17.0
Public school coverage (%)	84.9	87.6
Pct. revenue from state sources	39.2	46.7
Total K-12 enrollment (U.S. rank)	2,832,424 (3)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Florida effort	2.78 %
U.S. average	3.43 %

- In FY 2018, Florida spent 2.78% of its economic capacity directly on K-12 education.
- This was 0.65 percentage points lower than the unweighted national average of 3.43%.
- Florida's effort level ranks #46 in the nation (out of 49).



Effort trends, 2004-18

- Effort in FL increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.36% in 2004 to 3.87% in 2009.

Net change by period (% pts.)

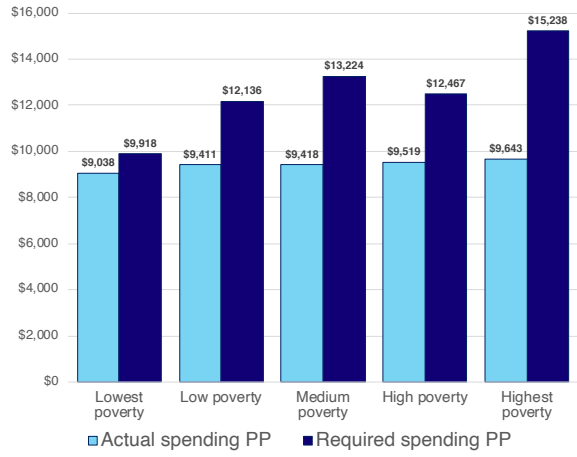
Period	FL	U.S.
2004-2009	0.51	0.33
2009-2018	-1.09	-0.64
2004-2018	-0.58	-0.31

- This was followed by a decrease of 1.09 percentage points between 2009 and 2018.
- FL's effort was 0.58 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Florida's highest poverty districts is $5,595 PP lower than the estimated adequate level ($15,238), a difference of -36.7%.
- Districts in Florida's second highest poverty quintile spend 23.6% less than the adequate level.



Adequacy: FL vs U.S. average

Percent above / below adequate

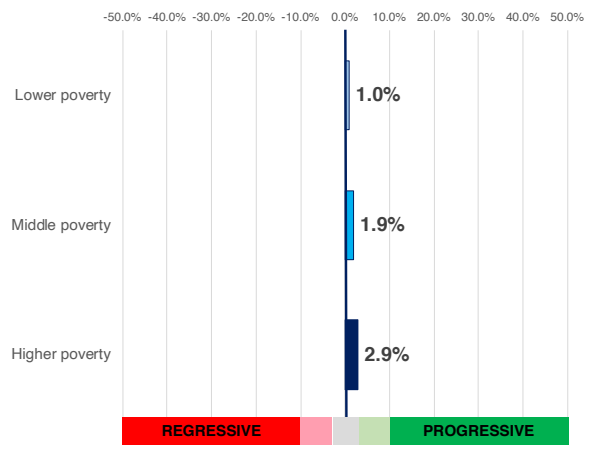
District poverty	FL	U.S.
Lowest poverty	-8.9	45.4
Low poverty	-22.5	11.4
Medium poverty	-28.8	-2.0
High poverty	-23.6	-15.1
Highest poverty	-36.7	-20.7

- In its highest poverty districts, Florida's spending is 36.7% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Florida's highest poverty districts ranks #41 in the nation (out of 49).

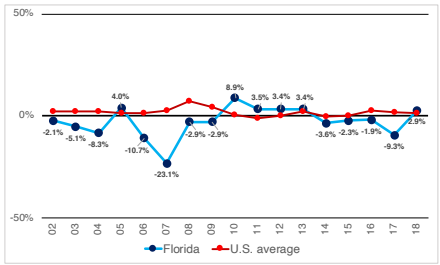
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Florida is neither progressive nor regressive.
- Higher poverty districts receive 2.9% more revenue than zero poverty districts (this level of progressivity ranks #22 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- FL's funding was more progressive in 2018 (2.9%) vs. 2002 (-2.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

GEORGIA

Description: This 2017-18 profile of Georgia's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Georgia devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

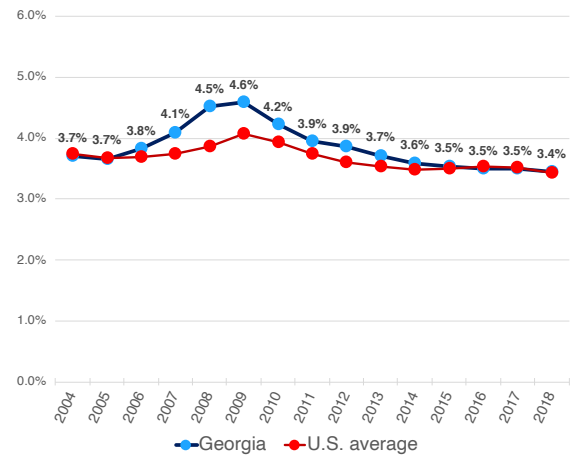
CONTEXTUAL STATS	GA	U.S.
Child (5-17yo) poverty rate (%)	19.9	17.0
Public school coverage (%)	88.2	87.6
Pct. revenue from state sources	45.8	46.7
Total K-12 enrollment (U.S. rank)	1,768,642 (6)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Georgia effort	3.44 %
U.S. average	3.43 %

- In FY 2018, Georgia spent 3.44% of its economic capacity directly on K-12 education.
- This was 0.01 percentage points higher than the unweighted national average of 3.43%.
- Georgia's effort level ranks #25 in the nation (out of 49).



Effort trends, 2004-18

- Effort in GA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.70% in 2004 to 4.59% in 2009.

Net change by period (% pts.)

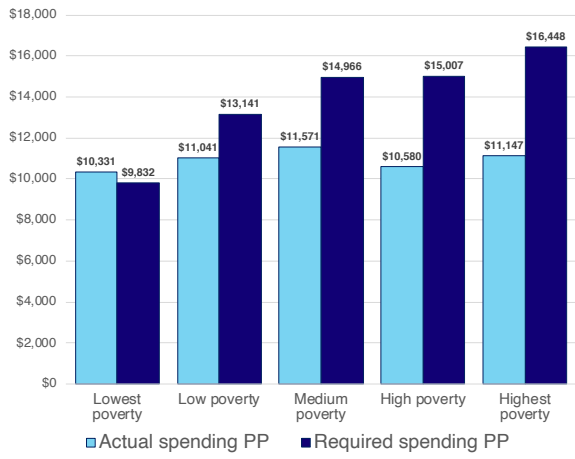
Period	GA	U.S.
2004-2009	0.88	0.33
2009-2018	-1.14	-0.64
2004-2018	-0.26	-0.31

- This was followed by a decrease of 1.14 percentage points between 2009 and 2018.
- GA's effort was 0.26 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Georgia's highest poverty districts is $5,301 PP lower than the estimated adequate level ($16,448), a difference of -32.2%.
- Districts in Georgia's second highest poverty quintile spend 29.5% less than the adequate level.



Adequacy: GA vs U.S. average

Percent above / below adequate

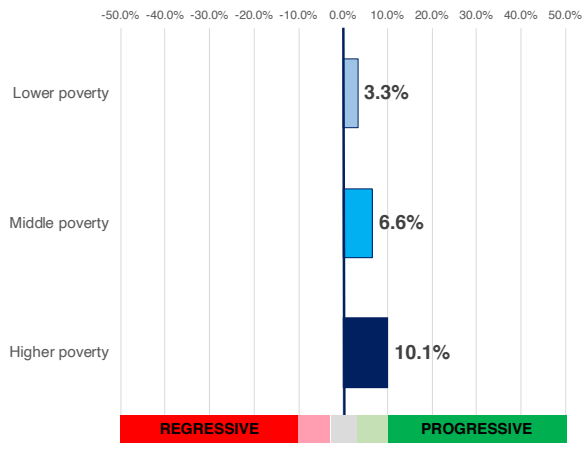
District poverty	GA	U.S.
Lowest poverty	5.1	45.4
Low poverty	-16.0	11.4
Medium poverty	-22.7	-2.0
High poverty	-29.5	-15.1
Highest poverty	-32.2	-20.7

- In its highest poverty districts, Georgia's spending is 32.2% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Georgia's highest poverty districts ranks #36 in the nation (out of 49).

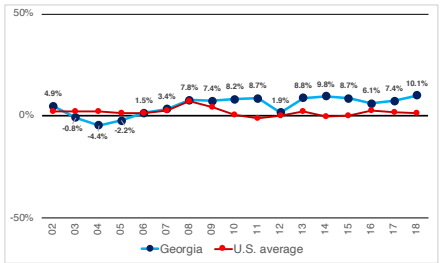
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Georgia is progressive.
- Higher poverty districts receive 10.1% more revenue than zero poverty districts (this level of progressivity ranks #10 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- GA's funding was more progressive in 2018 (10.1%) vs. 2002 (4.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

HAWAII

Description: This 2017-18 profile of Hawaii's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Hawaii devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

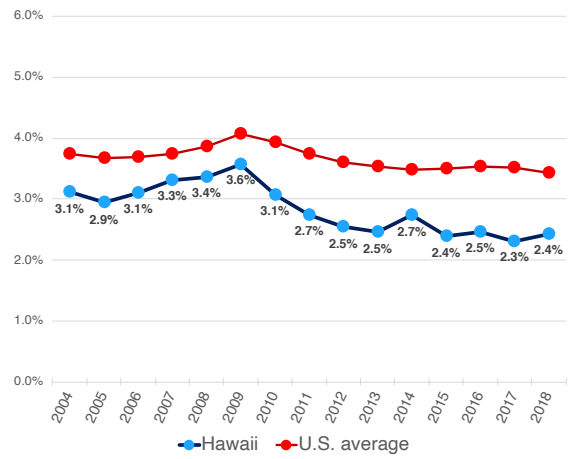
CONTEXTUAL STATS	HI	U.S.
Child (5-17yo) poverty rate (%)	10.8	17.0
Public school coverage (%)	82.8	87.6
Pct. revenue from state sources	89.9	46.7
Total K-12 enrollment (U.S. rank)	180,837 (40)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Hawaii effort	2.43 %
U.S. average	3.43 %

- In FY 2018, Hawaii spent 2.43% of its economic capacity directly on K-12 education.
- This was 1.00 percentage points lower than the unweighted national average of 3.43%.
- Hawaii's effort level ranks #48 in the nation (out of 49).



Effort trends, 2004-18

- Effort in HI increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.12% in 2004 to 3.58% in 2009.

Net change by period (% pts.)

Period	HI	U.S.
2004-2009	0.46	0.33
2009-2018	-1.14	-0.64
2004-2018	-0.68	-0.31

- This was followed by a decrease of 1.14 percentage points between 2009 and 2018.
- HI's effort was 0.68 percentage points lower in 2018 than in 2004.

ADEQUACY

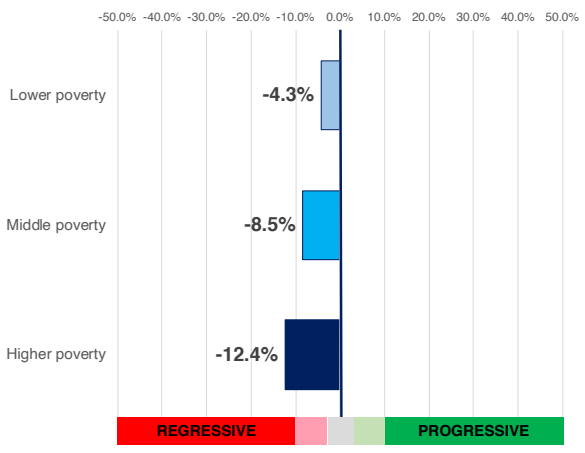
Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

Adequacy estimates are not calculated for Hawaii, as the state consists of a single school district.

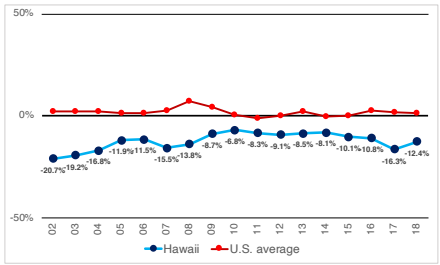
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Hawaii is regressive.
- Higher poverty districts receive 12.4% less revenue than zero poverty districts (this level of progressivity ranks #42 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- HI's funding was less regressive in 2018 (-12.4%) vs. 2002 (-20.7%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2017-18 SCHOOL YEAR

IDAHO

Description: This 2017-18 profile of Idaho's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Idaho devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

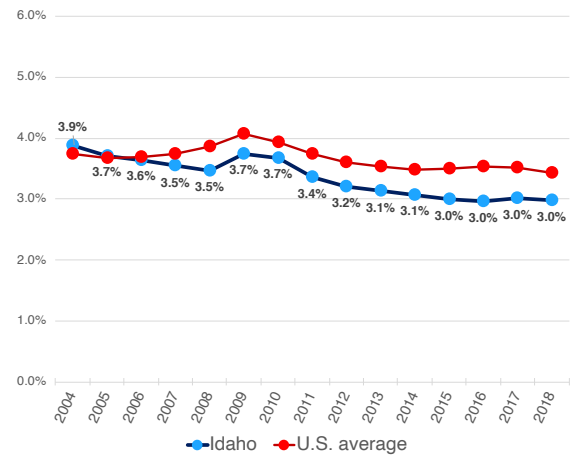
CONTEXTUAL STATS	ID	U.S.
Child (5-17yo) poverty rate (%)	12.8	17.0
Public school coverage (%)	88.2	87.6
Pct. revenue from state sources	65.5	46.7
Total K-12 enrollment (U.S. rank)	301,186 (38)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Idaho effort	2.97 %
U.S. average	3.43 %

- In FY 2018, Idaho spent 2.97% of its economic capacity directly on K-12 education.
- This was 0.46 percentage points lower than the unweighted national average of 3.43%.
- Idaho's effort level ranks #39 in the nation (out of 49).



Effort trends, 2004-18

- Effort in ID decreased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.89% in 2004 to 3.75% in 2009.

Net change by period (% pts.)

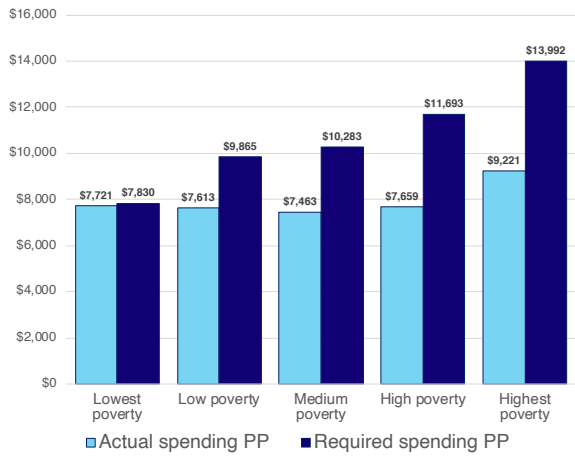
Period	ID	U.S.
2004-2009	-0.14	0.33
2009-2018	-0.77	-0.64
2004-2018	-0.91	-0.31

- This was followed by a decrease of 0.77 percentage points between 2009 and 2018.
- ID's effort was 0.91 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Idaho's highest poverty districts is $4,771 PP lower than the estimated adequate level ($13,992), a difference of -34.1%.
- Districts in Idaho's second highest poverty quintile spend 34.5% less than the adequate level.



Adequacy: ID vs U.S. average

Percent above / below adequate

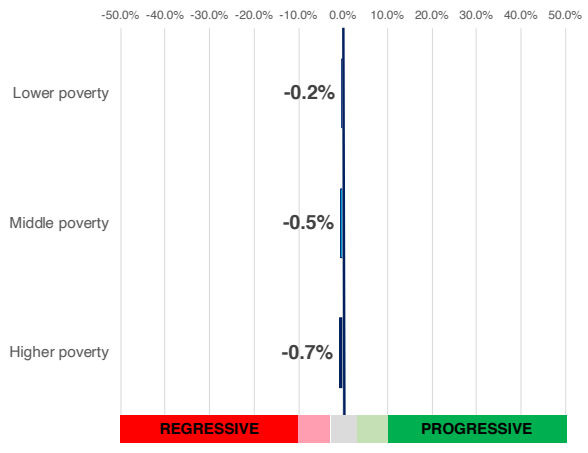
District poverty	ID	U.S.
Lowest poverty	-1.4	45.4
Low poverty	-22.8	11.4
Medium poverty	-27.4	-2.0
High poverty	-34.5	-15.1
Highest poverty	-34.1	-20.7

- In its highest poverty districts, Idaho's spending is 34.1% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Idaho's highest poverty districts ranks #38 in the nation (out of 49).

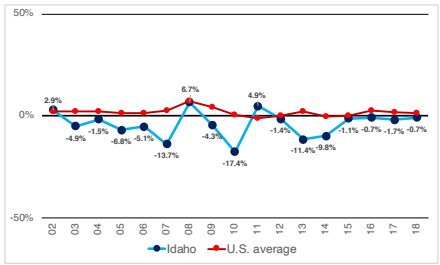
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Idaho is neither progressive nor regressive.
- Higher poverty districts receive 0.7% less revenue than zero poverty districts (this level of progressivity ranks #27 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- ID's funding was more regressive in 2018 (-0.7%) vs. 2002 (2.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

ILLINOIS

Description: This 2017-18 profile of Illinois's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Illinois devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

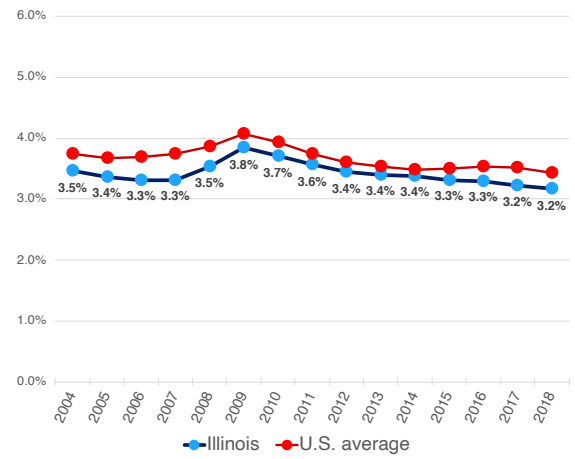
CONTEXTUAL STATS	IL	U.S.
Child (5-17yo) poverty rate (%)	15.3	17.0
Public school coverage (%)	87.5	87.6
Pct. revenue from state sources	42.0	46.7
Total K-12 enrollment (U.S. rank)	2,005,153 (5)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Illinois effort	3.16 %
U.S. average	3.43 %

- In FY 2018, Illinois spent 3.16% of its economic capacity directly on K-12 education.
- This was 0.27 percentage points lower than the unweighted national average of 3.43%.
- Illinois's effort level ranks #32 in the nation (out of 49).



Effort trends, 2004-18

- Effort in IL increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.46% in 2004 to 3.84% in 2009.

Net change by period (% pts.)

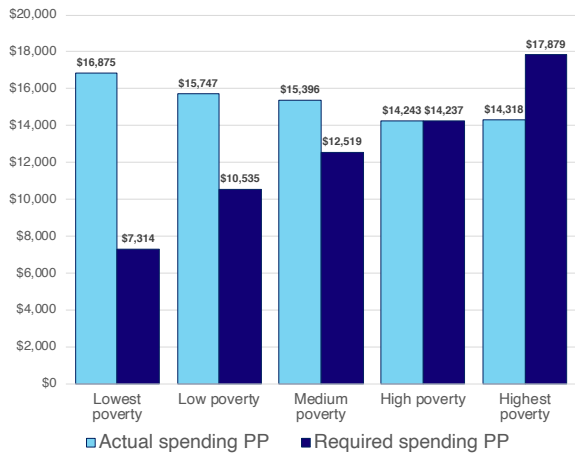
Period	IL	U.S.
2004-2009	0.38	0.33
2009-2018	-0.68	-0.64
2004-2018	-0.30	-0.31

- This was followed by a decrease of 0.68 percentage points between 2009 and 2018.
- IL's effort was 0.30 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Illinois's highest poverty districts is $3,561 PP lower than the estimated adequate level ($17,879), a difference of -19.9%.
- Districts in Illinois's second highest poverty quintile spend roughly the same (+0.04%) as the adequate level.



Adequacy: IL vs U.S. average

Percent above / below adequate

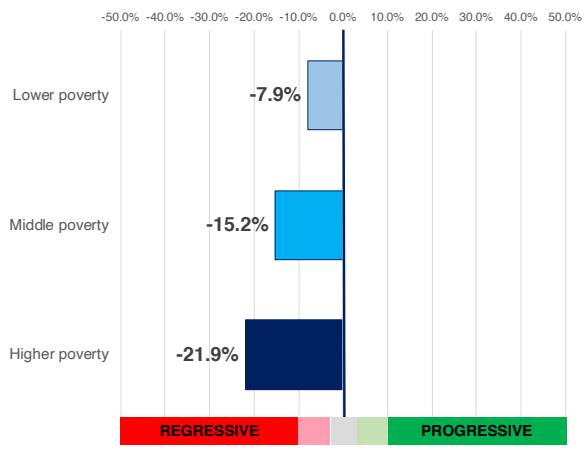
District poverty	IL	U.S.
Lowest poverty	130.7	45.4
Low poverty	49.5	11.4
Medium poverty	23.0	-2.0
High poverty	0.04	-15.1
Highest poverty	-19.9	-20.7

- In its highest poverty districts, Illinois's spending is 19.9% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Illinois's highest poverty districts ranks #21 in the nation (out of 49).

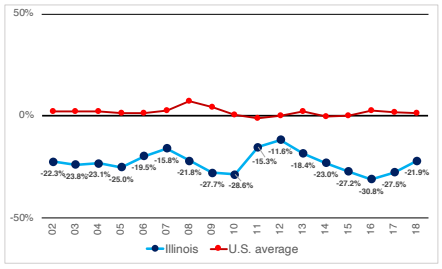
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Illinois is regressive.
- Higher poverty districts receive 21.9% less revenue than zero poverty districts (this level of progressivity ranks #49 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- IL's funding was less regressive in 2018 (-21.9%) vs. 2002 (-22.3%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

INDIANA

Description: This 2017-18 profile of Indiana's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Indiana devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

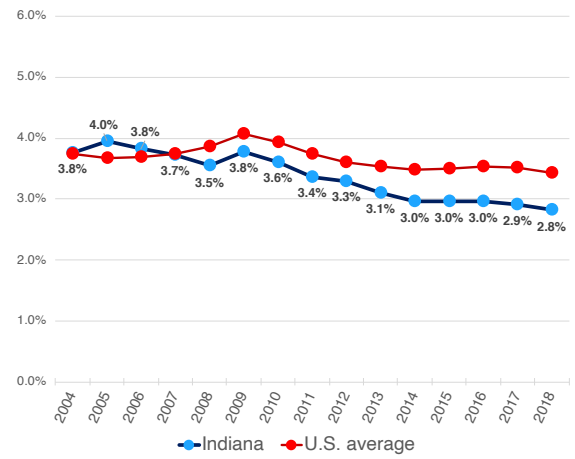
CONTEXTUAL STATS	IN	U.S.
Child (5-17yo) poverty rate (%)	16.2	17.0
Public school coverage (%)	85.7	87.6
Pct. revenue from state sources	62.8	46.7
Total K-12 enrollment (U.S. rank)	1,054,187 (15)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Indiana effort	2.82 %
U.S. average	3.43 %

- In FY 2018, Indiana spent 2.82% of its economic capacity directly on K-12 education.
- This was 0.61 percentage points lower than the unweighted national average of 3.43%.
- Indiana's effort level ranks #43 in the nation (out of 49).



Effort trends, 2004-18

- Effort in IN increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.76% in 2004 to 3.78% in 2009.

Net change by period (% pts.)

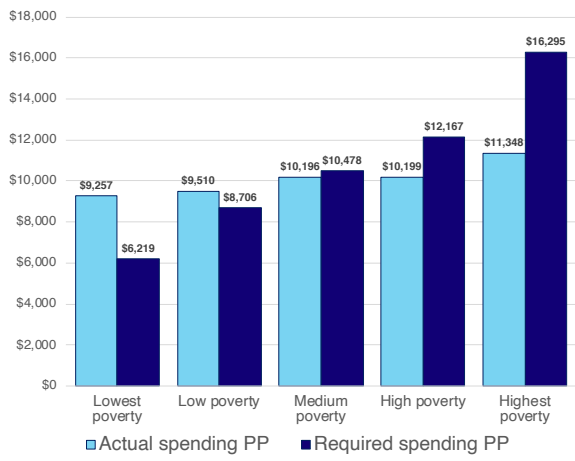
Period	IN	U.S.
2004-2009	0.02	0.33
2009-2018	-0.96	-0.64
2004-2018	-0.94	-0.31

- This was followed by a decrease of 0.96 percentage points between 2009 and 2018.
- IN's effort was 0.94 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Indiana's highest poverty districts is $4,947 PP lower than the estimated adequate level ($16,295), a difference of -30.4%.
- Districts in Indiana's second highest poverty quintile spend 16.2% less than the adequate level.



Adequacy: IN vs U.S. average

Percent above / below adequate

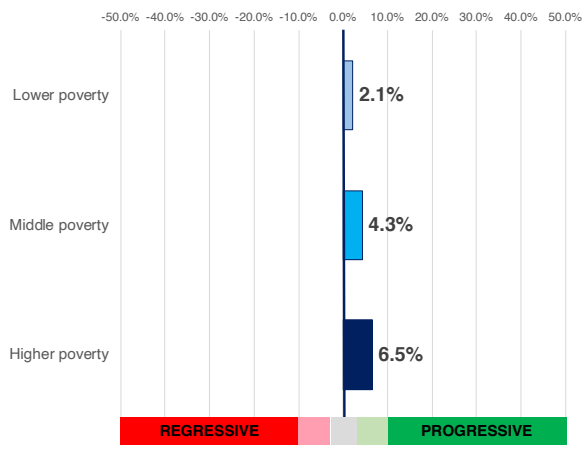
District poverty	IN	U.S.
Lowest poverty	48.9	45.4
Low poverty	9.2	11.4
Medium poverty	-2.7	-2.0
High poverty	-16.2	-15.1
Highest poverty	-30.4	-20.7

- In its highest poverty districts, Indiana's spending is 30.4% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Indiana's highest poverty districts ranks #33 in the nation (out of 49).

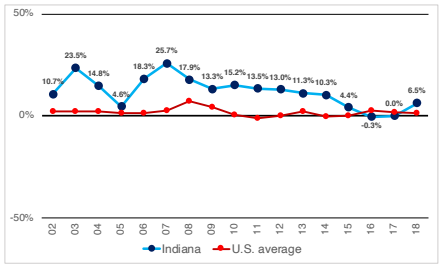
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Indiana is moderately progressive.
- Higher poverty districts receive 6.5% more revenue than zero poverty districts (this level of progressivity ranks #15 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- IN's funding was more regressive in 2018 (6.5%) vs. 2002 (10.7%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2017-18 SCHOOL YEAR

IOWA

Description: This 2017-18 profile of Iowa's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Iowa devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

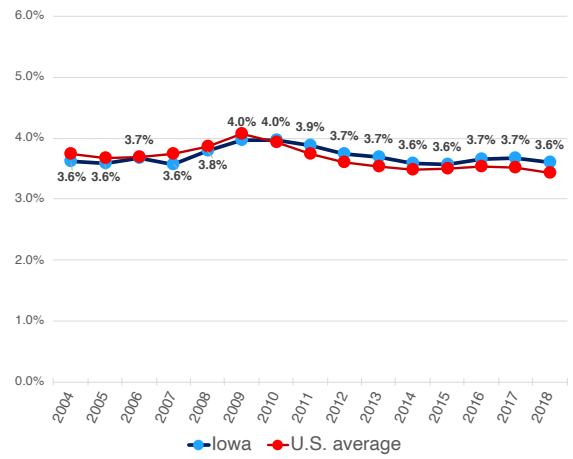
CONTEXTUAL STATS	IA	U.S.
Child (5-17yo) poverty rate (%)	12.5	17.0
Public school coverage (%)	90.1	87.6
Pct. revenue from state sources	53.2	46.7
Total K-12 enrollment (U.S. rank)	511,850 (31)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Iowa effort	3.60 %
U.S. average	3.43 %

- In FY 2018, Iowa spent 3.60% of its economic capacity directly on K-12 education.
- This was 0.16 percentage points higher than the unweighted national average of 3.43%.
- Iowa's effort level ranks #20 in the nation (out of 49).



Effort trends, 2004-18

- Effort in IA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.62% in 2004 to 3.97% in 2009.

Net change by period (% pts.)

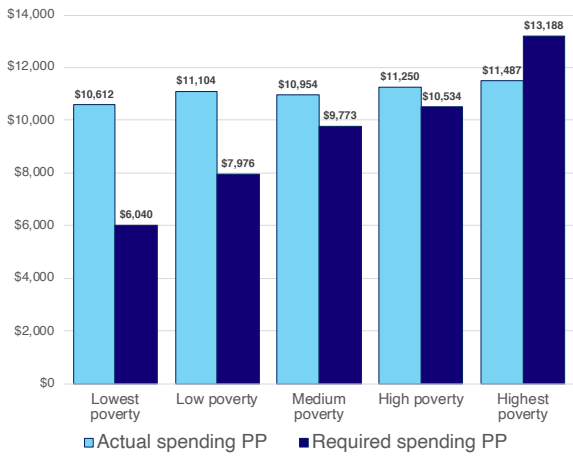
Period	IA	U.S.
2004-2009	0.35	0.33
2009-2018	-0.37	-0.64
2004-2018	-0.02	-0.31

- This was followed by a decrease of 0.37 percentage points between 2009 and 2018.
- IA's effort was 0.02 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Iowa's highest poverty districts is $1,701 PP lower than the estimated adequate level ($13,188), a difference of -12.9%.
- Districts in Iowa's second highest poverty quintile spend 6.8% more than the adequate level.



Adequacy: IA vs U.S. average

Percent above / below adequate

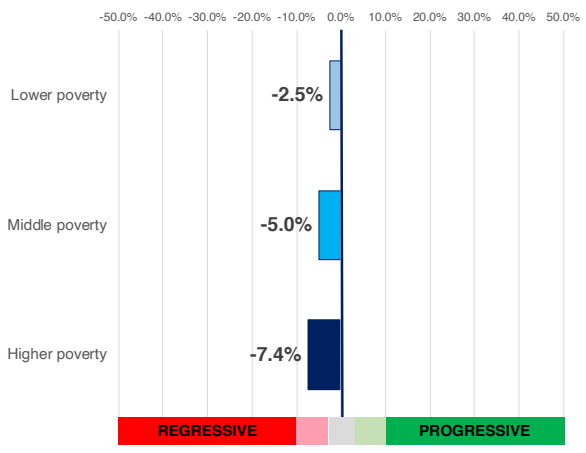
District poverty	IA	U.S.
Lowest poverty	75.7	45.4
Low poverty	39.2	11.4
Medium poverty	12.1	-2.0
High poverty	6.8	-15.1
Highest poverty	-12.9	-20.7

- In its highest poverty districts, Iowa's spending is 12.9% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Iowa's highest poverty districts ranks #14 in the nation (out of 49).

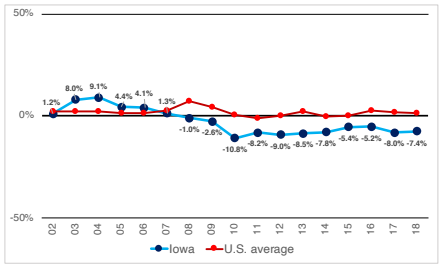
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Iowa is moderately regressive.
- Higher poverty districts receive 7.4% less revenue than zero poverty districts (this level of progressivity ranks #36 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- IA's funding was more regressive in 2018 (-7.4%) vs. 2002 (1.2%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

(ln)**SCHOOL** = b_0 + b_1State$_i$ + b_2LaborMarket$_{ij}$ + b_3CWI$_{ij}$ + b_4**FINANCE**$_{ij}$ + b_5PopulationDensity$_{ij}$ + b_6 Enrollment$_{ij}$ + b_7**INDICATORS**$_{ij}$ + b_8Scale$_{ij}$ + b_9Poverty$_{ij}$ + b_{10}SchlType$_{ij}$ + b_{11}**DATABASE**$_{ij}$ + e

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2017-18 SCHOOL YEAR

KANSAS

Description: This 2017-18 profile of Kansas's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Kansas devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

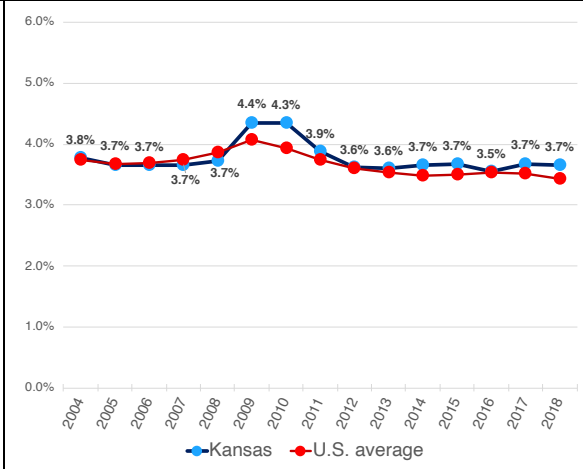
CONTEXTUAL STATS	KS	U.S.
Child (5-17yo) poverty rate (%)	13.5	17.0
Public school coverage (%)	84.4	87.6
Pct. revenue from state sources	65.2	46.7
Total K-12 enrollment (U.S. rank)	497,088 (32)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Kansas effort	3.65 %
U.S. average	3.43 %

- In FY 2018, Kansas spent 3.65% of its economic capacity directly on K-12 education.
- This was 0.22 percentage points higher than the unweighted national average of 3.43%.
- Kansas's effort level ranks #15 in the nation (out of 49).



Effort trends, 2004-18

- Effort in KS increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.77% in 2004 to 4.35% in 2009.

Net change by period (% pts.)

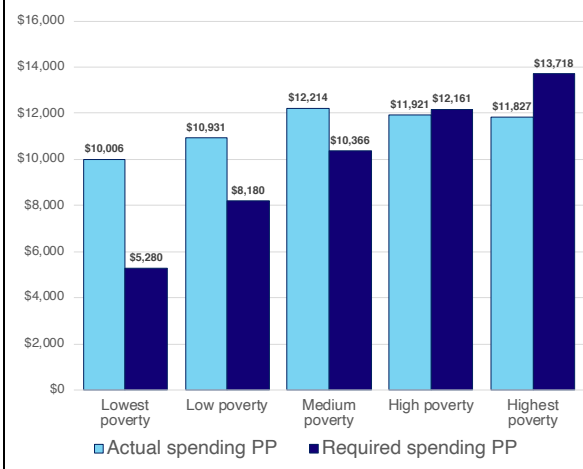
Period	KS	U.S.
2004-2009	0.58	0.33
2009-2018	-0.70	-0.64
2004-2018	-0.11	-0.31

- This was followed by a decrease of 0.70 percentage points between 2009 and 2018.
- KS's effort was 0.11 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Kansas's highest poverty districts is $1,891 PP lower than the estimated adequate level ($13,718), a difference of -13.8%.
- Districts in Kansas's second highest poverty quintile spend 2.0% less than the adequate level.



Adequacy: KS vs U.S. average

Percent above / below adequate

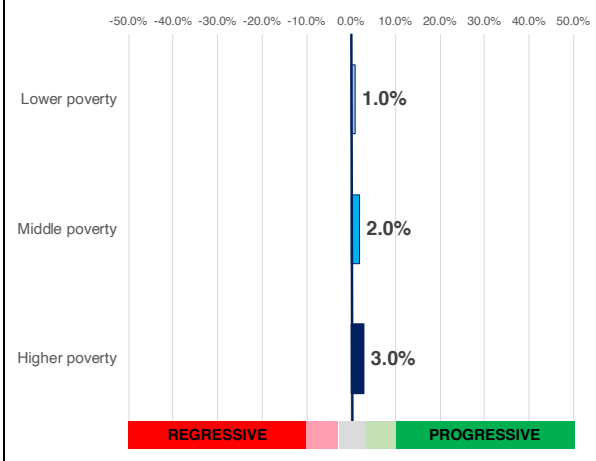
District poverty	KS	U.S.
Lowest poverty	89.5	45.4
Low poverty	33.6	11.4
Medium poverty	17.8	-2.0
High poverty	-2.0	-15.1
Highest poverty	-13.8	-20.7

- In its highest poverty districts, Kansas's spending is 13.8% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Kansas's highest poverty districts ranks #15 in the nation (out of 49).

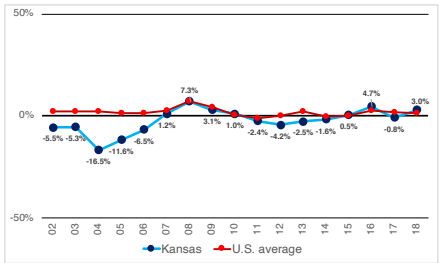
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Kansas is neither progressive nor regressive.
- Higher poverty districts receive 3.0% more revenue than zero poverty districts (this level of progressivity ranks #21 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- KS's funding was more progressive in 2018 (3.0%) vs. 2002 (-5.5%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

KENTUCKY

Description: This 2017-18 profile of Kentucky's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Kentucky devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

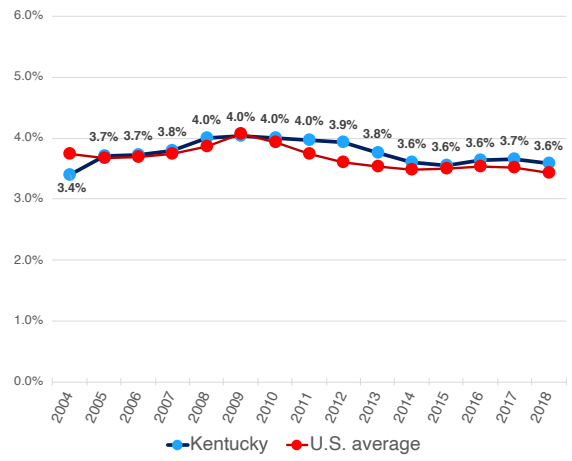
CONTEXTUAL STATS	KY	U.S.
Child (5-17yo) poverty rate (%)	21.2	17.0
Public school coverage (%)	85.2	87.6
Pct. revenue from state sources	56.1	46.7
Total K-12 enrollment (U.S. rank)	680,978 (27)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Kentucky effort	3.58 %
U.S. average	3.43 %

- In FY 2018, Kentucky spent 3.58% of its economic capacity directly on K-12 education.
- This was 0.15 percentage points higher than the unweighted national average of 3.43%.
- Kentucky's effort level ranks #21 in the nation (out of 49).



Effort trends, 2004-18

- Effort in KY increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.40% in 2004 to 4.04% in 2009.

Net change by period (% pts.)

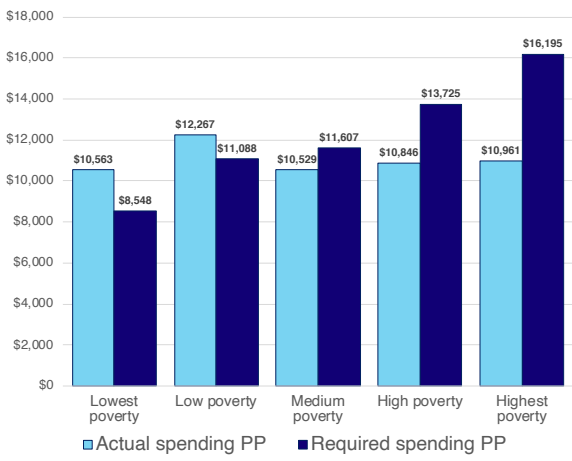
Period	KY	U.S.
2004-2009	0.64	0.33
2009-2018	-0.46	-0.64
2004-2018	0.18	-0.31

- This was followed by a decrease of 0.46 percentage points between 2009 and 2018.
- KY's effort was 0.18 percentage points higher in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Kentucky's highest poverty districts is $5,234 PP lower than the estimated adequate level ($16,195), a difference of -32.3%.
- Districts in Kentucky's second highest poverty quintile spend 21.0% less than the adequate level.



Adequacy: KY vs U.S. average

Percent above / below adequate

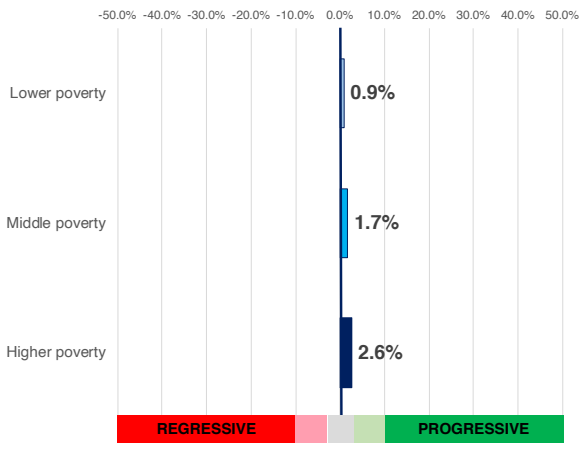
District poverty	KY	U.S.
Lowest poverty	23.6	45.4
Low poverty	10.6	11.4
Medium poverty	-9.3	-2.0
High poverty	-21.0	-15.1
Highest poverty	-32.3	-20.7

- In its highest poverty districts, Kentucky's spending is 32.3% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Kentucky's highest poverty districts ranks #37 in the nation (out of 49).

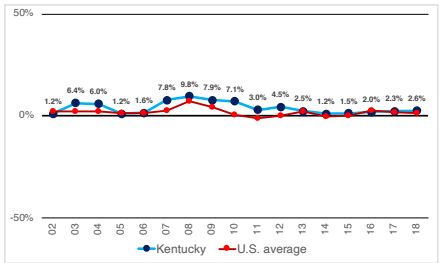
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Kentucky is neither progressive nor regressive.
- Higher poverty districts receive 2.6% more revenue than zero poverty districts (this level of progressivity ranks #23 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- KY's funding was more progressive in 2018 (2.6%) vs. 2002 (1.2%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

LOUISIANA

Description: This 2017-18 profile of Louisiana's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Louisiana devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

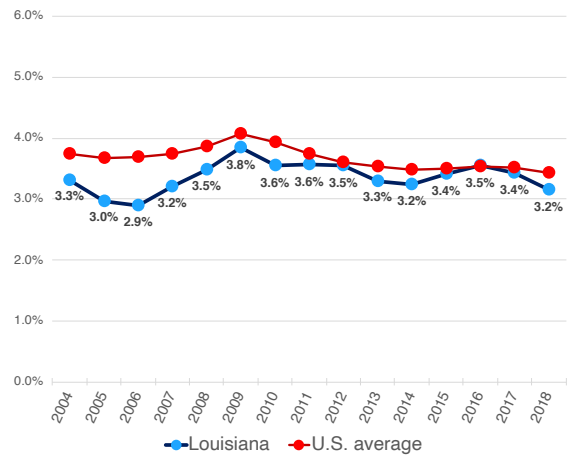
CONTEXTUAL STATS	LA	U.S.
Child (5-17yo) poverty rate (%)	25.2	17.0
Public school coverage (%)	81.2	87.6
Pct. revenue from state sources	41.0	46.7
Total K-12 enrollment (U.S. rank)	715,135 (25)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Louisiana effort	3.15 %
U.S. average	3.43 %

- In FY 2018, Louisiana spent 3.15% of its economic capacity directly on K-12 education.
- This was 0.28 percentage points lower than the unweighted national average of 3.43%.
- Louisiana's effort level ranks #33 in the nation (out of 49).



Effort trends, 2004-18

- Effort in LA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.32% in 2004 to 3.84% in 2009.

Net change by period (% pts.)

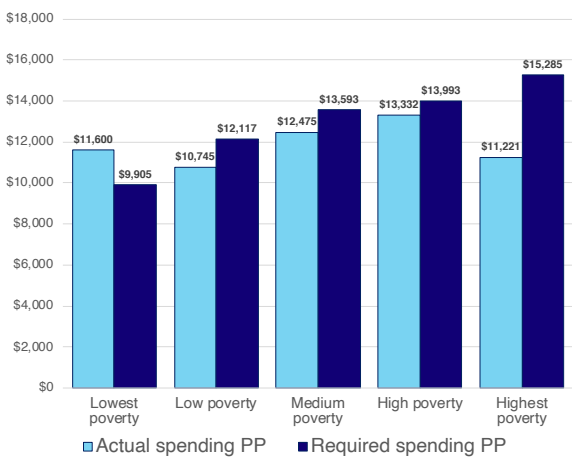
Period	LA	U.S.
2004-2009	0.53	0.33
2009-2018	-0.69	-0.64
2004-2018	-0.16	-0.31

- This was followed by a decrease of 0.69 percentage points between 2009 and 2018.
- LA's effort was 0.16 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Louisiana's highest poverty districts is $4,064 PP lower than the estimated adequate level ($15,285), a difference of -26.6%.
- Districts in Louisiana's second highest poverty quintile spend 4.7% less than the adequate level.



Adequacy: LA vs U.S. average

Percent above / below adequate

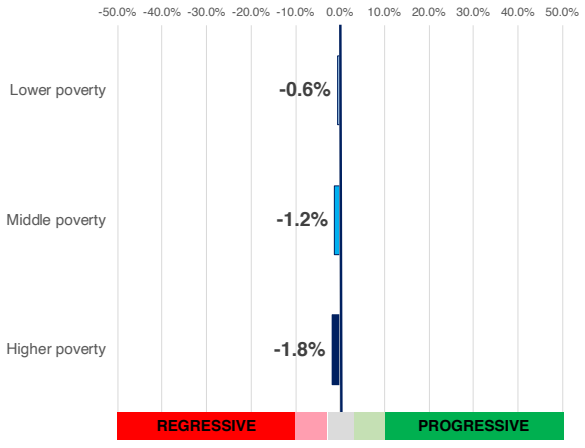
District poverty	LA	U.S.
Lowest poverty	17.1	45.4
Low poverty	-11.3	11.4
Medium poverty	-8.2	-2.0
High poverty	-4.7	-15.1
Highest poverty	-26.6	-20.7

- In its highest poverty districts, Louisiana's spending is 26.6% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Louisiana's highest poverty districts ranks #29 in the nation (out of 49).

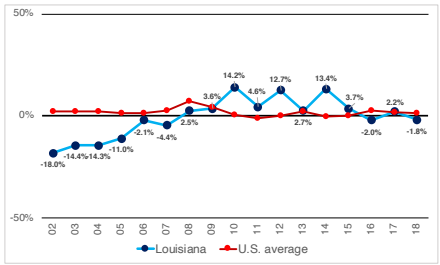
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Louisiana is neither progressive nor regressive.
- Higher poverty districts receive 1.8% less revenue than zero poverty districts (this level of progressivity ranks #28 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- LA's funding was less regressive in 2018 (-1.8%) vs. 2002 (-18.0%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

MAINE

Description: This 2017-18 profile of Maine's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Maine devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

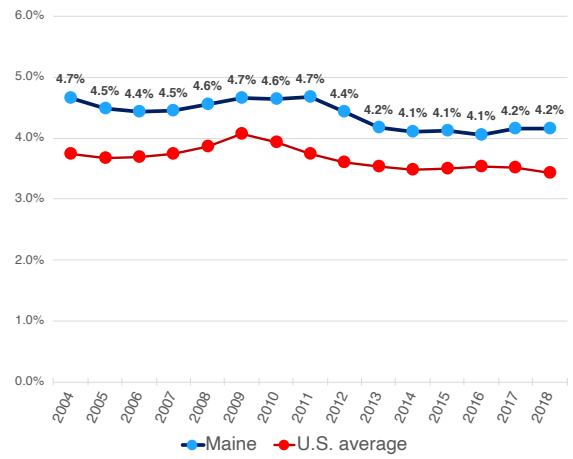
CONTEXTUAL STATS	ME	U.S.
Child (5-17yo) poverty rate (%)	13.6	17.0
Public school coverage (%)	88.5	87.6
Pct. revenue from state sources	38.6	46.7
Total K-12 enrollment (U.S. rank)	180,473 (41)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Maine effort	4.16 %
U.S. average	3.43 %

- In FY 2018, Maine spent 4.16% of its economic capacity directly on K-12 education.
- This was 0.73 percentage points higher than the unweighted national average of 3.43%.
- Maine's effort level ranks #6 in the nation (out of 49).



Effort trends, 2004-18

- Effort in ME did not change in the years before the "Great Recession's" main impact on K-12 funding, going from 4.66% in 2004 to 4.66% in 2009.

Net change by period (% pts.)

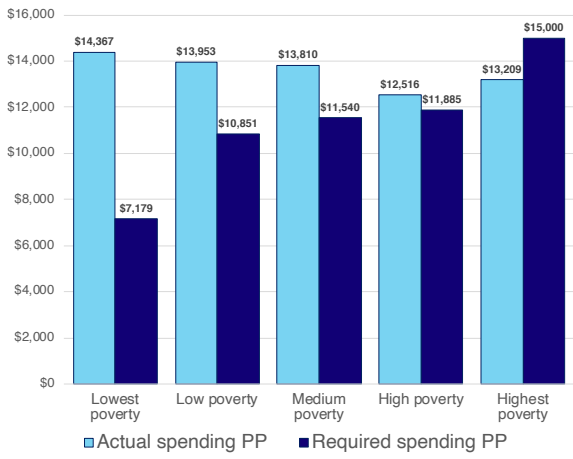
Period	ME	U.S.
2004-2009	0.00	0.33
2009-2018	-0.49	-0.64
2004-2018	-0.50	-0.31

- This was followed by a decrease of 0.49 percentage points between 2009 and 2018.
- ME's effort was 0.50 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Maine's highest poverty districts is $1,791 PP lower than the estimated adequate level ($15,000), a difference of -11.9%.
- Districts in Maine's second highest poverty quintile spend 5.3% more than the adequate level.



Adequacy: ME vs U.S. average

Percent above / below adequate

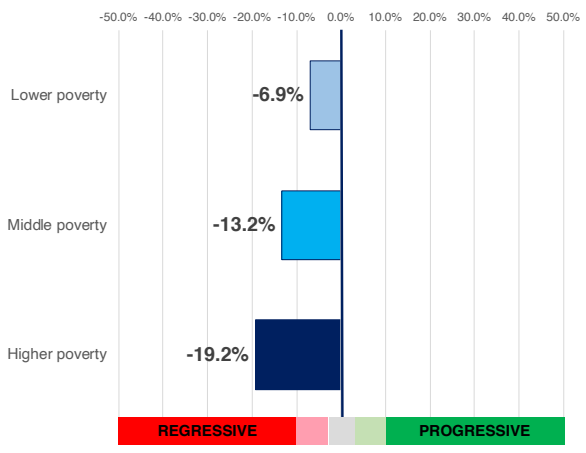
District poverty	ME	U.S.
Lowest poverty	100.1	45.4
Low poverty	28.6	11.4
Medium poverty	19.7	-2.0
High poverty	5.3	-15.1
Highest poverty	-11.9	-20.7

- In its highest poverty districts, Maine's spending is 11.9% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Maine's highest poverty districts ranks #13 in the nation (out of 49).

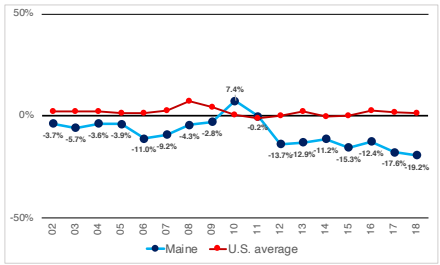
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Maine is regressive.
- Higher poverty districts receive 19.2% less revenue than zero poverty districts (this level of progressivity ranks #47 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- ME's funding was more regressive in 2018 (-19.2%) vs. 2002 (-3.7%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

MARYLAND

Description: This 2017-18 profile of Maryland's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Maryland devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

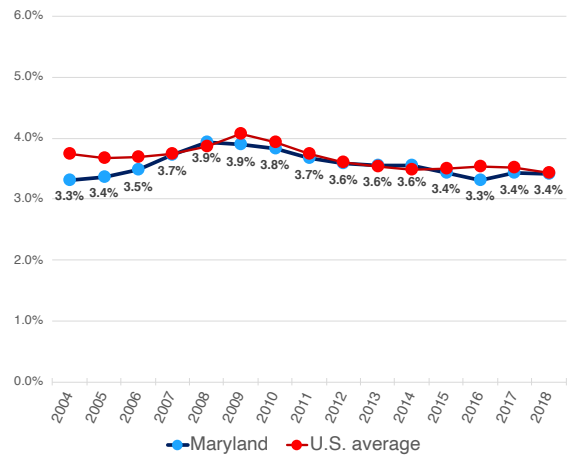
CONTEXTUAL STATS	MD	U.S.
Child (5-17yo) poverty rate (%)	11.6	17.0
Public school coverage (%)	84.2	87.6
Pct. revenue from state sources	41.9	46.7
Total K-12 enrollment (U.S. rank)	893,684 (20)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Maryland effort	3.42 %
U.S. average	3.43 %

- In FY 2018, Maryland spent 3.42% of its economic capacity directly on K-12 education.
- This was 0.02 percentage points lower than the unweighted national average of 3.43%.
- Maryland's effort level ranks #26 in the nation (out of 49).



Effort trends, 2004-18

- Effort in MD increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.32% in 2004 to 3.89% in 2009.

Net change by period (% pts.)

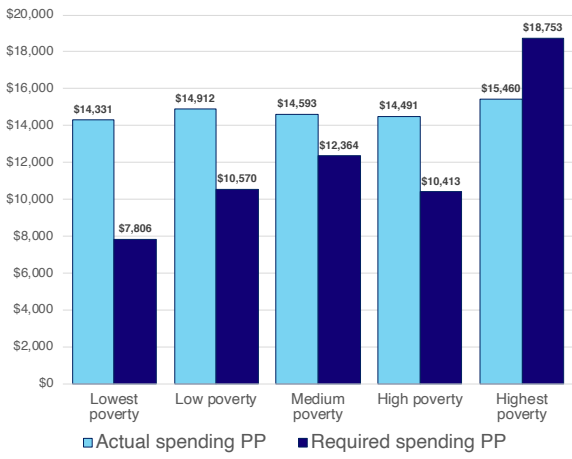
Period	MD	U.S.
2004-2009	0.58	0.33
2009-2018	-0.47	-0.64
2004-2018	0.10	-0.31

- This was followed by a decrease of 0.47 percentage points between 2009 and 2018.
- MD's effort was 0.10 percentage points higher in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Maryland's highest poverty districts is $3,293 PP lower than the estimated adequate level ($18,753), a difference of -17.6%.
- Districts in Maryland's second highest poverty quintile spend 39.2% more than the adequate level.



Adequacy: MD vs U.S. average

Percent above / below adequate

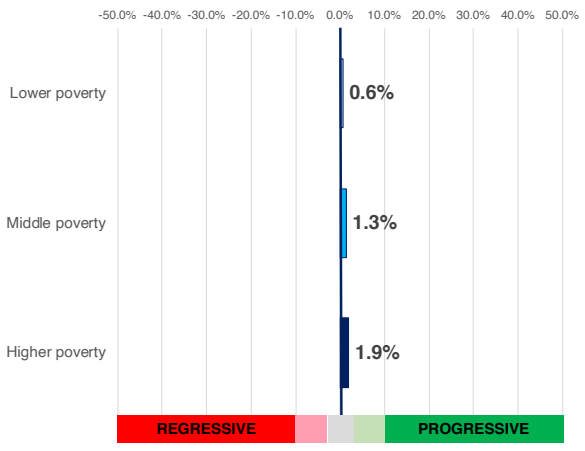
District poverty	MD	U.S.
Lowest poverty	83.6	45.4
Low poverty	41.1	11.4
Medium poverty	18.0	-2.0
High poverty	39.2	-15.1
Highest poverty	-17.6	-20.7

- In its highest poverty districts, Maryland's spending is 17.6% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Maryland's highest poverty districts ranks #17 in the nation (out of 49).

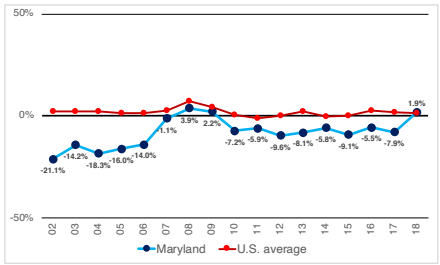
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Maryland is neither progressive nor regressive.
- Higher poverty districts receive 1.9% more revenue than zero poverty districts (this level of progressivity ranks #24 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- MD's funding was more progressive in 2018 (1.9%) vs. 2002 (-21.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

MASSACHUSETTS

Description: This 2017-18 profile of Massachusetts's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Massachusetts devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

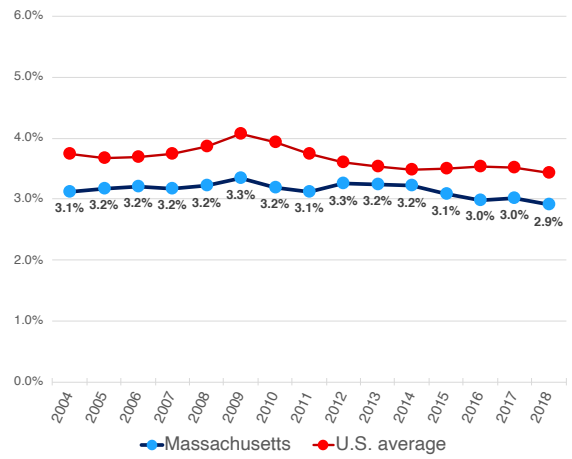
CONTEXTUAL STATS	MA	U.S.
Child (5-17yo) poverty rate (%)	11.6	17.0
Public school coverage (%)	88.9	87.6
Pct. revenue from state sources	38.0	46.7
Total K-12 enrollment (U.S. rank)	964,791 (17)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Massachusetts effort	2.91 %
U.S. average	3.43 %

- In FY 2018, Massachusetts spent 2.91% of its economic capacity directly on K-12 education.
- This was 0.53 percentage points lower than the unweighted national average of 3.43%.
- Massachusetts's effort level ranks #41 in the nation (out of 49).



Effort trends, 2004-18

- Effort in MA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.12% in 2004 to 3.34% in 2009.

Net change by period (% pts.)

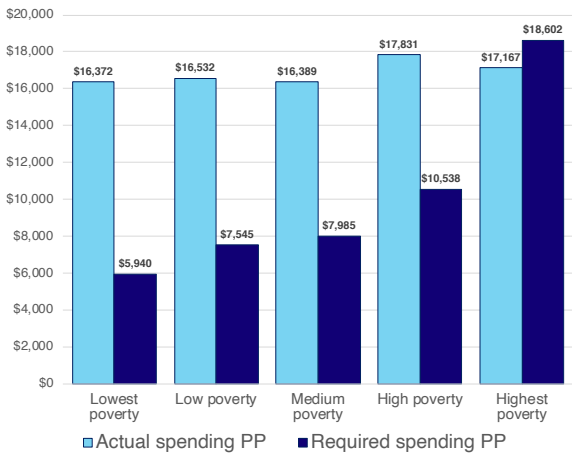
Period	MA	U.S.
2004-2009	0.22	0.33
2009-2018	-0.44	-0.64
2004-2018	-0.22	-0.31

- This was followed by a decrease of 0.44 percentage points between 2009 and 2018.
- MA's effort was 0.22 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Massachusetts's highest poverty districts is $1,435 PP lower than the estimated adequate level ($18,602), a difference of -7.7%.
- Districts in Massachusetts's second highest poverty quintile spend 69.2% more than the adequate level.



Adequacy: MA vs U.S. average

Percent above / below adequate

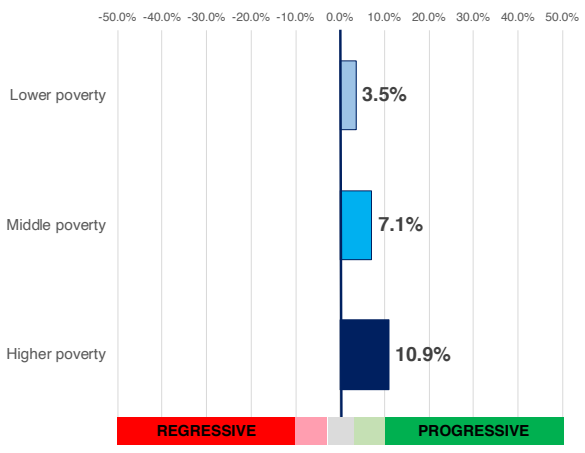
District poverty	MA	U.S.
Lowest poverty	175.6	45.4
Low poverty	119.1	11.4
Medium poverty	105.2	-2.0
High poverty	69.2	-15.1
Highest poverty	-7.7	-20.7

- In its highest poverty districts, Massachusetts's spending is 7.7% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Massachusetts's highest poverty districts ranks #11 in the nation (out of 49).

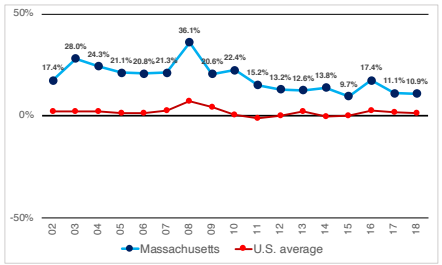
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Massachusetts is progressive.
- Higher poverty districts receive 10.9% more revenue than zero poverty districts (this level of progressivity ranks #9 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- MA's funding was more regressive in 2018 (10.9%) vs. 2002 (17.4%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

MICHIGAN

Description: This 2017-18 profile of Michigan's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Michigan devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

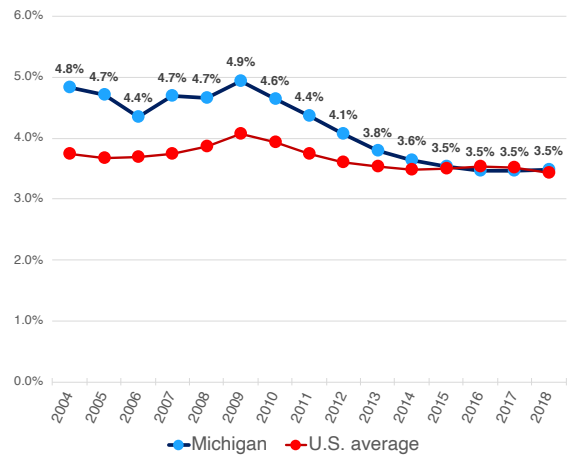
CONTEXTUAL STATS	MI	U.S.
Child (5-17yo) poverty rate (%)	17.9	17.0
Public school coverage (%)	88.5	87.6
Pct. revenue from state sources	58.4	46.7
Total K-12 enrollment (U.S. rank)	1,516,398 (10)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Michigan effort	3.49 %
U.S. average	3.43 %

- In FY 2018, Michigan spent 3.49% of its economic capacity directly on K-12 education.
- This was 0.06 percentage points higher than the unweighted national average of 3.43%.
- Michigan's effort level ranks #23 in the nation (out of 49).



Effort trends, 2004-18

- Effort in MI increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.84% in 2004 to 4.94% in 2009.

Net change by period (% pts.)

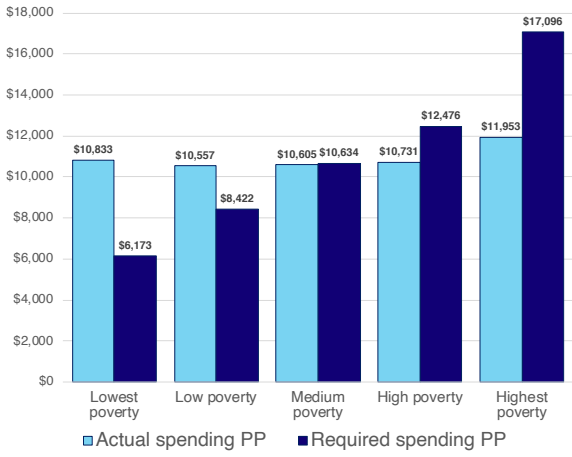
Period	MI	U.S.
2004-2009	0.10	0.33
2009-2018	-1.45	-0.64
2004-2018	-1.35	-0.31

- This was followed by a decrease of 1.45 percentage points between 2009 and 2018.
- MI's effort was 1.35 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Michigan's highest poverty districts is $5,143 PP lower than the estimated adequate level ($17,096), a difference of -30.1%.
- Districts in Michigan's second highest poverty quintile spend 14.0% less than the adequate level.



Adequacy: MI vs U.S. average

Percent above / below adequate

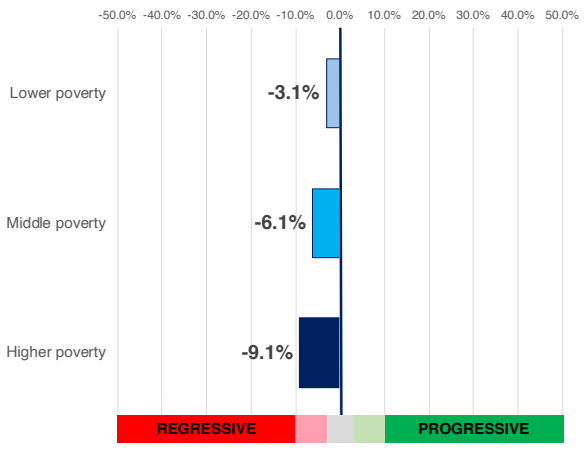
District poverty	MI	U.S.
Lowest poverty	75.5	45.4
Low poverty	25.4	11.4
Medium poverty	-0.3	-2.0
High poverty	-14.0	-15.1
Highest poverty	-30.1	-20.7

- In its highest poverty districts, Michigan's spending is 30.1% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Michigan's highest poverty districts ranks #31 in the nation (out of 49).

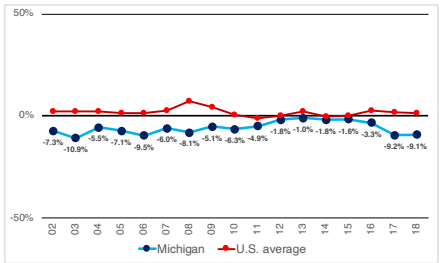
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Michigan is moderately regressive.
- Higher poverty districts receive 9.1% less revenue than zero poverty districts (this level of progressivity ranks #39 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- MI's funding was more regressive in 2018 (-9.1%) vs. 2002 (-7.3%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

MINNESOTA

Description: This 2017-18 profile of Minnesota's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Minnesota devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

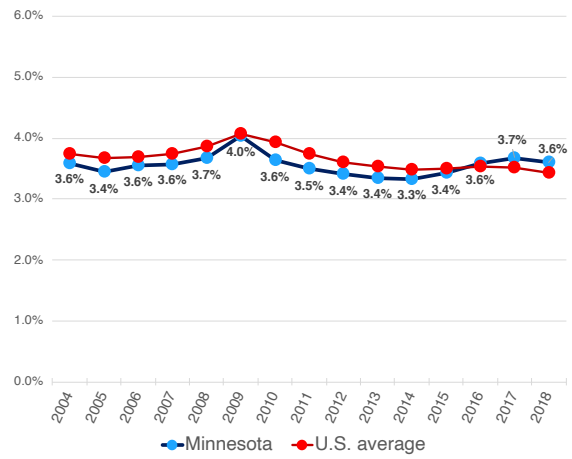
CONTEXTUAL STATS	MN	U.S.
Child (5-17yo) poverty rate (%)	10.8	17.0
Public school coverage (%)	89.8	87.6
Pct. revenue from state sources	65.2	46.7
Total K-12 enrollment (U.S. rank)	884,944 (21)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Minnesota effort	3.60 %
U.S. average	3.43 %

- In FY 2018, Minnesota spent 3.60% of its economic capacity directly on K-12 education.
- This was 0.17 percentage points higher than the unweighted national average of 3.43%.
- Minnesota's effort level ranks #19 in the nation (out of 49).



Effort trends, 2004-18

- Effort in MN increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.59% in 2004 to 4.04% in 2009.

Net change by period (% pts.)

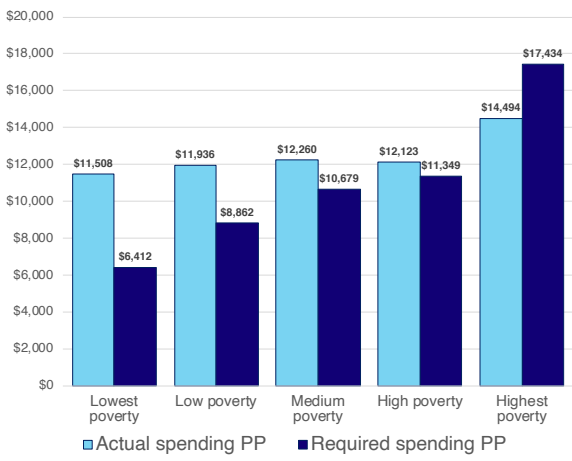
Period	MN	U.S.
2004-2009	0.45	0.33
2009-2018	-0.44	-0.64
2004-2018	0.02	-0.31

- This was followed by a decrease of 0.44 percentage points between 2009 and 2018.
- MN's effort was 0.02 percentage points higher in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Minnesota's highest poverty districts is $2,940 PP lower than the estimated adequate level ($17,434), a difference of -16.9%.
- Districts in Minnesota's second highest poverty quintile spend 6.8% more than the adequate level.



Adequacy: MN vs U.S. average

Percent above / below adequate

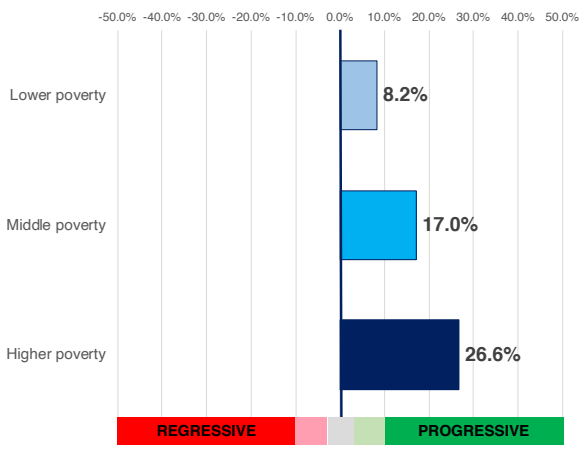
District poverty	MN	U.S.
Lowest poverty	79.5	45.4
Low poverty	34.7	11.4
Medium poverty	14.8	-2.0
High poverty	6.8	-15.1
Highest poverty	-16.9	-20.7

- In its highest poverty districts, Minnesota's spending is 16.9% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Minnesota's highest poverty districts ranks #16 in the nation (out of 49).

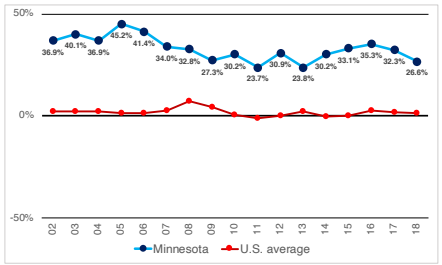
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Minnesota is progressive.
- Higher poverty districts receive 26.6% more revenue than zero poverty districts (this level of progressivity ranks #4 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- MN's funding was more regressive in 2018 (26.6%) vs. 2002 (36.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

MISSISSIPPI

Description: This 2017-18 profile of Mississippi's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Mississippi devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

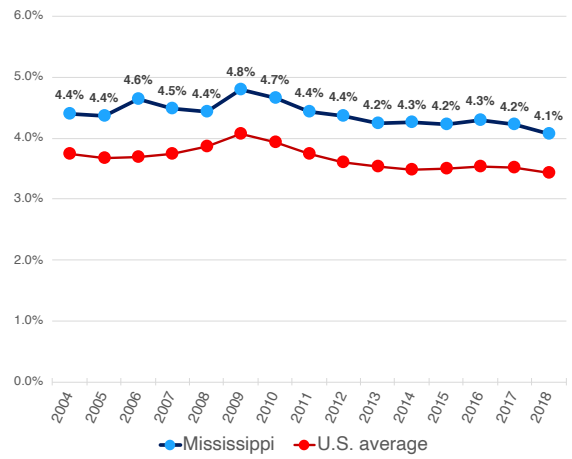
CONTEXTUAL STATS	MS	U.S.
Child (5-17yo) poverty rate (%)	27.0	17.0
Public school coverage (%)	86.8	87.6
Pct. revenue from state sources	50.4	46.7
Total K-12 enrollment (U.S. rank)	478,321 (35)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Mississippi effort	4.07 %
U.S. average	3.43 %

- In FY 2018, Mississippi spent 4.07% of its economic capacity directly on K-12 education.
- This was 0.63 percentage points higher than the unweighted national average of 3.43%.
- Mississippi's effort level ranks #8 in the nation (out of 49).



Effort trends, 2004-18

- Effort in MS increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.41% in 2004 to 4.79% in 2009.

Net change by period (% pts.)

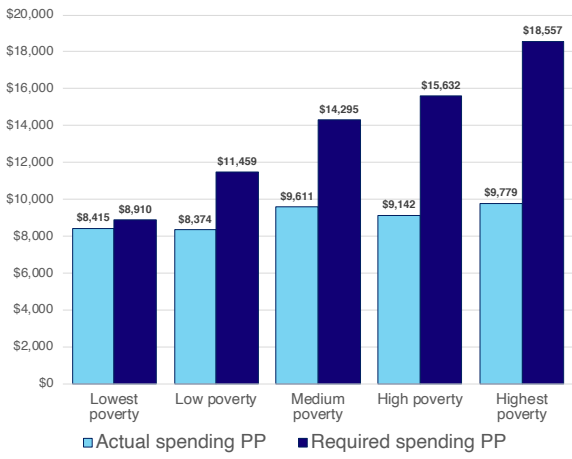
Period	MS	U.S.
2004-2009	0.39	0.33
2009-2018	-0.73	-0.64
2004-2018	-0.34	-0.31

- This was followed by a decrease of 0.73 percentage points between 2009 and 2018.
- MS's effort was 0.34 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Mississippi's highest poverty districts is $8,778 PP lower than the estimated adequate level ($18,557), a difference of -47.3%.
- Districts in Mississippi's second highest poverty quintile spend 41.5% less than the adequate level.



Adequacy: MS vs U.S. average

Percent above / below adequate

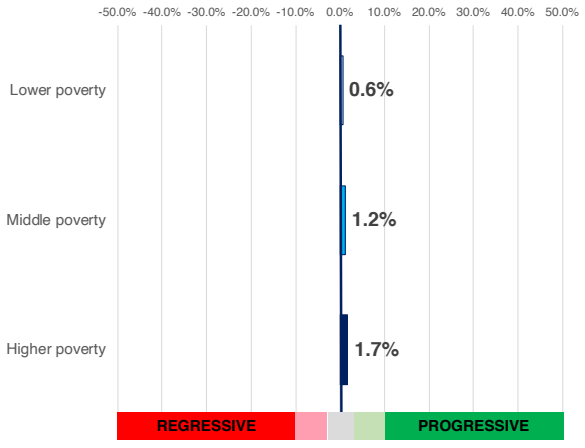
District poverty	MS	U.S.
Lowest poverty	-5.6	45.4
Low poverty	-26.9	11.4
Medium poverty	-32.8	-2.0
High poverty	-41.5	-15.1
Highest poverty	-47.3	-20.7

- In its highest poverty districts, Mississippi's spending is 47.3% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Mississippi's highest poverty districts ranks #46 in the nation (out of 49).

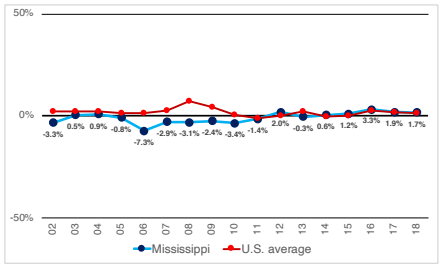
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Mississippi is neither progressive nor regressive.
- Higher poverty districts receive 1.7% more revenue than zero poverty districts (this level of progressivity ranks #25 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- MS's funding was more progressive in 2018 (1.7%) vs. 2002 (-3.3%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

MISSOURI

Description: This 2017-18 profile of Missouri's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Missouri devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

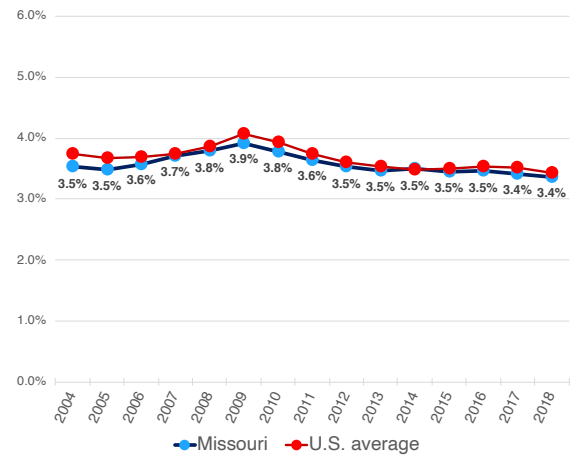
CONTEXTUAL STATS	MO	U.S.
Child (5-17yo) poverty rate (%)	17.1	17.0
Public school coverage (%)	85.2	87.6
Pct. revenue from state sources	41.7	46.7
Total K-12 enrollment (U.S. rank)	915,472 (18)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Missouri effort	3.37 %
U.S. average	3.43 %

- In FY 2018, Missouri spent 3.37% of its economic capacity directly on K-12 education.
- This was 0.07 percentage points lower than the unweighted national average of 3.43%.
- Missouri's effort level ranks #28 in the nation (out of 49).



Effort trends, 2004-18

- Effort in MO increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.53% in 2004 to 3.92% in 2009.

Net change by period (% pts.)

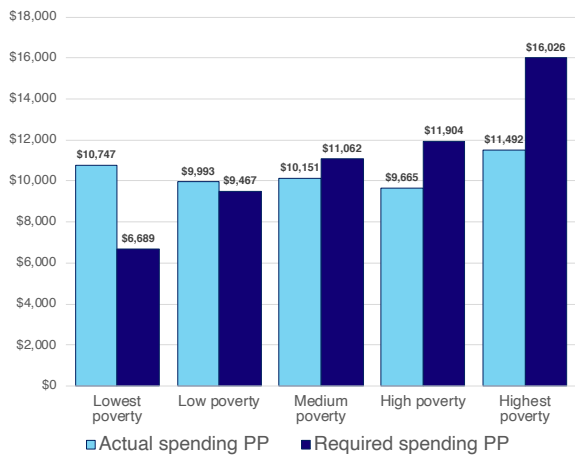
Period	MO	U.S.
2004-2009	0.39	0.33
2009-2018	-0.55	-0.64
2004-2018	-0.16	-0.31

- This was followed by a decrease of 0.55 percentage points between 2009 and 2018.
- MO's effort was 0.16 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Missouri's highest poverty districts is $4,534 PP lower than the estimated adequate level ($16,026), a difference of -28.3%.
- Districts in Missouri's second highest poverty quintile spend 18.8% less than the adequate level.



Adequacy: MO vs U.S. average

Percent above / below adequate

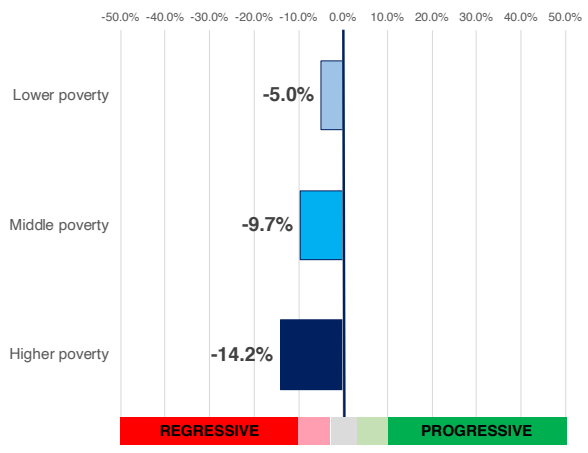
District poverty	MO	U.S.
Lowest poverty	60.7	45.4
Low poverty	5.6	11.4
Medium poverty	-8.2	-2.0
High poverty	-18.8	-15.1
Highest poverty	-28.3	-20.7

- In its highest poverty districts, Missouri's spending is 28.3% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Missouri's highest poverty districts ranks #30 in the nation (out of 49).

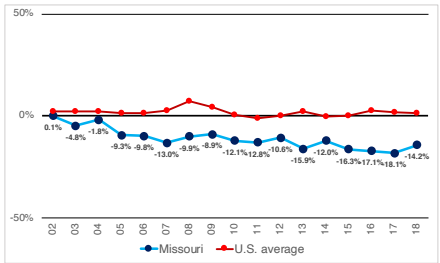
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Missouri is regressive.
- Higher poverty districts receive 14.2% less revenue than zero poverty districts (this level of progressivity ranks #46 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- MO's funding was more regressive in 2018 (-14.2%) vs. 2002 (0.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

MONTANA

Description: This 2017-18 profile of Montana's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Montana devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

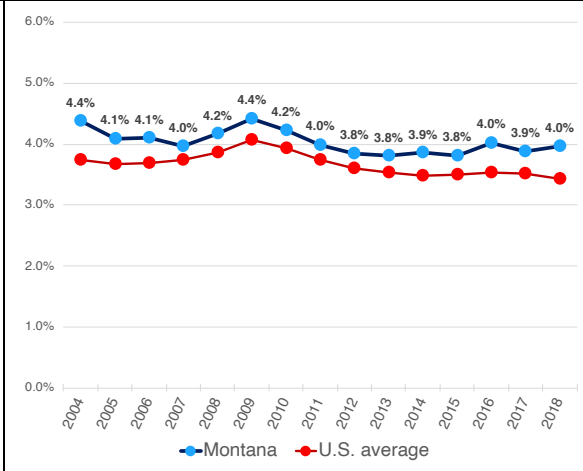
CONTEXTUAL STATS	MT	U.S.
Child (5-17yo) poverty rate (%)	14.8	17.0
Public school coverage (%)	88.6	87.6
Pct. revenue from state sources	43.1	46.7
Total K-12 enrollment (U.S. rank)	149,474 (43)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Montana effort	3.96 %
U.S. average	3.43 %

- In FY 2018, Montana spent 3.96% of its economic capacity directly on K-12 education.
- This was 0.53 percentage points higher than the unweighted national average of 3.43%.
- Montana's effort level ranks #10 in the nation (out of 49).



Effort trends, 2004-18

- Effort in MT increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.38% in 2004 to 4.42% in 2009.

Net change by period (% pts.)

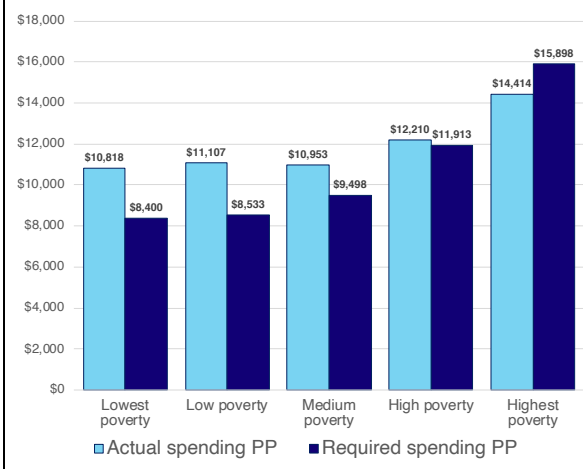
Period	MT	U.S.
2004-2009	0.04	0.33
2009-2018	-0.46	-0.64
2004-2018	-0.42	-0.31

- This was followed by a decrease of 0.46 percentage points between 2009 and 2018.
- MT's effort was 0.42 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Montana's highest poverty districts is $1,484 PP lower than the estimated adequate level ($15,898), a difference of -9.3%.
- Districts in Montana's second highest poverty quintile spend 2.5% more than the adequate level.



Adequacy: MT vs U.S. average

Percent above / below adequate

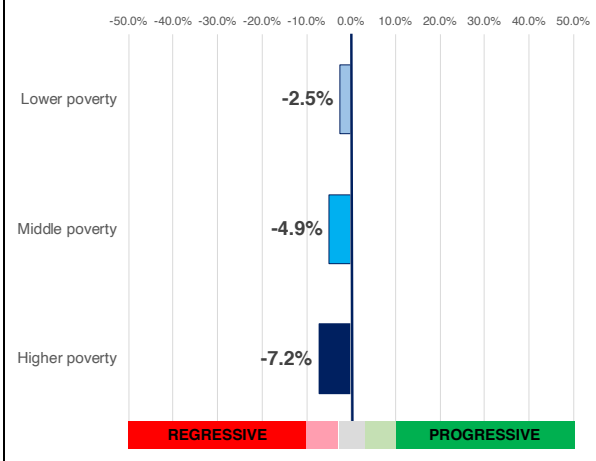
District poverty	MT	U.S.
Lowest poverty	28.8	45.4
Low poverty	30.2	11.4
Medium poverty	15.3	-2.0
High poverty	2.5	-15.1
Highest poverty	-9.3	-20.7

- In its highest poverty districts, Montana's spending is 9.3% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Montana's highest poverty districts ranks #12 in the nation (out of 49).

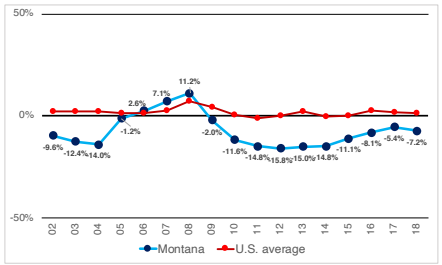
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Montana is moderately regressive.
- Higher poverty districts receive 7.2% less revenue than zero poverty districts (this level of progressivity ranks #34 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- MT's funding was less regressive in 2018 (-7.2%) vs. 2002 (-9.6%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

NEBRASKA

Description: This 2017-18 profile of Nebraska's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Nebraska devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

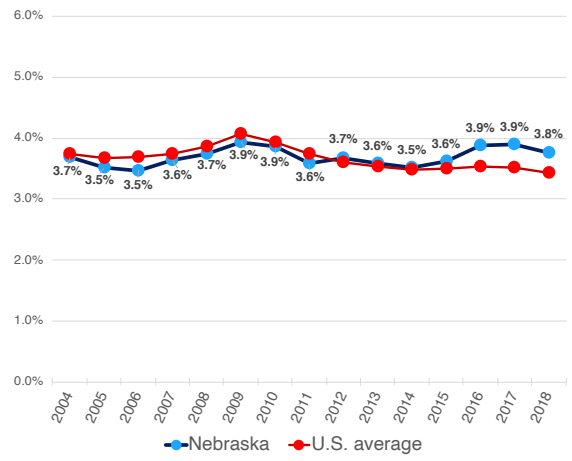
CONTEXTUAL STATS	NE	U.S.
Child (5-17yo) poverty rate (%)	11.5	17.0
Public school coverage (%)	84.2	87.6
Pct. revenue from state sources	32.8	46.7
Total K-12 enrollment (U.S. rank)	323,766 (37)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Nebraska effort	3.76 %
U.S. average	3.43 %

- In FY 2018, Nebraska spent 3.76% of its economic capacity directly on K-12 education.
- This was 0.33 percentage points higher than the unweighted national average of 3.43%.
- Nebraska's effort level ranks #13 in the nation (out of 49).



Effort trends, 2004-18

- Effort in NE increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.69% in 2004 to 3.93% in 2009.

Net change by period (% pts.)

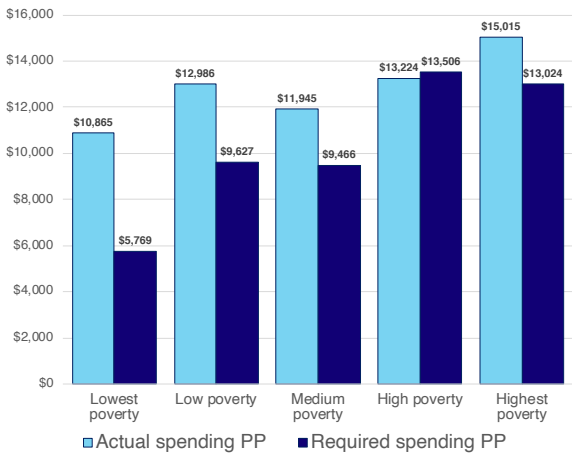
Period	NE	U.S.
2004-2009	0.25	0.33
2009-2018	-0.17	-0.64
2004-2018	0.08	-0.31

- This was followed by a decrease of 0.17 percentage points between 2009 and 2018.
- NE's effort was 0.08 percentage points higher in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Nebraska's highest poverty districts is $1,991 PP higher than the estimated adequate level ($13,024), a difference of 15.3%.
- Districts in Nebraska's second highest poverty quintile spend 2.1% less than the adequate level.



Adequacy: NE vs U.S. average

Percent above / below adequate

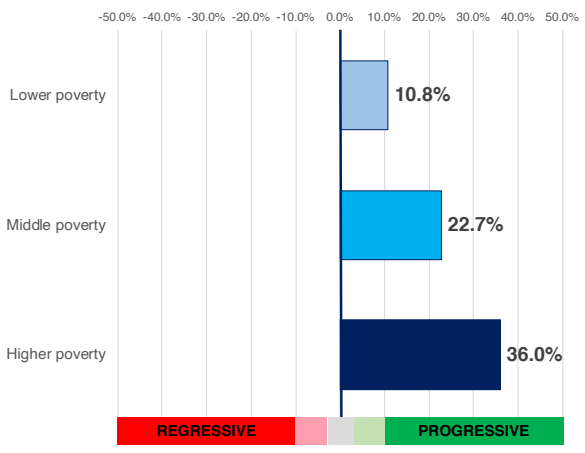
District poverty	NE	U.S.
Lowest poverty	88.3	45.4
Low poverty	34.9	11.4
Medium poverty	26.2	-2.0
High poverty	-2.1	-15.1
Highest poverty	15.3	-20.7

- In its highest poverty districts, Nebraska's spending is 15.3% above the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Nebraska's highest poverty districts ranks #4 in the nation (out of 49).

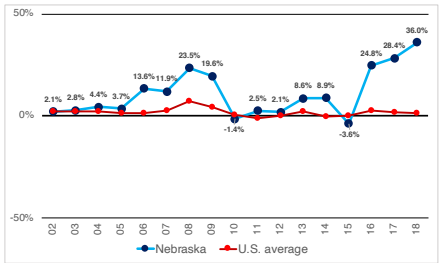
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Nebraska is progressive.
- Higher poverty districts receive 36.0% more revenue than zero poverty districts (this level of progressivity ranks #3 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- NE's funding was more progressive in 2018 (36.0%) vs. 2002 (2.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

NEVADA

Description: This 2017-18 profile of Nevada's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Nevada devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

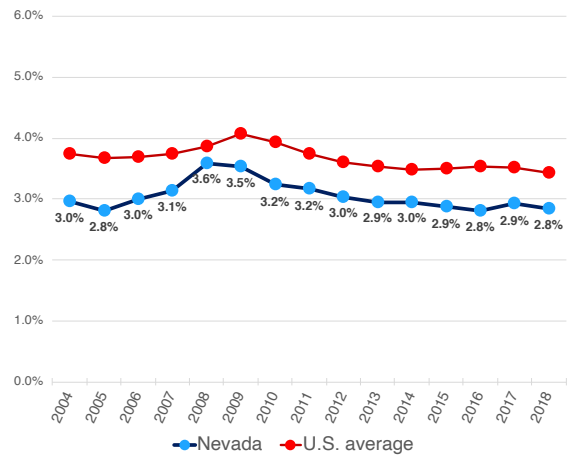
CONTEXTUAL STATS	NV	U.S.
Child (5-17yo) poverty rate (%)	17.1	17.0
Public school coverage (%)	91.6	87.6
Pct. revenue from state sources	63.4	46.7
Total K-12 enrollment (U.S. rank)	485,785 (34)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Nevada effort	2.85 %
U.S. average	3.43 %

- In FY 2018, Nevada spent 2.85% of its economic capacity directly on K-12 education.
- This was 0.59 percentage points lower than the unweighted national average of 3.43%.
- Nevada's effort level ranks #42 in the nation (out of 49).



Effort trends, 2004-18

- Effort in NV increased in the years before the "Great Recession's" main impact on K-12 funding, going from 2.96% in 2004 to 3.54% in 2009.

Net change by period (% pts.)

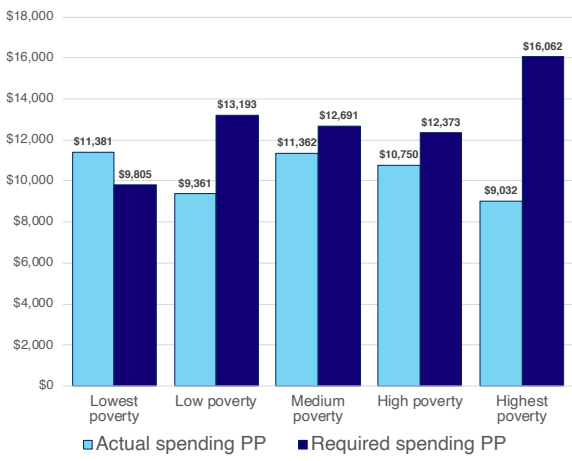
Period	NV	U.S.
2004-2009	0.59	0.33
2009-2018	-0.70	-0.64
2004-2018	-0.11	-0.31

- This was followed by a decrease of 0.70 percentage points between 2009 and 2018.
- NV's effort was 0.11 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Nevada's highest poverty districts is $7,030 PP lower than the estimated adequate level ($16,062), a difference of -43.8%.
- Districts in Nevada's second highest poverty quintile spend 13.1% less than the adequate level.



Adequacy: NV vs U.S. average

Percent above / below adequate

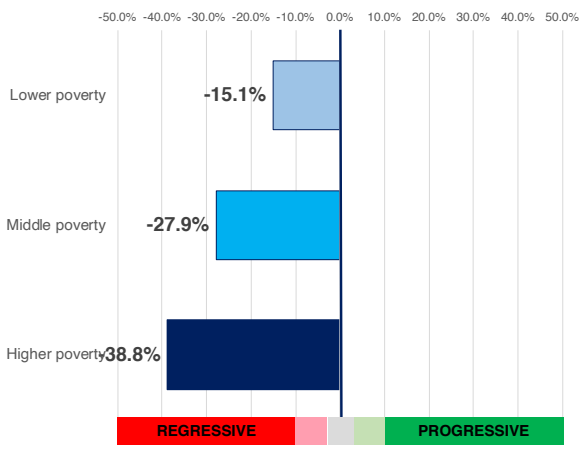
District poverty	NV	U.S.
Lowest poverty	16.1	45.4
Low poverty	-29.0	11.4
Medium poverty	-10.5	-2.0
High poverty	-13.1	-15.1
Highest poverty	-43.8	-20.7

- In its highest poverty districts, Nevada's spending is 43.8% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Nevada's highest poverty districts ranks #44 in the nation (out of 49).

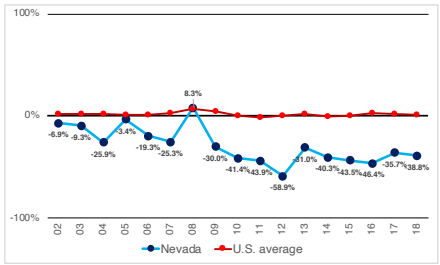
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Nevada is regressive.
- Higher poverty districts receive 38.8% less revenue than zero poverty districts (this level of progressivity ranks #51 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- NV's funding was more regressive in 2018 (-38.8%) vs. 2002 (-6.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

NEW HAMPSHIRE

Description: This 2017-18 profile of New Hampshire's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much New Hampshire devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

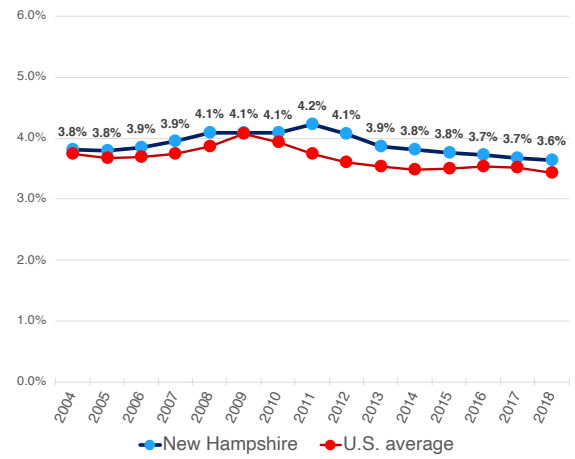
CONTEXTUAL STATS	NH	U.S.
Child (5-17yo) poverty rate (%)	9.0	17.0
Public school coverage (%)	87.6	87.6
Pct. revenue from state sources	31.3	46.7
Total K-12 enrollment (U.S. rank)	179,433 (42)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

New Hampshire effort	3.64 %
U.S. average	3.43 %

- In FY 2018, New Hampshire spent 3.64% of its economic capacity directly on K-12 education.
- This was 0.21 percentage points higher than the unweighted national average of 3.43%.
- New Hampshire's effort level ranks #16 in the nation (out of 49).



Effort trends, 2004-18

- Effort in NH increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.80% in 2004 to 4.09% in 2009.

Net change by period (% pts.)

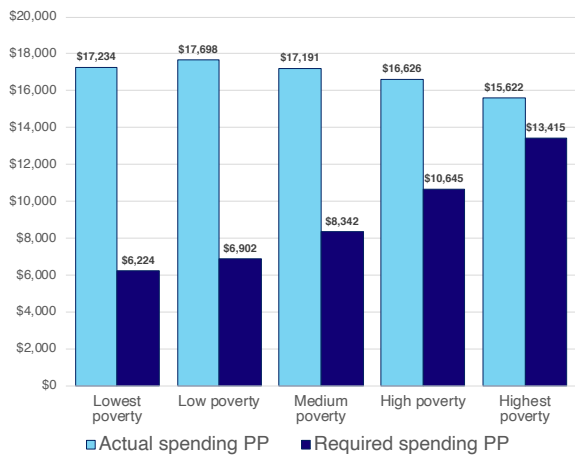
Period	NH	U.S.
2004-2009	0.29	0.33
2009-2018	-0.45	-0.64
2004-2018	-0.16	-0.31

- This was followed by a decrease of 0.45 percentage points between 2009 and 2018.
- NH's effort was 0.16 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in New Hampshire's highest poverty districts is $2,207 PP higher than the estimated adequate level ($13,415), a difference of 16.5%.
- Districts in New Hampshire's second highest poverty quintile spend 56.2% more than the adequate level.



Adequacy: NH vs U.S. average

Percent above / below adequate

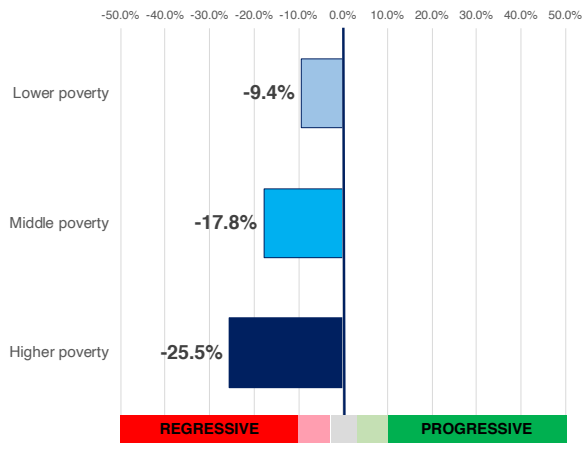
District poverty	NH	U.S.
Lowest poverty	176.9	45.4
Low poverty	156.4	11.4
Medium poverty	106.1	-2.0
High poverty	56.2	-15.1
Highest poverty	16.5	-20.7

- In its highest poverty districts, New Hampshire's spending is 16.5% above the adequate level, compared with a -20.7% U.S. average.
- Adequacy in New Hampshire's highest poverty districts ranks #3 in the nation (out of 49).

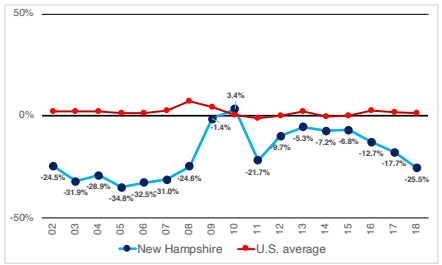
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in New Hampshire is regressive.
- Higher poverty districts receive 25.5% less revenue than zero poverty districts (this level of progressivity ranks #50 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- NH's funding was more regressive in 2018 (-25.5%) vs. 2002 (-24.5%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

NEW JERSEY

Description: This 2017-18 profile of New Jersey's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much New Jersey devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

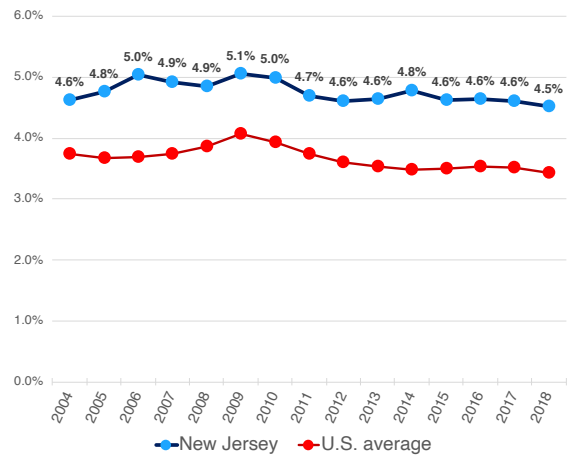
CONTEXTUAL STATS	NJ	U.S.
Child (5-17yo) poverty rate (%)	12.7	17.0
Public school coverage (%)	87.9	87.6
Pct. revenue from state sources	41.6	46.7
Total K-12 enrollment (U.S. rank)	1,408,102 (11)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

New Jersey effort	4.51 %
U.S. average	3.43 %

- In FY 2018, New Jersey spent 4.51% of its economic capacity directly on K-12 education.
- This was 1.08 percentage points higher than the unweighted national average of 3.43%.
- New Jersey's effort level ranks #1 in the nation (out of 49).



Effort trends, 2004-18

- Effort in NJ increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.62% in 2004 to 5.05% in 2009.

Net change by period (% pts.)

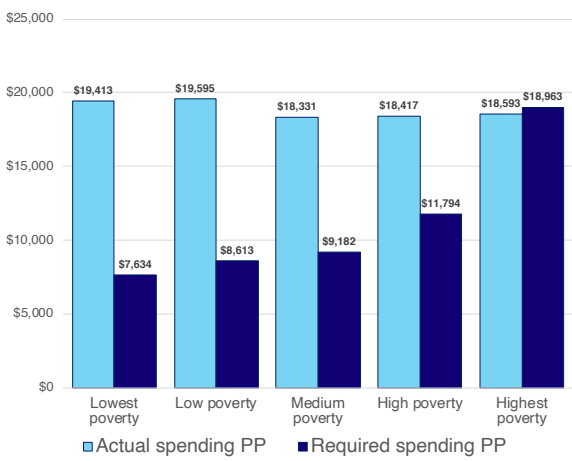
Period	NJ	U.S.
2004-2009	0.43	0.33
2009-2018	-0.54	-0.64
2004-2018	-0.11	-0.31

- This was followed by a decrease of 0.54 percentage points between 2009 and 2018.
- NJ's effort was 0.11 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in New Jersey's highest poverty districts is $370 PP lower than the estimated adequate level ($18,963), a difference of -2.0%.
- Districts in New Jersey's second highest poverty quintile spend 56.2% more than the adequate level.



Adequacy: NJ vs U.S. average

Percent above / below adequate

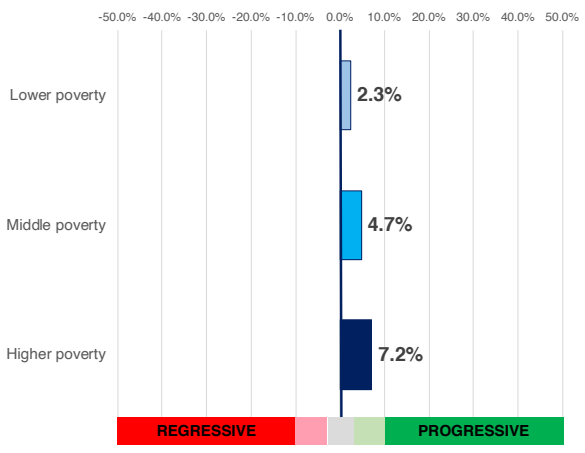
District poverty	NJ	U.S.
Lowest poverty	154.3	45.4
Low poverty	127.5	11.4
Medium poverty	99.6	-2.0
High poverty	56.2	-15.1
Highest poverty	-2.0	-20.7

- In its highest poverty districts, New Jersey's spending is 2.0% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in New Jersey's highest poverty districts ranks #10 in the nation (out of 49).

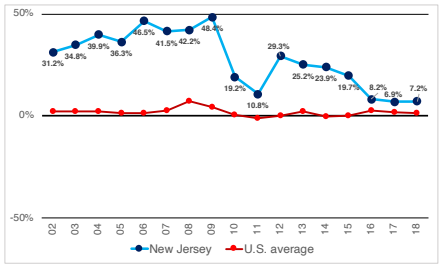
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in New Jersey is moderately progressive.
- Higher poverty districts receive 7.2% more revenue than zero poverty districts (this level of progressivity ranks #13 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- NJ's funding was more regressive in 2018 (7.2%) vs. 2002 (31.2%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

NEW MEXICO

Description: This 2017-18 profile of New Mexico's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much New Mexico devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

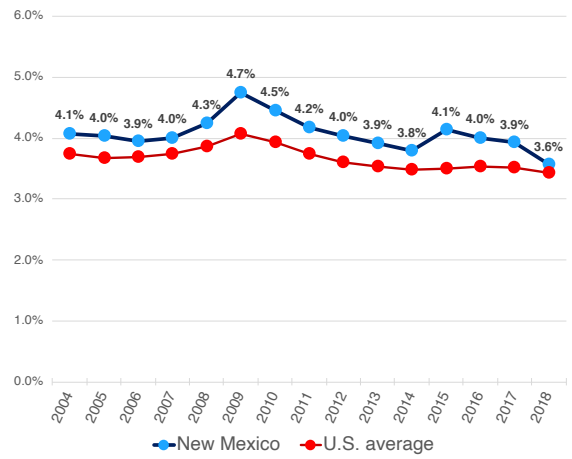
CONTEXTUAL STATS	NM	U.S.
Child (5-17yo) poverty rate (%)	24.0	17.0
Public school coverage (%)	89.6	87.6
Pct. revenue from state sources	67.5	46.7
Total K-12 enrollment (U.S. rank)	334,345 (36)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

New Mexico effort	3.57 %
U.S. average	3.43 %

- In FY 2018, New Mexico spent 3.57% of its economic capacity directly on K-12 education.
- This was 0.13 percentage points higher than the unweighted national average of 3.43%.
- New Mexico's effort level ranks #22 in the nation (out of 49).



Effort trends, 2004-18

- Effort in NM increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.07% in 2004 to 4.75% in 2009.

Net change by period (% pts.)

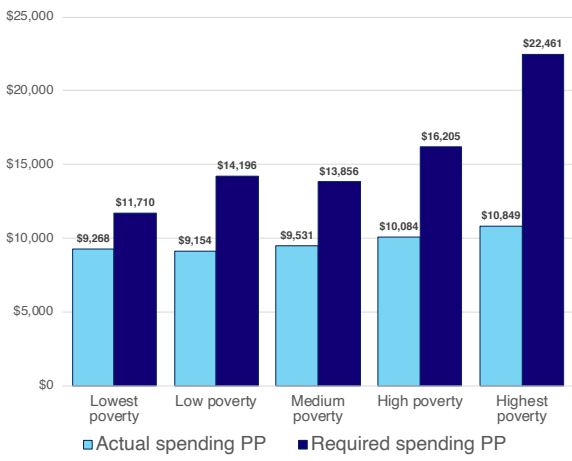
Period	NM	U.S.
2004-2009	0.67	0.33
2009-2018	-1.18	-0.64
2004-2018	-0.51	-0.31

- This was followed by a decrease of 1.18 percentage points between 2009 and 2018.
- NM's effort was 0.51 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in New Mexico's highest poverty districts is $11,612 PP lower than the estimated adequate level ($22,461), a difference of -51.7%.
- Districts in New Mexico's second highest poverty quintile spend 37.8% less than the adequate level.



Adequacy: NM vs U.S. average

Percent above / below adequate

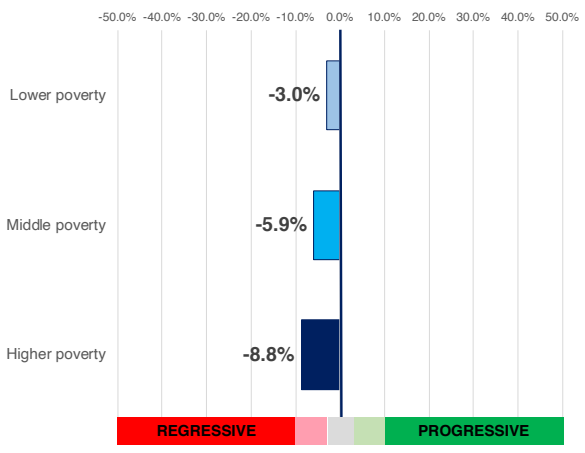
District poverty	NM	U.S.
Lowest poverty	-20.9	45.4
Low poverty	-35.5	11.4
Medium poverty	-31.2	-2.0
High poverty	-37.8	-15.1
Highest poverty	-51.7	-20.7

- In its highest poverty districts, New Mexico's spending is 51.7% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in New Mexico's highest poverty districts ranks #48 in the nation (out of 49).

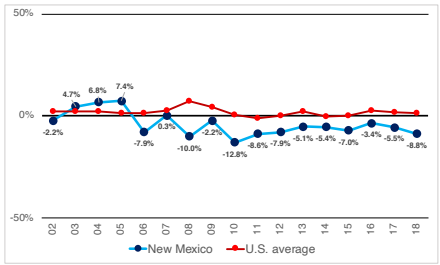
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in New Mexico is moderately regressive.
- Higher poverty districts receive 8.8% less revenue than zero poverty districts (this level of progressivity ranks #37 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- NM's funding was more regressive in 2018 (-8.8%) vs. 2002 (-2.2%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

NEW YORK

Description: This 2017-18 profile of New York's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much New York devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

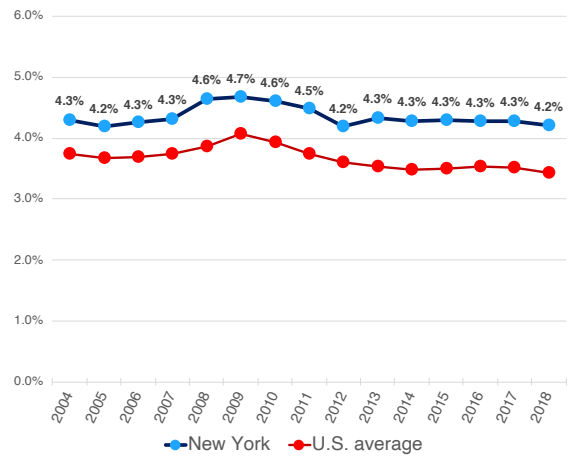
CONTEXTUAL STATS	NY	U.S.
Child (5-17yo) poverty rate (%)	17.8	17.0
Public school coverage (%)	83.5	87.6
Pct. revenue from state sources	39.6	46.7
Total K-12 enrollment (U.S. rank)	2,724,663 (4)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

New York effort	4.22 %
U.S. average	3.43 %

- In FY 2018, New York spent 4.22% of its economic capacity directly on K-12 education.
- This was 0.78 percentage points higher than the unweighted national average of 3.43%.
- New York's effort level ranks #5 in the nation (out of 49).



Effort trends, 2004-18

- Effort in NY increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.30% in 2004 to 4.68% in 2009.

Net change by period (% pts.)

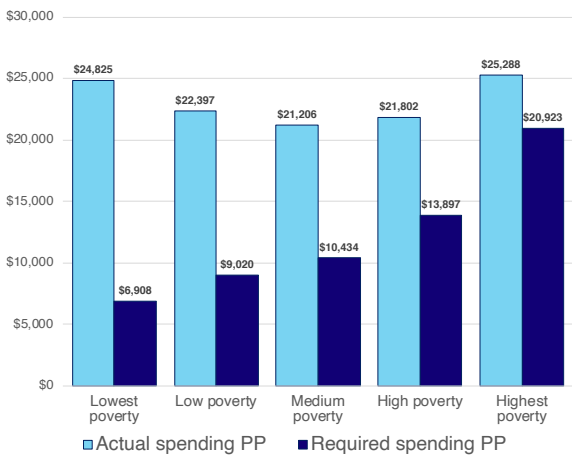
Period	NY	U.S.
2004-2009	0.37	0.33
2009-2018	-0.46	-0.64
2004-2018	-0.09	-0.31

- This was followed by a decrease of 0.46 percentage points between 2009 and 2018.
- NY's effort was 0.09 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in New York's highest poverty districts is $4,365 PP higher than the estimated adequate level ($20,923), a difference of 20.9%.
- Districts in New York's second highest poverty quintile spend 56.9% more than the adequate level.



Adequacy: NY vs U.S. average

Percent above / below adequate

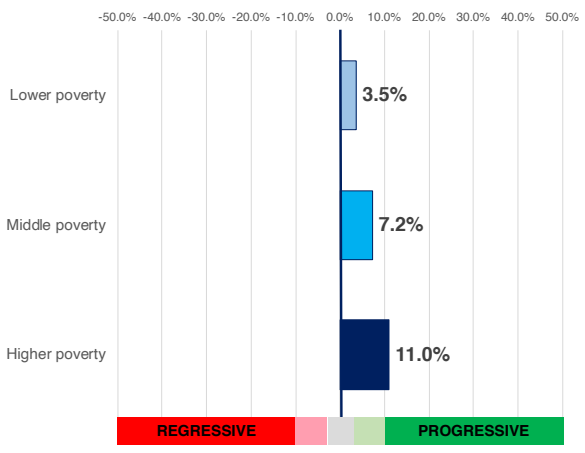
District poverty	NY	U.S.
Lowest poverty	259.4	45.4
Low poverty	148.3	11.4
Medium poverty	103.2	-2.0
High poverty	56.9	-15.1
Highest poverty	20.9	-20.7

- In its highest poverty districts, New York's spending is 20.9% above the adequate level, compared with a -20.7% U.S. average.
- Adequacy in New York's highest poverty districts ranks #2 in the nation (out of 49).

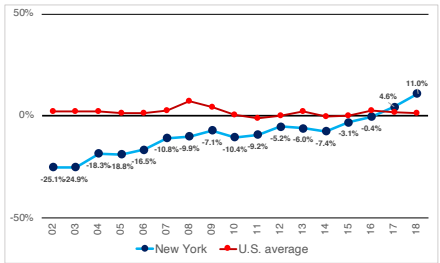
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in New York is progressive.
- Higher poverty districts receive 11.0% more revenue than zero poverty districts (this level of progressivity ranks #8 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- NY's funding was more progressive in 2018 (11.0%) vs. 2002 (-25.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

NORTH CAROLINA

Description: This 2017-18 profile of North Carolina's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much North Carolina devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

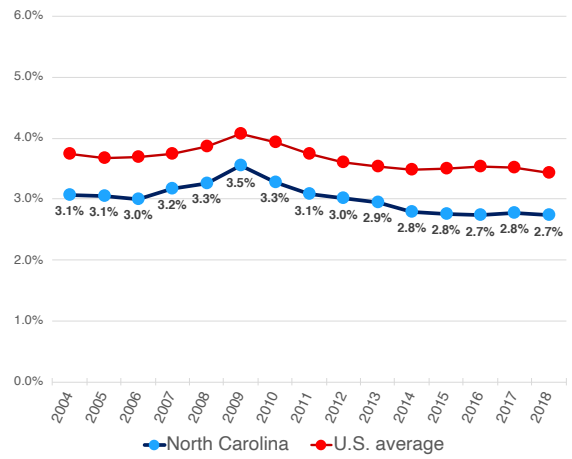
CONTEXTUAL STATS	NC	U.S.
Child (5-17yo) poverty rate (%)	19.0	17.0
Public school coverage (%)	86.6	87.6
Pct. revenue from state sources	61.5	46.7
Total K-12 enrollment (U.S. rank)	1,553,513 (9)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

North Carolina effort	2.74 %
U.S. average	3.43 %

- In FY 2018, North Carolina spent 2.74% of its economic capacity directly on K-12 education.
- This was 0.70 percentage points lower than the unweighted national average of 3.43%.
- North Carolina's effort level ranks #47 in the nation (out of 49).



Effort trends, 2004-18

- Effort in NC increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.07% in 2004 to 3.55% in 2009.

Net change by period (% pts.)

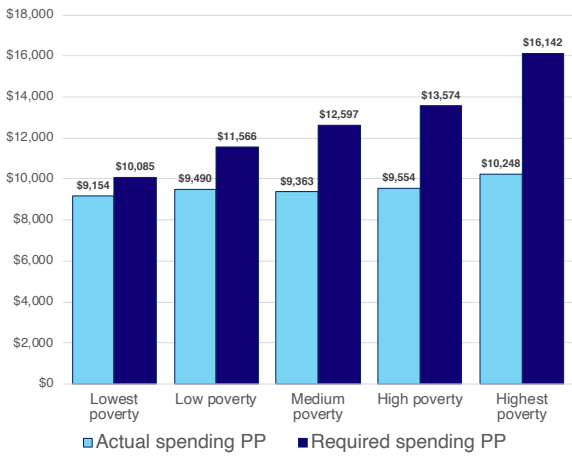
Period	NC	U.S.
2004-2009	0.48	0.33
2009-2018	-0.81	-0.64
2004-2018	-0.33	-0.31

- This was followed by a decrease of 0.81 percentage points between 2009 and 2018.
- NC's effort was 0.33 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in North Carolina's highest poverty districts is $5,894 PP lower than the estimated adequate level ($16,142), a difference of -36.5%.
- Districts in North Carolina's second highest poverty quintile spend 29.6% less than the adequate level.



Adequacy: NC vs U.S. average

Percent above / below adequate

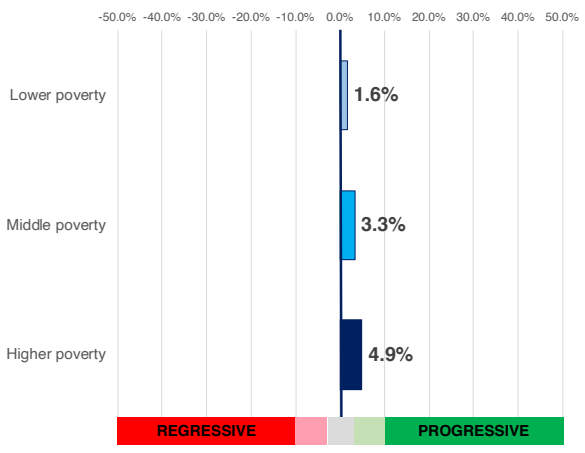
District poverty	NC	U.S.
Lowest poverty	-9.2	45.4
Low poverty	-17.9	11.4
Medium poverty	-25.7	-2.0
High poverty	-29.6	-15.1
Highest poverty	-36.5	-20.7

- In its highest poverty districts, North Carolina's spending is 36.5% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in North Carolina's highest poverty districts ranks #40 in the nation (out of 49).

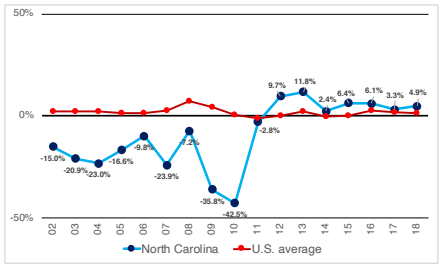
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in North Carolina is moderately progressive.
- Higher poverty districts receive 4.9% more revenue than zero poverty districts (this level of progressivity ranks #16 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- NC's funding was more progressive in 2018 (4.9%) vs. 2002 (-15.0%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

NORTH DAKOTA

Description: This 2017-18 profile of North Dakota's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much North Dakota devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

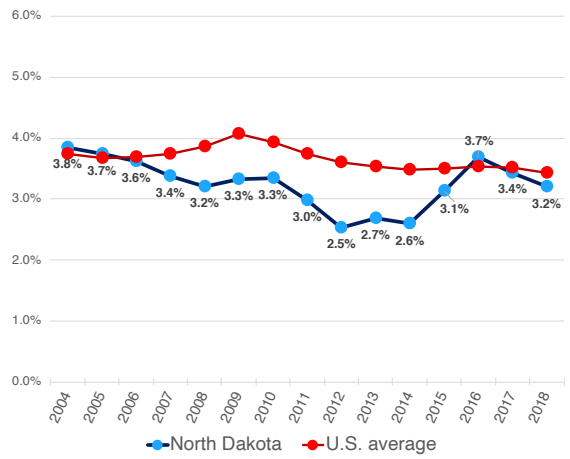
CONTEXTUAL STATS	ND	U.S.
Child (5-17yo) poverty rate (%)	9.6	17.0
Public school coverage (%)	88.8	87.6
Pct. revenue from state sources	55.8	46.7
Total K-12 enrollment (U.S. rank)	111,920 (48)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

North Dakota effort	3.20 %
U.S. average	3.43 %

- In FY 2018, North Dakota spent 3.20% of its economic capacity directly on K-12 education.
- This was 0.23 percentage points lower than the unweighted national average of 3.43%.
- North Dakota's effort level ranks #31 in the nation (out of 49).



Effort trends, 2004-18

- Effort in ND decreased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.85% in 2004 to 3.32% in 2009.

Net change by period (% pts.)

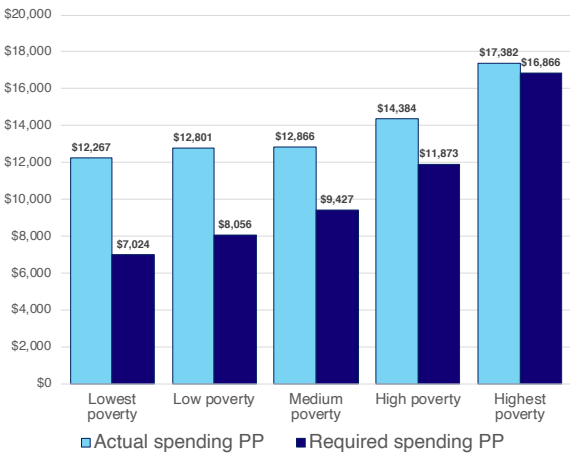
Period	ND	U.S.
2004-2009	-0.53	0.33
2009-2018	-0.12	-0.64
2004-2018	-0.64	-0.31

- This was followed by a decrease of 0.12 percentage points between 2009 and 2018.
- ND's effort was 0.64 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in North Dakota's highest poverty districts is $516 PP higher than the estimated adequate level ($16,866), a difference of 3.1%.
- Districts in North Dakota's second highest poverty quintile spend 21.1% more than the adequate level.



Adequacy: ND vs U.S. average

Percent above / below adequate

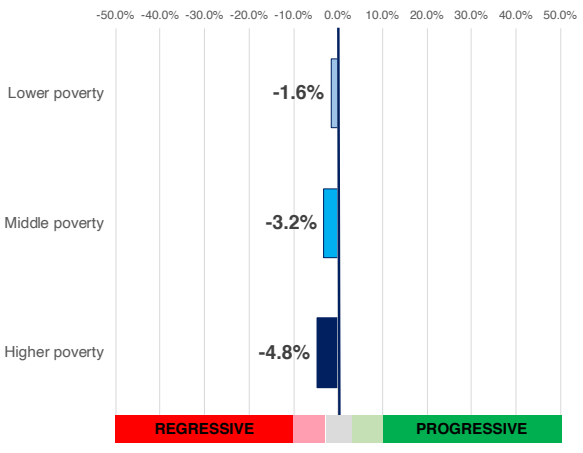
District poverty	ND	U.S.
Lowest poverty	74.6	45.4
Low poverty	58.9	11.4
Medium poverty	36.5	-2.0
High poverty	21.1	-15.1
Highest poverty	3.1	-20.7

- In its highest poverty districts, North Dakota's spending is 3.1% above the adequate level, compared with a -20.7% U.S. average.
- Adequacy in North Dakota's highest poverty districts ranks #8 in the nation (out of 49).

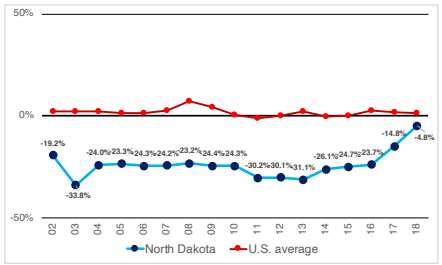
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in North Dakota is moderately regressive.
- Higher poverty districts receive 4.8% less revenue than zero poverty districts (this level of progressivity ranks #31 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- ND's funding was less regressive in 2018 (-4.8%) vs. 2002 (-19.2%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(ln)SCHOOL = b_0 + b_1State_i + b_2LaborMarket_{ij} + b_3CWI_{ij} + b_4FINANCE_{ij} + b_5PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7INDICATORS_{ij} + b_8Scale_{ij} + b_9Poverty_{ij} + b_{10}SchlType_{ij} + b_{11}DATABASE_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2017-18 SCHOOL YEAR

OHIO

Description: This 2017-18 profile of Ohio's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Ohio devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

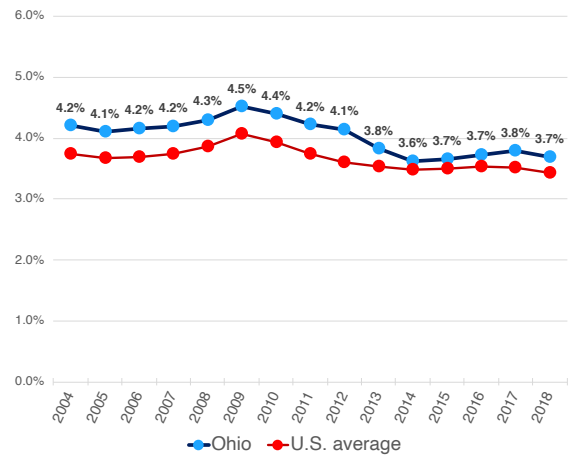
CONTEXTUAL STATS	OH	U.S.
Child (5-17yo) poverty rate (%)	17.8	17.0
Public school coverage (%)	84.4	87.6
Pct. revenue from state sources	40.2	46.7
Total K-12 enrollment (U.S. rank)	1,704,399 (8)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Ohio effort	3.69 %
U.S. average	3.43 %

- In FY 2018, Ohio spent 3.69% of its economic capacity directly on K-12 education.
- This was 0.25 percentage points higher than the unweighted national average of 3.43%.
- Ohio's effort level ranks #14 in the nation (out of 49).



Effort trends, 2004-18

- Effort in OH increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.21% in 2004 to 4.51% in 2009.

Net change by period (% pts.)

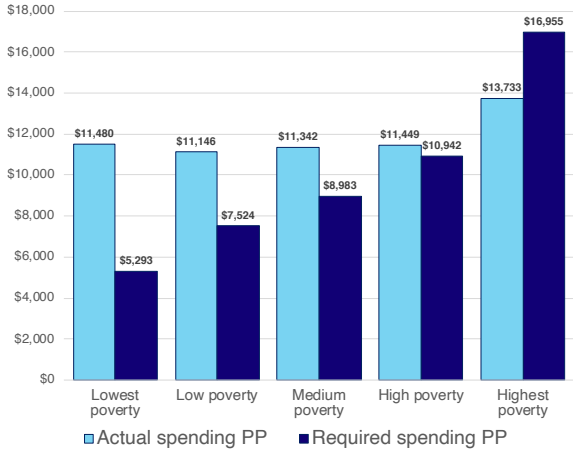
Period	OH	U.S.
2004-2009	0.31	0.33
2009-2018	-0.83	-0.64
2004-2018	-0.52	-0.31

- This was followed by a decrease of 0.83 percentage points between 2009 and 2018.
- OH's effort was 0.52 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Ohio's highest poverty districts is $3,222 PP lower than the estimated adequate level ($16,955), a difference of -19.0%.
- Districts in Ohio's second highest poverty quintile spend 4.6% more than the adequate level.



Adequacy: OH vs U.S. average

Percent above / below adequate

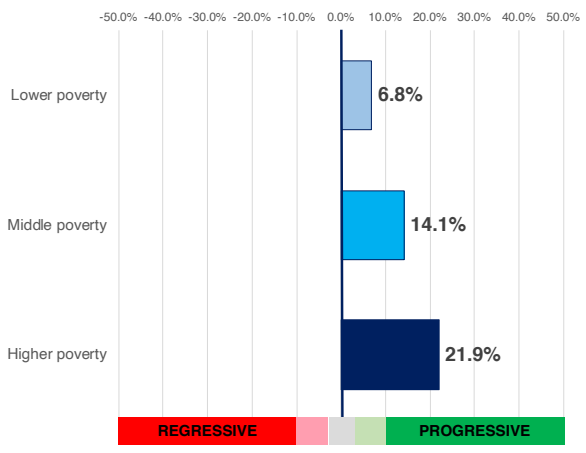
District poverty	OH	U.S.
Lowest poverty	116.9	45.4
Low poverty	48.1	11.4
Medium poverty	26.3	-2.0
High poverty	4.6	-15.1
Highest poverty	-19.0	-20.7

- In its highest poverty districts, Ohio's spending is 19.0% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Ohio's highest poverty districts ranks #19 in the nation (out of 49).

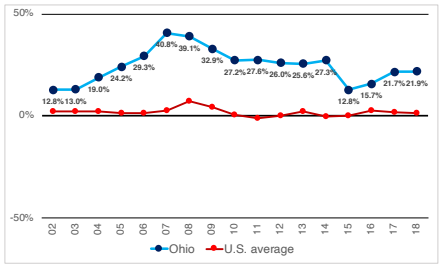
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Ohio is progressive.
- Higher poverty districts receive 21.9% more revenue than zero poverty districts (this level of progressivity ranks #5 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- OH's funding was more progressive in 2018 (21.9%) vs. 2002 (12.8%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

OKLAHOMA

Description: This 2017-18 profile of Oklahoma's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Oklahoma devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

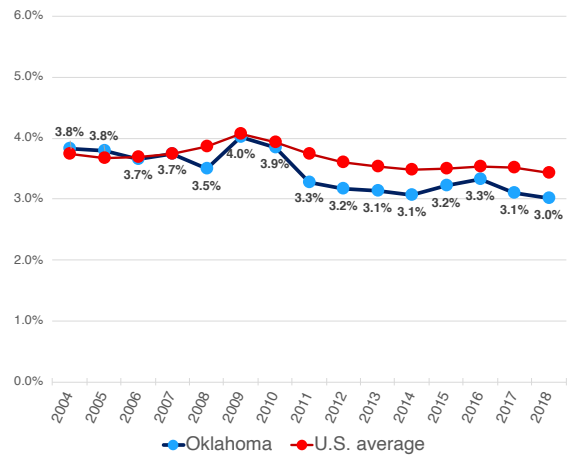
CONTEXTUAL STATS	OK	U.S.
Child (5-17yo) poverty rate (%)	19.9	17.0
Public school coverage (%)	89.1	87.6
Pct. revenue from state sources	46.1	46.7
Total K-12 enrollment (U.S. rank)	695,092 (26)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Oklahoma effort	3.01 %
U.S. average	3.43 %

- In FY 2018, Oklahoma spent 3.01% of its economic capacity directly on K-12 education.
- This was 0.43 percentage points lower than the unweighted national average of 3.43%.
- Oklahoma's effort level ranks #37 in the nation (out of 49).



Effort trends, 2004-18

- Effort in OK increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.82% in 2004 to 4.01% in 2009.

Net change by period (% pts.)

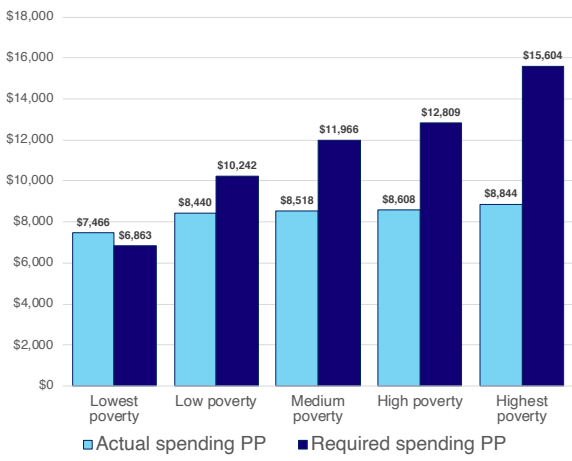
Period	OK	U.S.
2004-2009	0.19	0.33
2009-2018	-1.01	-0.64
2004-2018	-0.81	-0.31

- This was followed by a decrease of 1.01 percentage points between 2009 and 2018.
- OK's effort was 0.81 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Oklahoma's highest poverty districts is $6,760 PP lower than the estimated adequate level ($15,604), a difference of -43.3%.
- Districts in Oklahoma's second highest poverty quintile spend 32.8% less than the adequate level.



Adequacy: OK vs U.S. average

Percent above / below adequate

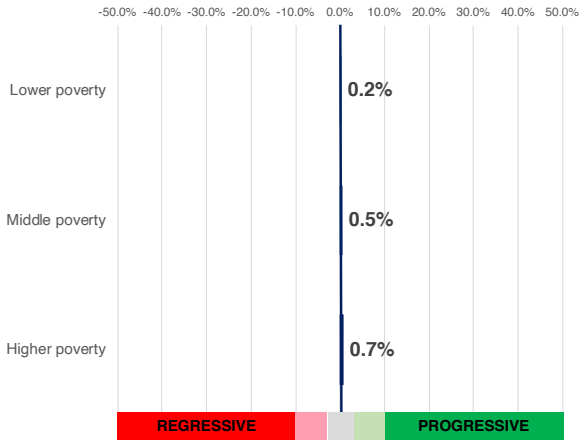
District poverty	OK	U.S.
Lowest poverty	8.8	45.4
Low poverty	-17.6	11.4
Medium poverty	-28.8	-2.0
High poverty	-32.8	-15.1
Highest poverty	-43.3	-20.7

- In its highest poverty districts, Oklahoma's spending is 43.3% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Oklahoma's highest poverty districts ranks #43 in the nation (out of 49).

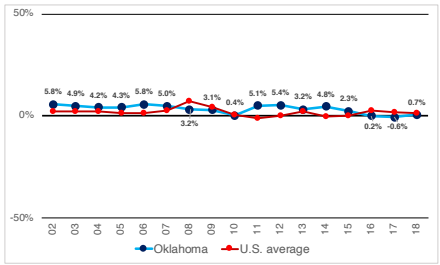
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Oklahoma is neither progressive nor regressive.
- Higher poverty districts receive 0.7% more revenue than zero poverty districts (this level of progressivity ranks #26 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- OK's funding was more regressive in 2018 (0.7%) vs. 2002 (5.8%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

OREGON

Description: This 2017-18 profile of Oregon's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Oregon devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

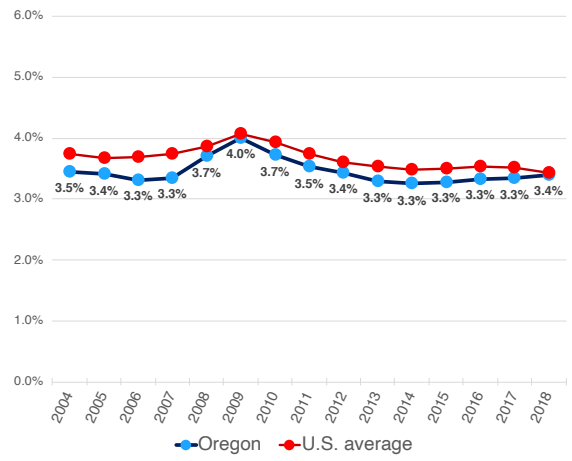
CONTEXTUAL STATS	OR	U.S.
Child (5-17yo) poverty rate (%)	14.3	17.0
Public school coverage (%)	88.8	87.6
Pct. revenue from state sources	53.1	46.7
Total K-12 enrollment (U.S. rank)	608,014 (29)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Oregon effort	3.40 %
U.S. average	3.43 %

- In FY 2018, Oregon spent 3.40% of its economic capacity directly on K-12 education.
- This was 0.03 percentage points lower than the unweighted national average of 3.43%.
- Oregon's effort level ranks #27 in the nation (out of 49).



Effort trends, 2004-18

- Effort in OR increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.46% in 2004 to 4.00% in 2009.

Net change by period (% pts.)

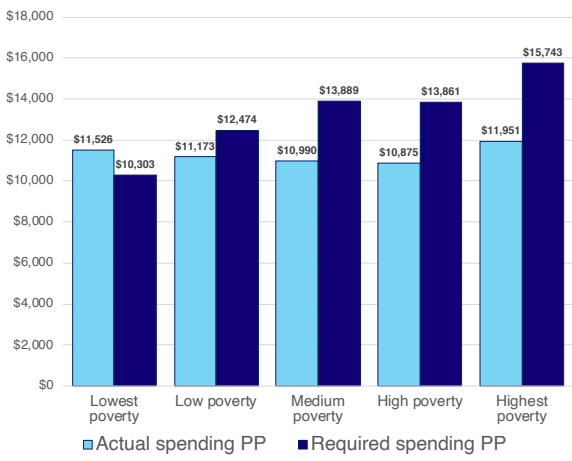
Period	OR	U.S.
2004-2009	0.55	0.33
2009-2018	-0.60	-0.64
2004-2018	-0.05	-0.31

- This was followed by a decrease of 0.60 percentage points between 2009 and 2018.
- OR's effort was 0.05 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Oregon's highest poverty districts is $3,792 PP lower than the estimated adequate level ($15,743), a difference of -24.1%.
- Districts in Oregon's second highest poverty quintile spend 21.5% less than the adequate level.



Adequacy: OR vs U.S. average

Percent above / below adequate

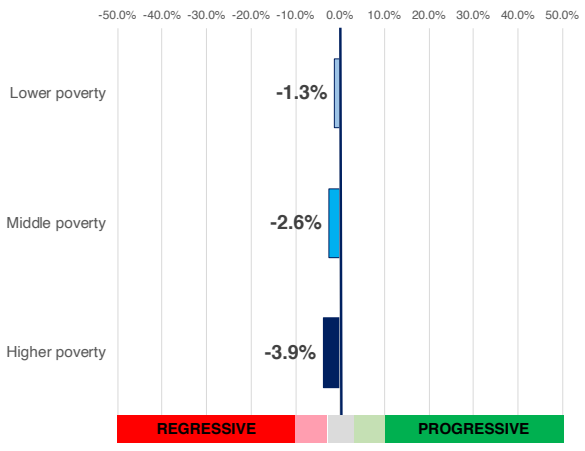
District poverty	OR	U.S.
Lowest poverty	11.9	45.4
Low poverty	-10.4	11.4
Medium poverty	-20.9	-2.0
High poverty	-21.5	-15.1
Highest poverty	-24.1	-20.7

- In its highest poverty districts, Oregon's spending is 24.1% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Oregon's highest poverty districts ranks #26 in the nation (out of 49).

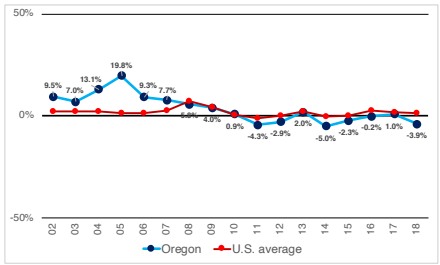
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Oregon is moderately regressive.
- Higher poverty districts receive 3.9% less revenue than zero poverty districts (this level of progressivity ranks #30 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- OR's funding was more regressive in 2018 (-3.9%) vs. 2002 (9.5%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

PENNSYLVANIA

Description: This 2017-18 profile of Pennsylvania's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Pennsylvania devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

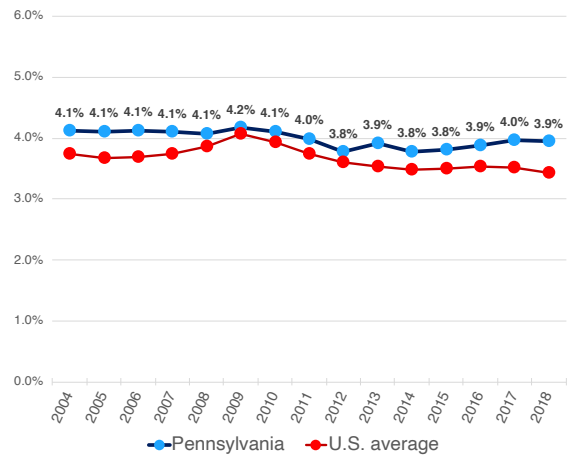
CONTEXTUAL STATS	PA	U.S.
Child (5-17yo) poverty rate (%)	15.9	17.0
Public school coverage (%)	84.7	87.6
Pct. revenue from state sources	38.3	46.7
Total K-12 enrollment (U.S. rank)	1,726,809 (7)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Pennsylvania effort	3.94 %
U.S. average	3.43 %

- In FY 2018, Pennsylvania spent 3.94% of its economic capacity directly on K-12 education.
- This was 0.51 percentage points higher than the unweighted national average of 3.43%.
- Pennsylvania's effort level ranks #11 in the nation (out of 49).



Effort trends, 2004-18

- Effort in PA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.12% in 2004 to 4.17% in 2009.

Net change by period (% pts.)

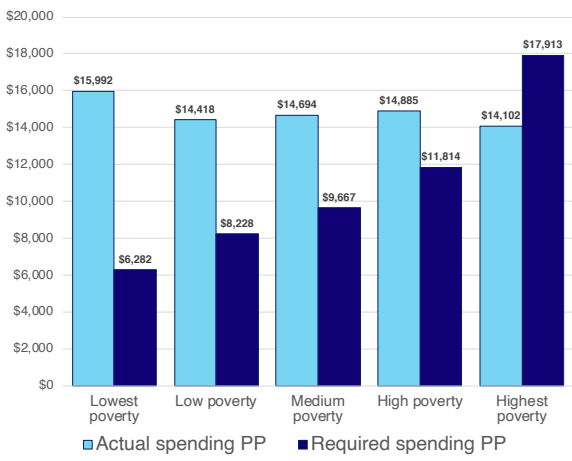
Period	PA	U.S.
2004-2009	0.05	0.33
2009-2018	-0.23	-0.64
2004-2018	-0.18	-0.31

- This was followed by a decrease of 0.23 percentage points between 2009 and 2018.
- PA's effort was 0.18 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Pennsylvania's highest poverty districts is $3,811 PP lower than the estimated adequate level ($17,913), a difference of -21.3%.
- Districts in Pennsylvania's second highest poverty quintile spend 26.0% more than the adequate level.



Adequacy: PA vs U.S. average

Percent above / below adequate

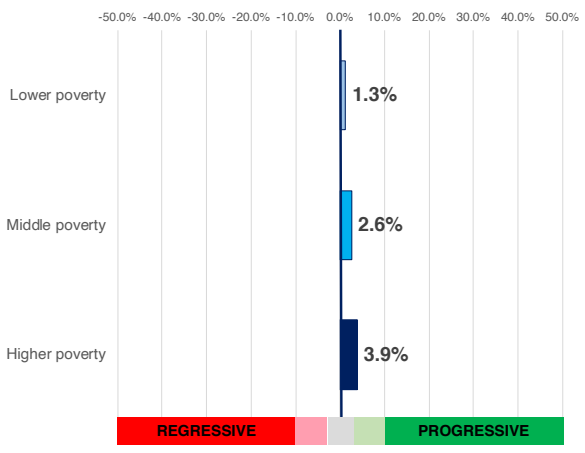
District poverty	PA	U.S.
Lowest poverty	154.6	45.4
Low poverty	75.2	11.4
Medium poverty	52.0	-2.0
High poverty	26.0	-15.1
Highest poverty	-21.3	-20.7

- In its highest poverty districts, Pennsylvania's spending is 21.3% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Pennsylvania's highest poverty districts ranks #23 in the nation (out of 49).

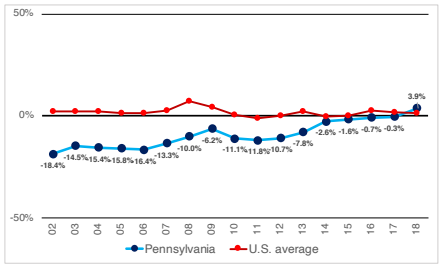
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Pennsylvania is moderately progressive.
- Higher poverty districts receive 3.9% more revenue than zero poverty districts (this level of progressivity ranks #20 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- PA's funding was more progressive in 2018 (3.9%) vs. 2002 (-18.4%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

RHODE ISLAND

Description: This 2017-18 profile of Rhode Island's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Rhode Island devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

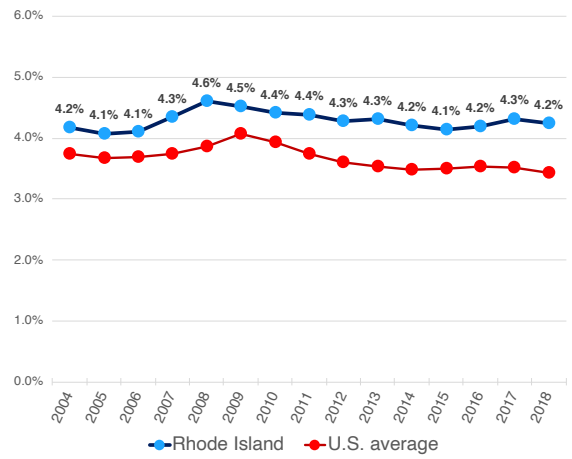
CONTEXTUAL STATS	RI	U.S.
Child (5-17yo) poverty rate (%)	16.7	17.0
Public school coverage (%)	86.7	87.6
Pct. revenue from state sources	40.8	46.7
Total K-12 enrollment (U.S. rank)	142,949 (44)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Rhode Island effort	4.24 %
U.S. average	3.43 %

- In FY 2018, Rhode Island spent 4.24% of its economic capacity directly on K-12 education.
- This was 0.81 percentage points higher than the unweighted national average of 3.43%.
- Rhode Island's effort level ranks #3 in the nation (out of 49).



Effort trends, 2004-18

- Effort in RI increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.18% in 2004 to 4.53% in 2009.

Net change by period (% pts.)

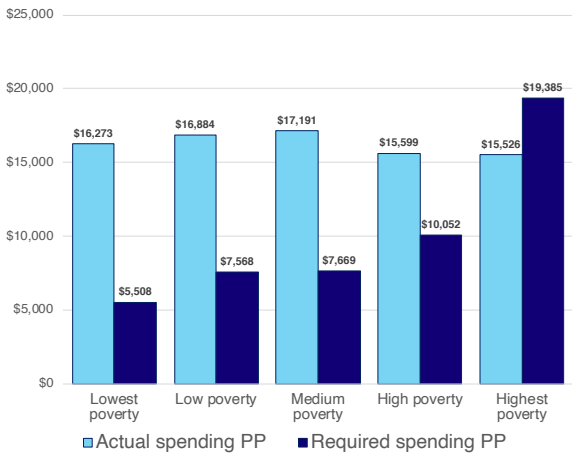
Period	RI	U.S.
2004-2009	0.35	0.33
2009-2018	-0.28	-0.64
2004-2018	0.07	-0.31

- This was followed by a decrease of 0.28 percentage points between 2009 and 2018.
- RI's effort was 0.07 percentage points higher in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Rhode Island's highest poverty districts is $3,859 PP lower than the estimated adequate level ($19,385), a difference of -19.9%.
- Districts in Rhode Island's second highest poverty quintile spend 55.2% more than the adequate level.



Adequacy: RI vs U.S. average

Percent above / below adequate

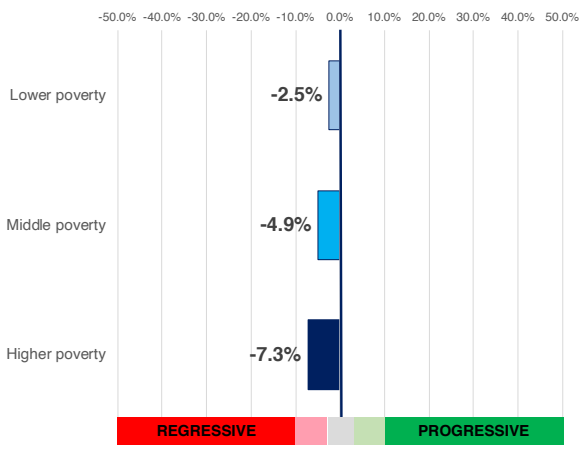
District poverty	RI	U.S.
Lowest poverty	195.4	45.4
Low poverty	123.1	11.4
Medium poverty	124.2	-2.0
High poverty	55.2	-15.1
Highest poverty	-19.9	-20.7

- In its highest poverty districts, Rhode Island's spending is 19.9% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Rhode Island's highest poverty districts ranks #20 in the nation (out of 49).

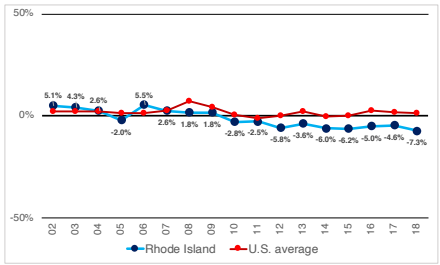
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Rhode Island is moderately regressive.
- Higher poverty districts receive 7.3% less revenue than zero poverty districts (this level of progressivity ranks #35 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- RI's funding was more regressive in 2018 (-7.3%) vs. 2002 (5.1%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

SOUTH CAROLINA

Description: This 2017-18 profile of South Carolina's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much South Carolina devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

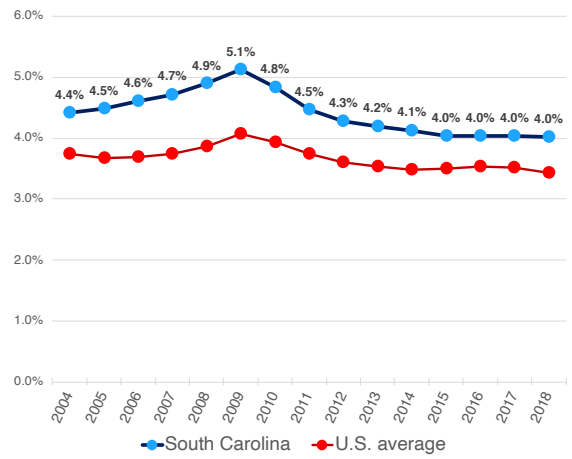
CONTEXTUAL STATS	SC	U.S.
Child (5-17yo) poverty rate (%)	21.3	17.0
Public school coverage (%)	89.0	87.6
Pct. revenue from state sources	47.6	46.7
Total K-12 enrollment (U.S. rank)	777,507 (23)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

South Carolina effort	4.02 %
U.S. average	3.43 %

- In FY 2018, South Carolina spent 4.02% of its economic capacity directly on K-12 education.
- This was 0.58 percentage points higher than the unweighted national average of 3.43%.
- South Carolina's effort level ranks #9 in the nation (out of 49).



Effort trends, 2004-18

- Effort in SC increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.41% in 2004 to 5.12% in 2009.

Net change by period (% pts.)

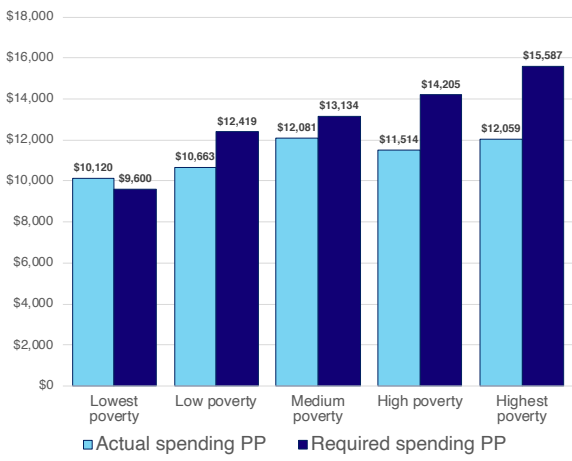
Period	SC	U.S.
2004-2009	0.71	0.33
2009-2018	-1.10	-0.64
2004-2018	-0.39	-0.31

- This was followed by a decrease of 1.10 percentage points between 2009 and 2018.
- SC's effort was 0.39 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in South Carolina's highest poverty districts is $3,528 PP lower than the estimated adequate level ($15,587), a difference of -22.6%.
- Districts in South Carolina's second highest poverty quintile spend 18.9% less than the adequate level.



Adequacy: SC vs U.S. average

Percent above / below adequate

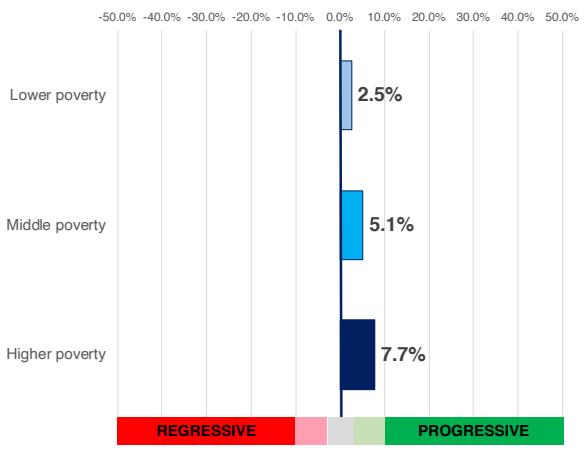
District poverty	SC	U.S.
Lowest poverty	5.4	45.4
Low poverty	-14.1	11.4
Medium poverty	-8.0	-2.0
High poverty	-18.9	-15.1
Highest poverty	-22.6	-20.7

- In its highest poverty districts, South Carolina's spending is 22.6% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in South Carolina's highest poverty districts ranks #24 in the nation (out of 49).

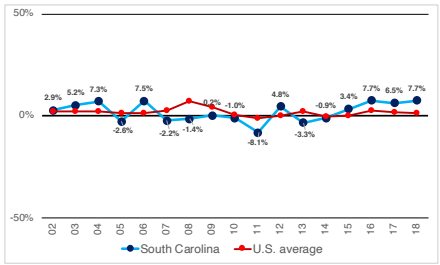
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in South Carolina is moderately progressive.
- Higher poverty districts receive 7.7% more revenue than zero poverty districts (this level of progressivity ranks #11 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- SC's funding was more progressive in 2018 (7.7%) vs. 2002 (2.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

SOUTH DAKOTA

Description: This 2017-18 profile of South Dakota's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much South Dakota devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

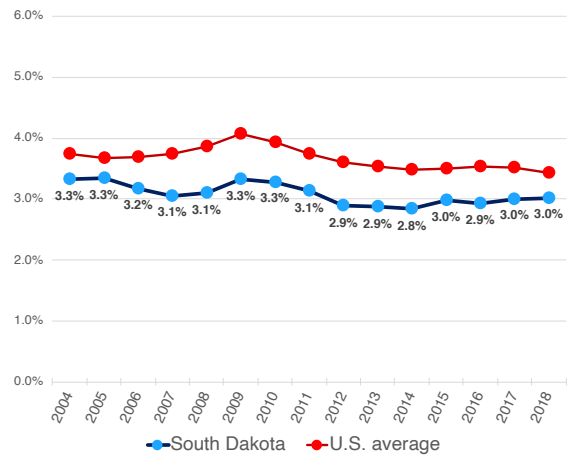
CONTEXTUAL STATS	SD	U.S.
Child (5-17yo) poverty rate (%)	14.8	17.0
Public school coverage (%)	91.2	87.6
Pct. revenue from state sources	34.3	46.7
Total K-12 enrollment (U.S. rank)	137,823 (45)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

South Dakota effort	3.02 %
U.S. average	3.43 %

- In FY 2018, South Dakota spent 3.02% of its economic capacity directly on K-12 education.
- This was 0.41 percentage points lower than the unweighted national average of 3.43%.
- South Dakota's effort level ranks #36 in the nation (out of 49).



Effort trends, 2004-18

- Effort in SD increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.32% in 2004 to 3.33% in 2009.

Net change by period (% pts.)

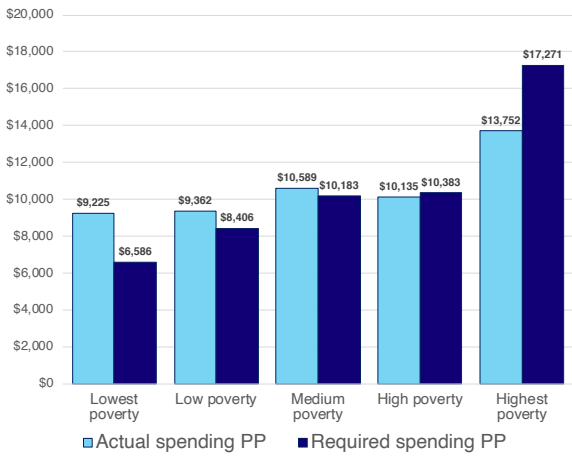
Period	SD	U.S.
2004-2009	0.00	0.33
2009-2018	-0.30	-0.64
2004-2018	-0.30	-0.31

- This was followed by a decrease of 0.30 percentage points between 2009 and 2018.
- SD's effort was 0.30 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in South Dakota's highest poverty districts is $3,519 PP lower than the estimated adequate level ($17,271), a difference of -20.4%.
- Districts in South Dakota's second highest poverty quintile spend 2.4% less than the adequate level.



Adequacy: SD vs U.S. average

Percent above / below adequate

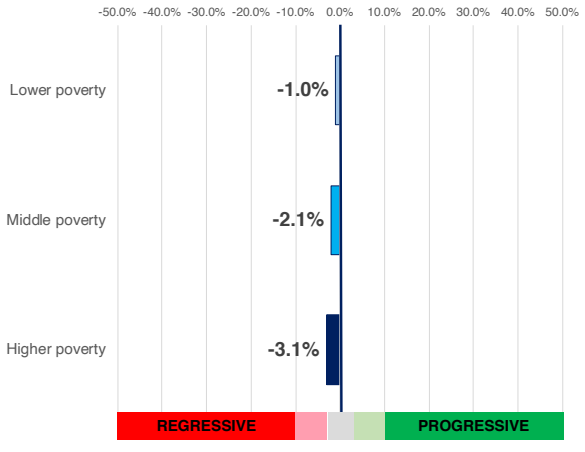
District poverty	SD	U.S.
Lowest poverty	40.1	45.4
Low poverty	11.4	11.4
Medium poverty	4.0	-2.0
High poverty	-2.4	-15.1
Highest poverty	-20.4	-20.7

- In its highest poverty districts, South Dakota's spending is 20.4% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in South Dakota's highest poverty districts ranks #22 in the nation (out of 49).

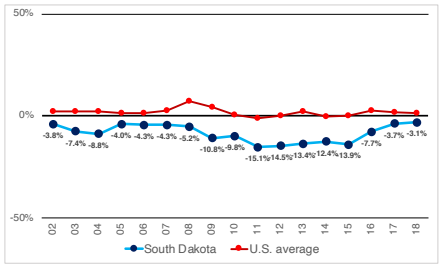
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in South Dakota is moderately regressive.
- Higher poverty districts receive 3.1% less revenue than zero poverty districts (this level of progressivity ranks #29 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- SD's funding was less regressive in 2018 (-3.1%) vs. 2002 (-3.8%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

TENNESSEE

Description: This 2017-18 profile of Tennessee's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Tennessee devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

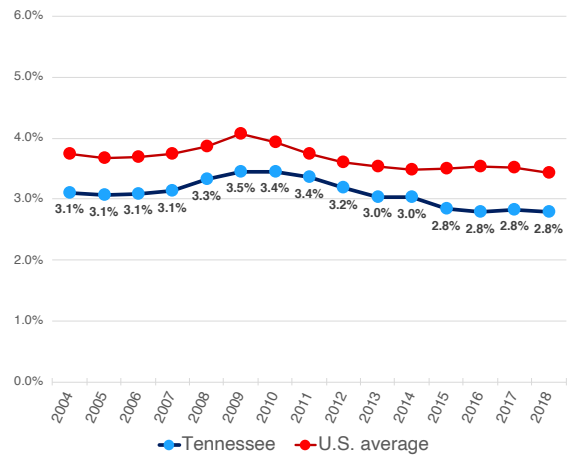
CONTEXTUAL STATS	TN	U.S.
Child (5-17yo) poverty rate (%)	20.0	17.0
Public school coverage (%)	85.1	87.6
Pct. revenue from state sources	46.4	46.7
Total K-12 enrollment (U.S. rank)	1,001,967 (16)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Tennessee effort	2.79 %
U.S. average	3.43 %

- In FY 2018, Tennessee spent 2.79% of its economic capacity directly on K-12 education.
- This was 0.65 percentage points lower than the unweighted national average of 3.43%.
- Tennessee's effort level ranks #45 in the nation (out of 49).



Effort trends, 2004-18

- Effort in TN increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.11% in 2004 to 3.46% in 2009.

Net change by period (% pts.)

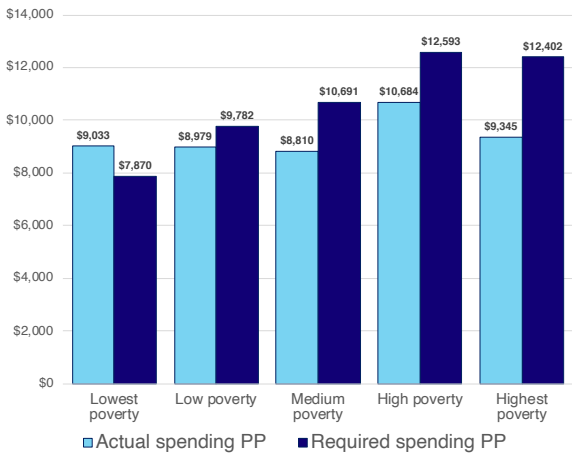
Period	TN	U.S.
2004-2009	0.35	0.33
2009-2018	-0.67	-0.64
2004-2018	-0.32	-0.31

- This was followed by a decrease of 0.67 percentage points between 2009 and 2018.
- TN's effort was 0.32 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Tennessee's highest poverty districts is $3,057 PP lower than the estimated adequate level ($12,402), a difference of -24.6%.
- Districts in Tennessee's second highest poverty quintile spend 15.2% less than the adequate level.



Adequacy: TN vs U.S. average

Percent above / below adequate

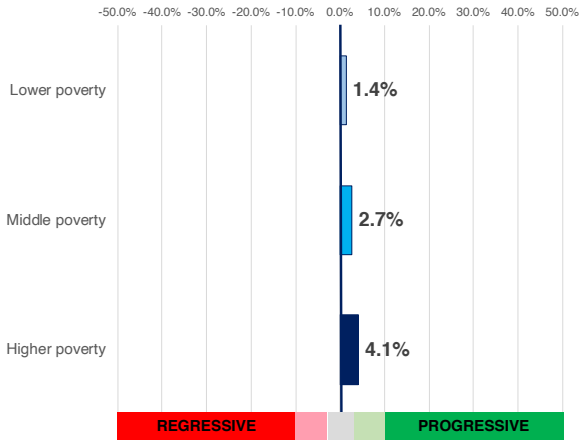
District poverty	TN	U.S.
Lowest poverty	14.8	45.4
Low poverty	-8.2	11.4
Medium poverty	-17.6	-2.0
High poverty	-15.2	-15.1
Highest poverty	-24.6	-20.7

- In its highest poverty districts, Tennessee's spending is 24.6% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Tennessee's highest poverty districts ranks #27 in the nation (out of 49).

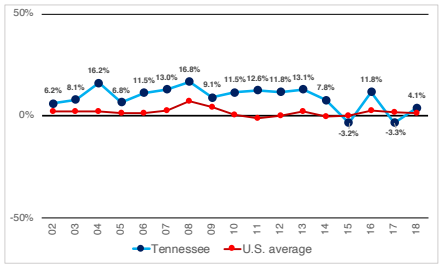
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Tennessee is moderately progressive.
- Higher poverty districts receive 4.1% more revenue than zero poverty districts (this level of progressivity ranks #19 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- TN's funding was more regressive in 2018 (4.1%) vs. 2002 (6.2%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

TEXAS

Description: This 2017-18 profile of Texas's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Texas devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

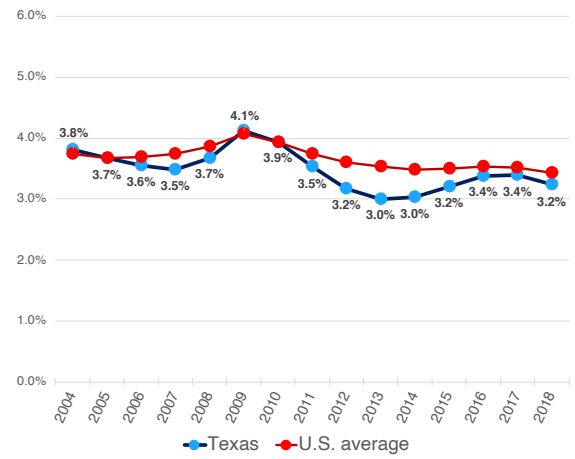
CONTEXTUAL STATS	TX	U.S.
Child (5-17yo) poverty rate (%)	20.2	17.0
Public school coverage (%)	91.1	87.6
Pct. revenue from state sources	33.7	46.7
Total K-12 enrollment (U.S. rank)	5,401,341 (2)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Texas effort	3.24 %
U.S. average	3.43 %

- In FY 2018, Texas spent 3.24% of its economic capacity directly on K-12 education.
- This was 0.20 percentage points lower than the unweighted national average of 3.43%.
- Texas's effort level ranks #30 in the nation (out of 49).



Effort trends, 2004-18

- Effort in TX increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.82% in 2004 to 4.13% in 2009.

Net change by period (% pts.)

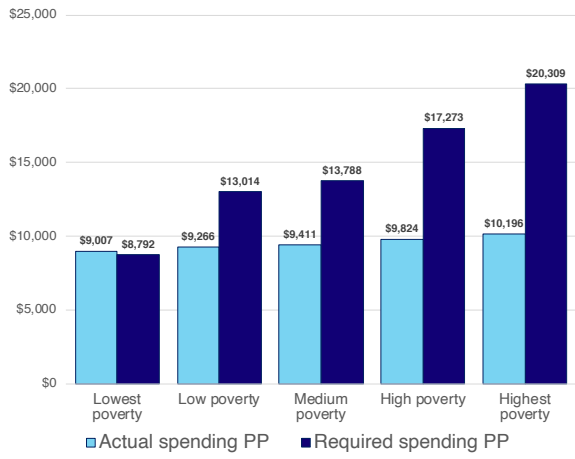
Period	TX	U.S.
2004-2009	0.31	0.33
2009-2018	-0.89	-0.64
2004-2018	-0.58	-0.31

- This was followed by a decrease of 0.89 percentage points between 2009 and 2018.
- TX's effort was 0.58 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Texas's highest poverty districts is $10,113 PP lower than the estimated adequate level ($20,309), a difference of -49.8%.
- Districts in Texas's second highest poverty quintile spend 43.1% less than the adequate level.



Adequacy: TX vs U.S. average

Percent above / below adequate

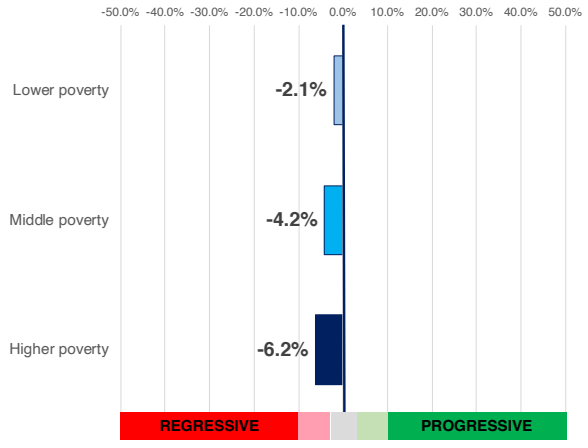
District poverty	TX	U.S.
Lowest poverty	2.4	45.4
Low poverty	-28.8	11.4
Medium poverty	-31.7	-2.0
High poverty	-43.1	-15.1
Highest poverty	-49.8	-20.7

- In its highest poverty districts, Texas's spending is 49.8% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Texas's highest poverty districts ranks #47 in the nation (out of 49).

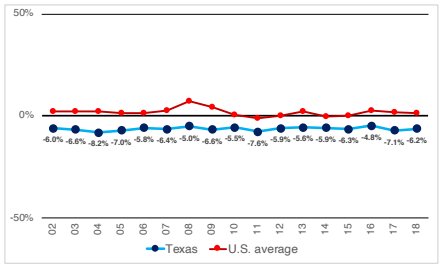
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Texas is moderately regressive.
- Higher poverty districts receive 6.2% less revenue than zero poverty districts (this level of progressivity ranks #33 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- TX's funding was more regressive in 2018 (-6.2%) vs. 2002 (-6.0%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

UTAH

Description: This 2017-18 profile of Utah's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Utah devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

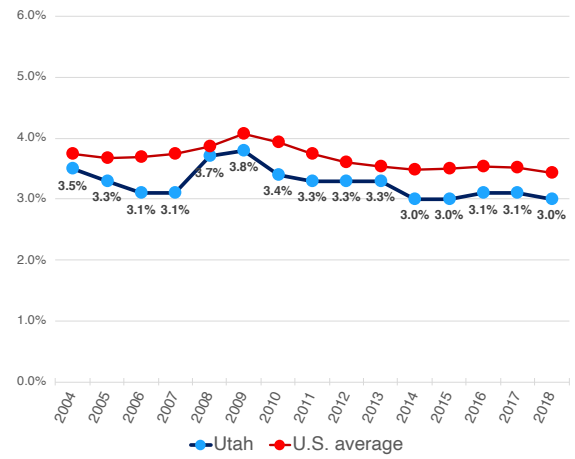
CONTEXTUAL STATS	UT	U.S.
Child (5-17yo) poverty rate (%)	9.0	17.0
Public school coverage (%)	92.0	87.6
Pct. revenue from state sources	52.3	46.7
Total K-12 enrollment (U.S. rank)	668,274 (28)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Utah effort	2.99 %
U.S. average	3.43 %

- In FY 2018, Utah spent 2.99% of its economic capacity directly on K-12 education.
- This was 0.44 percentage points lower than the unweighted national average of 3.43%.
- Utah's effort level ranks #38 in the nation (out of 49).



Effort trends, 2004-18

- Effort in UT increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.49% in 2004 to 3.80% in 2009.

Net change by period (% pts.)

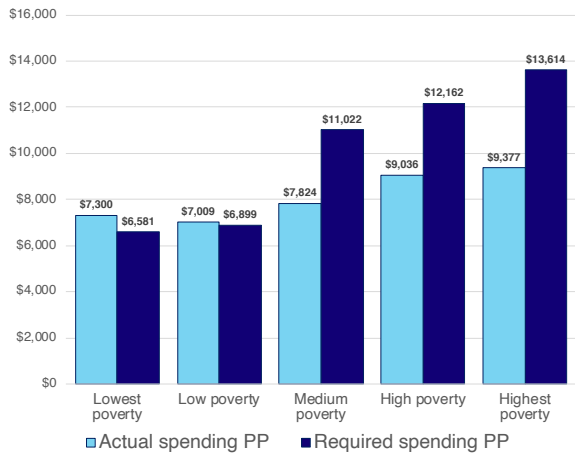
Period	UT	U.S.
2004-2009	0.30	0.33
2009-2018	-0.81	-0.64
2004-2018	-0.50	-0.31

- This was followed by a decrease of 0.81 percentage points between 2009 and 2018.
- UT's effort was 0.50 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Utah's highest poverty districts is $4,237 PP lower than the estimated adequate level ($13,614), a difference of -31.1%.
- Districts in Utah's second highest poverty quintile spend 25.7% less than the adequate level.



Adequacy: UT vs U.S. average

Percent above / below adequate

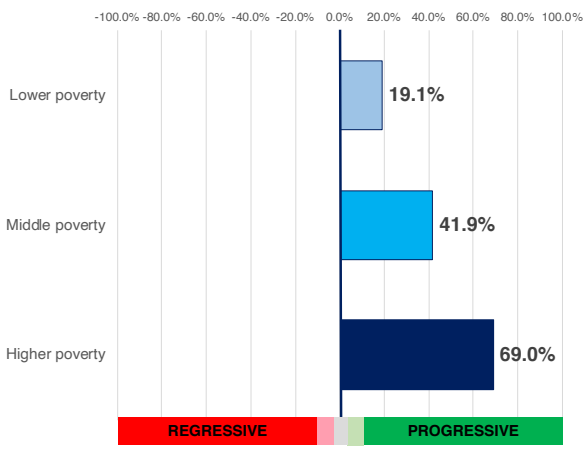
District poverty	UT	U.S.
Lowest poverty	10.9	45.4
Low poverty	1.6	11.4
Medium poverty	-29.0	-2.0
High poverty	-25.7	-15.1
Highest poverty	-31.1	-20.7

- In its highest poverty districts, Utah's spending is 31.1% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Utah's highest poverty districts ranks #35 in the nation (out of 49).

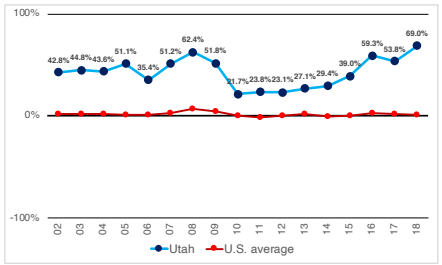
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Utah is progressive.
- Higher poverty districts receive 69.0% more revenue than zero poverty districts (this level of progressivity ranks #2 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- UT's funding was more progressive in 2018 (69.0%) vs. 2002 (42.8%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

VERMONT

Description: This 2017-18 profile of Vermont's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Vermont devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

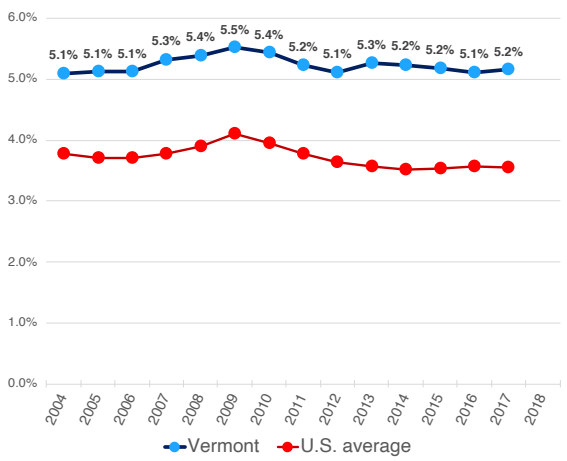
CONTEXTUAL STATS	VT	U.S.
Child (5-17yo) poverty rate (%)	11.3	17.0
Public school coverage (%)	88.2	87.6
Pct. revenue from state sources	90.5	46.7
Total K-12 enrollment (U.S. rank)	88,028 (50)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Effort estimates are not available for Vermont in 2018 due to data irregularities.

The graph to the right presents the trend in effort for Vermont up until 2017 (and the U.S. averages in this graph, unlike those in all other states' profiles, include Vermont).



Effort trends, 2004-18

- Effort in VT increased in the years before the "Great Recession's" main impact on K-12 funding, going from 5.10% in 2004 to 5.52% in 2009.

Net change by period (% pts.)

Period	VT	U.S.
2004-2009	0.42	0.33
2009-2018	n/a	-0.64
2004-2018	n/a	-0.31

ADEQUACY

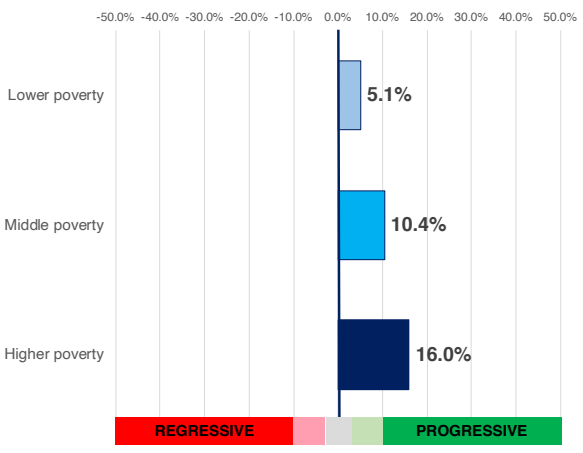
Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

Adequacy estimates are not available for Vermont in 2018 due to data irregularities.

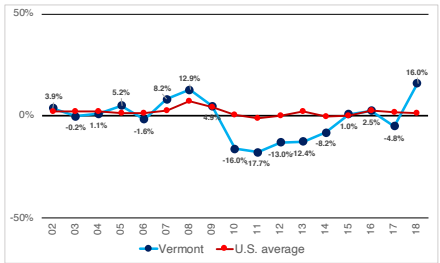
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Vermont is progressive.
- Higher poverty districts receive 16.0% more revenue than zero poverty districts (this level of progressivity ranks #6 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- VT's funding was more progressive in 2018 (16.0%) vs. 2002 (3.9%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2017-18 SCHOOL YEAR

VIRGINIA

Description: This 2017-18 profile of Virginia's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Virginia devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

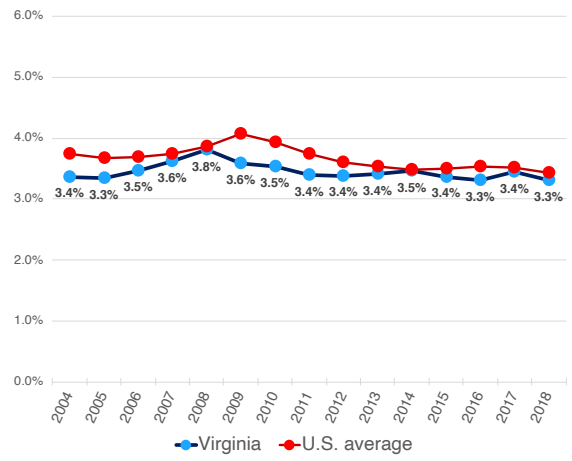
CONTEXTUAL STATS	VA	U.S.
Child (5-17yo) poverty rate (%)	12.8	17.0
Public school coverage (%)	88.0	87.6
Pct. revenue from state sources	40.0	46.7
Total K-12 enrollment (U.S. rank)	1,291,462 (12)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Virginia effort	3.31 %
U.S. average	3.43 %

- In FY 2018, Virginia spent 3.31% of its economic capacity directly on K-12 education.
- This was 0.13 percentage points lower than the unweighted national average of 3.43%.
- Virginia's effort level ranks #29 in the nation (out of 49).



Effort trends, 2004-18

- Effort in VA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.36% in 2004 to 3.58% in 2009.

Net change by period (% pts.)

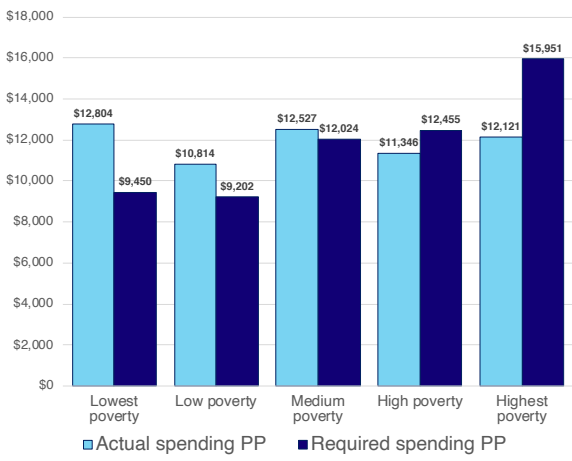
Period	VA	U.S.
2004-2009	0.22	0.33
2009-2018	-0.27	-0.64
2004-2018	-0.06	-0.31

- This was followed by a decrease of 0.27 percentage points between 2009 and 2018.
- VA's effort was 0.06 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Virginia's highest poverty districts is $3,830 PP lower than the estimated adequate level ($15,951), a difference of -24.0%.
- Districts in Virginia's second highest poverty quintile spend 8.9% less than the adequate level.



Adequacy: VA vs U.S. average

Percent above / below adequate

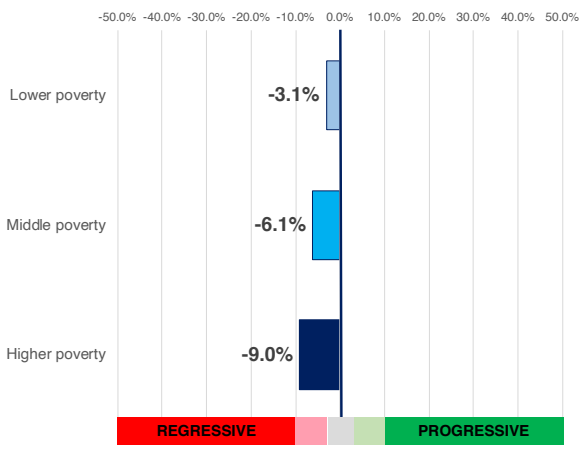
District poverty	VA	U.S.
Lowest poverty	35.5	45.4
Low poverty	17.5	11.4
Medium poverty	4.2	-2.0
High poverty	-8.9	-15.1
Highest poverty	-24.0	-20.7

- In its highest poverty districts, Virginia's spending is 24.0% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Virginia's highest poverty districts ranks #25 in the nation (out of 49).

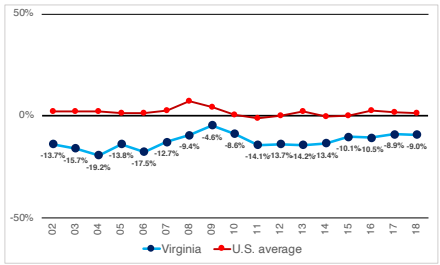
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Virginia is moderately regressive.
- Higher poverty districts receive 9.0% less revenue than zero poverty districts (this level of progressivity ranks #38 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- VA's funding was less regressive in 2018 (-9.0%) vs. 2002 (-13.7%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\text{SCHOOL} = b_0 + b_1\text{State}_i + b_2\text{LaborMarket}_{ij} + b_3\text{CWI}_{ij} + b_4\text{FINANCE}_{ij} + b_5\text{PopulationDensity}_{ij} + b_6\text{Enrollment}_{ij} + b_7\text{INDICATORS}_{ij} + b_8\text{Scale}_{ij} + b_9\text{Poverty}_{ij} + b_{10}\text{SchlType}_{ij} + b_{11}\text{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

WASHINGTON

Description: This 2017-18 profile of Washington's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Washington devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

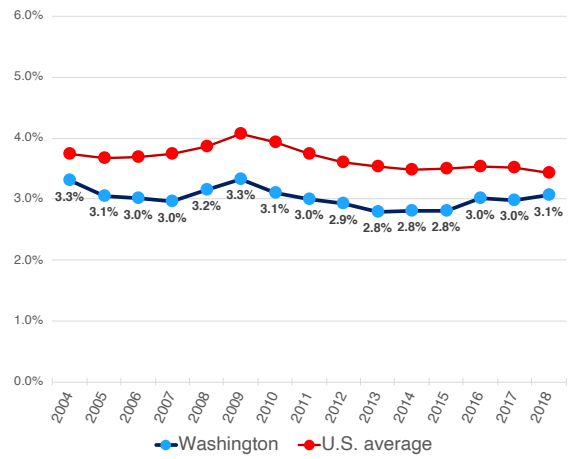
CONTEXTUAL STATS	WA	U.S.
Child (5-17yo) poverty rate (%)	11.7	17.0
Public school coverage (%)	88.8	87.6
Pct. revenue from state sources	64.1	46.7
Total K-12 enrollment (U.S. rank)	1,110,367	(14)

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Washington effort	3.06 %
U.S. average	3.43 %

- In FY 2018, Washington spent 3.06% of its economic capacity directly on K-12 education.
- This was 0.37 percentage points lower than the unweighted national average of 3.43%.
- Washington's effort level ranks #34 in the nation (out of 49).



Effort trends, 2004-18

- Effort in WA increased in the years before the "Great Recession's" main impact on K-12 funding, going from 3.30% in 2004 to 3.33% in 2009.

Net change by period (% pts.)

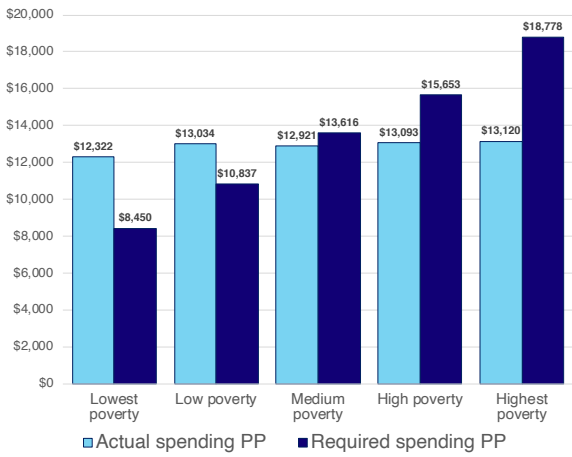
Period	WA	U.S.
2004-2009	0.03	0.33
2009-2018	-0.27	-0.64
2004-2018	-0.24	-0.31

- This was followed by a decrease of 0.27 percentage points between 2009 and 2018.
- WA's effort was 0.24 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Washington's highest poverty districts is $5,658 PP lower than the estimated adequate level ($18,778), a difference of -30.1%.
- Districts in Washington's second highest poverty quintile spend 16.4% less than the adequate level.



Adequacy: WA vs U.S. average

Percent above / below adequate

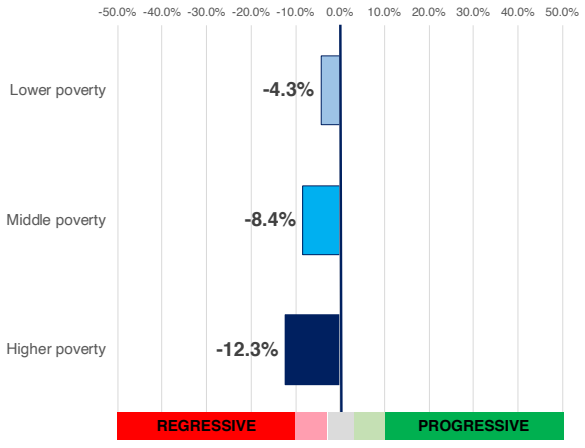
District poverty	WA	U.S.
Lowest poverty	45.8	45.4
Low poverty	20.3	11.4
Medium poverty	-5.1	-2.0
High poverty	-16.4	-15.1
Highest poverty	-30.1	-20.7

- In its highest poverty districts, Washington's spending is 30.1% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Washington's highest poverty districts ranks #32 in the nation (out of 49).

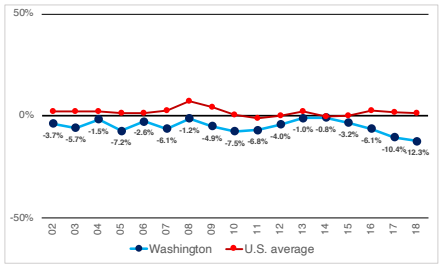
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Washington is regressive.
- Higher poverty districts receive 12.3% less revenue than zero poverty districts (this level of progressivity ranks #41 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- WA's funding was more regressive in 2018 (-12.3%) vs. 2002 (-3.7%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE
2017-18 SCHOOL YEAR

WEST VIRGINIA

Description: This 2017-18 profile of West Virginia's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much West Virginia devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

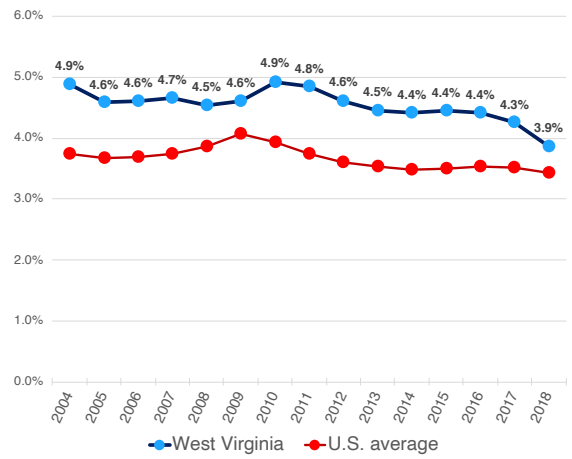
CONTEXTUAL STATS	WV	U.S.
Child (5-17yo) poverty rate (%)	21.8	17.0
Public school coverage (%)	88.9	87.6
Pct. revenue from state sources	55.2	46.7
Total K-12 enrollment (U.S. rank)	272,266 (39)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

West Virginia effort	3.87 %
U.S. average	3.43 %

- In FY 2018, West Virginia spent 3.87% of its economic capacity directly on K-12 education.
- This was 0.43 percentage points higher than the unweighted national average of 3.43%.
- West Virginia's effort level ranks #12 in the nation (out of 49).



Effort trends, 2004-18

- Effort in WV decreased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.89% in 2004 to 4.60% in 2009.

Net change by period (% pts.)

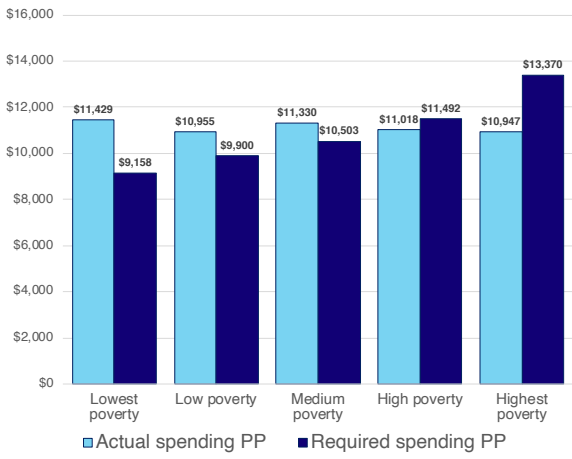
Period	WV	U.S.
2004-2009	-0.29	0.33
2009-2018	-0.73	-0.64
2004-2018	-1.02	-0.31

- This was followed by a decrease of 0.73 percentage points between 2009 and 2018.
- WV's effort was 1.02 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in West Virginia's highest poverty districts is $2,423 PP lower than the estimated adequate level ($13,370), a difference of -18.1%.
- Districts in West Virginia's second highest poverty quintile spend 4.1% less than the adequate level.



Adequacy: WV vs U.S. average

Percent above / below adequate

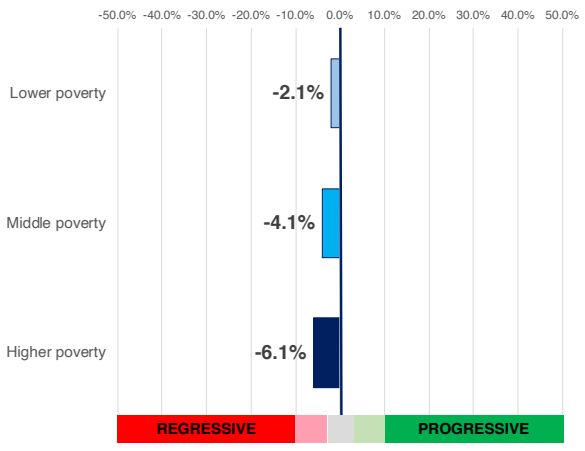
District poverty	WV	U.S.
Lowest poverty	24.8	45.4
Low poverty	10.7	11.4
Medium poverty	7.9	-2.0
High poverty	-4.1	-15.1
Highest poverty	-18.1	-20.7

- In its highest poverty districts, West Virginia's spending is 18.1% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in West Virginia's highest poverty districts ranks #18 in the nation (out of 49).

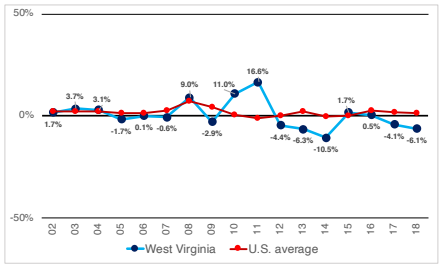
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in West Virginia is moderately regressive.
- Higher poverty districts receive 6.1% less revenue than zero poverty districts (this level of progressivity ranks #32 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- WV's funding was more regressive in 2018 (-6.1%) vs. 2002 (1.7%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

WISCONSIN

Description: This 2017-18 profile of Wisconsin's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Wisconsin devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

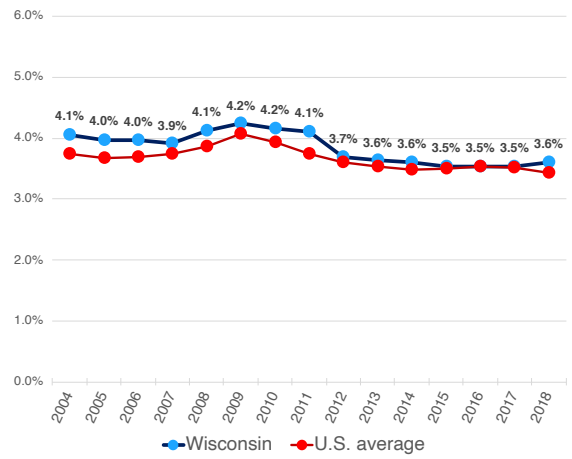
CONTEXTUAL STATS	WI	U.S.
Child (5-17yo) poverty rate (%)	12.9	17.0
Public school coverage (%)	84.7	87.6
Pct. revenue from state sources	54.3	46.7
Total K-12 enrollment (U.S. rank)	860,753 (22)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Wisconsin effort	3.61 %
U.S. average	3.43 %

- In FY 2018, Wisconsin spent 3.61% of its economic capacity directly on K-12 education.
- This was 0.18 percentage points higher than the unweighted national average of 3.43%.
- Wisconsin's effort level ranks #18 in the nation (out of 49).



Effort trends, 2004-18

- Effort in WI increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.06% in 2004 to 4.24% in 2009.

Net change by period (% pts.)

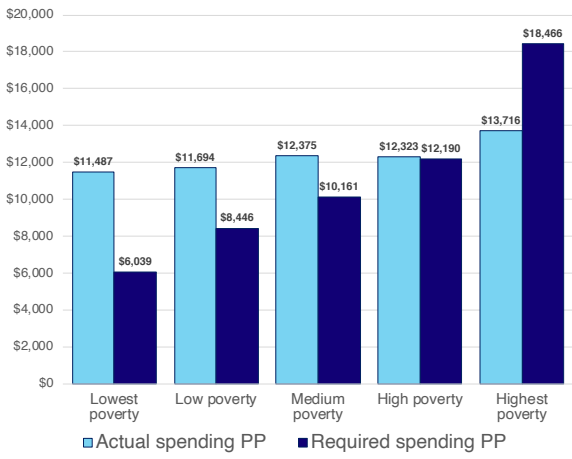
Period	WI	U.S.
2004-2009	0.19	0.33
2009-2018	-0.63	-0.64
2004-2018	-0.44	-0.31

- This was followed by a decrease of 0.63 percentage points between 2009 and 2018.
- WI's effort was 0.44 percentage points lower in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Wisconsin's highest poverty districts is $4,750 PP lower than the estimated adequate level ($18,466), a difference of -25.7%.
- Districts in Wisconsin's second highest poverty quintile spend 1.1% more than the adequate level.



Adequacy: WI vs U.S. average

Percent above / below adequate

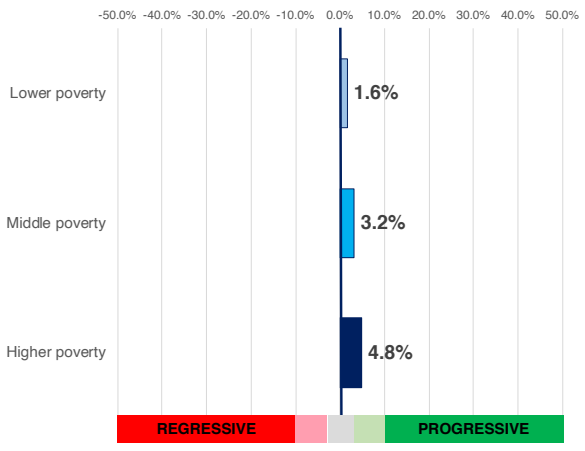
District poverty	WI	U.S.
Lowest poverty	90.2	45.4
Low poverty	38.5	11.4
Medium poverty	21.8	-2.0
High poverty	1.1	-15.1
Highest poverty	-25.7	-20.7

- In its highest poverty districts, Wisconsin's spending is 25.7% below the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Wisconsin's highest poverty districts ranks #28 in the nation (out of 49).

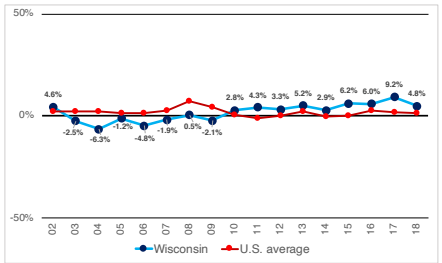
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Wisconsin is moderately progressive.
- Higher poverty districts receive 4.8% more revenue than zero poverty districts (this level of progressivity ranks #17 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- WI's funding was more progressive in 2018 (4.8%) vs. 2002 (4.6%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE
RUTGERS Graduate School of Education

STATE SCHOOL FINANCE PROFILE

2017-18 SCHOOL YEAR

WYOMING

Description: This 2017-18 profile of Wyoming's public K-12 school finance system focuses on three core indicators from the School Finance Indicators Database: fiscal effort, adequacy, and progressivity. These three measures provide a succinct but informative overview of how much Wyoming devotes to its public schools, the fairness of its system, and whether its funding levels are sufficient to meet common outcome goals.

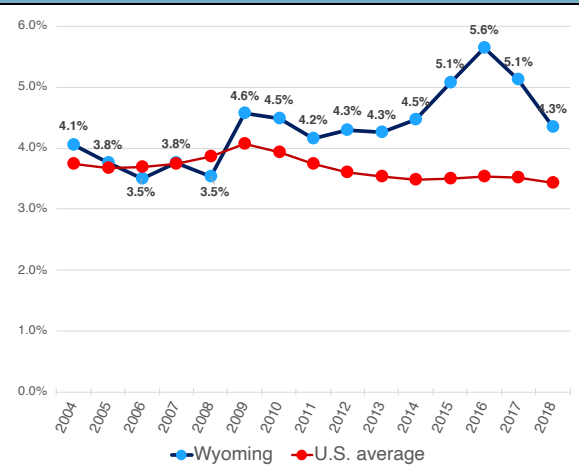
CONTEXTUAL STATS	WY	U.S.
Child (5-17yo) poverty rate (%)	11.6	17.0
Public school coverage (%)	90.9	87.6
Pct. revenue from state sources	56.9	46.7
Total K-12 enrollment (U.S. rank)	94,258 (49)	

FISCAL EFFORT

Fiscal Effort is the amount a state spends directly on K-12 education as a percentage of its total "economic capacity," which we measure here in terms of Gross State Product (GSP).

Wyoming effort	4.35 %
U.S. average	3.43 %

- In FY 2018, Wyoming spent 4.35% of its economic capacity directly on K-12 education.
- This was 0.91 percentage points higher than the unweighted national average of 3.43%.
- Wyoming's effort level ranks #2 in the nation (out of 49).



Effort trends, 2004-18

- Effort in WY increased in the years before the "Great Recession's" main impact on K-12 funding, going from 4.06% in 2004 to 4.56% in 2009.

Net change by period (% pts.)

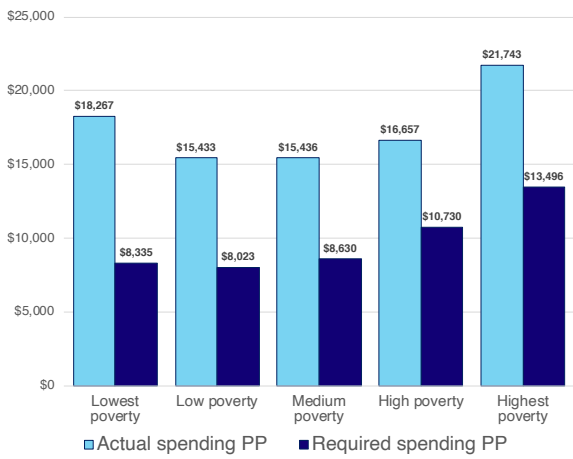
Period	WY	U.S.
2004-2009	0.50	0.33
2009-2018	-0.22	-0.64
2004-2018	0.29	-0.31

- This was followed by a decrease of 0.22 percentage points between 2009 and 2018.
- WY's effort was 0.29 percentage points higher in 2018 than in 2004.

ADEQUACY

Adequacy compares actual state and local per-pupil (PP) spending in each state to the estimated amount required to achieve national average test scores. These comparisons are presented, by district poverty quintile, in the center graph (in $), and in the right panel table (as percentage differences).

- Spending in Wyoming's highest poverty districts is $8,247 PP higher than the estimated adequate level ($13,496), a difference of 61.1%.
- Districts in Wyoming's second highest poverty quintile spend 55.2% more than the adequate level.



Adequacy: WY vs U.S. average

Percent above / below adequate

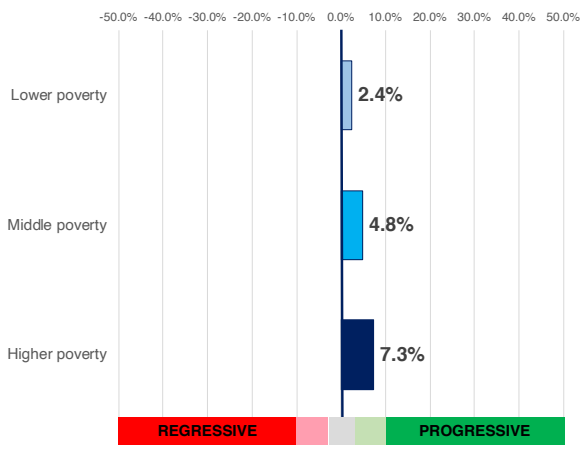
District poverty	WY	U.S.
Lowest poverty	119.2	45.4
Low poverty	92.4	11.4
Medium poverty	78.9	-2.0
High poverty	55.2	-15.1
Highest poverty	61.1	-20.7

- In its highest poverty districts, Wyoming's spending is 61.1% above the adequate level, compared with a -20.7% U.S. average.
- Adequacy in Wyoming's highest poverty districts ranks #1 in the nation (out of 49).

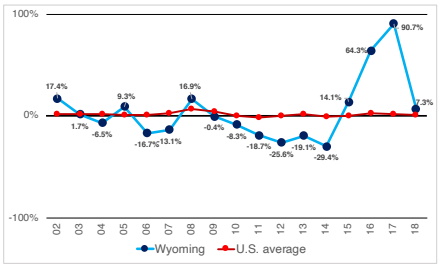
PROGRESSIVITY

Progressivity is the degree to which states provide greater resources to districts serving higher need students. The center graph is the percentage difference in adjusted state and local revenue between: 1) lower (10%), middle (20%), and higher poverty (30%) districts and; 2) zero poverty districts.

- School funding in Wyoming is moderately progressive.
- Higher poverty districts receive 7.3% more revenue than zero poverty districts (this level of progressivity ranks #12 in the nation [out of 51]).



Progressivity trend (30/0), 2002-18



- WY's funding was more regressive in 2018 (7.3%) vs. 2002 (17.4%).
- Since 2002, funding in the typical state (red line) is generally neither progressive nor regressive.

$$(\ln)\mathbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \mathbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6 Enrollment_{ij} + b_7 \mathbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \mathbf{DATABASE}_{ij} + e$$

NOTES ON DATA AND MEASURES

State School Finance Profiles 2017-18 (published 2021)

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 and the Rutgers University Graduate School of Education. The purpose of the SFID is to provide sophisticated yet accessible school finance data and analysis to policymakers, journalists, parents, and the public. 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**, **adequacy**, and **progressivity**. The full SID dataset, along with accessible documentation and other SFID tools and reports, are freely available to download at: schoolfinancedata.org. The following are some general notes about the profiles, followed by descriptions and notes pertaining to the three types of measures presented in this profile:

- The years in the profile refer either to the fiscal year or to the spring semester of the school year (e.g., 2018 is 2017-18). Note that the latest data in this profile (2017-18) predate the coronavirus pandemic by 2-3 years.
- Pre-2018 estimates may differ slightly from those in previous profiles, as all measures are recalculated every year to account for revised data.
- Due to rounding, changes and differences published in this profile may vary slightly from users' manual calculations.
- All poverty data used in the SFID and presented in these profiles are from the U.S. Census Bureau.
- The total number of states assigned rankings varies slightly by measure (as indicated), as not all measures are available in D.C. and Hawaii, and we've excluded Vermont from our 2018 effort and adequacy calculations due to irregularities in that state's data.
- **Non-SFID data sources** ("Contextual Stats" table): 1) Child (5-17 years) poverty (2018) from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program; 2) see SFID documentation for sources used for coverage estimates; 3) percent of total (FY 2018) 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 2017) from the *2018 Digest of Education Statistics*, published by the National Center for Education Statistics.

Fiscal effort

Fiscal effort indicates how much of a state's total resources or capacity are spent directly on K-12 schools. It is calculated in the SFID by dividing total state and local expenditures (direct to education) by either Gross State Product (GSP) or aggregate state personal income. Both of these denominators are measures of a state's economic capacity; in the simplest terms, how much "money" does a state have? In this sense, effort measures how much each state spends as a percentage of how much it *might* spend. The former denominator (GSP) is used in these profiles, but the two are highly correlated, and the income-based effort indicator is available in the SID. Bear in mind that high capacity states with larger economies, such as New York and California, can put forth lower effort than lower capacity states, such as Mississippi and Alabama, but still produce the same revenue.

- U.S. effort averages are unweighted and do not include D.C. or Vermont (effort estimates are not calculated for the former, and estimates for the latter, which are not calculated in 2018, are excluded from all years to maintain the same set of states over time).
- The table in the right panel summarizes the graph in the center panel, with a focus on effort trends before and after the "Great Recession" of the late 2000s (comparing this state with concurrent changes in the U.S. average). 2009 is the "cutpoint" in the table because effort in the typical state was increasing until that year, and subsequently declined. Trends, however, vary by state, as is evident in some states' profiles.
- Note that even seemingly small changes or differences in effort levels represent large spending amounts, as the denominator is entire state economies.
- **SID variables used**: *effort*; *year*

Adequacy

Adequacy is typically defined as the extent to which the amount of funding for schools is sufficient for students to reach a given level of educational outcomes. The SFID's primary measure of adequacy compares, by poverty quintile, a state's actual state and local spending levels to estimates from models of how much that state would have to spend in order to achieve national average test scores in the prior year. The 2017-18 estimates in this profile are from the National Education Cost Model (NECM), which is part of the SFID. The NECM calculates required spending based on factors such as districts' labor costs, size, and their students' characteristics. For more information about the NECM, see the SFID documentation.

- The district poverty categories (e.g., lowest, low, medium, high, highest) are defined in terms of quintiles (i.e., 20 percentile increments).
- The U.S. averages in the right panel table are average percent differences between actual and required spending weighted by enrollment (this is a slightly different measure from that used in last year's profiles). Note, however, that the NECM defines poverty quintiles state-by-state, which means that the U.S. averages should be interpreted as an approximate snapshot of the national situation. In addition, three states are excluded from these U.S. averages: Hawaii (no adequacy estimates due to it being a single district state); D.C. (estimates only available for highest poverty quintile); and Vermont (no adequacy estimates this year due to data irregularities).
- **SID variables used** (each of these three sets of variables include five separate variables [*q1-q5*], one for each poverty quintile): *necm_predcost_q1—necm_predcost_q5*; *necm_ppcstot_q1—necm_ppcstot_q5*; *necm_enroll_q1—necm_enroll_q5*

Progressivity

A progressive school finance system is one in which districts serving larger shares of disadvantaged students (all else equal) are allocated more resources than their counterparts serving lower proportions of these students. In this profile, progressivity is calculated by comparing adjusted state and local revenue between districts with (U.S. Census) child poverty rates of zero to those with higher poverty rates (i.e., 10, 20, and 30 percent). In addition to child poverty, revenue is also adjusted for labor market costs, population density, and district size, all of which affect the value of the education dollar. For more details on the calculation of adjusted revenue, as well as alternative approaches to measuring progressivity, see the SFID documentation and annual report.

- In the left panel (first bullet), the progressivity of each state's system is characterized based on the percentage difference in adjusted state and local revenue between high (30%) and zero percent poverty districts (this is also the figure presented in the bottom bar of the center panel graph). The designations are assigned as follows: progressive (revenue in high poverty districts is at least 10% greater than that in zero poverty districts); moderately progressive (between +3% and +10%); neither progressive nor regressive (within three percentage points of zero); moderately regressive (between -3% and -10%); regressive (lower than -10%).
- In the graph in the center panel, "lower poverty" districts are those with 10 percent poverty, "middle poverty" districts have 20 percent poverty, and "higher poverty" districts have 30 percent poverty. Once again, the figures in the graph are percentage differences in adjusted state and local revenue between low/medium/high poverty districts and zero poverty districts. Note that the definitions of district poverty groups in this section, which are based on poverty rates (0, 10, 20, and 30), vary from those in the "Adequacy" section, in which district poverty is defined by quintiles.
- The graph in the right panel presents the trend in percentage difference between high (30%) and zero poverty districts, both for this state and on average across the U.S. The U.S. averages are unweighted and can be interpreted as 30/0 progressivity in the typical state in a given year.
- **SID variables used**: *predicted_slocrev0_*; *predicted_slocrev10_*; *predicted_slocrev20_*; *predicted_slocrev30_*; *year*

$$(\ln)\textbf{SCHOOL} = b_0 + b_1 State_i + b_2 LaborMarket_{ij} + b_3 CWI_{ij} + b_4 \textbf{FINANCE}_{ij} + b_5 PopulationDensity_{ij} + b_6\ Enrollment_{ij} + b_7 \textbf{INDICATORS}_{ij} + b_8 Scale_{ij} + b_9 Poverty_{ij} + b_{10} SchlType_{ij} + b_{11} \textbf{DATABASE}_{ij} + e$$

ALBERT SHANKER INSTITUTE

RUTGERS
Graduate School of Education